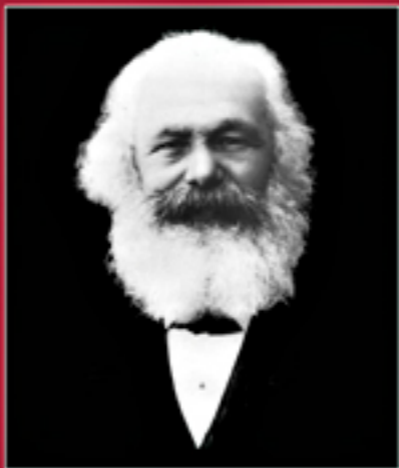


# The Economics of Karl Marx

ANALYSIS AND APPLICATION



Samuel Hollander

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## THE ECONOMICS OF KARL MARX

This book presents an account and technical assessment of Marx's economic analysis in *Capital*, with particular reference to the transformation and the surplus-value doctrine, the reproduction schemes, the falling real-wage and profit rates, and the trade cycle. The focus is on criticisms that Marx himself might have been expected to face in his day and age. In addition, it offers a chronological study of the evolution of that analysis from the early 1840s through three "drafts": documents of the late 1840s, the *Grundrisse* of 1857–1858, and the *Economic Manuscripts* of 1861–1863. It also provides three studies in application, with reference to Marx's evolutionary orientation in his evaluation of the transition to communism and his rejection of egalitarianism under both capitalist and communist regimes; his evolving perspective on the role of the industrial entrepreneur; and his evolving appreciation of the prospects for welfare reform within capitalism. Throughout, Hollander emphasizes Marx's relation with orthodox canonical classicism.

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*Continued on page 533*



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## *Analysis and Application*

SAMUEL HOLLANDER



**CAMBRIDGE**  
UNIVERSITY PRESS

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Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press

The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

[www.cambridge.org](http://www.cambridge.org)

Information on this title: [www.cambridge.org/9780521790789](http://www.cambridge.org/9780521790789)

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First published in print format 2008

ISBN-13 978-0-511-39357-0 eBook (EBL)

ISBN-13 978-0-521-79078-9 hardback

ISBN-13 978-0-521-79399-5 paperback

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*Dedicated with affection and esteem to Walter Eltis  
and also, of course, for Perlette, Frances and Amiram, Isaac and Ilana,  
Ro'i, Amber, Nadav, Jasmine, Guy, Noam, and Ella*

“It thus appears that this great scientific spirit was, in the end, a slave to a doctrine.”

Eduard Bernstein 1961 [1899]: 210.

# Contents

|   |                |
|---|----------------|
| <i>Preface</i>  | <i>page xv</i> |
| Introduction  | 1              |
| PART ONE. CAPITAL. PRINCIPLE FEATURES OF THE MARXIAN “CANON”          |                |
| 1 Value and Distribution  | 11             |
| A Introduction  | 11             |
| B On “Demand-Supply” Analysis   | 13             |
| C The Transformation of Values into Prices: Formal Analysis           | 17             |
| D The Transformation and the Allocation Mechanism                     | 23             |
| E Competition Constrained: Land Scarcity and Firm Size                | 28             |
| F On “Market Value” and Competition                                   | 31             |
| G The Inverse Wage-Profit Relation and Profit-Rate Equalization       | 38             |
| H Materials, the Luxury-Goods Sector, and the General Profit Rate     | 40             |
| I The Rate of Surplus Value as Endogenous Variable                    | 42             |
| J More on Final Demand and Distribution                               | 46             |
| K Marx’s Strategy   | 48             |
| L Concluding Comment: The Baumol-Samuelson Exchange                   | 53             |
| 2 Elements of Growth Theory   | 55             |
| A Introduction  | 55             |
| B Setting the Stage: Stationary Reproduction as Circular-Flow Process | 55             |
| C Capital Accumulation  | 59             |
| D Determinants of the Rate of Accumulation                            | 61             |
| E The “Simple Reproduction” Scheme                                    | 68             |
| F The “Extended Reproduction” Scheme                                  | 75             |
| G Concluding Comment  | 83             |

|                                      |  |     |
|--------------------------------------|--|-----|
| 3                                    | Economic Growth and the Falling Real-Wage Trend                          | 85  |
|                                      | A Introduction   | 85  |
|                                      | B The Falling Wage Trend   | 88  |
|                                      | C The Subsistence Wage and the Value of Labor Power                      | 90  |
|                                      | D The Falling Wage Trend and Population Growth                           | 94  |
|                                      | E The Industrial Reserve Army and Cyclical Wage Fluctuations             | 100 |
|                                      | F Inter-Sectoral Labor Movements   | 102 |
|                                      | G The Participation Rate   | 104 |
|                                      | H Concluding Comments: Objections to Malthus                             | 106 |
| 4                                    | Economic Growth and the Falling Rate of Profit                           | 110 |
|                                      | A Introduction   | 110 |
|                                      | B The Basic Analysis   | 111 |
|                                      | C The Conditions for a Falling: Rate of Profit                           | 114 |
|                                      | D Increasing Rate of Surplus Value and Cheapening of Constant<br>Capital | 118 |
|                                      | E The Limited Impact of a Rising Rate of Surplus Value                   | 120 |
|                                      | F Implications of Differential Rates of Productivity Increase            | 123 |
|                                      | G Technical Progress and the Falling Profit Rate: An Overview            | 127 |
|                                      | H On Secular Underconsumption  | 129 |
|                                      | I Concluding Comments: On the Significance of the Falling<br>Profit Rate | 132 |
| 5                                    | The Cyclical Dimension   | 134 |
|                                      | A Introduction   | 134 |
|                                      | B The Cyclical Chronology  | 135 |
|                                      | C Trend and Cycle: Causal Mechanisms                                     | 139 |
|                                      | D The Raw Material Constraint and Upper Turning Point                    | 143 |
|                                      | E The Labor Constraint and Upper Turning Point                           | 145 |
|                                      | F The Monetary Dimension   | 150 |
|                                      | G Inter- and Intra-Departmental Imbalance                                | 157 |
|                                      | H A Note on the “Echo Effect”  | 159 |
|                                      | I Concluding Remarks   | 160 |
| PART TWO. ORIGINS: MARX IN THE 1840s |  |     |
| 6                                    | Marx’s Economics 1843–1845   | 165 |
|                                      | A Introduction   | 165 |
|                                      | B Price Theory   | 166 |
|                                      | C Wage-Rate and Profit-Rate Trends                                       | 171 |
|                                      | D The Private Property System: Ricardo as <i>bête noire</i>              | 176 |
|                                      | E On Aggregate Demand and “Overproduction”                               | 182 |
|                                      | F In Partial Defence of Proudhon   | 184 |
|                                      | G Objections to Friedrich List   | 188 |
|                                      | H Summary and Conclusion   | 190 |

|   |  |     |
|---|--|-----|
| 7 | A “First Draft” of <i>Capital</i> 1847–1849  | 194 |
|   | A Introduction   | 194 |
|   | B Allocation, Cost Price, and the Labor Theory   | 195 |
|   | C Differential Rent  | 204 |
|   | D Labor as Commodity   | 206 |
|   | E On “Labor Power” and the Source of Surplus Value   | 207 |
|   | F The Inverse Wage-Profit Relation   | 212 |
|   | G The Falling Real-Wage Trend  | 214 |
|   | H More on the Real-Wage Trend: Increasing Organic<br>Composition, Demographic Patterns, and the Reserve Army | 218 |
|   | I Profit-Rate Determination: “Competition of Capitals”   | 223 |
|   | J Labor and Free Trade: On Marx’s Ricardian <i>bonâ fides</i>  | 224 |
|   | K Summary and Conclusion   | 227 |

PART THREE. A “SECOND DRAFT” OF *CAPITAL: THE GRUNDRISSE* 1857–1858

|   |   |     |
|---|---|-----|
| 8 | 1857–1858 I: Surplus Value  | 235 |
|   | A Introduction  | 235 |
|   | B The Basic Doctrine  | 236 |
|   | C Surplus Value and the Transition to Growth  | 244 |
|   | D Elements of a Growth Model: Productivity Increase,<br>Population Growth and the Reserve of Unemployed | 246 |
|   | E The Falling Rate of Profit  | 252 |
|   | F The “Transformation”  | 254 |
|   | G A Marxian “Reply” to Böhm-Bawerk  | 256 |
|   | H Surplus Value: Matters of Timing and Indebtedness   | 258 |
|   | I On Ricardo and Surplus Value: An Excursus   | 260 |
|   | J Summary and Conclusion  | 265 |
| 9 | 1857–1858 II: Value “Realization”   | 268 |
|   | A Introduction  | 268 |
|   | B Capital Turnover: A Circular-Flow Process   | 268 |
|   | C Obstacles to Value Realization  | 273 |
|   | D On the Law of Markets and Overproduction Literature   | 280 |
|   | E On Working-Class Consumption  | 285 |
|   | F Summary and Conclusion  | 289 |

PART FOUR. A “THIRD DRAFT” OF *CAPITAL: THE  
ECONOMIC MANUSCRIPTS* 1861–1863

|    |  |     |
|----|--|-----|
| 10 | 1861–1863 I: Surplus Value – Profit, Rent, and Interest                                  | 293 |
|    | A Introduction   | 293 |
|    | B Profit-Rate Equalization and the Transformation  | 293 |
|    | C The Transformation Aborted: Absolute Rent and the Priority<br>of the Industrial Sector | 297 |

|                                  |   |   |     |
|----------------------------------|---|---|-----|
|                                  | D | The Falling Rate of Profit and Its Significance                                     | 306 |
|                                  | E | Materials, the Luxury Sector, and the General Profit Rate                           | 311 |
|                                  | F | The Rate of Interest  | 312 |
|                                  | G | Commercial Capital and the Surplus-Value Doctrine                                   | 318 |
|                                  | H | Summary and Conclusion  | 324 |
| 11                               |   | 1861–1863 II: Sectoral Analysis, Accumulation, and Stability                        | 326 |
|                                  | A | Introduction  | 326 |
|                                  | B | Sectoral Analysis and the Constant Capital “Riddle”                                 | 326 |
|                                  | C | Conditions for “Continuous” Accumulation  | 334 |
|                                  | D | Aggregate Demand Constraints  | 338 |
|                                  | E | The Secular-Cyclical Nexus  | 341 |
|                                  | F | Sources of Cyclical Instability   | 344 |
|                                  | G | The Recovery Process: Corrective Mechanisms   | 347 |
|                                  | H | On the “Overproduction” Literature  | 349 |
|                                  | I | Summary and Conclusion  | 351 |
| 12                               |   | 1861–1863 III: The Labor Market   | 353 |
|                                  | A | Introduction  | 353 |
|                                  | B | The “Wage-Fund” Doctrine Rejected: Synchronized Activity<br>vs. Advances            | 353 |
|                                  | C | Labor Demand and Technical Change   | 360 |
|                                  | D | Labor Supply: Population Growth and the “Reserve Army”                              | 368 |
|                                  | E | The Mechanics of Population Growth and the Falling Wage<br>Trend                    | 375 |
|                                  | F | Summary and Conclusion  | 380 |
| PART FIVE. TOPICS IN APPLICATION |   |   |     |
| 13                               |   | Economic Organization and the Equality Issue  | 385 |
|                                  | A | Introduction  | 385 |
|                                  | B | Objections to Egalitarian Reform  | 386 |
|                                  | C | The Allocative Role of the Free Market vs. Central Control                          | 396 |
|                                  | D | Some Unexpected Parallels   | 401 |
|                                  | E | Summary and Conclusion: The Evolutionary Dimension                                  | 406 |
| 14                               |   | Is There a Marxian “Entrepreneur”? On the Functions of the<br>Industrial Capitalist | 409 |
|                                  | A | Introduction  | 409 |
|                                  | B | Preliminaries: Industrial Organization  | 411 |
|                                  | C | The Supervisory and Allocative Function   | 414 |
|                                  | D | Science and the Sources of New Technology   | 419 |
|                                  | E | Innovatory Investment   | 425 |
|                                  | F | The Category of “Minor” Improvement   | 428 |
|                                  | G | On Measurable Risk and Insurance  | 429 |
|                                  | H | On “Profit of Enterprise” in <i>Capital 3</i>                                       | 430 |

|    |  |     |
|----|--|-----|
| I  | On Cooperation   | 435 |
| J  | On Joint-Stock Organization and Limited Liability                  | 435 |
| K  | Conclusion: The Industrial Capitalist and Uncertainty Revisited    | 438 |
| 15 | Principles of Social Reform  | 444 |
| A  | Introduction   | 444 |
| B  | Early Statements   | 444 |
| C  | Marx's "Revisionism": The 1860s and 1870s                          | 449 |
| D  | Summary and Conclusion   | 461 |
|    | Conclusion: A Recapitulation and Overview                          | 463 |
| A  | The Theory of Surplus Value  | 463 |
| B  | Marx and the Classical Canon: The Theory of Value                  | 471 |
| C  | Marx and the Classical Canon: The Trend Path of the Factor Returns | 477 |
| D  | Marx as "Revisionist"  | 479 |
| E  | Marx and the Moderns   | 483 |
| F  | Epilogue: On Engels and the "Closure" of Marx's System             | 488 |
|    | <i>Appendices</i>  | 493 |
|    | <i>Bibliography</i>  | 501 |
|    | <i>Index</i>   | 519 |





## Preface

Karl Marx is the last of the great “classical” economists — Smith, Ricardo, Mill, Malthus, and Say — with whom I have been engaged since the 1960s. As a gifted polemicist with a malicious sense of humor, he is certainly the most animated and amusing. Choice of the title *Poverty of Philosophy* to counter Proudhon’s *Philosophy of Poverty* or his aside that Proudhon “certainly hears the bells ringing, but never knows where . . .” are typical; while representation of contemporary approaches to distribution in terms of “the trinity formula” is a stroke of genius. Marx’s attractiveness was discerned by an English reviewer of *Capital 1* on its appearance: “The presentation of the subject invests the direct economic questions with a certain peculiar charm”; while a Russian reviewer wrote of the work that it was “distinguished . . . in spite of the scientific intricacy of the subject, by an unusual liveliness,” opinions that were cited with understandable satisfaction by Marx himself (MECW 35: 16n). The correspondence can also be a delight to read.

A recent BBC Radio-4 poll (<http://www.bbc.co.uk/radio4>) lists Karl Marx way ahead of the competition as “Britain’s most revered philosopher”:

|                     |        |
|---------------------|--------|
| Karl Marx           | 27.93% |
| David Hume          | 12.67  |
| Ludwig Wittgenstein | 6.80   |
| Friedrich Nietzsche | 6.49   |
| Plato               | 5.65   |
| Immanuel Kant       | 5.61   |
| St. Thomas Aquinas  | 4.83   |
| Socrates            | 4.82   |
| Aristotle           | 4.52   |
| Karl Popper         | 4.20   |

This enthusiasm is reinforced in an article appearing in *Der Spiegel* (“The Return of the Red Star”) republished in Hebrew under the title “Karl the Great” (*Ha-aretz: New Year’s Eve Supplement*, 3 October 2005: 6–8), while the *New York Review of Books* announced in bright red letters in its issue on 21 September 2006: “Marx

makes a comeback.” There is no way of knowing whether or how long the euphoria will last, so I hasten to make hay whilst the sun is shining.

\* \* \*

For permission to draw on materials I have published with them I thank Duke University Press (Hollander 1981, 2000 for those appearing in Chapter 1 and the Conclusion), the American Economic Association (1984, 1986 in Chapter 3); Edward Elgar Publishing (1991 in Chapter 4); and Springer Publishing (2004 in Chapter 13). In these publications I have expressed my long-standing debt to colleagues for their advice and criticism. But I wish to record here a more immediate obligation to Richard Arena, Jérôme de Boyer, Geoffrey Brooke, Meghnad Desai, Ragip Ege, Tony Endres, Peter Flaschel, Harald Hagemann, Tom Kompas, the late Dusan Pokorni, Willi Semmler, Ajit Sinha, and an anonymous reviewer for Cambridge University Press, for observations on various parts of my manuscript, bibliographical suggestions, and moral support and encouragement. In no way, of course, are these good Samaritans implicated in the outcome; indeed, some of the most constructive comments have come from severe critics. I also thank Jean-Marc Barsam for apprising me of the BBC poll. As always it is to my helpmate Arlette that I owe most.

I received early support for my research on Marx from the Social Science Research Council of Canada but was unable to take up the relevant award on becoming a non-Canadian resident, and I commenced this study during my tenure (1999–2000) in France as Directeur de Recherche at the Centre National de la Recherche Scientifique (CNRS) and Professor at the Université de Nice-Sophia Antipolis. I am happy to acknowledge the support provided by these institutions.

Since 2000, the Department of Economics at Ben-Gurion University of the Negev has most generously contributed financially and in other ways toward the completion of this project and I have benefited greatly from the services provided by the Aranne Library. Ruslan Sergienko kindly provided efficient computer assistance for which I am most grateful.

Be'er Sheva, Israel  
October 2007

## Introduction

A decade ago the *History of Political Economy* published a Minisymposium entitled “Locating Marx after the Fall,” organized around the question: “with Marxian economics in disarray as a touchstone for actual economies (in Eastern Europe, the former Soviet Union, etc.), is it now time for historians of economics to reclaim their interest in Karl Marx?” (Weintraub 1995: 109). The concern, as set out in a letter to contributors defining the terms of reference, was to address “the need, if any, for historians of economics to readdress Marx, to reclaim Marx as it were now that the hold of Marxist economics or views of Marx is more confused, more of a problem.” I would say, rather, *less* of a problem. Marx’s economics had never been a true touchstone for Soviet-style systems – Marx was too appreciative of the pricing mechanism and the need for extreme caution before dispensing with it for that to have been the case. (We devote Chapter 13 to this issue.) And the Russian reversion to market capitalism, far from constituting an empirical refutation of Marxist predictions, is precisely the outcome that might have been expected. For the original establishment of the Soviet command system could only have been a premature exercise bound to fail, Marx being “much too strongly involved with a sense of the inherent logic of things social to believe that revolution can replace any part of the work of evolution. The revolution comes in nevertheless. But it only comes in order to write the conclusion under a complete set of premises” (Schumpeter 1952: 72). We shall have much to say regarding Marx’s *evolutionary* perspective. As to the point at hand, the disappearance of Marx’s picture from Red Square – and the imminent removal of Lenin’s corpse – is no reason for historians of Marxist economic thought to alter their research programs. It is in this spirit that I have composed my book.

In a provocative discussion paper prepared for the Minisymposium entitled: “A Minor Post-Ricardian? Marx as an Economist,” Anthony Brewer rehearses with gusto the logical failings of Marx’s economics, in order to explain “why *Capital* was treated with conspicuous neglect on its appearance by mainstream economics, a neglect that helped assure the future relegation of the work to the underworld” (Brewer 1995: 113–14). Brewer goes further and denies that Marxian theory *ought*

to have been taken seriously: “what was usable was simply a restatement of well-known ideas in new terms” (139). As for the possible defence that one should take account of Marx’s overall program – to prepare the way for a proletarian revolution – Brewer denies the meaningfulness of a political program based on logical incoherence, especially (a) Marx’s value theory and the concept of surplus value, and (b) the falling tendency of the rate of profit upon which the projected collapse of the system ultimately turned.

In my view Brewer takes too uncompromising a view of Marxian theory – after all in our day economists of the caliber of Morishima and Sraffa hold Marx in very high regard. (See also on this matter Steedman 1995: 204.) Even the severe critic Paul Samuelson makes generous allowance for the merits of Marx’s “departmental” analysis, as we shall see. As for criticism, I shall focus on what Marx might have been expected in his day and age to uncover and avoid, and show that he himself was fully aware of several of the weak points of his surplus-value doctrine both from a logical perspective and in terms of its empirical relevance. It will also be one of our primary objectives to indicate the arguments he devised to protect the doctrine.

Brewer does not dispute that “historians must deal with the wider impact of economic ideas (whatever their merits), as well as with the development of economic theory in its own right” (141), that Marx’s economic ideas deserve study “because they are an integral part of a worldview that has had an immense influence outside economics.” It is partly for this reason that I have extended my coverage in Part V to matters involving “application,” for they are quite as significant as the purely theoretical dimension for an appreciation of Marx and his influence.

\* \* \*

I originally selected as my title for Part I of this book: “*Capital: The Mature Analysis*,” but thought better of it considering the notorious fact that *Capital*, or rather the second and third volumes, edited by Engels and published in 1885 and 1894 respectively after Marx’s death (in 1883), involve much guesswork and selection from a mass of documentation sometimes scarcely legible. The accuracy of Engels’s edition in some respects has been questioned by Rubel who offers alternative readings in the Bibliothèque de la Pléiade series. I shall remark briefly on his charge that Engels conveyed a misleading impression by implying that the last two volumes constituted a pretty complete coverage of what Marx himself left to posterity whereas in fact Marx considered his task to be “inachevé” (incomplete) not only in form but in substance (Rubel 1968: 502; also xcv).<sup>1</sup>

To avoid delay, Engels proposed that the material which appears in *Capital 1* be published apart from the rest (see Engels to Marx, 10 February 1866, MECW 42: 226).<sup>2</sup> Marx explained in reply: “Although finished, the manuscript” – presumably

<sup>1</sup> See further Rubel 1968: cxxi–cxxvii on Engels’s role as editor. Also Oakley 1983, Chapter 6.

<sup>2</sup> MECW refers to the English-language *Marx-Engels Collected Works* published jointly in fifty volumes, 1975–2004, by Lawrence and Wishart, London; International Publishers, New York; and Progress Publishers and the Institute of Marxism-Leninism (subsequently the Russian Independent Institute of Social and National Problems), Moscow.

referring to the *entire* extant documentation — “gigantic in its present form, could not be made ready for publication by anybody but me, not even by you” (13 February; Padover 1979: 205).<sup>3</sup> But he accepts Engels’s advice: “I agree with you and shall get the first volume to Meissner as soon as possible” (228).

Lord Robbins used to caution his students that “[w]e don’t know an awful lot about Marx’s mental processes in the evolution of his stupendous work,” so that, for example, a “mark of interrogation remains why Marx set out in *Capital 1* in value terms and only in the (posthumously published) third volume transferred to orthodox cost analysis” (Robbins 1998: 238). This is to be excessively pessimistic; we now do know quite a bit about the evolution of *Capital* and much of the problem falls away.<sup>4</sup> Thus Marx himself explained to a correspondent: “In fact, *privatim*, I began by writing *Capital* in a sequence (starting with the 3rd, historical section)” — this latter is a reference to the *Theories of Surplus Value* (which we shall refer to as the *Economic Manuscripts*) about which more presently — quite the reverse of that in which it was presented to the public, saving only that the first [published] volume — the last I tackled — was got ready for the press straight away, whereas the two others remained in the very rough form which all research originally assumes” (3 November 1877; MECW 45: 287). Marx here intimates that his plan at the time *Capital 1* appeared in 1867, was to publish the remaining *theoretical* materials in a single volume to be followed by a third volume containing history of thought.<sup>5</sup> The important point for us is that the *theoretical materials* were under preparation even before *Capital 1* appeared.

In Engels’s terms, “[b]etween 1863 and 1867, Marx . . . completed the first draft of the two last volumes of *Capital* and prepared the first volume for the printer . . .” (MECW 37: 7);<sup>6</sup> as for the materials comprising *Capital 3*, they were written, at least “the greater part . . . in 1864 and 1865. Only after this manuscript had been

<sup>3</sup> Similarly, in the Rubel translation (Rubel 1968: cxiv). The MECW translation, however, reads differently: “Although ready, the manuscript which in its present form is gigantic is not fit for publishing for anyone but myself, not even for you” (13 February; MECW 42: 227).

<sup>4</sup> For a convenient account of the evolution of Marx’s planned project, see editorial note, MECW 37: 901–2.

<sup>5</sup> This is confirmed in the Preface to the original German edition of 1867: “The second volume of this work will treat of the process of the circulation of capital (Book II), and of the varied forms assumed by capital in the course of its development (Book III), the third and last volume (Book IV), the history of the theory” (MECW 35: 11). In fact, till the very end, Marx presumed that the materials edited by Engels, and ultimately published as *Capital 2* and *Capital 3*, would appear as a single volume (Rubel 1968: cxvii). (The original decision to organize the materials in four Books, the first three theoretical — as we now have it — and the fourth doctrinal, was taken in 1863 (see editorial note, MECW 45: 463 n62).)

In the light of recent argument regarding an allegedly *missing* book on wage labor (see Lebowitz 2003) it may be relevant that no mention is made in the 1867 Preface of an intended analysis of wage labor apart from what appears in *Capital*. (See on this matter Lapidés 1998; Sinha 2001.)

<sup>6</sup> An editorial note refers in fact to “a third preparatory version of *Capital* — the Economic Manuscript of 1863–65 consisting of three theoretical books . . .” (MECW 42: 620). Only parts of this document are extant. These include the manuscript “Chapter Six. Results of the Direct Production Process,” with materials pertinent to *Capital 1* (MECW 34: 355–466); and

completed in its essential parts did Marx undertake the elaboration of Book I, the first volume published in 1867” (MECW 36: 7). We must take seriously the description of the state of the theoretical materials by Marx as in “very rough form” or by Engels as a “first draft” (this latter in fact belies Rubel’s charge against him). But this caution is valid rather more for *Capital 2* than *Capital 3*. That Engels was justified in his assertions regarding the latter is supported by what amounts to an early version of *Capital* composed 1857–58 – the so-called *Outlines of the Critique of Political Economy* (the *Grundrisse*) – which contains a most impressive body of doctrine including much of that appearing in *Capital 3*. This document which mysteriously disappeared to resurface only in 1923 – it comprises 1000 pages in seven notebooks written for Marx’s personal clarification – provides independent evidence of the major progress already made by the late 1850s. Engels was certainly aware of Marx’s preoccupations at this time (he was kept informed by correspondence), but did not see the document itself.<sup>7</sup>

Beyond this, there is also at hand a document comprising 23 notebooks written from August 1861 to June 1863, the main body comprising what is known as *Theories of Surplus Value*, which contains a substantive body of positive economics and carries the story beyond the *Grundrisse*.<sup>8</sup> This too supports Engels’s claims regarding the extensive progress made by Marx, even before his *Capital 1* went to press, with respect to doctrine only published posthumously. (See on this matter, Sowell 2006: 172.)

These assurances apply, as mentioned, rather more to *Capital 3* – and even then with qualification – than to *Capital 2*, which is fortunate having in mind the grand debates and challenges engendered by the “Transformation” of values into prices appearing in the third volume.<sup>9</sup> The dating of the *Capital 2* materials – particularly the “departmental” analysis discussed in our Chapter 2 – is rather more complex. Engels, as we have seen, referred to a “first draft” prepared between 1863 and 1867; but he also allowed that Marx worked on *Capital 2*, if rather desultorily, in 1870 and thereafter, and in fact as late as 1877–78 (MECW 36: 7–9). Eduard Bernstein (1961

also materials pertinent to *Capital 2* and *Capital 3*. (On the discovery of this “third draft” – assigned to 1864–65 – see Dussel 2001: xxxiii.)

<sup>7</sup> The document was revealed to the public in 1923 by David Riazanov, director of the Marx-Engels-Lenin Institute, Moscow. An edition was published in the original German in 1953 and it was first translated into English by Nicolaus 1973. See in particular Rosdolsky’s full-length study (Rosdolsky 1980).

<sup>8</sup> *Theories of Surplus Value*, which Engels had always hoped to edit (letter to Stephen Bauer dated 10 April 1895; MECW 50: 493), was published by Karl Kautsky over the period 1905–10.

It is my impression that Dussel’s important study of the 1861–63 manuscripts does not pay sufficient attention to the achievements of the late 1850s.

<sup>9</sup> In a letter of 27 June 1867, Marx explained that because the process of “transforming *surplus-value* into *profit*, and of *profit* into *average profit* presupposes that the *process of the circulation of capital* has been previously explained . . .” it was necessary, for clear exposition, to postpone the discussion to a later volume (MECW 42: 390). For an elaboration, see also letter of 30 April 1868 (MECW 43: 20–26).

[1899]: 75), close friend of both Marx and Engels, made much of the later dating of *Capital 2* (see below Chapter 2). And Rubel, who concedes that *Capital 3* largely pre-dates 1868, insists of *Capital 2* that “tout reste pratiquement à faire” after the appearance of *Capital 1* (Rubel 1968: 501; also cxvii–cxviii), most of the *Capital 2* materials dating to 1875–78 (cxiii).<sup>10</sup> There seems then to be broad agreement that the middle volume is the latest of the three, standing somewhat apart from the rest as a set of exploratory exercises and very much open ended.<sup>11</sup>

It should also be kept in mind that modifications and additions were introduced by Marx himself into the French edition of *Capital 1* published over the period 1872–75. These additions, which appear in the Pléiade edition (Marx 1963), have not been properly incorporated – if at all – into the English translations (see Anderson 1983; Orzech and Groll 1989: 65–6). Engels himself in his editorial work did not do justice to Marx’s supplements to the key section in Chapter 25 on “The General Law of Capitalistic Accumulation,” a fact that Anderson rightly describes as “amazing” (Anderson 227).

While it is safe for some topics – preeminently value theory – to consider *Capital 1* and *Capital 3* as, so to speak, a single unit relying heavily on the early documents of 1857–58 and 1861–63, it is also the case that Marx worked late on materials published by Engels towards the end of *Capital 3*, and which, like much of *Capital 2*, remain in a very unfinished state. This applies, for example, to Chapter 49: “Concerning the Analysis of the Process of Production” (MECW 37: 818–38), touching on the question whether (as Adam Smith believed) the entire national income can be resolved into wages, profit and rent. This chapter, which in fact draws heavily on the “simple reproduction” notions of *Capital 2* proved a veritable nightmare to Engels, as is well explained by Rubel (Rubel 1968: 1844).

A word of caution regarding the early documents is in order. It is not simply a matter of one-way “progress” on the path to *Capital 1* and *Capital 3*. In some respects we find formulations in the 1857–58 and 1861–63 versions technically superior to the “final” published versions and these I shall point out as we proceed, but may refer here to some particularly striking instances. The *Grundrisse* (as we show in Chapter 9) presents splendid formulations of the “realization” problem which Marx recognized threatened the basic theory of surplus value, but never resolved; there is an effective “reply” to Böhm Bawerk’s later objections to Marxian value theory in terms not encountered elsewhere; and the societal transformation achieved in efforts to expand the sphere of circulation is quite brilliantly expounded.

<sup>10</sup> Marx himself wrote to Kugelmann on 11 October 1867: “[t]he completion of my second volume depends chiefly on the success of the first” (MECW 42: 442); and on 6 March 1868: “volume II . . . will probably never appear if my [health] condition does not change” (544). However, the significance for us of these statements is unclear since by “Volume II” Marx intended all the remaining theoretical materials coming down to us via Engels as *Capital 2* and *Capital 3*.

<sup>11</sup> On the high relevance of the chronology of Marx’s writings, see Oakley 1979, 1983, 1984, 1985; Groll and Orzech 1987.

The priority accorded the industrial sector in profit-rate determination emerges more clearly in the 1861–63 documents than in *Capital 3* (see Chapter 10). Little of this appears in the secondary literature. And throughout these materials, indeed in those dating to the late 1840s, the significance of the *demographic variable* in accounting for increasing immizeration emerges loud and clear although it is almost entirely neglected in the literature on *Capital* and the earlier documents.

We should always have in mind Engels's unawareness of the substantive content of the *Grundrisse* and the fact that he himself did not prepare the 1861–63 manuscripts for the press. It is all the more desirable to respect the unity or independent status of the early "drafts" rather than merely dip into them to seek parallelisms and contrasts with the published version of *Capital* on matters of specific detail.<sup>12</sup>

I may have given the impression above of the existence of *two* early "drafts" of *Capital*, the documents of 1857–58 and 1861–63. It is, in fact, an important part of my argument that an earlier version – though still very much a "half-way house" – is discernible in documents of 1847–49. These include the *Poverty of Philosophy* 1847, a polemic directed against Proudhon; a set of lectures delivered in 1847 and published as "Wage Labour and Capital" in 1849; and "Wages," one of the 1847 lectures unpublished in Marx's lifetime. One of our concerns will be to evaluate Marx's contention that his *Poverty of Philosophy* "contains in embryo what after a labour of twenty years became the theory that was developed in *Capital*," and particularly that he had already "discovered" the source of surplus value in "labor power" by the late 1840s.

The materials of the late 1840s can best be appreciated when contrasted with Marx's position in the "pre-Marxist" period. The *Economical and Philosophical Manuscripts* of 1844 and the famous *Notebooks* of 1843–45 provide this essential setting. These latter – apart from notes devoted to James Mill – have not till now been translated into English and have been unjustifiably neglected in English language accounts. This deficiency is corrected in Chapter 6.

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My main concerns in Part I of this study are the standard topics of Marx's "positive" economics: value and distribution, growth theory with emphasis on the "Reproduction Schemes," the falling real-wage trend, the falling profit rate and the cyclical dimension. In these five chapters I demonstrate (*inter alia*) the centrality for Marx of the allocative mechanism and the interdependence of pricing and distribution; the implications of the Absolute Rent doctrine for profit-rate determination, specifically accordance of priority to the *industrial* rate of return; the rejection of an "advances" model in favor of "synchronized" activity; the central role accorded population growth in accounting for the downward wage trend; the implications for the profit-rate trend of productivity increase affecting differentially the wage-goods and capital-goods sectors; and the damaging complexities that Marx himself appreciated were created for the surplus-value doctrine by the

<sup>12</sup> Dussel 2001 is, therefore, to be particularly welcomed.



“realization” problem. These features portray a rather different Marx than that typically presented to students.

I have little to say regarding Part I of *Capital 1* on the nature of “commodities,” the “substance” of value and the “form” of value, which – as Marx points out (MECW 35: 7) – summarizes the substance of his *A Contribution to the Criticism of Political Economy* published in 1859.<sup>13</sup> This brief work also investigates the nature and function of money in capitalist development, a topic which, though by no means neglected (see in particular Chapters 2 and 5) does not occupy center stage in the present study with its focus on the “real” dimension.<sup>14</sup> Finally, I do not take account of Marxian sociology, such as the “alienation” issue.<sup>15</sup>

I devote Parts II, III, and IV to a chronological study of the evolution of Marx’s position on the topics discussed in Part I, from “Pre-Marxian” days through the three “drafts” of *Capital*. Although the ordering of materials in this fashion makes for a little complexity, it is more efficient – and more interesting – than telling a simple one-directional story with no idea of the end point until it is reached. (Moreover, as explained above, it is important to respect the unity of the early drafts, especially those of 1858–59 and 1861–63, since the “end point” – at least *Capital 2* and *Capital 3* – will always be open to some degree of uncertainty.) A reader who prefers to work through Parts II–IV before Part I should keep in mind that the agenda of topics has been established in Part I.

Part V comprises three essays in “application.” At this point we note a potent remark by Marx regarding the broad significance of the first volume of *Capital*. Firstly, “actual economic relations are [there] treated in an entirely new way by a materialistic . . . method. Example: 1. the development of money. 2. the way in which co-operation, division of labour, the machine system and the corresponding social combinations and relations develop ‘spontaneously’”; secondly, “the author demonstrates that present society, economically considered, is pregnant with a new, higher form . . . showing in the social context the same gradual process of evolution that Darwin has demonstrated in natural history” (Marx to Engels, 7 December 1867; MECW 42: 494). My Chapter 13 on “Economic Organization and the Equality Dimension” fully confirms this general orientation and also Marx’s further remark that “owing to this critical approach of his, the author has perhaps *malgré lui*, sounded the death-knell to all socialism by the book, i.e., to utopianism, for evermore.” Marx’s “evolutionism” emerges equally strongly in Chapter 14, which raises the question: “Is there a Marxian ‘Entrepreneur?’” and shows how he revises his estimate of the industrial capitalist in the light of contemporary developments in industrial organization, and again in Chapter 15 where I demonstrate his reevaluation with the passage of time of the potential for welfare reform *within*

<sup>13</sup> On the relation of the 1859 publication to the *Grundrisse*, see the editorial note, MECW 34: 475; Arnon 1984: 555. Refinements introduced into the second German edition of *Capital* (1873) largely concern Part I (see MECW 35: 12).

<sup>14</sup> For coverage of Marx on money, see Arnon 1984, De Brunhoff 1976, Nelson 1999, Moseley 2005.

<sup>15</sup> See Elliott 1979 on the evolution of Marx’s thought regarding “alienation.”

capitalist development. These are matters that have not been sufficiently appreciated in the literature on Marx.

As for Engels, I am obliged to postpone for another occasion a full discussion of his crucial contribution to the Marxian scheme of things. But it is only proper that he be allowed the last word, and in the Conclusion I summarize my general perspective on the Marx-Engels relation concerning the main themes of the book. Similarly, I make no pretense in the Conclusion at covering the extensive literature on the Marx-Sraffa relation. My concern is to consider a specific aspect of Sraffa's intellectual "debt" to Marx in order to convey a positive notion of Marx's current importance; I treat Sraffa to round out my study rather than to add more detail. This final chapter also summarizes Marx's own recognition of the weaknesses of his surplus-value doctrine, as well as the relation between his economics and the classical or Ricardian version.

PART ONE

*CAPITAL*: PRINCIPLE FEATURES OF  
THE MARXIAN “CANON”



## ONE

### Value and Distribution

#### A. Introduction

According to “Cambridge” or “neo-Ricardian” or “Sraffian” historiography, “the nature of [Marx’s] approach required him to start from the postulation of a certain rate of exploitation or of surplus-value (or profit-wage ratio in Ricardo’s terms); since this was *prior* to the formation of exchange-values or prices and was not derived from them. In other words, this needed to be expressed in terms of production, *before* bringing in circulation or exchange” (Dobb 1973: 148). Similarly: “price-relations or exchange-values could only be arrived at *after* the principle affecting distribution of the total product had been postulated. The determinants of distribution . . . were sited in conditions of production (Ricardo’s conditions of production of wage-goods; Marx’s “social relations of production,” introduced from outside the market, or as it were from a socio-historical fundament to phenomena of exchange)” (169). In a more technical rendition by Medio prices are derived on the basis of a known general profit rate which is itself “a function of two basic features of the economy, namely a social factor, the rate of exploitation” – which implies the wage – “and a technical factor, the methods of production” specifically of so-called “basics” or commodities which are either means of production or wage goods entering into the production of all goods in the system (1972: 330–1, 340–1). Implied here is a very different conception of the economic process than that of “general-equilibrium” characterized by the interdependence of distribution and pricing (Dobb: 118–19). Indeed, from this perspective a dual development of nineteenth-century analysis has been perceived, one line emanating from Smith, carried further by J. S. Mill and the so-called “dissenters,” and culminating with Walras and Marshall; and a second line including Ricardo and Marx and resuscitated by Piero Sraffa (1960).<sup>1</sup>

<sup>1</sup> Characteristic Cambridge representations of Ricardian theory may also be found in Bharadwaj 1989; Eatwell 1987; Garegnani 1987; Kurz and Salvadori 1998; Roncaglia 1998.

I find little justification for the attribution to Ricardo of a divorce between distribution and pricing (Hollander 1979, ch. 6; 1995, Part III). Changes in the pattern of final demand can affect the wage rate, and changes in wages can affect the structure of prices. Demand-supply analysis for Ricardo was the vehicle of determination in his general system.<sup>2</sup> Now I also believe this to apply to Marx – a position that has much in common with Morishima 1973.<sup>3</sup> The relationship between distribution and pricing which he had in mind was that which characterizes standard Ricardian theory.

What appears to be a faulty reading of Marx turns, in the first place, on the fix-wage assumption so commonly attributed to him. While constancy of the real wage is often assumed for analytical convenience, the general treatment of the labor market runs along the lines laid out in the *Wealth of Nations* and Malthus's *Essay on Population*. A second general source of misinterpretation flows from the organization of *Capital* in two volumes (*Capital 1* and *Capital 2*) based on labor values followed by a third (*Capital 3*) based on "prices of production" or cost price including profits at the average rate, for this sequence suggests a solution to distribution in the "value" scheme *prior to* pricing, or a one-way causal dependence of pricing on distribution. But this design reflects the "interpretation" of the source and nature of non-wage income, and not causal analysis. The causal linkages of his system turn out to be identical with those of Ricardo's system.

Section B demonstrates Marx's adherence to standard demand-supply analysis despite appearance to the contrary, and will prove essential for what follows. An account of the so-called "Transformation" of values into prices is given in Section C with special reference to the unit of measurement presumed to apply. Section D concerns the mechanism of transition from values to prices, a mechanism involving output – not merely price – adjustments as capital flows between sectors occur to assure profit-rate equalization. The pre-conditions for the operations of a competitive economy characterized by profit-rate uniformity are the subject of Section E. Here we trace the consequence of constraints imposed on output expansion in sectors with below-average "organic compositions" – agriculture is the prime instance – and therefore above-average returns to capital in the value scheme. The return on agricultural capital comes into line not by way of output expansion and price reduction but by transfers to land-owners, quite apart from differential rent. A further qualification relates to the growing importance of large stock companies, including railways.

The role accorded *intra-industry* competition in determining "Market Value" is the topic of Section F. The outstanding feature to emerge is the dependence

<sup>2</sup> For a small sample of criticism of my position on Ricardo from a neo-Ricardian perspective, see Roncaglia 1982 and from more orthodox historians, see Moss 1979, O'Brien 1981. My responses are given in Hollander 1995, Part II.

<sup>3</sup> On similarities between Walras and Marx, see also Bronfenbrenner 1979, chapter 5; Flaschel and Semmler 1987.

of long-run value (and price-of-production or cost price) on the pattern of final demand.

Section G returns to *inter-industry* competition, specifically, the process of profit-rate equalization in the context of the inverse profit-wage relationship, and here Marx is shown to follow Ricardo step by step. But he correctly insists that a general increase in materials costs will likewise drive down general profits (Section H). It also followed that should such increase affect the luxury-goods sector alone the profit rate decline that results will carry with it a fall in the general return which comprises the returns in *all* sectors, a matter which is far more contentious.

I demonstrate in Sections I and J that the rate of “surplus value” (which implies the wage rate) is not a *datum* in the analysis of pricing, but a variable, whose level is yielded as part of a general-equilibrium solution. Of high interest is the potential effect of changes in the pattern of final demand upon the rate of surplus value and thus upon the profit rate. (Our discussion proceeds initially on the assumption that “profit” constitutes the sole non-wage income.)

Section K is devoted to the *rationale* for Marx’s procedure in *Capital*. In general terms, Marx operated on the methodological rule that “all science would be superfluous if the outward appearance and the essence of things directly coincided” (below, p. 50). To have outlined what he took to be orthodox analysis first would have been handing hostage to fortune; the ground had to be safely prepared to assure that readers would not draw “erroneous” conclusions from observation of the characteristics of the competitive general-equilibrium system. Marx had in mind primarily his understanding of the source of profits as surplus or unpaid labor time – by which it is implied that the capitalist’s return costs him nothing in “abstinence” or “waiting,” and more generally that the capitalist undertakes no function for which his return can be understood as a reward. We conclude in terms of the famous debate between Professors Baumol and Samuelson regarding the Transformation.

## B. On “Demand-Supply” Analysis

Marx sometimes leaves an impression – as did Ricardo – that he opposed “demand-supply” analysis. He did not. But he did insist on a proper delineation of the scope of the principle, for “[t]he real difficulty consists in determining what is meant by the equation of supply and demand,” and particularly by the standard propositions that “[s]upply and demand coincide when their mutual proportions are such that the mass of commodities of a definite line of production can be sold at their market value, neither above nor below it,” and that “[i]f commodities are sold at their market values, supply and demand coincide” (MECW 37: 188). “Market value” in this context refers to long-run price and Marx accepted that in long-run equilibrium, quantities supplied and demand *are* equated: “. . . if the quantity of social labour expended in the production of a certain article corresponds to the social demand for that article, so that the produced quantity corresponds to the usual scale of

reproduction and the demand remains unchanged, then the commodity is sold at its market value. The exchange, or sale, of commodities at their value is the rational state of affairs, i.e., the natural law of their equilibrium” (187). The point he insisted on is that “[i]t is this law that explains the deviations [of “market” or short-run price] from market value, and not vice versa, the deviations that explain the law.” His precise intention here is elaborated subsequently when he insists that an exogenous change in cost conditions will generate a change in “market value” such that quantity demanded and supplied are reequated (at a higher or lower level) – that it is *costs* that ultimately determine the equilibrium quantity supplied and demanded: “Even the ordinary economist . . . agrees that the proportion between supply and demand may vary in consequence of a change in the market value of commodities, without a change being brought about in demand or supply by extraneous circumstances. Even he must admit that, whatever the market value, supply and demand must coincide in order for it to be established. In other words, the ratio of supply to demand does not explain the market value, but conversely, the latter rather explains the fluctuations of supply and demand . . .” (191). Marx here in effect repeats Ricardo who seemed at times to object to “demand-supply” analysis, whereas he insisted only on the *primacy of supply* objecting to formulations that did not focus on changed real-cost conditions as the ultimate determinant of equilibrium price and quantity demanded and supplied (see Hollander 1995: 211–12). Thus Marx cites Ricardo in support of the proposition that “[t]he law of value dominates price movements since reduction or increase in the labour time required for production makes prices of production fall or rise. It is in this sense that Ricardo . . . says that ‘the inquiry to which I wish to draw the reader’s attention relates to the effect of the variations in the relative value of commodities, and not in their absolute value’ [1821: 15]” (MECW 37: 178). Marx’s central proposition is also very close to J. S. Mill’s formulation whereby “the value of things which can be increased in quantity at pleasure, does not depend . . . upon demand and supply; on the contrary, demand and supply depend upon it” (Mill 1963–91 3: 475; see Hollander 1985: 290–1).<sup>4</sup>

<sup>4</sup> Marx primarily objected to the anonymous *Verbal Disputes* (1821): “The good man [1821: 60–1] does not grasp the fact that it is precisely the change in the cost of production, and thus in the value, which caused a change in the demand, in the present case, and thus in the proportion between demand and supply, and that this change in the demand may bring about a change in the supply. This would prove just the reverse of what our good thinker wants to prove. It would prove that the change in the cost of production is by no means due to the proportion of demand and supply, but rather regulates this proportion” (MECW 37: 190n). Marx noticed similarities between the 1821 pamphlet and Bailey’s *Critical Dissertation* 1825, and charged Bailey with plagiarism (MECW 32: 299, 312, 347). (On Bailey as putative author of *Verbal Disputes*, see O’Brien and Darnell 1982: 83–107.)

Marx’s note is misleading. The author of *Verbal Disputes* had cited Malthus’s position that “the great principle of demand and supply is called into action to determine what Adam Smith calls natural prices, as well as market prices” (Malthus 1820: 75). But he had also prefaced this citation by the words: “It may . . . seem good to some persons to say. . . .” (1821: 61). He himself



Here we call attention to an unfortunate and misleading formulation expressing Marx’s *formal* objection to demand-supply analysis: “If supply equals demand, they cease to act and for this very reason commodities are sold at their market values. . . . If supply and demand balance one another, they cease to explain anything, do not affect market values, and leave us much more in the dark about the reasons why the market value is expressed in just this sum of money and no other” (MECW 37: 188). Were Marx alluding here to demand-supply equality at any price, including short-run market price, the assertion would be nonsensical; but he is in fact specifically concerned with equality at “*market value*,” or long-run cost price, and insisting upon cost conditions as determining final equilibrium.<sup>5</sup>

As had Ricardo or Mill (or, for that matter, Malthus and Say), Marx accepted that deviations from cost price – due say to changes in demand conditions – are corrected by appropriate adjustments of supply. Thus while “on the one hand, the relation of demand and supply . . . only explains the deviations of market prices from market values, [o]n the other, it explains the tendency to eliminate these deviations, i.e., to eliminate the effect of the relation of demand and supply. . . . For instance, if the demand, and consequently the market price, fall [below cost], capital may be withdrawn, thus causing supply to shrink” until equilibrium is reestablished (189). (This, of course, does not apply to “[s]uch exceptions as commodities which have a price without having a value” – alluding to cases of pure scarcity, such as scarce paintings and the like.) The new equilibrium will evidently be determined by the state of costs whether these do or do not happen to alter. And this provides the opportunity to point out that Marx – like Ricardo (see Hollander 1995: 202–16) – recognizes the endogeneity of the margin, namely that in the case of rising supply price, costs depend upon the location of the demand curve: “The price of production is regulated in each sphere, and likewise regulated by special circumstances. And this price of production is, in its turn, the centre around which the daily market prices fluctuate and tend to equalize one another within definite periods. (See Ricardo on determining the price of production through those working under the least favourable conditions)” (MECW 37: 178).<sup>6</sup> But we must be cautious. The full picture is complex, for Marx also recognizes cases where it is the *average* cost of all firms that govern long-run price, and others where it is low-cost firms that govern long-run price. (See Section F.)

proceeds to explain his own position that it is cost conditions that govern final equilibrium, Malthus’s formulation being he believed, unhelpful. The author of *Verbal Disputes* – who also objected to J. B. Say’s formulations – was making precisely the point Marx insisted on. (That Marx realized this is clear on MECW 37: 191.)

<sup>5</sup> See also MECW 35: 538 with respect to labor: “If demand and supply balance, the oscillation of prices ceases, all other conditions remaining the same. But then demand and supply also cease to explain anything. The price of labour, at the moment when demand and supply are in equilibrium, is its *natural price*, determined independently of the relation of demand and supply.”

<sup>6</sup> In *Capital* 3, Chapters 39 and 40 respectively, Marx discusses the extensive and intensive margins, but seems unaware that Ricardo had been aware of the latter (MECW 37: 671).

Also noteworthy is Marx's specification of the negative slope to the price-quantity demanded relation. This emerges particularly clearly in discussion of the effects of a change in costs, which provides a convenient summary of Marx's general position:

Should the market value [costs] change, this would also entail a change in the conditions on which the total mass of commodities could be sold. Should the market value fall, this would entail a rise in the average social demand (this always taken to mean the effective demand), which could, within certain limits, absorb larger masses of commodities. Should the market value rise, this would entail a drop in the social demand, and a small mass of commodities would be absorbed. Hence, if supply and demand regulate the market price, or rather the deviations of the market price from the market value, then, in turn, the market value regulates the ratio of supply to demand, or the centre round which fluctuations of supply and demand cause market prices to oscillate (179–80).

Here we have, in effect, the solution to what J. S. Mill described as the “paradox of two things each depending upon the other” – that while “demand . . . partly depends on the value, at the same time value depends on the demand” – and which he attributed to J. B. Say (Mill 1963–91 3: 166–8).

There is a further detail to note. For Adam Smith, the operation of the demand-supply process whereby cost price is achieved after a disturbance to the long-run equilibrium entailed, as Stigler expressed it, “rivalry in a race – a race to get limited supplies or a race to be rid of excess supplies. Competition is a process of responding to a new force and a method of reaching a new equilibrium” (Stigler 1965: 235). This applies also to Marx's position:

If the demand for [a] particular kind of commodity is greater than the supply, one buyer outbids another – within certain limits – and so raises the price of the commodity for all of them above the market value [MECW 35: 113–14], while on the other hand the sellers unite in trying to sell at a high market price. If, conversely, the supply exceeds the demand, one begins to dispose of his goods at a cheaper rate and the others must follow, while the buyers unite in their efforts to depress the market price as much as possible below the market value (MECW 37: 192–3).

We close this Section with a clear-cut affirmation regarding *supply adjustment* as indispensable for the “tendency” towards profit-rate uniformity, an adjustment that may entail absolute contraction of some “spheres,” but may also be achieved by appropriate allocations of net investment:

. . . the general rate of profit is never anything more than a tendency, a movement to equalise specific rates of profit. The competition between capitalists – which is itself this movement toward equilibrium – consists here of their gradually withdrawing capital from spheres in which profit is for an appreciable length of time below average, and gradually investing capital into spheres in which profit is above average. Or it may also consist in additional capital distributing itself gradually and in varying proportions among these spheres. It is continual variation in supply and withdrawal of capital

in regard to these different spheres, and never a simultaneous mass effect, as in the determination of the rate of interest. (364)

All this will prove essential when we come to the Transformation.<sup>7</sup>

### C. The Transformation of Values into Prices: Formal Analysis

The source of profits, for Marx, is surplus or unpaid labor time. To appreciate his analysis we must first establish the fact that Marx's "prices of production" are equivalent to classical long-run cost prices, as formulated by the Physiocrats, Smith, and Ricardo: "The price of production includes the average profit. We call it price of production. It is really what Adam Smith calls natural price, Ricardo calls price of production, or cost of production, and the physiocrats call *prix nécessaire*, because in the long run it is a prerequisite of supply, of the reproduction of commodities in every individual sphere. But none of them has revealed the difference between price of production and value" (MECW 37: 197).<sup>8</sup> And he affirms that the traditional focus on costs rather than labor values can be explained by its convenient superficiality from an ideological perspective: "We can well understand why the same economists who oppose determining the value of commodities by labour-time . . . always speak of prices of production as centres around which market prices fluctuate. They can afford to do it because the price of production is an utterly external and *prima facie* meaningless form of the value of commodities, a form as it appears in competition, therefore in the mind of the vulgar capitalist, and consequently in that of the vulgar economist."

As for the matter of distribution, the main objection to orthodoxy is well expressed in *Capital* 3, Chapter 48 on the so-called "Trinity Formula," where Marx rejected any conception of factor returns which suggested that they "grow out of the role played by the land, produced means of production, and labour. . . ." (812). On this false view, "profit and rent . . . appear independent with respect to wages, and must arise from sources of their own, which are specifically different and independent of labour; they must arise from the participating elements of production, to the share of whose owners they fall" (813), whereas in fact "[c]apital pumps the surplus labour, which is represented by surplus value and surplus product, directly out of the labourers" (808); similarly: "capital is a perennial pumping-machine of surplus labour for the capitalist, land a perennial magnet for the landlord, attracting a portion of the surplus value pumped out by capital, and finally, labour the constantly self-renewing condition and ever self-renewing means of acquiring under the title of wages a portion of the value created by the labourer and thus a part of

<sup>7</sup> On the stability of the profit-equalization process, see in particular Nikaido 1983.

<sup>8</sup> A note refers to Malthus, presumably his statement that "the cost of production itself only influences the prices of . . . commodities as the payment of this cost is the necessary condition of their continued supply in proportion to the extent of the effectual demand for them" (1836: 71; see also 78).

the social product measured by this portion of value, i.e., the necessities of life” (809).

According to Marx then, the source of profits is excess (or unpaid) labor time. Assume a ten-hour work day of which five hours are devoted to the production of the wage basket, and the remainder to commodities constituting profits, in the sense that five of the ten hours generate sufficient revenue to compensate the employer for his outlay on wages. The ratio of “surplus” to “necessary” labor, or  $s/v$ , is defined as the “rate of exploitation” or the “rate of surplus value,” which in this instance amounts to 100 percent (MECW 35: 225). The various sectors of the economy are supposed to require different “compositions of capital” or constant capital (machinery, structures, materials) relative to variable capital (wage goods), or  $c/v$  ratios. Since the ratio  $c/v$  is non-uniform between sectors (e.g., 311), but  $s/v$  is assumed to be uniform, it follows that if— as is the assumption throughout *Capital 1 – commodities exchange in proportion to labor values*, including labor embodied in the net value added ( $v + s$ ) as well as in the constant capital used up during the process ( $c'$ ), then the rate of profit or  $s/(c + v)$ , will also be non-uniform. For the same total capital ( $c + v$ ) in two industries yields differing  $s$ , and therefore, differing profit rates on the total, depending on the fraction of capital devoted to the maintenance of labor ( $v$ ); the more “labor intensive” the industry (in modern parlance) the greater will be  $s$  and the greater accordingly will be the rate of profit. That a uniform  $s/v$  but differing  $c/v$  between industries implies different profits rates can easily be seen if the profit rate  $s/(c + v)$  is written as:

$$\frac{s/v}{1 + c/v}$$

Note that only if the wage rate is constant will  $v$  – which represents the “value” of (or labor embodied in) wage goods capital – vary with the current labor input and serve as an index of labor-capital ratios, and even this will not suffice if technical progress should be reducing the labor cost of producing wage goods.

Marx refers in *Capital 1* to “[t]he law demonstrated above” whereby “the masses of value and of surplus value produced by different capitals – the value of labour power being given and its degree of exploitation being equal – vary directly as the amounts of the variable constituents of these capitals, i.e., as their constituents transformed into living labour power” (311). But non-uniform profit rates are not typical of competitive capitalism: “This law clearly contradicts all experience based on appearance. Everyone knows that a cotton spinner, who, reckoning the percentage on the whole of his applied capital, employs much constant and little variable capital, does not, on account of this, pocket less profit or surplus value than a baker, who relatively sets in motion much variable and little constant capital.”<sup>9</sup> “For the

<sup>9</sup> See also: “We have in fact assumed that price = values. We shall, however, see in Book III, that even in the case of average prices the assumption cannot be made in this very simple manner” (MECW 35: 229n). Also 608, cited below p. 44.

solution of this apparent contradiction,” Marx continued, “many intermediate terms are as yet wanted . . .” The “solution” was published posthumously, but he certainly had it on hand when composing *Capital 1*.<sup>10</sup>

As expressed in *Capital 3*, the apparent dilemma is that the empirical evidence drawn from the world of general equilibrium or the “circulation process” – “whatever may be the surplus value extorted by capital in the actual production process and appearing in commodities, the value and surplus value contained in the commodities must first be realised in the circulation process” (MECW 37: 814) – appeared to favor the orthodox view; in particular: “the equalization process of capitals . . . divorces the relative average prices of the commodities from their values, as well as the average profits in the various spheres of production (quite aside from the individual investments of capital in each particular sphere of production) from the actual exploitation of labour by the particular capitals. . . . Normal average profits themselves seem immanent in capital and independent of exploitation” (815–16).

The solution is given in *Capital 3*, Chapter 9: “Formation of a General Rate of Profit . . . and Transformation of the Values of Commodities into Prices of Production.” *It is to allow cost prices to diverge from labor values in such a manner as to assure a common profit rate.* This Marx does by calculating the average profit rate (in the labor or *Capital 1* scheme) as the total of surplus values in all sectors relative to total capitals,  $\Sigma s / \Sigma(c + v)$ , and then adding this rate to production costs in each sector, namely to the used-up constant capital and variable capital. This yields “prices-of-production” which now diverge from labor values, the deviations of course cancelling out to zero. The ratios of surplus (now in price terms) to variable capital also diverge from sector to sector, the labor-intensive industries subsidizing, so to speak, the capital-intensive industries. These conceptions are summarized in Tables 1.1 and 1.2.

These tables implicitly assume all industries to be of equal magnitude. But this is only to simplify exposition; the general profit rate will usually have to take account of sectors differing in quantitative significance: “The general rate of profit is, therefore, determined by two factors: (1) The organic composition of the capitals in the different spheres of production, and thus, the different rates of profit in the individual spheres. (2) The distribution of the total social capital in these different spheres, and thus, the relative magnitude of the capital invested in each particular sphere at the specific rate of profit prevailing in it; i.e., the relative share of the total social capital absorbed by each individual sphere of production” (162).

<sup>10</sup> Writing in May 1885 in the Preface to *Capital 2*, Engels observed that Marx “had resolved this contradiction already in the manuscript of his *A Contribution to the Critique . . .*” referring to the *Economic Manuscripts* 1861–63. “According to the plan of *Capital*, this solution will be provided in Book III” (MECW 36: 23). As we show in Chapter 9, Marx had in fact already solved the “contradiction” in the *Grundrisse* 1857–58.

Table 1.1

|     | Organic<br>composition<br>of capital by<br>industry | [Order<br>by $v/c$ ] | Surplus<br>value | Rate of<br>Surplus<br>value<br>( $s/v$ )(%) | Used up<br>capital<br>( $c'$ )<br>[arbitrary] | Cost<br>price<br>( $c' + v$ ) | Value<br>( $c' + v + s$ ) | Rate of<br>profit<br>( $s/[c + v]$ )<br>(%) |
|-----|---|----------------------|------------------|---|---|-------------------------------|---------------------------|---|
| I   | $80c + 20v$   | 0.25 (3)             | 20               | 100   | 50  | 70                            | 90                        | 20  |
| II  | $70c + 30v$   | 0.43 (2)             | 30               | 100   | 51  | 81                            | 111                       | 30  |
| III | $60c + 40v$   | 0.66 (1)             | 40               | 100   | 51  | 91                            | 131                       | 40  |
| IV  | $85c + 15v$   | 0.17 (4)             | 15               | 100   | 40  | 55                            | 70                        | 15  |
| V   | $95c + 5v$  | 0.05 (5)             | 5                | 100   | 10  | 15                            | 20                        | 5   |
|     | $390c + 110v$                                       |                      | 110              |   |   |                               |                           |   |

Source: MECW 37: 155.

Marx's concern is to convey the notion that "the sum of the profits in all spheres of production must equal the sum of the surplus values, and the sum of the prices of production of the total social product equal the sum of its values" (172). These identities – in fact the two conditions reduce to one, each implying the other – are insisted upon so frequently that they must be taken very seriously. For example, on the identity of total surplus value and total profit: "surplus value and profit are identical from the standpoint of their mass . . . there [is] difference of magnitude only between the rate of surplus value and the rate of profit . . ." (166); ". . . the average profit can be nothing but the total mass of surplus values allotted to the various quantities of capital proportionally to their magnitudes in the different spheres of production. It is the total realized unpaid labour, and this total mass, like the paid, congealed or living, labour, obtains in the total mass of commodities

Table 1.2

|     | Organic<br>composition of<br>capital by<br>industry | Rate of<br>profit <sup>a</sup> | Cost<br>price <sup>b</sup> | Value <sup>b</sup> | "Price of<br>production" ( $c' + v + p$ ) | Deviation<br>of price<br>from value |
|-----|---|--------------------------------|----------------------------|--------------------|---|-------------------------------------|
| I   | $80c + 20v$   | 22                             | 70                         | 90                 | 92  | +2                                  |
| II  | $70c + 30v$   | 22                             | 81                         | 111                | 103                                       | -8                                  |
| III | $60c + 40v$   | 22                             | 91                         | 131                | 113                                       | -18                                 |
| IV  | $85c + 15v$   | 22                             | 55                         | 70                 | 77  | +7                                  |
| V   | $95c + 5v$  | 22                             | 15                         | 20                 | 37  | +17                                 |

Source: MECW 37: 156.

<sup>a</sup> The rate of profit is calculated as  $\Sigma s / \Sigma(c + v)$  in table 1.1 = 110/500.

<sup>b</sup> From table 1.1.

and money that falls to the capitalists” (173). As for the second identity: “Since the price of production of the commodities of the average capital remained the same, equal to the value of the product, the sum of the prices of production of the products of all capitals remained the same as well, and equal to the sum total of the values produced by the aggregate capital. The increase on one side and the decrease on the other balance for the aggregate capital on the level of the average social capital” (200).

The Transformation procedure has been subject to an unceasing flood of commentary, but one particular objection does not stand up, namely that the aggregate amount of profit *cannot* be said to equal aggregate surplus value – that the comparison itself is meaningless – because the former is a number of dollars whereas the latter is a number of man-hours; the two concepts are measured in different dimensions (e.g., Itoh 1976). But the comparison is in fact legitimate, for the reason that all units, values as well as prices, are expressed in money terms. For example: “If, e.g., the necessary labour amounts to 6 hours daily, expressed in a quantum of gold = 3 shillings, then 3s. is the daily value of one labour power. If, further, the rate of surplus value be = 100%, this variable capital of 3s. produces a mass of surplus value of 3s., or the labourer supplies daily a mass of surplus labour equal to 6 hours” (MECW 35: 307). Again: “If we are to assume all the time that £1 stands for the weekly wage of a labourer working 60 hours, and that the rate of surplus value = 100%, then it is evident that the total value product of one labourer in a week = £2. Ten labourers would then produce no more than £20. And since £10 of the £20 replace the wages, the ten labourers cannot produce more surplus value than £10” (148).<sup>11</sup> Moreover, a constant “value” (labor input, direct and indirect) is assumed to rule in the case of the monetary commodity; and where changes in the value of money are allowed, the consequences are purely nominal (138, 324). A second condition is that the monetary commodity should require the mean organic composition of capital, as will shortly become clear.

We return to the *formal* Transformation. The limited nature of Marx’s own procedure – that only outputs are transformed from values to prices and not inputs (*c*’s and *v*’s) – has long been the focus of discussion.<sup>12</sup> Marx himself recognized

<sup>11</sup> More than the use of a monetary unit as a matter of convenience is involved; a distinct external monetary measure of “value” was regarded by Marx as a *sine qua non* for the capitalist scheme under investigation. (See below, Chapter 13.)

<sup>12</sup> There are several “closures” of the Marxian system. These include the Bortkiewicz’s 1907 solution, for a simplification of which see Sweezy 1942: 115–25; see also Howard and King: “. . . it is in fact easy to prove that the Bortkiewicz procedure will generate a positive rate of profit if and only if there is a positive rate of exploitation. It follows that exploitation is a necessary and sufficient condition for the existence of positive profits. This result has come to be known as the *Fundamental Marxian Theorem*. In addition it can be shown that the rate of profit varies directly with the rate of exploitation” (1985: 139). The Winternitz 1948 solution is elaborated

that prices might diverge from values not only in the case of final goods but in that of means of production as well: “the cost price of a commodity may already contain a deviation from the value of the means of production consumed by it, quite aside from a deviation of its own which may arise through a difference between the average profit and the surplus value” (MECW 37: 204). Furthermore, he recognized that such may be true of the commodity produced by “mean” factor proportions. But he only *asserted* that this complication “does not detract in the least from the correctness of the theorems demonstrated which hold for commodities of average composition” (205). Profits are still identified with surplus value in the case of the commodity produced by mean factor proportions – despite the subtle change in meaning of this conception – and by implication, total surplus value with total profit: “The quantity of profit falling to these commodities [of average composition] is equal to the quantity of surplus value contained in them. For instance, in a capital of the given composition  $80_c + 20_v$ , the most important thing in determining surplus value is not whether these figures are expressions of actual values, but how they are related to one another, i.e., whether  $v = 1/5$  of the total capital, and  $c = 4/5$ . Whenever this is the case, the surplus value produced by  $v$  is, as was assumed, equal to the average profit.” Similarly, the identity of value and price in the case of the commodity produced by mean organic composition – again, by implication, of total value and total price – is also reasserted for the complex case: “since [surplus value] equals average profit, the price of production = cost price plus profit =  $k + p = k + s$ ; i.e., in practice it is equal to the value of the commodity.”<sup>13</sup>

in Meek 1967. See also Kayali and Sari 1989. And there is Seton’s solution which extends to the  $n$ -product case and beyond simple reproduction (Seton 1976 [1957]).

Of high interest in their own right and for coverage of the literature, are Samuelson 1971, Meek 1975, Desai 1991. Morishima’s sympathetic treatment justifies Marx’s position but only in the absence of joint production and alternative manufacturing processes, leading him to recommend “a Marxian economics without the labour theory of value” (1973: 181), on which matter see our concluding chapter.

Reference may also be made to the so-called “new solution” to the Transformation propounded *inter alia* in Duménil 1983–84; Foley 1982, 1986: 42–4; Lipietz 1982. Here the *value of variable capital* or of “labor power” is taken not as labor embodied in a given *commodity* wage but as the product of a given *money* wage and the “value of money.” The “solution” disallows a transition from values to prices, since the set of prices must be known before the rate of commodity wages can be established. For criticisms of this and various other “Marxian” interpretations, see Sinha 1997; Hunt and Glick 1987; Howard and King 1992a: 276–80; Cavalieri 2005.

See further notes 29 and 36 below, which point to fortuitously common features between our own interpretation and “the new solution.”

<sup>13</sup> For the simple case involving partial transformation, the two identities insisted upon are mathematical alternatives, either of which can be used to complete the equational set of simultaneous equations describing the transformation. In the complex case, however, the two identities are no longer alternatives, but generate different solutions (cf. Meek 1975: xviii f).



### D. The Transformation and the Allocation Mechanism

The *mechanism of transition* from the value to the price-of-production scheme is outlined in *Capital 3*, Chapter 10, “Equalisation of the General Rate of Profit through Competition.” Recall now Marx’s use of an appropriately selected money unit – one produced by constant productivity and mean-factor technology. What he had in mind by the transition to prices of production is a changed distribution of capital and labor between industries to assure that commodities sell at money prices covering costs plus the average profit rate rather than at money prices covering costs plus the surplus value generated in the respective industries. The following passage to this effect specifies our second condition for the monetary commodity: “In these spheres [with mean or average composition] the price of production of the produced commodity is exactly or almost the same as their value *expressed in money*. . . . Competition so distributes the social capital among the various spheres of production that the prices of production in each sphere take shape according to the model of the prices of production in these spheres of average composition, i.e., they =  $k + kp'$  (cost-price plus the average rate of profit multiplied by the cost-price)” (MECW 37: 171–2; emphasis added). And a summary statement regarding the process whereby “competition levels the rates of profit of the different spheres of production into an average rate of profit and thereby turns the values of the products of these different spheres into prices of production” makes it equally clear that “[t]his occurs through the continual transfer of capital from one sphere to another, in which, for the moment, the profit happens to lie above average” (205). In addition, “[t]he fluctuations of profit caused by the cycle of fat and lean years succeeding one another in any given branch of industry within given periods must . . . receive due consideration” (205–6).

To be more precise regarding what is entailed, we must revert to the initial set of exchange rates reflecting relative labor inputs. The “degree of exploitation” – defined either as the surplus over wages relative to wages (the profit-wage ratio) or as the rate of surplus value (the proportion of surplus labour to necessary labour) – is assumed to be everywhere the same;<sup>14</sup> accordingly, the surplus over wages expressed as a proportion of capital, or the rate of profit, will differ between sectors, since Marx did not suppose uniform factor proportions. *The initial proportionality between prices and values presumed throughout Capital 1 (and the first part of Capital 3) were thus not equilibrium prices. Marx, to put it bluntly, did not maintain a labor theory of value.*<sup>15</sup> Rather, the proportionality of prices to values in *Capital 1* requires

<sup>14</sup> Provided we assume that prices are proportional to labor inputs, we may talk interchangeably of the rate of surplus value and the profit-wage ratio. This is no longer true when prices diverge from values, for then it is possible to have uniform rates of surplus value in all sections, but differing profit-wage ratios (see below, note 26).

<sup>15</sup> Cf. Schumpeter 1954: 597: “Marx had recognized from an early stage of his thought – certainly before he published the first volume of *Das Kapital* (1867) – that exchange ratios do not, not

constraints on the supplies of commodities – some outputs exceeding and some falling short of their *equilibrium* values – to assure prices which reflect relative labor inputs rather than prices which yield profit-rate equality throughout the system.<sup>16</sup> It follows that to allow free “competition” – as Marx does in his *Capital* 3, Chapter 10 – is effectively to relax those constraints such that the outputs of commodities yielding above-average rates of profit (those with above-average labor-capital ratios) expand; whereas outputs of commodities yielding below-average rates (those with below-average labor-capital ratios) contract as capital flows between sectors in response to the initial profit-rate differentials. Prices of the former – as expressed in terms of the medium produced by capital of “average” organic composition – will fall below their original level, and prices of the latter will rise, the process of capital movement and price variation ending when the average profit rate is yielded in all sectors:

Now, if the commodities are sold at their values, then . . . very different rates of profit arise in the various spheres of production, depending on the different organic composition of the masses of capital invested in them. *But capital withdraws from a sphere with a low rate of profit and invades others, which yield a higher profit. Through this incessant outflow and influx*, or, briefly, through its distribution among the various spheres, which depends on how the rate of profit falls here and rises there, it creates such a ratio of supply to demand that the average profit in the various spheres of production becomes the same, and values are, therefore, converted into prices of production (194; emphasis added).

There will be no change in the supply of the monetary or any other commodity produced by mean factor proportions which yielded the average rate from the outset. We may for convenience suppose two commodities, A and M, each produced by a technique requiring the mean factor proportions, one of which (M) is chosen as medium. After the relaxation of our artificial constraint, all commodities will vary in supply in the manner described above except these two. The price of A in terms of M thus remains unchanged at its original level. This is all that Marx means by statements to the effect that the price of the commodity produced by capital of mean organic composition remains unchanged at its existing value when we transfer from the value to the price scheme: “In these spheres the price of

even as a tendency, conform to Ricardo’s equilibrium theorem on values, which accordingly forms no part of Marx’s teaching.”

<sup>16</sup> But for a view to the contrary, see Sweezy 1942: 70: “it is perfectly legitimate to postulate a capitalist system in which organic compositions of capital are everywhere equal and hence the law of value does hold, and to examine the functioning of such a system” and then investigate the deviations from the rule required in practice. Also Dobb 1973: 149–50, 155. And Morishima and Catephores 1975: 327: “we know that the assumption of equal organic composition of capital makes prices of production strictly proportional to values. Therefore, in spite of Marx having explicitly stated in various places of Volume I that sectors may differ from each other in composition of capital, we may consider that Marx tacitly assumed equal organic composition throughout the economy in those places where he did not distinguish prices from values.”

production of the produced commodity is exactly or almost the same as their value expressed in money” (171).

To recapitulate our main proposition: It is not, as is usually implied in the literature, simply money prices which alter in the transition from the value to the prices-of-production scheme. Money prices alter in consequence of variations in the supplies of all the commodities in the system, except those which happen to be produced by mean factor proportions, as capital flows from low-yielding to high-yielding sectors. At the same time, I do not dispute that Marx at times had in mind a sort of “historical” transformation: “The exchange of commodities at their values, or approximately at their values . . . requires a much lower stage than their exchange at their prices of production, which requires a definite level of capitalist development. . . . Apart from the domination of prices and price movement by the law of value, it is quite appropriate to regard the values of commodities as not only theoretically but also historically *prius* to the prices of production” (MECW 37: 175–6, 883). Engels admitted that how “this process of equalisation really come[s] about . . . is a very interesting point about which Marx himself has little to say” (11 March 1895; MECW 50: 461). By this he without question intended the *historical*, not the *theoretical*, transformation process: “A genuinely historical exposition of this process . . . would be a most valuable pendant to *Capital*” (462).<sup>17</sup> We shall return to this issue in the next section.

\* \* \*

A serious objection has been raised against according the value and prices-of-production schemes and the transition between them “a definite historical meaning,” or even to give them “distinct ‘operational’ contents” as proposed by Morishima and Catephores (1975), or to proceed in the manner I propose of viewing the value scheme of *Capital 1* as reflecting constraints on commodity supplies which are removed in *Capital 3* (Pokorni 1985: 113). For Marx’s stadal approach is said by Pokorni to be purely “noetical” – “originating or existing in the mind or intellect” is one Oxford English Dictionary definition – imposing on the value stage “a *conceptual* frame of reference which does not allow us even to *stipulate* the operational ‘constraint’ mentioned” (113–14; see also Indart 1990). In brief, so runs this contention, the proportionality of relative prices to relative labor inputs

<sup>17</sup> For a discussion of the “logic” of the historical transformation problem, see Samuelson 1991a.

Morishima and Catephores reject the association of the stages with historical periods but do argue for an “operational” interpretation that is quite attractive:

[T]he relationship between Volumes I, II and III can be seen as a progression from the one-department model of the later part of Volume I, where Marx often confused values and prices, to the two-department model of Volume II, where proportionality between values and prices is required departmentalwise for exact aggregation into two departments, and on to the general multi-sector model of Volume III, where no proportionality is needed any longer. Obviously the last volume creates the need to discuss the problem implicit in disproportionality; in other words, the transformation problem. Viewing the issue in this way, we may say that there is no contradiction among the volumes of *Capital*; their relationship is rather that of the special case to the general one (1975: 327).

in *Capital 1* is simply a theorem reflecting Marx's "abstract-to-concrete method of exposition" (109). As for the citation given above (p. 24) which *does* (it is allowed) refer to capital movements between sectors and corresponding output changes, that "again refers to just one level of explanatory framework, and the meaning of the quotation can therefore be established only by identifying its place and role in the argument as a whole" (115). On this view, output flows are precluded in the Transformation context, the amounts of capital invested in the various sectors, and thus physical output, supposedly remaining unchanged between schemes (115–16).

Now one may readily agree that the value set-up indeed reflects a noetical exercise, in the sense that in the real world of advanced capitalism *only a price-of-production scheme is "visible,"* whereas the value scheme is "the invisible and unknown essence that wants investigation" (MECW 37: 47). But Marx is quite clear that were we to *imagine* a value scheme, it would – supposing of course non-uniform organic composition – necessarily entail a set of *disequilibrium* prices and outputs which may be transformed back into prices by relaxation of the conceptual output constraints.

It is also true enough that neither the tables of Marx's Chapter 9 representing the Transformation nor the verbal account in that same chapter illuminate the manner in which competition assures the (hypothetical) transition between schemes. Marx was satisfied with a mechanical exposition designed to convey the alleged identity of total profit and surplus value and the formation of a general rate of profit, leaving it to the companion chapter to expound the precise process entailed. The numerical illustrations of the Transformation chapter do not provide the entire picture. Accordingly, various analogies formulated to describe the Transformation that may give an impression of *given* capitals invested – for example the likening of capitalists to "stock holders in a stock company" with *given* shares (156) – should not be taken too literally. All in all, it seems illegitimate to expunge, by reference to a methodological compartmentalization, the hypothetical transition process expounded in loving detail between *disequilibrium values and equilibrium prices-of-production*.

One particular feature of the Transformation chapter is, for all that, troubling. I allude to the qualification regarding the necessity to weigh the individual profit rates by the quantitative significance of the sectors to obtain the general profit rate (above, p. 19). That the general rate of profit turns on the different profit rates in the "individual spheres" weighed by the "relative magnitude" of capital invested in each sphere may be said to imply that industry size is a *datum* of the entire Transformation analysis (Pokorni 1985: 116). We must, however, be cautious. Even in the simplest case of (initially) equal-sized industries such as are assumed for convenience in the formal tables, this output structure is presumed to be one which *assures that prices are proportional to labor values*; and similarly in the more complex case, the output levels (multiples of units of capital in each industry) are those assumed to assure that labor values pertain. The question at issue is: in *either* case does the output structure alter upon transition to prices-of-production. And we have pointed to Marx's firm answer in his chapter 10: Yes!

I am aware of a passage appearing in *Capital 2* (the context is “Simple Reproduction” on which see below Chapter 2) where Marx assumes prices proportionate to *values* rather than prices-of-production, and asserts that there are “on the whole” *no output implications*: “The fact that prices diverge from values cannot, however, exert any influence on the movements of the social capital. On the whole, there is the same exchange of the same quantities of products, although the individual capitalists are involved in value relations no longer proportional to their respective advances and to the quantities of surplus value produced singly by every one of them” (MECW 36: 392). We are then faced with the standard interpretive problem engendered by conflicting texts. Nonetheless, I maintain that precedence must be accorded the logic so elaborately expounded in the extended discussion of “competition,” entailing supply variation in response to the profit-rate differentials emerging in the disequilibrium value scheme. And I would point also to a ringing declaration *to this very effect* near the close of *Capital 3*, in the course of a major discussion of “Distribution Relations and Production Relations”: “The entire process of capitalist production is . . . regulated by the prices of the products. But the regulating prices of production are themselves in turn regulated by the equalisation of the rate of profit and its corresponding distribution of capital among the various social spheres of production. Profit, then, appears here as the main factor, not of the distribution of products, but of their production itself, as a factor in the distribution of capitals and labour itself among the various spheres of production” (MECW 37: 868–9). To deny an allocative discussion to the Transformation is to fly in the face of Marx’s own analysis, and I suspect that Marx in *Capital 2* took the easy way out in order to simplify his departmental analysis.

The very specific elaboration of the output modifications entailed by the transition from the value to the price-of-production scheme also leads me to question a possible argument whereby the output levels supposed to exist in the first scheme are those defined by the *equilibrium* outputs of the second. In this case the output structure would not change between schemes simply because it is frozen at its *final* destination, Marx imposing his “values” on those *particular* outputs. Were this indeed the case, his elaborations of the competitive adjustment between schemes would be incomprehensible.

A number of analytical problems have emerged in addition to those commonly encountered in the Transformation literature. It was Marx’s claim that starting in the value scheme with given outputs it is possible to “forecast” the uniform or general profit rate when equilibrium prices-of-production rule. But will this in fact hold good when the changes in output engendered by the transitions are allowed for, or will the changes in industry weights in the process of “circulation” in fact *alter* the average profit rate, thereby threatening the entire exercise? (The problem is the same whether we start off with industries of equal or different sizes.) From the same perspective the very concept of a “mean industry” – selected as the money commodity – becomes suspect considering that the average must surely vary between the schemes if the appropriate industry weightings vary. The

conundrum – which applies equally to the Ricardian system – is aggravated in the analysis of the inverse wage-profit relation (see note 24).

### E. Competition Constrained: Land Scarcity and Firm Size

The Transformation procedure may have deflected attention unduly from the splendid accounts in *Capital* of the operation of “real world” competitive systems that would be at home in any “classical” text, whether Adam Smith’s, Ricardo’s, Mill’s, or Marshall’s. Thus immediately following the passage expounding the transformation of values into prices (MECW 37: 194; above, p. 24), Marx spells out the pre-conditions for a tendency to profit-rate uniformity in an account that can be appreciated independently of the formal transformation. This account is in fact prefaced by a subtle transfer from a “*noetical*” (above, p. 25) to a *historical* perspective: “Capital succeeds in this equalisation,” Marx writes immediately after the above-mentioned passage, “to a greater or lesser degree, depending on the extent of capitalist development in the given nation; i.e., on the extent the conditions in the country in question are adapted for the capitalist mode of production” (194–5).

The account of the pre-conditions required to assure operation of a full-fledged competitive system is impressive, and includes capitalist institutional arrangements, a credit mechanism, and the absence of legal or other impediments to factor mobility both geographical and occupational. Thus mobility of capital “implies complete freedom of trade within the society and the removal of all monopolies with the exception of the natural ones, those, that is, which naturally arise out of the capitalist mode of production. It implies, furthermore, the development of the credit system, which concentrates the inorganic mass of the disposable social capital vis-à-vis the individual capitalist. Finally, it implies the subordination of the various spheres of production to the control of capitalists. . . . A great density of population is another requirement” (195). Mobility of *labor* “implies the abolition of all laws preventing the labourers from transferring from one sphere of production to another and from one local centre of production to another; indifference of the labourer to the nature of his labour; the greatest possible reduction of labour in all spheres of production to simple labour; the elimination of all vocational prejudices among labourers; and last but not least, a subjugation of the labourer to the capitalist mode of production.”

A supplementary passage reinforces the impression that Marx’s concern is the operation of *actual*, real-world, systems. For he allows that “with respect to each sphere of actual production – industry, agriculture, mining, etc. – the transfer of capital from one sphere to another offers considerable difficulties, particularly on account of the existing fixed capital” adding, however, that “[e]xperience shows . . . that if a branch of industry, such as, say, the cotton industry, yields unusually high profits at one period, it makes very little profit, or even suffers losses, at another, so that in a certain cycle of years the average profit is much the same as

in other branches. And capital soon learns to take this experience into account” (206). Moreover, there is a qualification to the main argument regarding output variations in the transition from values to prices-of-production, a qualification which applies in fact quite generally to the understanding of “competition”: “As soon as capitalist production reaches a certain level of development, the equalisation of the different rates of profit in individual spheres to general rate of profit no longer proceeds solely through the play of attraction and repulsion, by which market prices attract or repel capital” (207). For “[a]fter average prices, and their corresponding market prices, become stable for a time it reaches the *consciousness* of the individual capitalists that this equalization balances *definite differences*, so that they include these in their mutual calculations. The differences exist in the mind of the capitalists and are taken into account as grounds for compensating.” The qualification is illustrated by instances of mark-up pricing to “compensate” say for relatively high risk and “without always requiring the renewed action of competition to justify the motives or factors for calculating this compensation” (206). This is a significant qualification.<sup>18</sup> Yet qualification it is, since the *primary* mechanism remains the output adjustment to deviations of market from cost price.

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A more potent qualification to the standard adjustment process entails the phenomenon of Absolute Rent. Here in particular we find ourselves in a hybrid world between the noetical and the real or historical orientations. I allude to an assumed *empirical* property – first described in correspondence of 1862 and then in the *Economic Manuscripts* (see Chapter 10.C) – that the organic composition of capital ( $c/v$ ) in agriculture falls short of the average (reflecting relatively backward technology) yielding above-average returns to agricultural capital *in the value scheme*, which in consequence of the private-property arrangement cannot be fully competed away by attraction of new investment. Profit-rate uniformity is achieved by a transfer to *landowners* from the above-average returns independent of Ricardian differential rent.

The basic axiom of the analysis in the *Capital 3* version is introduced in a strange manner, insofar as it is taken for granted that a lower organic composition *must* apply in agriculture if absolute-rent is to be accounted for:

Whether the composition of agricultural capital is lower than that of the average social capital in a specific country where capitalist production prevails, for instance England, is a question which can only be decided statistically, and for our purposes it is superfluous to go into it in detail. In any case, it is theoretically established that the value of agricultural products can be higher than their price of production only on this assumption. . . .

<sup>18</sup> A similar qualification will be found in Ricardo’s observation that prices may adjust to cost without output adjustment, but in the special case of zero-elastic demand (Hollander 1979: 291–2). On related complexities in J. S. Mill’s analysis, see Hollander 1985: 289–93.

This assumption, then, suffices for that form of rent which we are analysing here, and which can obtain only so long as this assumption holds good. Wherever this assumption no longer holds, the corresponding form of rent likewise no longer holds (MECW 37: 747).

The analysis itself sets out by reiterating the fundamental role of competition in an unrestricted system, or the freely operating Transformation, entailing “free movement [of capital] between the various spheres of production . . . to reduce the value to the price of production and thereby proportionally distribute the excess surplus value of this sphere of production among all spheres exploited by capital” (748). Allow now for restrictions to output expansion in agriculture, such that “capital meets an alien force which it can but partially, or not at all overcome, and which limits its investment in certain spheres, admitting it only under conditions which wholly or partly exclude that general equalisation of surplus value to an average profit.” The consequence will be “that the excess of the value of commodities in such spheres of production over their price of production would give rise to a surplus profit, which could be converted into rent and as such made independent with respect to profit. Such an alien force and barrier are presented by landed property, when confronting capital in its endeavour to invest in land; such a force is the landlord vis-à-vis the capitalist.” Should there be any remaining doubt regarding the role of output adjustment in assuring the transition from values to prices-of-production in the standard case, it must dissipate with the emergence of Absolute Rent when output adjustment is *prevented*.

Marx seems here to ignore the possibility of output expansion at the *intensive* margin – of which he was fully aware (see note 6; also Chapter 7, p. 204) – and to suppose that all land in use necessarily yields a rent. Beyond this, there remains a severe ambiguity regarding the determination of the average profit rate in the presence of absolute rent. The matter is touched on implicitly earlier in *Capital 3* in the course of the discussion of the equalization process: “Nothing would be altered if capitals in certain spheres of production would not, for some reason, be subject to the process of equalisation. The average profit would then be computed *on that portion of the social capital which enters the equalisation process*” (173; emphasis added). This assertion, if generalized, has it that the average return is based on a capital stock *excluding* the agricultural sector. But in what follows it is unclear whether the numerator in the profit-rate expression includes or excludes absolute rent: “It is evident that the average profit can be nothing but the total mass of surplus values allotted to the various quantities of capital proportionally to their magnitudes in the different spheres of production. It is the total realised unpaid labour, and this total mass, like the paid, congealed or living, labour, obtains in the total mass of commodities and money that falls to the capitalists.” In the *Economic Manuscripts* of 1861–63, however, Marx is explicit that the average profit rate is determined *independently of the excluded sector*, in brief that *the industrial sector has priority* (Chapter 10.C). Similarly, writing to Engels on 30 April 1868: “Those branches of production which constitute a natural *monopoly* are exempted from



[the] *equalisation process*, even if their rate of profit is higher than the social one. This is important later for the development of *rent*” (MECW 43: 24).

Marx’s Absolute Rent has been the subject of severe criticism. In particular, as Howard and King have pointed out: “This ingenious argument has very strange implications, in that absolute rent would disappear altogether if the organic composition in farming were to rise to the social average, even though land remained a scarce, privately owned, non-reproducible resource essential to the production of many commodities. This is not a defensible position. It would be greatly preferable to treat absolute rent as a form of monopoly profit, its magnitude determined by the operation of supply and demand rather than by the theory of value” (1985: 147; also 1992: 80).<sup>19</sup> The “monopoly” approach – which is not foreign to Marx (e.g., MECW 37: 627) is, incidentally, that of Ricardo, who had supplemented his differential rent by a form of absolute rent due to the pressure of demand for corn under conditions of zero marginal product, that is once capacity output has been reached (1951–73 1: 250–1; see Hollander 1995: 207). Marx, however, was carried away by his perception of an *initial* value scheme, taking his analysis to what he thought to be its logical conclusion.<sup>20</sup>

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There is also Marx’s second qualification. It is that the returns to major stock companies “in which the ratio of constant capital to the variable is so enormous, do not necessarily enter into the equalization of the general rate of profit” (MECW 37: 435). This qualification is more fully explained thus: “capitals . . . invested in large industrial enterprises, yield only large or small amounts of interest, so-called dividends, after all costs have been deducted. In railways, for instance. These do not therefore go into levelling the general rate of profit, because they yield a lower than average rate of profit. . . . Theoretically, they may be included in the calculation, and the result would then be a lower rate of profit than the seemingly existing rate, which is decisive for the capitalists. . . .” (239; also 262). Whereas Marx insists that “the entire capitalist production rests” on “the equalisation of the rate of profit, or the movements of this equalisation” (432–3), the uniformity principle was applicable, in practice, to a shrinking fraction of the system.

## F. On “Market Value” and Competition

Our analysis of the Transformation has focussed on the process of “competition” as it operates to reallocate activity *between* industries (“spheres of production”) with

<sup>19</sup> See also Howard and King 1989: 209; Samuelson 1992; Brewer 1995: 126; Blaug 1997: 273.

<sup>20</sup> Even so, one passage hints at the operation of the demand-supply mechanism: “owing to the barrier raised by landed property, the market price must rise to a level at which the land can yield an excess over the price of production, i.e., yield a rent. However, since the value of the commodities produced by agricultural capital is higher than their price of production, according to our assumption, this rent . . . forms the excess of value over the price of production, or a part of it” (MECW 37: 749).

differential  $c/v$  ratios, on the implicit assumption that *within* each sphere there is a common  $c/v$  ratio. But this is only a first approximation, since in reality “[t]he many individual capitals invested in a particular branch of production, have . . . more or less different compositions. The average of their individual compositions gives us the composition of the total capital in this branch of production” (MECW 35: 608; also MECW 37: 168, 851). Much of what Marx had to say in *Capital 3* (Chapter 10: “Equalisation of the General Rate of Profit through Competition”) regarding “market value” – prices proportionate to “socially-necessary” labor – is pertinent to this issue if we suppose that the differential costs between firms there insisted upon reflect differential organic compositions, the more capital-intensive firms producing at relatively low cost. The analysis is riddled with difficulty, but is nonetheless of high importance for its elaboration of the functioning of Marxian “competition.”

The argument commences with an allowance for high- and low-cost firms relative to the “bulk” of firms which produce “under average conditions” (MECW 37: 177). These outlying firms may contribute to the output supplied to the market albeit that market price is (under usual conditions) determined by the costs characterizing the *average* producers, in which event the high-cost firms “are unable to realise a portion of the surplus value contained in them,” while the low-cost firms enjoy an “extra surplus value”:

On the one hand, market value is to be viewed as the average value of commodities produced in a single sphere, and, on the other, as the individual value of the commodities produced under average conditions of their respective sphere and forming the bulk of the products of that sphere. It is only in extraordinary combinations that commodities produced under the worst, or the most favourable, conditions regulate the market value, which, in turn, forms the centre of fluctuation for market prices. The latter, however, are the same for commodities of the same kind. If the ordinary demand is satisfied by the supply of commodities of average value, hence of a value midway between the two extremes, then the commodities whose individual value is below the market value realise an extra surplus value, or surplus profit, while those, whose individual value exceeds the market value, are unable to realise a portion of the surplus value contained in them.

The presumption here is that “the ordinary demand” should be “satisfied by the supply of commodities of average value” or – as I understand Marx – that the quantity demanded at a price reflecting the costs characterizing the common run of firms can (potentially) be satisfied by the output of those firms alone, though in actuality the market will be supplied in part by the exceptional firms. (It is apparently a matter of chance which of these latter – with quantitative limits on their capacity relative to the average firms – will supply the demand.) It also seems to be taken for granted that the high-cost firms might remain in the industry at prices falling short of their “individual value,” for they are not represented as making actual losses but merely as being “unable to realise a portion of the surplus value contained in them.”

All this will appear troublesome if we think in terms of an upward-sloping supply curve – more specifically in this case a stepped supply function – and a demand curve sufficiently high to *require* the output of high-cost firms. Marx himself addresses the issue: “It does no good to say that the sale of commodities produced under the least favourable conditions proves that they are required to satisfy the demand” (177). His argument presumes rather a demand that might be satisfied by the “bulk” of firms; and “[if] in the assumed case the price were higher than the average market value, the demand would be smaller” – apparently referring to a backward movement along the demand curve as the price is raised experimentally from the average-cost to the high-cost level.

For all that, Marx does go on to allow that should demand be high enough then the market value *will* be determined by the high-cost firms: “. . . if the demand is so great that it does not contract when the price is regulated by the value of commodities produced under the least favourable conditions, then these determine the market value.” But, he adds, “[t]his is not possible unless demand is greater than usual” [or] “if supply drops below the usual level,” a temporary situation only.

There is a corresponding allowance for the case where the potential output of average-cost firms exceeds quantity demanded at corresponding prices. Here market value will be determined by the low-cost firms: “Finally, if the mass of the produced commodities exceeds the quantity disposed of [to consumers] at average market values, the commodities produced under the most favourable conditions regulate the market value.” In this case “commodities produced under the least favourable conditions may not even realise their cost price” – and presumably go bankrupt – “while those produced under average conditions realise only a portion of the surplus value contained in them” (178).

But these two allowances represent for Marx unusual cases. For him the norm remains the one from which he set out, each industry comprising a range of firms but the bulk producing subject to “average” cost conditions and some few either below or above “average.” As mentioned above, the source of the differentials is not entered into, but they are possibly identified with differential  $c/v$  ratios.

We have shown in this chapter that “competition” is accorded the role of equalizing profit rates *across* industries by which is intended appropriate industry expansions and contractions – that is what the Transformation of Values into Prices is all about. But what is the role of “competition” *within* each industry? As for the general principle: “What competition, first in a single sphere, achieves is a single market value and market price derived from the various individual values of commodities. And it is competition of capitals in different spheres, which first brings out the price of production equalising the rates of profit in the different spheres” (179). “The latter process,” Marx adds, “requires a higher development of capitalist production than the previous one.”

Focusing now on the single industry, “the different individual values must be equalized at *one* social value, the above-mentioned market value” – alluding presumably to the costs of the “bulk” of firms. This is assured by “competition”:

For the market price [short-run price] of identical commodities, each, however, produced under different individual circumstances, to correspond to the market value [long-run price] and not to deviate from it either by rising above or falling below it, it is necessary that the pressure exerted by different sellers upon one another be sufficient to bring enough commodities to market to fill the social requirements, i.e., a quantity for which society is capable of paying the market value. Should the mass of products exceed this demand, the commodities would have to be sold below their market value; and conversely, above their market value if the mass of products were not large enough to meet the demand, or, what amounts to the same, if the pressure of competition among sellers were not strong enough to bring this mass of commodities to the market.

Marx seems not to have been satisfied with his analysis – or it has been inadequately recorded by Engels – for he proceeds to what appears to be a reformulation, treating market value as a *weighted average* of the differential costs of the various firms. Three cases are spelled out. The first again treats above- and below-average cost firms as of quantitatively small significance, which (he adds now) in any event cancel each other out on balance:

Now suppose that the bulk of these commodities is produced under approximately similar normal social conditions, so that this value is at the same time the individual value of the individual commodities which make up this mass. If a relatively small part of these commodities may now have been produced below, and another above, these conditions, so that the individual value of one portion is greater, and that of the other smaller, than the average value of the bulk of the commodities, but in such proportions that these extremes balance on another, so that the average value of the commodities at these extremes is equal to the value of commodities in the centre, then the market value is determined by the value of the commodities produced under average conditions (181).<sup>21</sup>

Here, “the market value of the entire mass, regulated as it is by the average values, is . . . equal to the sum of their individual values; although in the case of the commodities produced at the extremes, this value is represented as an average value which is forced upon them. Those who produce at the worst extreme must then sell their commodities below the individual value; those producing at the best extreme sell them above it” (182).

Thus far, we are on familiar ground. If, however, – *assuming the same total demand and supply* – “the part of the mass produced under less favourable conditions forms a relatively weighty quantity as compared with the average mass and with the other extreme . . . the mass produced under less favourable conditions regulates the market, or social, value.” This is not to say that the high-cost conditions *literally* “regulate” market value as in the initial account; for the weighted average obtained, which exceeds “the individual value not only of the commodities belonging to the favourable extreme, but also of those belonging to the average lot . . . would still be below the individual value of those commodities produced at the unfavourable

<sup>21</sup> This is said to settle the problem of the determination of market value set out in *A Contribution to the Critique of Political Economy* of 1859 (MECW 29: 302).

extreme” (183). If, however, “demand is only slightly greater than supply,” then the value *will* coincide with costs of the least-favored firms: “How close the market value approaches, or finally coincides with, the latter would depend entirely on the volume occupied by commodities produced at the unfavourable extreme of the commodity sphere in question. If demand is only slightly greater than supply, the individual value of the unfavourably produced commodities regulates the market price.”

In the third case when “the mass of commodities produced under better than average conditions considerably exceeds that produced under worse conditions, and is large even compared with that produced under average conditions . . . the part produced under the most favourable conditions determines the market value” (182).<sup>22</sup> Corresponding to the previous case, the least-cost conditions do not *literally* “determine” the market value except when “demand [is] weaker than supply” or “supply far exceeds demand”:

Finally, if the lot of commodities produced at the favourable extreme occupies greater place than the other extreme, and also than the average lot . . . then the market value falls below the average value. The average value, computed by adding the sums of values at the two extremes and at the middle, stands here below the value of the middle, which it approaches, or vice versa, depending on the relative place occupied by the favourable extreme. Should demand be weaker than supply, the favourably situated part, whatever its size, makes room for itself forcibly by contracting its price down to its individual value. The market value cannot ever coincide with this individual value of the commodities produced under the most favourable conditions, except when supply far exceeds demand (183).

There follows a confirmation that in the analysis involving the “weighting” of differential-cost segments it was assumed that *supply and demand are balanced* – that the “mass of commodities does not merely satisfy a need, but satisfies it to its full social extent”:

In the foregoing determinations of market value it was assumed that the mass of the produced commodities is given, i.e., remains the same, and that there is a change only in the proportions of its constituent elements, which are produced under different conditions, and that, hence, the market value of the same mass of commodities is differently regulated. Suppose, this mass corresponds in size to the usual supply. . . . Should demand for this mass now also remain the same, this commodity will be sold at its market value, *no matter which of the three aforementioned cases regulates this market value*. This mass of commodities does not merely satisfy a need, but satisfies it to its full social extent (184; emphasis added).

<sup>22</sup> Marx here emphasizes that the concern is long run or cost price: “We ignore here the overstocked market, in which the part produced under most favourable conditions always regulates the market price. We are not dealing here with the market price, in so far as it differs from the market value, but with the various determinations of the market value itself” (MECW 37: 182).

The “demand-supply” configurations when the extreme cost conditions are *true* determinants are then summarized:

Should their quantity be smaller or greater, however, than the demand for them, there will be deviations of the market price from the market value. And the first deviation is that if the supply is too small, the market value is always regulated by the commodities produced under the least favourable circumstances and, if the supply is too large, always by the commodities produced under the most favourable conditions; that therefore it is one of the extremes which determines the market value, in spite of the fact that in accordance with the mere proportion of the commodity masses produced under different conditions, a different result should obtain.

Once again, there is some intimation that the increase in demand or in supply that dictates one or other of the extreme market values entail temporary disturbances: “. . . if the demand increases, and consequently the market price rises above the market value, this may . . . [in] some lines of production . . . bring about a rise in the market value itself *for a shorter or longer period*, with a portion of the desired products having to be produced under worse conditions *during this period*” (189; emphasis added).

Focusing on normal conditions entailing market value as a weighted average of differential costs Marx reaches a remarkable conclusion: “For a commodity to be sold at its market value, i.e., proportionally to the necessary social labour contained in it, the total quantity of social labour used in producing the total mass of this commodity must correspond to the quantity of the social want for it, i.e., the effective social want” (191); and it is “competition” that assures this outcome: “Competition, the fluctuations of market prices which correspond to the fluctuations in the ratio of demand to supply, tend continually to reduce to this scale the total quantity of labour devoted to each kind of commodity.” Here Marx refers not only to “demand-supply” in the sense of those short-term fluctuations that reduce market prices to market values, but also – and strikingly – to the fact that *when market values rule* labor is efficiently allocated to satisfy “effective social wants.” Here the potential significance of the pattern of demand emerges with a vengeance to the extent that changes therein affect the “weighting” of cost segments and thus market value itself. How Marx responded to this evident challenge will emerge shortly.

A more general feature of the competitive process may be noted here. Marx adopts what in effect is the old Smithian notion of a race to obtain goods in excess demand or to dispose of goods in excess supply: “If the demand for [a] particular kind of commodity is greater than the supply, one buyer outbids another – within certain limits – and so raises the price of the commodity for all of them above the market value. . . . If, conversely, the supply exceeds the demand, one begins to dispose of his goods at a cheaper rate and the others must follow . . .” (192–3). By implication, an equilibrium situation entails the absence of “competitive” activity, which incidentally has much in common with the position of the early Austrian

economists (see Endres 1997: 139). It also seems to follow from Marx’s account that in equilibrium the two sides – buyers as a group and sellers as a group – are in balance, having in mind that each side “acts always more or less as a united whole against its antagonist . . . unity of action ceas[ing] the moment one or the other side becomes the weaker, when each [individual buyer or seller] tries to extricate himself on his own as advantageously as he possibly can.”

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Marx’s analysis encompasses industries composed of firms producing at differential cost levels, some firms earning “surplus profit”: “Our analysis has revealed how the market value . . . embraces a surplus profit for those who produce in any particular sphere of production under the most favourable conditions” (MECW 37: 197). The further consequences of this situation are not elaborated; and nothing is said of those firms producing under the *least* favorable conditions.

It is striking that intra-industry competition is said to play on *values*, considering that capitalists operate only on the surface, i.e., at the prices-of-production level of conception. However, the foregoing ellipses cover the supplementary *assertion* that “everything said concerning [market value] applies with appropriate modifications to the price of production,” though the discussion is regrettably brought to a precipitous halt at this point. For elaboration we refer to the analysis of rent later in *Capital 3* which takes for granted the price-of-production rather than the value scheme. Surplus profit of low-cost firms “can only arise from the difference between the general and the individual price of production and consequently from the difference between the general and the individual rate of profit” (636). And it is the *average* industry cost that determines the market price-of-production: “. . . the general price of production . . . regulates the market prices of the commodities produced by the capital in this sphere of production in general . . .”

Now to the extent that the advantage enjoyed by low-cost firms are attributable to some power source such as a waterfall, or a “monopolisable force of Nature . . . which is only at the command of those who have at their disposable particular portions of the earth and its appurtenances” (638), the “surplus profit is transformed into ground rent” – a form of *differential* rent (639). But a cost deviation from the average may be due to scale economies, “the fact that capital is used in greater than average quantities, so that the *faux frais* of production are reduced, while the general causes increasing the productive power of labour (co-operation, division of labour, etc.) can become effective to a higher degree . . .”; or they may reflect the application of “better methods of labour, new inventions, improved machinery, chemical manufacturing secrets, etc., in short, new and improved, better than average means of production and methods of production are used” (637–8). These advantages are represented as *necessarily temporary*, any scale advantage being “cancelled out as soon as equal magnitudes of capital are used on the average” (638), and any technological advantage “disappear[ing] as soon as the exceptional method of production becomes general or is surpassed by a still more developed one.” Indeed, “there is

no particular reason why all capital in the same production sphere should not be invested in the same manner. On the contrary, the competition between capitals tends to cancel these differences more and more. The determination of value by the socially necessary labour time asserts itself through the cheapening of commodities and the compulsion to produce commodities under the same favourable conditions.” It is thus by recourse to the dynamics of competition, that Marx avoids the dire threat noted above whereby a change in demand patterns might itself dictate industry cost – and industry value. And though he does not spell out explicitly that relatively inefficient firms producing at *above* average costs which fail to modernize must (given demand conditions at least) fall by the wayside, this is implicit in what has been said in the above account.<sup>23</sup> All in all, though Marx wrote reams on the matter of intra-industry *differential* costs, he realized how much of his scheme depended on a clear-cut notion of “socially-necessary labour” which he did not manage properly to justify.

### G. The Inverse Wage-Profit Relation and Profit-Rate Equalization

We return to the central question: “how is this equalisation of profits into a general rate of profit brought about, since it is obviously a result rather than a point of departure?” (MECW 37: 173), now introducing a disturbance into a system *initially in equilibrium with uniform returns on capital*. Analysis of the consequences of a wage-rate change is very revealing since this particular disturbance entails the “inverse wage-profit relation” or Ricardo’s Fundamental Theorem on Distribution. Though Marx complained that “it is the only relevant question treated by Ricardo” and one that “he treated . . . one-sidedly and unsatisfactorily” (202), he proceeded entirely along Ricardian lines.

Marx isolates a commodity produced by capital of average organic composition, the price of which in terms of the monetary commodity will be unaffected by the assumed increase in the wage rate. In the case of this commodity the wage-rate increase implies an unambiguous fall in total profits and a new lower rate of profits emerges:

Let the average composition of social capital be  $80_c + 20_v$ , and the profit 20%. The rate of surplus value is then 100%. A general increase of wages, all else remaining the same, is tantamount to a reduction in the rate of surplus value. In the case of average capital, profit and surplus value are identical. Let wages rise 25%. Then the same quantity of labour, formerly set in motion with 20, will cost 25. We shall then have a turnover value of  $80_c + 25_v + 15_p$  instead of  $80_c + 20_v + 20_p$ . As before, the labour set in motion by the variable capital produces a value of 40. If  $v$  rises from 20 to 25, the surplus  $s$ , or  $p$ , will amount to only 15. The profit of 15 on a capital of 105 is  $14\frac{2}{7}\%$ , and this would be the new average rate of profit. Since the price of production of commodities produced by the average capital coincides with their value, the price of production of these commodities would have remained unchanged. A wage increase would therefore

<sup>23</sup> See Horverak 1988: 290–6. On aspects of the dynamics of competition in Marx, see also Nikaido 1983; Semmler 1984, 1987; Flaschel and Semmler 1987.



have caused a drop in profit, but no change in the value and price of the commodities (198).<sup>24</sup>

The lower profit rate of  $14\frac{2}{7}\%$  is next used to calculate the new prices of production throughout the system. In terms of Marx's illustration, profit rates decline in all industries at the original prices following the supposed wage increase, from 20 to 6% in the case of a particular commodity produced by capital of below-average composition, and from 20 to 17.6% in the converse case. But the new average profit rate is  $14\frac{2}{7}\%$  and Marx proceeds to recalculate the new equilibrium prices on the basis of this figure, the labor-intensive commodity rising and the capital-intensive commodity falling from their original levels.

In the particular example devised the labor-intensive commodity selected rises more than 7% in consequence of the 25% rise in the wage, whereas the capital-intensive commodity falls by only 2.8%. But Marx, in fact, generalizes solely on the basis of the constant price in the "average" case: "Since the price of production of the commodity of the average capital remained the same, equal to the value of the product, the sum of the prices of production of the products of all capitals remained the same as well, and equal to the sum total of the values produced by the aggregate capital. The increase on one side and the decrease on the other balance for the aggregate capital on the level of the average social capital" (200). And he further points out that since some prices rise and others fall, the wage increase clearly is not simply passed on, that it "cannot be a matter of compensation in the price for the rise of wages. . . . Rather, in either case, whether the price rises or falls, the profit remains the same as that of the average capital, in which case the price remains unchanged." Here, of course, Marx is following Ricardo against Adam Smith on the effect of wage rate, since for Smith a wage increase *is* passed on to consumers at least in the case of manufactured goods.

We must now face a problem relating to the adjustment mechanism at play. In calculating the new equilibrium price-of-production in the case of a labor-intensive commodity, Marx summarized thus: "Owing to a wage rise of 25%, the price of production of *the same quantity of the same commodities* . . . has here risen from 120 to  $128\frac{8}{14}$  or more than 7%" (199; emphasis added). This suggests *that no output*

<sup>24</sup> See also a brief formulation to the effect that a wage change, since it implies constancy in the price of the commodity of average capital composition, indicates the inverse movement of the profit rate: "This implies that a rise of fall in wages would not change  $k + p$  [the price of production], any more than it would change the value of the commodities, and would merely effect a corresponding opposite movement, a fall or a rise, in the rate of profit" (MECW 37: 205).

This procedure is questionable with respect to the implied permanence of the organic composition of the mean commodity. The problem – it applies also to the Ricardo scheme – is that when the wage increases the  $c/v$  ratio *necessarily* changes. For example, let the wage increase by 5% such that  $80c + 20v$  becomes  $80c + 25v$ ; reduce both  $c$  and  $v$  by 5% to reduce the total to 100:  $(80c - 5\% \times 80) + (25v - 5\% \times 25) = 76c + 24v$ . Thus  $c/v$  falls from 4 to approximately 3 merely because of the wage increase, reflecting the circumstance that  $c/v$  can be regarded as a *technological datum*, with  $v$  a proxy for labor input, *only if the wage is held constant*.

*variations are envisaged to flow from the wage change*, only recalculations of prices to incorporate a new general profit rate. Yet Marx also proceeds to say that “[a]n increase in the price of production on the one side, a fall on the other, depending on a capital being below or above the average social composition, occurs solely by virtue of *the process of levelling the profit to the new reduced average profit*” (emphasis added). The illustration itself is, as we have seen, purely mechanical, entailing a “forecast” of the new equilibrium profit rate and new pattern of equilibrium prices that will emerge following the wage change; it is not an account of a “*process*” at work which brings about these new results and accordingly scarcely provides an adequate response to Marx’s own question: “How is this equalization of profits . . . brought about?” (above, p. 38). By focusing excessively on the value/price-of-production relationship he neglected to spell out the *process of transition* between equilibrium states. Thus he closes his Chapter 11: “The establishment of the general rate of profit and the average profit, and consequently, the transmutation of values into prices of production are assumed as given. The question merely was, how a general rise or fall in wages affected the assumed *prices of production of commodities*” (202; emphasis added). But by “the levelling the profit to the new reduced average profit,” Marx can only have intended a levelling working through “*competition*” – the subject of his previous chapter, whereby the new structure of prices comes into being as the consequence of *capital movements between industries* (given the pattern of demand). And had he bothered to spell out the details of the competitive adjustment process in line with that chapter it would have entailed an account of the following order. A general wage increase from the initial state of equilibrium reflecting uniform profit rates reduces the profit rate across the board at the original prices; but more sharply in “labor-intensive” than in “capital-intensive” industries; accordingly, reallocation of resources between sectors will be set in motion to re-establish a uniform return on capital throughout the economy. In the new equilibrium, the prices of commodities produced by labor-intensive processes will have risen relatively to those produced by capital-intensive processes, and the profit rate will again be equalized across the board at a lower level than in the initial equilibrium. This “Ricardian” analysis had been explicitly spelled out by McCulloch (McCulloch 1825: 303–4). The procedure in fact is precisely the same as that involved in the transition from *non-equilibrium values* to *equilibrium cost prices* characterizing the Transformation.

#### H. Materials, the Luxury-Goods Sector, and the General Profit Rate

Marx, we have shown, adhered to the Ricardian inverse profit-wage relation. But he did so “all else remaining the same” (above p. 38). Included in the *ceteris paribus* pound are the prices of raw materials, for should they rise or fall the general profit rate *will* be affected: “Since the rate of profit is  $\frac{s}{C}$ , or  $\frac{s}{c+v}$ , it is evident that everything causing a variation in the magnitude of  $c$ , and thereby of  $C$ , must also bring about a variation in the rate of profit, even if  $s$  and  $v$ , and their mutual relation, remain unaltered. Now, raw materials are one of the principal components

of constant capital. Even in industries which consume no actual raw materials, these enter the picture as auxiliary materials or components of machinery, etc., and their price fluctuations thus *pro tanto* influence the rate of profit” (MECW 37: 108). Accordingly, foreign trade can affect the general profit rate, *independently of any change in the wage rate*, by affecting “the prices of raw or auxiliary materials consumed in industry and agriculture,” a relationship misunderstood by Torrens and neglected by Ricardo: “It is due to an as yet imperfect understanding of the nature of the rate of profit and of its specific difference from the rate of surplus value that, on the one hand, economists (like Torrens) wrongly explain the marked influence of the prices of raw material on the rate of profit, which they note through practical experience, and that, on the other, economists like Ricardo, who cling to general principles, do not recognise the influence of, say, world trade on the rate of profit.” The valid charge that Ricardo confused  $s/v$  and  $s/(c+v)$  is first stated in the *Grundrisse* (see Chapter 8, p. 252), and then in the *Economic Manuscripts* (see Chapter 10, p. 311).

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There is a related matter, also conspicuous in the *Economic Manuscripts* (see Chapter 10, p. 312). The set of industries in Marx’s V-scheme does not distinguish between wage goods and luxuries, suggesting that aggregate profits and the average profit rate are calculated by reference to *all* industries in the system; by implication, any disturbance affecting profits in the luxury sector will influence the *general* return. This is strongly insisted upon:

But in general, it should be noted . . . that if variations take place, either due to savings in constant capital, or due to fluctuations in the price of raw materials, they always affect the rate of profit, even if they leave the wage, hence the rate[ $s'$ ] and amount of surplus value, untouched. They change the magnitude of  $C$  in  $s'/\frac{v}{c}$ , and thus the value of the whole fraction. It is therefore immaterial . . . in which sphere of production these variations occur; whether or not the production branches affected by them produce necessities for labourers, or constant capital for the production of such necessities. The deductions made here are equally valid for variations occurring in the production of luxury articles, and by luxury articles we here mean all production that does not serve the reproduction of labour power (MECW 37: 107).

Marx’s case against Ricardo thus turns on his non-discrimination between industries in laying out the initial value scheme; to avoid his conclusion he would have had to set out the scheme to *exclude* luxuries. For those interpretations of the Transformation according to which the profit-rate depends solely on the rate of exploitation ( $s/v$ ) and the organic composition ( $c/v$ ) of “*basic*” goods,<sup>25</sup> Marx fell into serious error.

<sup>25</sup> See Howard and King on the demonstration by Bortkiewicz to this effect (1985: 143, 149). See also Medio 1972: 330–1, 340–1 cited above, p. 11; Steedman 1982: 125–6.

## I. The Rate of Surplus Value as Endogenous Variable

The rate of surplus value or rate of exploitation certainly appears to be a key *datum* – or, better, an exogenous variable – of the pricing process. After all, the Transformation is set up with an initially *given*, uniform, rate of surplus value. This impression is misleading since the rate of surplus value is in fact an endogenous variable of the Marxian system. There are two aspects of the problem at hand: the *uniformity* and the *general level* of the rate of surplus value.

Uniformity of the rate of surplus value is treated by Marx as a characteristic feature of capitalism, rather than merely a simplifying assumption (Sweezy 1942: 63–6). But it is that too: “Such a general rate of surplus value – viewed as a tendency, like all other economic laws – has been assumed by us for the sake of theoretical simplification. . . . But in theory it is assumed that the laws of the capitalist mode of production operate in their pure form. In reality there exists only approximation; but, this approximation is the greater, the more developed the capitalist mode of production and the less it is adulterated and amalgamated with survivals of former economic conditions” (MECW 37: 173–4). A uniform rate of surplus value is assured by uniformity of the money wage rate, or (given the value of money) of the real or commodity wage rate, which in turn follows from the assumption of labor mobility and indifference to the various types of occupation (see above, p. 28). If laborers are thus indifferent and if they are paid the same commodity wage for a day’s work, their competition assures that the length of the work day comes to equality, for workers will transfer away from occupations with relatively long work days. Now a common work day means that the “value” generated per laborer is everywhere the same. And if from the value generated per head, the labor embodied in the worker’s daily wage (which is the same for everybody) is deducted, there remains the same  $s$ . In short, the work day determines the magnitude of  $(s + v)$  and is everywhere the same; and since  $v$  also is the same,  $s$  and  $s/v$  are similarly everywhere equal.<sup>26</sup> (On this matter see Baumol 1973: 66, and note 14; and 1974: 55–6.) Considerable attention was paid by Marx to the basic assumption underlying the uniform rate of surplus value – that is, uniform wages – namely, “competition among labourers and equalisation through their continual migration from one sphere of production to another” (MECW 37: 173). On this

<sup>26</sup> For Marx’s flawed attempt to demonstrate empirically that hours of work are indeed uniform, see West 1983.

Uniformity of the rate of surplus value is assured by labor mobility under the stated conditions, whether or not prices reflect values. And it is presumably this that Marx had in mind when he wrote of a uniform rate. But in the event that prices diverge from values, it will not be true that the profit-wage ratios (even when measured in labor units) tend to a common value, since there is no longer a 1:1 relation between the goods produced in a particular sector and the wage goods for which part of the output must be “exchanged.” In the value scheme, therefore, we may consider the uniform rate of exploitation either as a uniform  $s/v$  or a uniform profit-wage ratio. In the pricing scheme,  $s/v$  still remains uniform assuming labor mobility, but the profit-wage ratio, which is, of course, the only “observable” ratio, will differ between sectors.

basis, disturbances to relative wages due to changes in the demands and supplies for particular commodities affecting laborers in particular industries differentially are continually corrected by labor movement. Marx's common rate of surplus value is, therefore, the *outcome of the process of competition*, rather than a *datum* of the analysis.

To the extent that *non-monetary conditions* in fact differ between industries – including differential educational and training costs (MECW 35: 182) – the structure of wages will adjust to assure appropriate price relativities. A change in the pattern of demand must in this manner affect the amounts of “socially-necessary labour” embodied in different commodities (see Bajt 1971: 125–69). The general problem created by wage differentials has been nicely put by Machlup and Morishima:

Marx, of course got his “homogeneous mass of human labour power” by correcting all the “innumerable individual units” for their deviations from what he called the labour “socially necessary . . . under the normal conditions of production, and with the average degree of skill and intensity prevalent at the time” [MECW 35: 49]. The great difference between the (however questionable) efficiency units employed by modern writers and those employed by Marx lies in that the former do not try to deduce the value of the products from the quantity of labour after they had deduced the quantity of labour from the value of the products. (Machlup 1963: 194–5n)

As soon as the heterogeneity of labour is allowed for, the theory of value is seen to conflict with Marx's law of the equalization of the rate of exploitation through society, unless the different sorts of labour are reduced to the homogeneous abstract human labour in proportion to their wage rates. This is a serious dilemma from the point of view of Marxian economists, because . . . if different sorts of labour are converted into the abstract human labour in proportion to their wages, then the resultant value system depends on relative wages and hence Marx's intention of obtaining an intrinsic value system completely independent of markets is not fulfilled (Morishima 1973: 180–1).

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We turn next to the *level* of the rate of surplus value. The “value” of money assumed constant, a given rate of surplus value implies a given money wage and real wage; and – with labor productivity unchanged in wage-goods sectors – *the rate of surplus value moves inversely to the wage*: “A general increase of wages, all else remaining the same, is tantamount to a reduction in the rate of surplus value” (above, p. 38).<sup>27</sup> A

<sup>27</sup> We can only talk interchangeably in terms of money and real wages assuming the value of money is held constant. If we allow for a fall in the value of money but a lag in the money wage behind general prices, the real (commodity) wage will decline; and since labor productivity is unchanged, the rate of surplus value will be inversely affected. This is expressed (in unfortunately garbled form) in correspondence (Marx to Engels, 22 April 1868; MECW 43: 16–17). In the event of a change in the value of money which affects all prices proportionately, there will be no effect on the real wage and none on the rate of surplus value.

In the present context entailing changes in the general level of wages we can safely talk interchangeably of inverse movements in the overall or average profit-wage ratio or in the overall or average rate of surplus value.

fall in the length of the work day, of course, similarly implies a reduction in the rate of surplus value. But is the rate of surplus value – or the general level of wages – a *datum* of the analysis of pricing? Marx gives the impression in the chapters surrounding the Transformation that it is, by assuming a given and uniform rate of surplus value in the tables; but he does so also by representing his concern in *Capital* 3, Chapter 11 in terms of the “effects of *wage fluctuations* on prices of production” – the title of the chapter – and playing down such fluctuations as mere “oscillations” in his “supplementary remarks” of Chapter 12 on “causes implying a change in the price of production”: “If the change in the rate of surplus value is not due to a depression of wages below normal, or their rise above normal – and movements of that kind are to be regarded merely as oscillations – it can only occur either through a rise, or fall, in the value of labour power, the one being just as impossible as the other unless there is a change in the productivity of the labour producing means of subsistence, i.e., in the value of commodities consumed by the labourer” (MECW 37: 202–3). The “normal” level of wages is thus assumed given, and no allowance is made for the possibility of variations in the secular wage emerging endogenously in the system. Yet elsewhere Marx does treat of such movements and his analysis of prices of production must take account of them.<sup>28</sup>

There is first of all the discussion in *Capital* 1, Chapter 25 on “the increased demand for labour power that accompanies accumulation, the composition of capital remaining the same” (MECW 35: 607). Here we recall the passage which defines the average composition within each industry (above, p. 32), and note the further affirmation that “the average of these averages, in all branches of production, gives us the composition of the total social capital of a country, and with this alone are we, in the last resort, concerned in the following investigation” (608). Now “[i]f we suppose,” Marx continues, “that, all other circumstances remaining the same, the [average] composition of capital also remains constant . . . then the demand for labour and the subsistence fund of the labourers clearly increase in the same proportion as the capital, and the more rapidly, the more rapidly the capital increases.” And Marx is clear that “the requirements of accumulating capital may exceed the increase of labour power or of the number of labourers; the demand for labourers may exceed the supply, and, therefore, wages may rise” (609). If now we relax the assumption of a constant average composition, then labor demand may be affected by various disturbances playing on that composition – its rate of change speeded up or slowed down depending upon the particular disturbance. The assumption of unchanged average organic composition is *formally* abandoned when Marx allows for technological change. In the event of “relative diminution of the variable part of capital simultaneously with the progress of accumulation,” runs his argument, the demand for labor lags behind the growth rate of total capital:

<sup>28</sup> It is true, as Pokorni points out (1985: 116–17), that Marx declares that “[a]ll changes in the prices of production of commodities are reduced, in the last analysis, to changes in value” (MECW 37: 204). But this holds only on the implicit *exclusion* of changes in the wage rate as in the formal tables.

“whereas formerly an increase of capital by 20 per cent. would have sufficed to raise the demand for labour 20 per cent. now this latter rise requires a tripling of the original capital” (616, 619). Even in this more complex case, there may be upward movements of wages with increase in the rate of accumulation, as Marx makes strikingly clear in his discussion of *Capital* 3 relating to “absolute over-production of capital” – precisely that situation where accumulation has the effect of reducing profits by way of upward pressure on wages (MECW 37: 250; see chapter 5, p. 145).

Now once the variability of the wage rate is allowed it becomes impossible to preclude other influences upon it which make themselves felt by altering the average organic composition of capital. If a variation in the average organic composition can occur by way of technological change, there is no reason why it should not, for example, be allowed in consequence of a change in tastes. Nothing in the system precludes it.

Marx in fact dealt explicitly with the implications of alterations in the pattern of final demand for the wage rate in particular sectors, supposing the average to remain unchanged: “If, e.g., in consequence of favourable circumstances, accumulation in a particular sphere of production becomes especially active, and profits in it, being greater than the average profits, attract additional capital, of course the demand for labour rises and wages also rise. The higher wages draw a larger part of the working population into the more favoured sphere, until it is glutted with labour power, and wages at length fall again to their average level or below it, if the pressure is too great” (MECW 35: 632). In all of this – which incidentally makes clear the output variations entailed by the equilibration process and is already implied by the assumption of a uniform rate of surplus value as explained earlier – Marx followed the lines set out in Smith’s chapter “On the Natural and Market Price of Commodities” and Ricardo’s chapter “On Natural and Market Price,” which recognized that changes in the pattern of demand might disturb the returns to the factors in the particular sectors affected (as well as the prices of the commodities), given the general rate of return. But Ricardo had gone further and spelled out the effect of changes in demand composition on relative factor scarcity and thus on income distribution (Hollander 1995: 195–201). Such effects can only be excluded by assuming uniform organic compositions of capital; and since the Transformation conspicuously rejects this assumption, Marx’s *system* must accommodate effects on general wages – and thus on the rate of surplus value – emanating from alterations in demand patterns, even if he himself neglected to carry out the analysis.<sup>29</sup>

<sup>29</sup> According to the so-called “new solution,” the set of prices must be known before the rate of (commodity) wages can be established (see note 12). Accordingly, always assuming differential organic compositions, a change in consumption patterns may – by way of its effect on the “value of money” – alter the “value of variable capital” (given the money wage) as well as surplus value and thus the rate of surplus value. This Sinha objects to as “a highly un-Marxist result” (Sinha 1997: 53); and Lipietz admits that allowing an impact on distribution of changes in consumption patterns “does not fit very well with Marxist intuition” (Lipietz 1982: 83). But on our account this characteristic – if not the argument leading to it – is fully in line with Marx’s general doctrine and the endogeneity of the rate of surplus value.

### J. More on Final Demand and Distribution

We now take account of the dependency, upon which Marx strongly insisted, of *consumer demand on income distribution* for it reinforces the endogeneity property of the rate of surplus value and opens up a *mutual* relationship such that a change in distribution and consequently in demand patterns, plays back on distribution, should wage goods differ in organic composition compared with goods consumed by other classes. As for the main proposition at hand: “. . . the ‘social demand,’ i.e., the factor which regulates the principle of demand, is essentially subject to the mutual relationship of the different classes and their respective economic position, notably therefore to, firstly, the ratio of total surplus value to wages, and, secondly, to the relation of the various parts into which surplus value is split up (profit, interest, ground rent, taxes, etc.)” (MECW 37: 180); “supply and demand presuppose the existence of different classes and sections of classes which divide the total revenue of a society and consume it among themselves as revenue, and, therefore, make up the demand created by revenue. While on the other hand it requires an insight into the overall structure of the capitalist production process for an understanding of the supply and demand created among themselves by producers as such” (193–4).

That demand patterns were largely governed by income distribution, Marx concluded, meant that “absolutely nothing can be explained by the relation of supply to demand before ascertaining the basis on which this relation rests” (180). In fact, there is considerable flexibility to Marx’s vision in this respect. That quantity demanded varies with price and income changes is clarified in the following passage relating to wage earners: “It would seem, then, that there is on the side of demand a certain magnitude of definite social wants which require for their satisfaction a definite quantity of a commodity on the market. But quantitatively, the definite social needs are very elastic and changing. Their fixedness is only apparent. If the means of subsistence were cheaper, or money wages higher, the labourers would buy more of them, and a greater “social need” would arise for them . . .” (187). (The same applied to capitalists’ “productive” consumption: “if cotton were cheaper, for example, the capitalists’ demand for it would increase, more additional capital would be thrown into the cotton industry.”) Thus not only does the establishment of prices of production entail a process of output variation to assure supplies equal to quantities demanded at cost prices, as we have shown earlier, but these quantities turn on demand patterns themselves governed to a large extent by the pattern of income distribution.

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Marx’s 1865 speech contains an account of the short-run effects on the market prices of “necessaries” and “luxuries,” and the *long-run effects on quantities produced*, generated by changes in the pattern of demand upon an assumed rise in the wage rate. The analysis deserves close attention, first because the pattern of final demand is not a constant – the usual assumption in derivations of the inverse wage-profit



relation – but turns on income distribution; and second, because the role of *output variation* in profit-rate equalization is fully confirmed. Marx sets out by positing *a change in the rate of wages* given technology, and traces out the impact on “the actual proportion between the demand for, and the supply of, these commodities” and thus on prices (MECW 20: 107). First, “[a] general rise in the rate of wages would . . . produce a rise in the demand for, and consequently in the *market prices of, necessaries*. The capitalists who produce these necessaries would be compensated for the risen wages by the rising market prices of their commodities.” Those capitalist who do *not* produce necessaries experience a *fall in the rate of profit* due to the general wage increase, generating a variety of income effects: “Their income would have decreased, and from this decreased income they would have to pay more for the same amount of higher-priced necessaries. But this would not be all. As their income had diminished they would have less to spend upon luxuries, and therefore their mutual demand for their respective commodities would diminish. Consequent upon this diminished demand the prices of their commodities would fall.” As a result, “[i]n these branches of industry . . . *the rate of profit would fall*, not only in simple proportion to the general rise in the rate of wages, but in the compound ratio of the general rise of wages, the rise in the prices of necessaries, and the fall in the prices of luxuries.” The resultant differentials in rates of return are then corrected by transfer of capital and labor between sectors “until the supply in the one department of industry would have risen proportionately to the increased demand, and would have sunk in the other departments according to the decreased demand. . . . [P]rices would return to their former level and equilibrium” (107–8). In summary: “A greater part of the produce would exist in the shape of necessaries, a lesser part in the shape of luxuries. . . . The general rise in the rate of wages would . . . after a temporary disturbance of market prices, only result in a general fall of the rate of profit without any permanent change in the prices of commodities” (108).

Now in terms of Marx’s own principles the analysis is incomplete. For cost prices to remain unchanged despite variation in industry size upon a wage increase implies constant costs both of a *technical* order – ruling out land scarcity – and of a *pecuniary* order – ruling out differential organic compositions, for otherwise the wage increase must increase costs of labor-intensive relative to capital-intensive products. Marx simply neglected to spell out that feature of his analysis elaborated with care in discussing the inverse wage-profit relation whereby (following Ricardo) a wage increase generates an altered structure of cost prices. He falls short of Ricardo who made it *explicit* that changes in demand composition will play on income distribution by affecting the relative scarcity in the aggregate of labor and capital (above, p. 45).<sup>30</sup>

<sup>30</sup> Does our perspective conflict logically with Samuelson’s “nonsubstitution theorem” whereby if labor is the only scarce resource, prices are entirely independent of the structure of final demand (Samuelson 1961)? Such an objection – even if valid it would not necessarily imply the illegitimacy of the interpretation itself – cannot be substantiated. The nonsubstitution

### K. Marx's Strategy

In conclusion, and in the light of the foregoing results, we must raise the question why Marx chose to present to the public a first volume turning on *non-equilibrium* exchange rates proportionate to labor inputs and differing profit rates from industry to industry? Why, in particular, did he set up his argument so that the rate of surplus value – in effect the wage rate – appears to be a *datum* of the analysis?

The answer is that the market analysis of economic process failed to reveal to the unwary the true source of aggregate profits in excess or unpaid labor time exerted over and above the labor time absorbed in the production of wages. Indeed, the observation apparent to everyone that goods do *not* exchange according to ratios dictated by relative labor input and that the profit rate, as distinct from the profit-wage ratio, is everywhere the same (in equilibrium) mitigates *against* the Marxian interpretation of the source of profits. For direct validation of this interpretation by empirical reference requires that the higher the labor-capital ratio in the case of a given commodity, the greater will be its value in exchange, to assure the generation of an appropriately high surplus for its producers.

Marx sought to forestall such anticipated criticism. This he did by first laying down a pattern of exchange rates consistent with his interpretation of the source of aggregate profit, fully aware that this pattern did not describe equilibrium relative prices. If then it could be demonstrated that there existed certain constancies between the value structure and the price structure – that set of equilibrium prices satisfying the principle of profit-rate equality – his interpretation of the source of profits might be more effectively defended. The constancies in question (as we know) were that “the sum of the profits in all spheres of production must equal the sum of the surplus values, and the sum of the prices of production of the total social product must equal the sum of its values” (above, p. 20). Marx's dual task was carried out in *Capital 1* and the materials appearing in *Capital 3*, respectively. The ordering of topics between the volumes was simply a matter of strategy; *for Marx did not posit a labor theory of equilibrium prices*, since he did not assume a uniform organic composition of capital, and he did not deny standard classical allocation analysis. We shall now let Marx speak for himself.<sup>31</sup>

Marx explains his procedure in *Capital 1* itself. His starting point is the assumption that labor is the source of surplus value: “The labour which is set in motion

theorem is inapplicable considering the *second* scarce resource recognized in the model, for Marx himself emphatically rejected Adam Smith's notion that the prices of commodities ultimately resolve themselves entirely into wages, profit, and rent – a position which implies ultimate commodities produced by pure labor (and land, which we have set aside for present purposes). Marx clearly rejected a single scarce-factor model (MECW 37: 826f).

<sup>31</sup> For this perspective on Marx's strategy, see for example Sweezy 1942: 125–6; Meek 1967: 144; Morishima 1973: 85–6; Baumol 1974, 2001; Oakley 1976: 414–16, 1979. For a different interpretation of Marx's strategy, flowing from a presumption that the initial proportionality of prices and values *does* reflect an equilibrium condition (above, note 16), see Morishima and Catephores 1975.

by the total capital of the society, day in, day out, may be regarded as a single collective working day. . . . With a given length of this working day . . . the mass of surplus value can only be increased by increasing the number of labourers, i.e., of the labouring population. The growth of population here forms the mathematical limit to the production of surplus value by the total social capital. On the contrary, with a given amount of population, this limit is formed by the possible lengthening of the working day" (MECW 35: 311–12). Given his assumption regarding the generation of surplus by living labor – which (to use the standard Marxian terminology) has its source in the difference between the exchange value and the use value of "labor power" – it ought to be the case that commodities exchange in full equilibrium in such proportions as assure the generation of surplus proportionate in each case to the direct labor input; the higher the labor input relative to the constant capital input, the higher should be the price in order to generate a higher surplus value, since "the masses of value and of surplus value produced by different capitals – the value of labor power being given and its degree of exploitation being equal – vary directly as the amounts of the variable constituents of these capitals, i.e., as their constituents transformed into living labour power" (311). But this "clearly contradicts all experience based on appearance . . ." (above, p. 18). All this is repeated in *Capital* 3. That equal capitals yield differing profit rates followed from the assumption which (Marx pointed out) "has been the basis of all our analyses so far, namely that commodities are sold at their values" (MECW 37: 152); the direct labor input determines the magnitude of the surplus earned on any given capital, and this will vary from product to product (148). On the other hand: "If a capital, consisting in per cent of  $90_c + 10_v$ , produced as much surplus value, or profit, at the same degree of exploitation as a capital consisting of  $10_c + 90_v$ " – if profit rates were everywhere uniform – "it would be as plain as day that the surplus value, and thus value in general, must have an entirely different source than labour, and that political economy would then be deprived of every rational basis." Now profit-rate equality indeed characterized equilibrium in the competitive capitalist system: "There is no doubt . . . that aside from unessential, incidental and mutually compensating distinctions, differences in the average rate of profit in the various branches of industry do not exist in reality, and could not exist without abolishing the entire system of capitalist production" (152). The apparent refutation of the theory seemed to be quite disastrous: "It would seem, therefore, that here the theory of value is incompatible with the actual process, incompatible with the real phenomena of production, and that for this reason any attempt to understand these phenomena should be given up." As Marx declares a little later, all the phenomena related to competition "*seem* to contradict the determination of value by labour time as much as the nature of surplus value consisting of unpaid surplus labour. *Thus everything appears reversed in competition.* The final pattern of economic relations as seen on the surface, in their real existence and consequently in the conceptions by which the bearers and agents of these relations seek to understand them, is very much different from, and indeed quite the reverse of,

their inner but concealed essential pattern and the conception corresponding to it” (206–7).<sup>32</sup>

Marx, following his general methodological rule whereby “all science would be superfluous if the outward appearance and the essence of things directly coincided” (804; also letter to Engels, 27 June 1867, MECW 42: 390), set himself the task of proving that rejection of his conception of the source of profit by reference to the empirical “fact” of profit-rate equality or the empirical “fact” that equilibrium prices are not proportional to labor input would be quite illegitimate.<sup>33</sup> He set out to explain why exchange rates *disproportionate* to values, and surplus in each industry *disproportionate* to direct labor input, did not constitute proof against his interpretation of the source of profit – namely, that profit “is due to the *aggregate* exploitation of labour on the part of the *total* social capital” (MECW 37: 169; emphasis added). We allude again, of course, to the “Transformation” procedure, specifically the proposition that the total sum of profits generated throughout the system, at equilibrium prices diverging from values, constitutes nothing more than aggregate surplus value (generated by the total employed labor force) distributed between industries to assure profit-rate equality. The identification of the two aggregates – both, of course, estimated in money – amounts to a “macro-economic” defense of the Marxian notion of the source of profits in that the surplus *generated* in a particular sector does not necessarily remain to be enjoyed by that sector’s capitalists; rather the labor-intensive sectors (the bakers) subsidize the capital-intensive sectors (the cotton manufacturers):

Thus, although in selling their commodities the capitalists of the various spheres of production recover the value of the capital consumed in their production, they do not secure the surplus value, and consequently the profit, created in their own sphere by the production of these commodities. What they secure is only as much surplus value, and hence profit, as falls, when uniformly distributed, to the share of every aliquot part of the total social capital from the total surplus value, or total profit, produced in a given time by the social capital in all spheres of production (157).<sup>34</sup>

Marx’s defense of his approach towards the source of profits tends to leave a misleading impression. *It suggests that distribution is determined by the value analysis and the results then utilized in the derivation (in a causal sense) of prices – specifically that a mass of surplus value exists prior to the formation of prices which is then allocated among the various industries to yield prices assuring profit-rate equality.*

<sup>32</sup> A further complication arose from the circumstance that the profit rate could not be identified with the rate of surplus value: “The rate of profit is regulated by laws of its own, which permit, or even require, it to change while the rate of surplus value remains unaltered. All this obscures more and more the true nature of surplus value and thus the actual mechanism of capital” (MECW 37: 815).

<sup>33</sup> Marx did not disdain direct reference to empirical evidence for some purposes. For example, he appealed to the statistics as proof of a narrow range of deviations of market prices from costs of production (MECW 37: 847).

<sup>34</sup> See also MECW 37: 156–7 for the same identity expressed in terms of the average profit rate in the value and price schemes.

This is a misconception; for prices are not *causally* derived from values on the basis of a solution to distribution obtained within the value scheme. This is most clearly seen if we posit a permanent alteration in the pattern of demand involving an expansion of demand for a labor-intensive commodity and a corresponding contraction in demand for a capital-intensive commodity. The effect will be upward pressure on general wages and a fall in total profits. Absolutely nothing need be said about the value scheme, although if we wish, we can undertake an *interpretation* of the reduced profit in terms of a reduced “degree of exploitation” manifested in a lower rate of surplus value. Marx himself was not deceived: “if prices actually differ from values,” he wrote, “we must, first of all, reduce the former to the latter, in other words, treat the difference as accidental in order that the phenomena may be observed in their purity, and our observations not interfered with by disturbing circumstances that have nothing to do with the process in question” (MECW 35: 176n). Clearly, Marx does not allude here to *causal* analysis, since it is a reduction of *prices to values*, not the reverse, to which he refers.<sup>35</sup>

The second identity upon which Marx insisted between the value and price schemes is that of total value and total price. The argument runs entirely in value terms; we actually find the disconcerting statement that “in order to forestall useless difficulties” we shall work in terms of a commodity produced by capital of average composition “so that its price of production and its value coincide” (840). Attention then focuses upon the constancy of the value of the net output of this commodity in the face of changing distribution: “The entire value component of the commodity representing the newly added labour . . . does not depend upon its division into wages, profit and rent. . . . The specific commodity value . . . thus produced and determined by the quantity of labour objectified in it constitutes the limit . . . for the dividends which the labourer, capitalist and landlord will be able to draw from this value in the form of revenue – wages, profit and rent” (840–1). Again: “In reality, the commodity value is the magnitude which precedes the sum of the total values of wages, profit and rent, regardless of the relative magnitudes of the latter” (849). Marx’s objective here was to counter the view that wages, profit, and rent represent “the constituent elements which, in combination or taken all together, are the source of the regulating price (natural price, *prix nécessaire*) of the commodities themselves,” or alternatively expressed, that “wages, profit and rent are three independent magnitudes of value, whose total magnitude produces, limits and determines the magnitude of the commodity value.”

We can also approach the matter in terms of Marx’s Ricardian analysis of a wage change, namely the inverse wage-profit relation (above, Section G). An increase in the wage rate leaves the price of the commodity produced by capital of average

<sup>35</sup> Alternatively expressed: A certain sum of profit is generated at *equilibrium* prices in each industry, and these individual sums are aggregated. Given this aggregate, it may be (ideally) possible to work backwards – as it were from a *Capital 3* to a *Capital 1* scheme – observing the redistribution of profits that emerges at a price structure reflecting labor values, and assuring uniform profit-wage ratios. This certainly would be nothing but a mental exercise.

organic composition unaffected at its value (and the lower profit rate thus calculated is applied to all other goods). The constancy of the price of the “average” commodity at its value is taken to imply the identity of total value and total price (MECW 37: 200, cited above, p. 39). But, while *total* value and *total* price are identified, Marx’s real concern was the identity of *net* value (“the labour set in motion by the variable capital”) – constant capital set aside – and net price (wage and profit costs) in his derivation of the inverse profit-wage relationship.<sup>36</sup> Now to maintain the identity of total (net) value and total net income (or the corresponding magnitudes in the case of the commodity produced by mean factor proportions) is simply to imply the use of a measure of value which assures constancy in the value of the aggregate to be shared in the face of altered distribution. We can easily appreciate why Marx should follow the formal procedure devised by Ricardo rather than rely directly upon a simple description of the competitive reaction to the assumed disturbance to wages – a reaction which yields the lower rate of profit as the outcome of a *process of reallocation of capital* between industries without reference to the commodity produced by capital of average organic composition. For Marx insisted that competition “does not create the level [of the average profit rate] which is established when equalization has been achieved;” rather “[t]he average rate of profit sets in when there is an equilibrium of forces among the competing capitalists. Competition may establish this equilibrium but not the rate of profit which makes its appearance with this equilibrium” (851–2). But to the naïve and unwary it might appear that competition in some sense “created” or was responsible for profit (and its *level*) and disprove the alleged source of total profits in surplus labor. For all that, the actual market process does not turn upon the mental structure;<sup>37</sup> and Marx appreciated that a general wage increase will generate a response by capitalists to profit-rate differentials without reference to the predetermination of the general profit-rate implied by the formal analysis.

Most significantly, the impression left by Marx’s procedure is *that given both the wage rate (implied by the rate of surplus value) and the configuration of output it is possible to predict the average profit and the set of equilibrium prices that assures profit-rate equality*. It is a false impression, as we have explained, in that both the wage and the output levels are not data but endogenous variables of the Marxian system.

A complexity remains to be noted. Total surplus value includes rent and interest as well as profit. Yet, the profit-rate equalization process, so central to the Transformation, entails the industrial capitalists’ allocative decisions and these,

<sup>36</sup> It is also a feature of the “new solution” to the Transformation (see notes 12 and 29) that Marx’s identity of the sum of prices and sum of values should be modified to refer to the sum of the prices of the *net* product (value added) and the sum of the values of the *net* product (Howard and King 1992a: 278).

<sup>37</sup> Ricardo was aware of this and justified the fundamental theorem notwithstanding an inability to define the necessary properties of the ideal measure in principle, or to discover an appropriate candidate in practice (Hollander 1979: 238–47).

one supposes, are based on profit estimates *excluding* contractual rent and interest. Marx insists upon this latter feature in the *Economic Manuscripts* and is troubled by it (see Chapter 10.B). There is much of importance on some of the implications of the contractual payment of interest in the discussion in *Capital* 3 of “profit of enterprise” as we shall see in Chapter 14.H.

### L. Concluding Comment: The Baumol-Samuelson Exchange

Professor Baumol insists that Marx did not consider the Transformation as “primarily a matter of explaining *price* determination” (1974: 60); again “why on earth should either of them [Ricardo and Marx] have vented his energies to devising a complex analysis whose purpose was to explain the process that determines the price of peanuts?” (2001: 225); “[w]hile value was, patently, one of his primary concerns, pricing emphatically was not. Otherwise, how would one explain his postponement of any systematic discussion of price setting until Volume III of *Capital*, and even there, why is it a matter very subsidiary to the relation between surplus values and the sum of profits, interest and rent, as a careful reading will confirm?” (233). Now “primarily” is a slippery word to grasp. One may readily agree that the relation between total surplus and total profit (and its sub-elements) is the predominant concern, without compromising the high significance of pricing analysis: (1) it is not, after all, the price of peanuts that matters but the general structure of all prices. And (2), as Baumol himself allows, the determination of the relationship between prices and values “is a key part of the transformation problem”; or again: “the two sets of magnitudes which are derived more or less independently were recognized by Marx to differ in a substantial and a systematic manner. A subsidiary purpose of the transformation calculation was to determine the nature of these deviations” (1974: 52). I would venture to maintain that a *major purpose* of the calculation was to determine the nature of the deviations, because any failure in this regard threatens the proof regarding the macro-identities. At the same time, I allow that once this matter was settled, Marx often proceeded – as in his declining profit-rate or cyclical analyses – *as if* values alone mattered or, equivalently, as if the solution to the Transformation could simply be taken for granted.

Samuelson, whose running debate with Baumol spans several decades, puts more weight on the pricing analysis in its own right, leading him to conclude – in the light of the logical complications and confusions entailed in the Transformation – that in effect Marx set out with an erroneous value scheme, *erased it*, and started anew with a true price scheme (Samuelson 1971: 400, 421). Now whatever the technical problems in transforming Vs to Ps it is surely not *historiographically safe* to represent the value scheme as an “unnecessary detour.” For to do so allows the role of output variation in the transition to fall into oblivion, and along with it a central “Ricardian” feature of Marxian analysis – output variation to assure transitions from non-equilibrium to equilibrium price structures.

There remains to note Samuelson's insistence that the modern commentator has an obligation to set out the technical objections to an early formulation: "... when a Baumol attributes to Marx the attempt to explain total profits by equating it to total surplus value, if no such explanation could be cogent, it is non-optimal not to mention that" (Samuelson 1991b: 11). It is doubtful whether many would disagree, though much will depend on the commentator's particular objectives and priorities as to the weight to place on the technical deficiencies; and it was evidently Baumol's primary concern to show that Marx's *intentions* included a demonstration of the identity of total surplus and total profit.



## TWO

### Elements of Growth Theory

#### A. Introduction

This chapter provides a transition from the micro-economic issues relating to valuation and pricing of individual commodities to the macro-economics of growth. We shall set off with a preliminary discussion of “simple” or stationary reproduction which Marx, following Hodgskin, envisaged as a circular-flow process (Section B), and then proceed to his analysis of capital accumulation and its determinants with particular reference to the “motives” governing savings decisions (Sections C and D). The remainder of the chapter seeks to provide an elementary account of both the celebrated “simple” and “extended reproduction” departmental schemes of *Capital 2* (Sections E and F).<sup>1</sup> We point in particular to the apparent inability of the departmental device to explain the *transition* from a stationary to a growing economy. (The device, we may point out here, is not used in discussion of the falling wage and profit rates during the course of growth, the subject matter of Chapters 3 and 4, but is applied in cyclical analysis as we shall see in Chapter 5.) An Appendix outlines Marx’s objectives to Adam Smith’s national-income accounting.

#### B. Setting the Stage: Stationary Reproduction as Circular-Flow Process

*Capital 1* on “Simple Reproduction” (Chapter 23) explains the process whereby money is “converted into means of production and labour power”; these latter “converted” via the production process into commodities “whose value exceeds that of their component parts, and, therefore, contains the capital originally advanced, plus a surplus value”; the value of those commodities then realized against money in the market; and the process repeated “over and over again” (MECW 35: 564). Marx refers readers to the “detailed analysis” of the process (appearing later in *Capital 2*), and also to the complexity (appearing in *Capital 3*) that the surplus value received

<sup>1</sup> For a particularly instructive sampling of “extensions” to the Marxian analysis, see Bronfenbrenner 1965, 1966, and 1979 and Bronfenbrenner and Wolfson 1984.

initially by the capitalist “who extracts unpaid labour directly from the labourers” – the “first appropriation” – must in fact share it with others as interest, merchants’ profit, rent, etc. (564–5).<sup>2</sup> To abstract from the latter complexity, and also to assure that “capital circulates in its normal way” – there being no obstructions to purchase of inputs or sale of outputs – was to allow “[a]n exact analysis of the process” by “disregard[ing] all phenomena that hide the play of its inner mechanism.” Finally, that the global dimensions of the economy remain unchanged reflects *the assumption that surplus value is spent by its recipients entirely on consumer goods*: “As a periodic increment of the capital advanced, or periodic fruit of capital in process, surplus value acquires the form of a revenue flowing from capital” – a formulation ascribed to Sismondi<sup>3</sup> – and “[i]f this revenue serve the capitalist only as a fund to provide for his consumption, and be spent periodically as it is gained, then *ceteris paribus*, simple reproduction will take place” (566).

Marx was prepared to admit that the circular-flow process – “the process of capitalist production in the flow of its constant renewal” – “must have had a beginning of some kind,” and even that the capitalist “once upon a time, became possessed of money, by some accumulation that took place independently of the unpaid labour of others” allowing him to acquire labor-power (569). But this concession was irrelevant considering the circularity dimension *actually* at play, which reveals that “it is [the] labour of last week, or of last year, that pays for his labour power this week or this year,” a relation understood by Ramsay and James Mill (567).<sup>4</sup> The intervention of money suggested some kind of *advance* by capitalists to labour, but this illusion was dispelled by taking an aggregative or class perspective: “The capitalist class is constantly giving to the labouring class order-notes, in the form of money, on a portion of the commodities produced by the latter and appropriated by the former. The labourers give these order-notes back just as constantly to the capitalist class, and in this way get their share of their own product. The transaction is veiled by the commodity form of the product and the money form of the commodity.” That under capitalism labor is paid from “variable capital,” did not alter the fact that in *all* social systems the laborer produces and reproduces his *own* maintenance (567–8). Marx cites Smith and Cazenove approvingly;<sup>5</sup> but

<sup>2</sup> Marx’s letter to Engels dated 6 July 1863 elaborates aspects of this complexity diagrammatically (MECW 41: 483–7).

<sup>3</sup> Cf. Sismondi 1819: I. 82 [1951: I, 86]: “. . . in the social order, wealth has acquired the power of reproducing itself through the labour of others, without the help of its owners. Wealth, like labour, and by means of labour, bears fruit every year, but this fruit can be destroyed every year without making the rich man any poorer thereby. This fruit is the *revenue* which arises out of *capital*.”

<sup>4</sup> The reference is to Ramsay: “Wages as well as profits are to be considered . . . as really a portion of the finished product” (1836: 142); and James Mill: “The share of the product which comes to the labourer in the form of wages” (1821: 25–6).

<sup>5</sup> “Though the manufacturer” – i.e., laborer – “has his wages advanced to him by his master, he, in reality, costs him no expence, the value of those wages being generally restored, together with a profit, in the improved value of the subject upon which his labour is bestowed” (Smith

he evidently owed a special debt to Hodgskin regarding the undermining of the *advances* by the *circular-flow* orientation.<sup>6</sup>

We come next to an elaboration of laborers' "consumption," perceived as using up both constant capital or "means of production," and "means of subsistence": "The labourer's productive consumption, and his individual consumption are . . . distinct. In the former, he acts as the motive power of capital, and belongs to the capitalist. In the latter, he belongs to himself, and performs his necessary vital functions outside the process of production. The result of the one is, that the capitalist lives; of the other, that the labourer lives" (571).

Marx may have benefited here from J. B. Say's helpful notion of a sort of "double consumption" entailed by the production process (see Hollander 2005: 175–6). At all events, he goes on to apply the term "productive consumption" not only to constant capital – the laborer "converting" means of production "into products with a higher value than that of the capital advanced" – but also to variable capital, effectively treating the maintenance of the laborer as maintenance of an indispensable "means of production," though with a qualification, opening up a veritable mare's-nest: "The capital given in exchange for labour power is converted into necessaries, by the consumption of which the muscles, nerves, bones, and brains of existing labourers are reproduced, and new labourers are begotten. *Within the limits of what is strictly necessary*, the individual consumption of the working class is, therefore, the reconversion of the means of subsistence given by capital in exchange for labour power, into fresh labour power at the disposal of capital for exploitation" (MECW 35: 572; emphasis added). The qualification is elaborated thus: "The maintenance and reproduction of the working class is, and must ever be, a necessary condition to the reproduction of capital. But the capitalist may safely leave its fulfillment to the labourer's instincts of self-reservation and of propagation. All the capitalist cares for, is to reduce the labourer's individual consumption as far as possible to what is strictly necessary. . . ." Strangely, Marx proceeds to attribute to the "ideological representative" of the capitalist (citing James Mill and Ricardo) the restriction of the designation "productive consumption" to what is "requisite for the perpetuation of the [labouring] class . . ." – a formulation implying constant population – for "what the labourer consumes for his own pleasure beyond that part is unproductive consumption" (572–3), as though this were not his *own* position. As for such excess consumption, he made no serious objection to the Mill-Ricardo viewpoint, avoiding the issue by taking for granted that wages *are* at their minimum.<sup>7</sup>

1937 [1776]: 314). "When capital is employed in advancing to the workman his wages, it adds nothing to the funds for the maintenance of labour" (Cazenove 1853: 22).

<sup>6</sup> On Hodgkin's emphasis on synchronized activity, see Hollander 1995: 134–5, 142. Marx's hostility to "wage-fund" theorizing in the dogmatic form attributed to Bentham, Malthus, James Mill, and McCulloch will be found in MECW 35: 605–7.

<sup>7</sup> Marx also cites Malthus's *Definitions* [1853 (1827): 30] to support the position that "[i]n reality, the individual consumption of the labourer is unproductive as regards himself . . . it is productive to the capitalist and the State, since it is the production of the power that creates

A further theme relates to skill. Here Marx explicitly follows Hodgskin's position (Hodgskin 1825: 12–13) that “[t]he only thing . . . that is stored up and prepared beforehand, is the skill of the labourer. . . . The accumulation and storage of skilled labour, that most important operation, is, as regards the great mass of labourers, accomplished without any capital whatever” (574). One deduces that training comes to the employer free, “[t]he reproduction of the working class” – as Marx puts it – “carry[ing] with it the accumulation of skill, that is handed down from one generation to another.” Nothing is said here of the issues raised by Smith and J. S. Mill regarding the wage structure. And that problems relating to skill obsolescence are ignored is perhaps to be expected in a wholly static context.

The chapter closes with a summary of the essential nature of the “reproduction” process as one that enforces the status of the laborer as seller of “labor-power” and “converts his own product into a means by which another man can purchase him” (577). Accordingly: “Capitalist production . . . under its aspect of a continuous connected process, of a process of reproduction, produces not only commodities, not only surplus value, but it also produces and reproduces the capitalist relation; on the one side the capitalist, on the other the wage labourer.” Here Marx cites his own “Wages, Labour and Capital” of 1849: “Capital presupposes wage labour, and wage labour presupposes capital. One is a necessary condition to the existence of the other; they mutually call each other into existence. Does an operative in a cotton-factory produce nothing but cotton goods? No, he produces capital. He produces values that give fresh command over his labour, and that, by means of such command, create fresh values” (MECW 9: 214).

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A passage from the “Departmental” analysis of *Capital 2* to be discussed later in this chapter illustrates Marx's position that however important the *labor-power* notion may be in understanding surplus value, actual consumption by labor out of wages is not treated differently from that by any other class; thus capital-goods workers and consumer-goods producers are engaged in the commodity (wage-goods) market, and these same workers and capital-goods producers face each other in the labor market, or market for labor power (MECW 36: 495). A second illustration of the same theme may be drawn from *Capital 3*: “in practice wages are indeed paid in money, that is, in the pure expression of value, likewise interest and rent. For the capitalist, the transformation of his product into the pure expression of value is indeed very important; in the distribution itself this transformation is already assumed. Whether these values are reconverted into the same product, the same commodity, out of whose production they arose, whether the labourer buys back a part of the product directly produced by himself or buys the product of some other labour of a different kind, has nothing to do with the matter itself” (MECW 37: 840n).

their wealth” (MECW 35: 573), implying that *even the necessary element* in the workers' consumption is “unproductive” from the *workers'* perspective – a wholly uncontroversial proposition – though “productive” from that of the employer.

### C. Capital Accumulation

Net capital accumulation is the subject matter of *Capital 1*, Chapter 24: “Conversion of Surplus Value into Capital.” It is prefaced by a misleading paragraph: “Hitherto we have investigated how surplus value emanates from capital; we have now to see how capital arises from surplus value. Employing surplus value as capital, reconverting it into capital, is called accumulation of capital” (MECW 35: 578). In point of fact, “Simple Reproduction” concerned the *realization* not the *production* of surplus value, the latter being simply taken for granted.

The account of net accumulation proceeds on the standard illustrative assumption that  $s/v = 100\%$ , and emphasizes the necessity that upon sale of the annual output the renewed process of reproduction on a larger scale can be set in motion, which implies purchase out of sale proceeds of an increased volume of capital goods (both “means of production” or constant capital and “means of subsistence”). In an illustration, the *entire* initial surplus value (£2000) is devoted to accumulation – “we here leave out of consideration the portion of surplus value consumed by the capitalist” (580) – implying a corresponding expansion of wage goods and constant capital (578). The process is repeated: “It is the old story: Abraham begat Isaac, Isaac begat Jacob, and so on. The original capital of £10,000 brings in a surplus value of £2,000, which is capitalised. The new capital of £2,000 brings in a surplus value of £400, and this, too, is capitalised, converted into a second additional capital, which, in its turn, produces a further surplus value of £80. And so the ball rolls on” (580). Marx emphasizes that “by the side of the newly-formed capital, the original capital continues to reproduce itself, and to produce surplus value, and that this is also true of all accumulated capital, and the additional capital engendered by it” (580–1).

Expansion of means of production – as well as necessities for labor – plays the key role in the story, Marx taking issue with Smith for allegedly “represent[ing] accumulation as nothing more than consumption of surplus products by productive labourers, which amounts to saying, that the capitalizing of surplus value consists in merely turning surplus value into labour power” (585). And there was “no greater error than that which Ricardo and all subsequent economists repeat after A. Smith, viz., that ‘the part of revenue, of which it is said, it has been added to capital, is consumed by productive labourers’ [Ricardo 1951–73 I:151n].” Marx had particularly harsh words for J. S. Mill who, “[i]n spite of his *Logic* . . . never detects even such faulty analysis as this when made by his predecessors, an analysis which, even from the bourgeois standpoint of the science, cries out for rectification. In every case he registers with the dogmatism of a disciple, the confusion of his master’s thoughts, alluding to an early proposition (Mill 1963–91 [1844]:293) whereby replacement of capital out of sales proceeds reduces entirely to replacement of wages (MECW 35: 586). Rather:

To accumulate it is necessary to convert a part of the surplus product into capital. But we cannot . . . convert into capital anything but such articles as can be employed in the labour process (i.e., means of production), and such further articles as are suitable for

the sustenance of the labourer (i.e., means of subsistence). Consequently, a part of the annual surplus labour must have been applied to the production of additional means of production and subsistence, over and above the quantity of these things required to replace the capital advanced. In one word, surplus value is convertible into capital solely because the surplus product, whose value it is, already comprises the material elements of new capital (579–80).<sup>8</sup>

Moreover, increase in means of production and wage goods to be effective requires corresponding expansion of the work force. This requirement, given the rate of exploitation, is satisfied by *ongoing population expansion*, the “ordinary” real wage allowing “not only for . . . maintenance, but for . . . increase” of the labor force (580; see Chapter 3, p. 93. In brief: “From a concrete point of view, accumulation resolves itself into the reproduction of capital on a progressively increasing scale. The circle in which simple reproduction moves, alters its form, and to use Sismondi’s expression, changes into a spiral,” that is into *exponential* growth.<sup>9</sup>

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As in the discussion of Simple Reproduction (above, p. 56), Marx touches on the source of the “original capital,” apparently assuming it to entail a *pre-capitalist* state of affairs, or simple commodity production: “The original capital was formed by the advance of £10,000. How did the owner become possessed of it? ‘By his own labour and that of his forefathers,’ answer unanimously the spokesmen of political economy” (581); and he cites Sismondi regarding “[t]he original labour, to which his capital owed its origin” (Sismondi 1819 I: 109). To this he *assents*: “their supposition appears the only one consonant with the laws of the production of commodities.” But it is the *net addition to capital*, with which he is now concerned, and that “originated” from *surplus value* or “unpaid labour”: “the working class creates by the surplus labour of one year the capital destined to employ additional labour in the following year.” Marx also cites Wakefield: “Labour creates capital before capital employs labour” (1833: II, 110); and concludes that “[t]he ownership of past unpaid labour is thenceforth the sole condition for the appropriation of living unpaid labour on a constantly increasing scale. The more the capitalist has accumulated, the more he is able to accumulate” (582). Beyond this, the “original”

<sup>8</sup> Marx in effect assumes a closed economy: “We here take no account of export trade, by means of which a nation can change articles of luxury either into means of production or means of subsistence, and *vice versa*. In order to examine the object of our investigation in its integrity, free from all disturbing subsidiary circumstances, we must treat the whole world as one nation, and assume that capitalist production is everywhere established and has possessed itself of every branch of industry” (MECW 35: 580n).

<sup>9</sup> Marx refers to Sismondi 1819: I, 119 [1951: I, 112]: “La consommation absolue détermine une reproduction égale ou supérieure. C’est dans ce point que le cercle peut s’étendre et se changer en spirale. . . .” Yet on substance Marx is critical, charging that Sismondi’s “analysis of accumulation suffers from the great defect, that he contents himself, to too great an extent, with the phrase ‘conversion of revenue into capital,’ without fathoming the material conditions of this operation” (MECW 35: 580n). It is unclear whether Marx intends failure to examine properly the source of surplus value or the determinants of the savings ratio or both.

capital in any event becomes increasingly insignificant quantitatively – “a vanishing quantity (*magnitudo evanescens*, in the mathematical sense), compared with the directly accumulated capital, i.e., with the surplus value or surplus product that is reconverted into capital. . . .” (583).

#### D. Determinants of the Rate of Accumulation

Marx’s provisional assumption in analyzing Extended Reproduction that the entire surplus value is devoted to accumulation (above, p. 59) is modified when approaching the determinants of savings, since in actuality “[o]ne portion is consumed by the capitalist . . . the other is employed as capital. . . .” (MECW 35: 587). In this context we find the dramatic exposition of the “fanatical” drive on the part of “personified capital” to augment exchangeable value, a course of action reinforced by “competition”:

. . . so far as he is personified capital, it is not values in use and the enjoyment of them, but exchange value and its augmentation, that spur him into action. Fanatically bent on making value expand itself, he ruthlessly forces the human race to produce for production’s sake; he thus forces the development of the productive powers of society, and creates those material conditions, which alone can form the real basis of a higher form of society, a society in which the full and free development of every individual forms the ruling principle. Only as personified capital is the capitalist respectable. As such, he shares with the miser the passion of wealth as wealth. But that which in the miser is a mere idiosyncrasy, is, in the capitalist, the effect of the social mechanism, of which he is but one of the wheels. Moreover, the development of capitalist production makes it constantly necessary to keep increasing the amount of the capital laid out in a given industrial undertaking, and competition makes the immanent laws of capitalist production to be felt by each individual capitalist, as external coercive laws. It compels him to keep constantly extending his capital, in order to preserve it, but extend it he cannot, except by means of progressive accumulation (588).

As “personified” capital there is no genuine choice to be made between accumulation and consumption for – subject presumably to some necessary consumption minimum – private consumption becomes an aberration: “To accumulate, is to conquer the world of social wealth, to increase the mass of human beings exploited by him, and thus to extend both the direct and the indirect sway of the capitalist.” Here too we encounter perhaps the best known of Marx’s declarations: “Accumulate, accumulate! That is Moses and the prophets. . . . Therefore, save, save, i.e., reconvert the greatest possible portion of surplus value or surplus product into capital!” (591).

But we must pause. The foregoing is actually a position attributed to “classical economy,” Marx citing Adam Smith’s “[i]ndustry furnishes the material which saving accumulates” (see Smith 1937 (1776): 321), and proceeding to interpret the “classical” position in this manner: “Accumulation for accumulation’s sake, production for production’s sake: by this formula classical economy expressed

the historical mission of the bourgeoisie, and did not for a single instant deceive itself over the birth-throes of wealth. But what avails lamentation in the face of historical necessity? If to classical economy, the proletarian is but a machine for the production of surplus value; on the other hand, the capitalist is in its eyes only a machine for the conversion of this surplus value into additional capital. Political economy takes the historical function of the capitalist in bitter earnest” (591).<sup>10</sup> And Malthus is cited as confirming this view of the capitalist’s role in accumulation in the sharp contrast made between this behavior and that of landlords: “It is of the highest importance, he says ‘to keep separate the passion for expenditure and the passion for accumulation’ [Malthus 1820: 365–6; 1836: 325–6].”<sup>11</sup>

*But is this Marx’s own position?* Apparently not. For he points out that with the development of capitalist production “the capitalist ceases to be the mere incarnation of capital. He has a fellow-feeling for his own Adam, and his education gradually enables him to smile at the rage for asceticism, as a mere prejudice of the old-fashioned miser. While the capitalist of the classical type brands individual consumption as a sin against his function, and as “abstinence” from accumulation, the modernised capitalist is capable of looking upon accumulation as ‘abstinence’ from pleasure” (589). He goes yet further. A “conventional degree of prodigality” – of conspicuous consumption in effect – must be undertaken as a guarantee of the capitalist’s credit worthiness. Thus in contrast with early capitalism, where “avarice, and desire to get rich, are the ruling passions . . . the progress of capitalist production not only creates a world of delights; it lays open, in speculation and the credit system, a thousand sources of sudden enrichment. When a certain stage of development has been reached, a conventional degree of prodigality, which is also an exhibition of wealth, and consequently a source of credit, becomes a business necessity to the ‘unfortunate’ capitalist. Luxury enters into capital’s expenses of representation.” (See also MECW 37: 437.) The transition from an earlier stage of capitalism when, because “average profits were low,” accumulation required “extreme parsimony,” could be dated according to Aikin from the late 1750s (Aikin 1795: 181f).

Now from this new historical perspective it might seem that there is no conflict since the capitalist’s “expenditure grows with his accumulation, without the one necessarily restricting the other” (MECW 35: 590). Yet Marx does not take this easy way out: “But along with this growth, there is at the same time developed in

<sup>10</sup> On the orthodox recognition of “the birth-throes of wealth,” Marx asserts that “[e]ven Say says: ‘The savings of the rich are made at the expense of the poor,’” summarizing a second-hand account of the *Cours complet* (see editorial note 499, MECW 35: 797). This is not the impression conveyed by Say’s chapter “De la formation des capitaux” (Say 1843 [1828–9]: 70–4). Sismondi is cited to the effect that “modern society lives at the expense of the proletarians, on what it keeps out of the remuneration of labour” (Sismondi 1837–38:24).

<sup>11</sup> This is not an exact quote, Malthus referring merely to “the error to couple the passion for expenditure and the passion for accumulation together, as if they were of the same nature . . .”; nor does the context relate specifically to landlords vs. capitalists. Nonetheless, Marx’s reading of Malthus’s general position is probably correct (see e.g., Malthus 1820: 465–6; 1836: 399–400; also 1836: 374–5, 396, 403).



his breast, a Faustian conflict between the passion for accumulation, and the desire for enjoyment.” Here Senior’s “abstinence” is briefly mentioned (592), but only to be summarily dismissed: “‘I substitute,’ he proudly says ‘for the word capital, considered as an instrument of production, the word abstinence’ [Senior 1836: 59]. An unparalleled sample this, of the discoveries of vulgar economy! It substitutes for an economic category [capital] a sycophantic phrase – *voilà tout*.”<sup>12</sup> Now some of the very best of Marx’s sarcasms is reserved for Senior – and extended also to Scrope, de Molinari, and Courcelle-Seneuil – the issue reducing into a “learned disputation, how the booty pumped out of the labourer may be divided, with most advantage to accumulation, between the industrial capitalist and the rich idler . . .”; and the capitalist, according to the apologists, “rob[bing] his own self . . . whenever by incorporating labour power with [the instruments of production], he uses them to extract surplus value out of that labour power . . . instead of dissipating ‘their value’ in luxuries and other articles of consumption” (592–3). In fact, on their view, not only accumulation but capital maintenance entails a sacrifice. Mention must also be made of the charge against J. S. Mill of “absurd contradiction” in that he “accepts on the one hand Ricardo’s theory of profit, and annexes on the other hand Senior’s ‘remuneration of abstinence.’” (592n). But the mockery of Senior in no way resolves the dilemma created by Marx’s *own* insistence that the monomaniacal drive to accumulate applied only to early capitalism but was replaced in the modern system by a “Faustian” conflict between two ruling passions; while the (technically untenable) objection to Mill leaves unanswered the actual determination of the savings-consumption trade off. In fact, Marx’s next section starts off weakly by *taking for granted* a resolution: “The proportion in which surplus value breaks up into capital and revenue being given . . .” (595).

*Capital 2* contains scattered remarks on the present issue. Thus, as an aside, in the course of discussing Simple Reproduction, the capitalist’s “compelling motive” is said to be “the utmost self-expansion of his capital” (MECW 36: 444). This proves to be mere rhetoric, since in proceeding to Extended Reproduction where the matter would be of prime importance – “[i]n accumulation it is above all the rate of accumulation that must be considered” (520) – Marx merely assumes a ratio of saving to surplus of one-half, a procedure consistent with a balance of *two* motive forces at play rather than a single-minded drive to accumulate. A little earlier he had pointed out that “[a]s a matter of fact . . . one portion of the surplus value is spent as revenue, and the other is converted into capital” (503), taking

<sup>12</sup> In fact, Senior subsequently uses the term “abstinence” to designate “the conduct of which profit is the reward” not “the instrument” (Senior 1836: 89).

Marx objected more generally that “[i]t has never occurred to the vulgar economist to make the simple reflexion, that every human action may be viewed, as ‘abstinence’ from its opposite. Eating is abstinence from fasting; walking, abstinence from standing still; working, abstinence from idling; idling, abstinence from working, &c. These gentlemen would do well, to ponder, once in a way, over Spinoza’s: ‘Determinatio est Negatio’” (MECW 35: 592n). Senior does, in fact, address this matter (1836: 60).

issue with the view that “the aim and compelling motive of capitalist production is consumption, and not the snatching of surplus value and its capitalization, i.e., accumulation.” This formulation, read in context, is consistent with the position that *neither* of the two motives should be given precedence.

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*Taking for granted* a resolution of the division of surplus value between additions to capital and revenue – the savings-consumption ratio – Marx proceeds in *Capital I* to enumerate the considerations which affect the magnitude of surplus value itself, the source of accumulation. These include the wage rate. The usual assumption that “wages are at least equal to the value of labor power,” as in the chapters on the production of surplus value, is subject now to an allowance for “[f]orcible reductions” below that value, generating increased wherewithal for saving – apparently *temporary* (MECW 35: 595). Marx, does however, elaborate “[t]he constant tendency of capital . . . to force the cost of labour towards . . . zero” – zero being a mathematical limit “always beyond reach” – and this appears to refer to the secular trend (596).

Beyond wage reductions, Marx explores various means of raising “surplus product and surplus value (i.e., the subject-matter of accumulation), without corresponding augmentation of the constant part of capital,” such as extensions of the work-day of factory operatives, with allowance for greater wear and tear of equipment (598); increased intensity of labor in mining by day and night shifts operating the same instruments, such that “the mass and value of the product will rise in direct proportion to the labour expended” (599); and similarly in agriculture where more-intensive operations based on additions to *circulating* capital are possible:

In agriculture the land under cultivation cannot be increased without the advance of more seed and manure. But this advance once made, the purely mechanical working of the soil itself produces a marvellous effect on the amount of the product. A greater quantity of labour, done by the same number of labourers as before, thus increases the fertility, without requiring any new advance in the instruments of labour. It is once again the direct action of man on Nature which becomes an immediate source of greater accumulation, without the intervention of any new capital (599).

“Manufacturing” benefits from the foregoing by way of its raw material requirements. In sum: “by incorporating with itself the two primary creators of wealth, labour power and the land, capital acquires a power of expansion that permits it to augment the elements of its accumulation beyond the limits apparently fixed by its own magnitude, or by the value and the mass of the means of production, already produced, in which it has its being.”

Increased productivity is a third broad consideration – though all this proves to be academic as far as concerns the technical Reproduction Schemes, *which assume unchanged technology* (see below Section F). In the first place, such increase by raising the purchasing power of their incomes, enables capitalists to increase consumption and saving *pari passu*: “With the productive power of labour increases

the mass of the products, in which a certain value, and, therefore, a surplus value of a given magnitude, is embodied. The rate of surplus value remaining the same or even falling, so long as it only falls more slowly, that [sic] the productive power of labour rises, the mass of the surplus product increases. The division of this product into revenue and additional capital remaining the same, the consumption of the capitalist may, therefore, increase without any decrease in the fund of accumulation” (599–600). In fact, “[t]he relative magnitude of the accumulation fund may even increase at the expense of the consumption fund, whilst the cheapening of commodities places at the disposal of the capitalist as many means of enjoyment as formerly, or even more than formerly (600). In all this Marx is silently touching on a major theme of Ricardo’s that “savings may be as effectually made from expenditure as from production; from a reduction in the value of commodities, as from a rise in the rate of profits” (Ricardo 1951–73, I: 166–7); similarly, “the increase of net incomes, estimated in commodities, which is always the consequence of improved machinery, will lead to new savings and accumulations” (396; also 8,133).

There are, too, positive effects of increased efficiency in the capital-goods sector in addition to those in the wage-goods sector:

But hand-in-hand with the increasing productivity of labour, goes . . . the cheapening of the labourer, therefore a higher rate of surplus value, even when the real wages are rising. The latter never rise proportionally to the productive power of labour. The same value in variable capital therefore sets in movement more labour power, and, therefore, more labour. The same value in constant capital is embodied in more means of production, i.e., in more instruments of labour, materials of labour and auxiliary materials; it therefore also supplies more elements for the production both of use value and of value, and with these more absorbers of labour. The value of the additional capital, therefore, remaining the same or even diminishing, accelerated accumulation still takes place. Not only does the scale of reproduction materially extend, but the production of surplus value increases more rapidly than the value of the additional capital (MECW 35: 600).

Here Marx seems to identify the increased *potential* for accumulation with *actual* increase in accumulation.

Marx had more to say on the consequences for accumulation flowing from the cooperation of constant capital, in an important comparison between English and Chinese productivity where *labor itself is treated as identical* but supported by machinery in the English case alone: “An English and a Chinese spinner, e.g., may work the same number of hours with the same intensity; then they will both in a week create equal values. But in spite of this equality, an immense difference will obtain between the value of the week’s product of the Englishman, who works with a mighty automaton, and that of the Chinaman, who has but a spinning-wheel. In the same time as the Chinaman spins one pound of cotton, the Englishman spins several hundreds of pounds” (601). It is the higher value of the larger volume of product “swollen” by “old values,” that provides a source of accumulation: “A sum, many hundred times as great, of old values swells the value of his product,

in which those re-appear in a new, useful form, and can thus function anew as capital.” The same point is reiterated in insistence against faulty interpretation of the phenomenon, as reflecting “an inherent property” of *capital* (602–3).<sup>13</sup>

In the foregoing texts Marx is dealing largely with replacement of *used-up* capital values in new forms. But he also elaborates on the services provided by “unused” capital which he represents as the contribution to output of *past labor*, despite all appearance, taking issue here with McCulloch.<sup>14</sup> Especially important for us is the observation that since employment turns in part on the stock of accumulated capital, as the latter expands so the mass of surplus value increases, allowing capitalists to increase simultaneously *both* consumption and savings:

With a given degree of exploitation of labour power, the mass of the surplus value produced is determined by the number of workers simultaneously exploited; and this corresponds, although in varying proportions, with the magnitude of the capital. The more, therefore, capital increases by means of successive accumulations, the more does the sum of the value increase that is divided into consumption fund and accumulation fund. The capitalist can, therefore, live a more jolly life, and at the same time show more “abstinence.” And, finally, all the springs of production act with greater elasticity, the more its scale extends with the mass of the capital advanced (604).

\* \* \*

A similarly complex pattern to that outlined above is to be found in *Capital* 3. On the one hand, comments relating to the downward profit-rate trend (see Chapter 4, p. 132) are suggestive of the orthodox position, particularly the proposition that “the rate of profit, being the goad of capitalist production . . . its fall checks the

<sup>13</sup> To the proposition that with technological progress “labour keeps up and eternizes an always increasing capital value in a form ever new,” Marx attaches a lengthy note on the Ricardo-Say debate regarding the impact of increased productivity on “riches” and “values” (MECW 36: 602–3n). He concludes that Say effectively adopted Ricardo’s position without realizing it, a position confirmed in Hollander 2005, Chapter 4.

<sup>14</sup> The contribution of “past labour” affects output in the same manner as does that of free nature: “In the same proportion as these instruments of labour serve as product formers without adding value to the product, i.e., in the same proportion as they are wholly employed but only partly consumed, they perform . . . the same gratuitous service as the natural forces, water, steam, air, electricity, etc. This gratuitous service of past labour, when seized and filled with a soul by living labour, increases with the advancing stages of accumulation” (MECW 35: 603).

Once again, Marx finds bourgeois economists blinded by appearance: “Since past labour always disguises itself as capital . . . bourgeois and political economists are full of praises of the services of dead and gone labour, which according to the Scotch genius MacCulloch, ought to receive a special remuneration in the shape of interest, profit, etc. [McCulloch 1825: 291]. The powerful and ever-increasing assistance given by past labour to the living labour process under the form of means of production is therefore, attributed to that form of past labour in which it is alienated, as unpaid labour, from the worker himself, i.e., to its capitalistic form” (MECW 35: 603–4). Marx goes on to charge that “[t]he practical agents of capitalistic production and their pettifogging ideologists are as unable to think of the means of production as separate from the antagonistic social mask they wear to-day, as a slave owner to think of the worker himself as distinct from his character as a slave.” He adds in a note that “McCulloch took out a patent for ‘wages of past labour,’ long before Senior did for ‘wages of abstinence’” (604n).

formation of new independent capitals and thus appears as a threat to the development of the capitalist production process” (MECW 37: 240). Ricardo’s prescience in this regard is warmly applauded:

The rate of profit, i.e, the relative increment of capital, is above all important to all new offshoots of capital seeking to find an independent place for themselves. And as soon as formation of capital were to fall into the hands of a few established big capitals, for which the mass of profit compensates for the falling rate of profit, the vital flame of production would be altogether extinguished. It would die out. The rate of profit is the motive power of capitalist production. Things are produced only so long as they can be produced with a profit. Hence the concern of the English economists over the decline of the rate of profit [*Economic Manuscripts*, MECW 33: 112]. The fact that the bare possibility of this happening should worry Ricardo, shows his profound understanding of the conditions of capitalist production (258).<sup>15</sup>

On the other hand, we find a very different perspective when Marx elaborates the doctrine of secular underconsumption along Malthus’s lines according to which capitalists are “driven” to accumulate, with the “self-expansion of capital” their only purpose, as we shall see in Chapter 4.H.

To some extent these perspectives can be reconciled by reference to *displacements* of the savings-profit function. Thus, as in *Capital 1*, we find the proposition that, given the profit rate, accumulation turns on *total profit* – and this “not merely” with respect to its value but also (as emphasized by Ricardo) to its real purchasing power (MECW 37: 243–4). Again: accumulation occurs “not in proportion to the rate of profit, but in proportion to the impetus it already possesses” (244; emphasis added). And Marx warmly commended Richard Jones’s contention that *the rate of accumulation may rise despite a falling profit rate* – a Smithian theme – for a variety of reasons in addition to increase in the purchasing power of nominal profit income:

*Jones emphasizes correctly that in spite of the falling rate of profit the inducements and faculties to accumulate are augmented* [1833: 336], first, on account of the growing relative overpopulation; second, because the growing productivity of labour is accompanied by an increase in the mass of use values represented by the same exchange value, hence in the material elements of capital; third, because the branches of production become more varied; fourth, due to the development of the credit system, the stock companies, etc., and the resultant [e]ase of converting money into capital without becoming an industrial capitalist; fifth, because the wants and the greed for wealth increase; and sixth, because the mass of investments in fixed capital grows, etc. (265; emphasis added).

There is a second complexity to be noted. That the accumulation rate turns on both total profit (in value and/or real terms) *and* the profit rate and might rise despite a fall in the latter is not itself problematic. The complexity in question arises because the increase in total profit coincidentally with a fall in the profit rate *applies only to large or centralized firms*: “this requires a simultaneous concentration

<sup>15</sup> Of interest is a discussion of *credit* that allows the validity of the abstinence perspective at some earlier stage of capitalist development (MECW 37: 437; see the concluding chapter, p. 469).

of capital, since the conditions of production then demand employment of capital on a larger scale. It also requires its centralization, i.e., the swallowing up of the small capitalists by the big and their deprivation of capital” (244–5). And it is specifically with respect to such large firms that accumulation is related predominantly to *total profit*; for as we have seen, the “motive force of capitalist production” – namely the profit *rate* – is said to be threatened with “extinction” by the advent of monopoly capitalism, or a “few established big capitals.” (258). “What worries Ricardo” – who wrote in an earlier period of predominantly small firms – “is the fact that *the rate of profit, the stimulating principle of capitalist production, the fundamental premise and driving force of accumulation, should be endangered by the development of production itself*” (emphasis added). It seems fair to conclude that the functional relation between the *rate of return* and accumulation presupposes the small traditional capitalist or factory owner.

### E. The “Simple Reproduction” Scheme

Marx’s brief Chapter 23 in *Capital 1* on “Simple Reproduction,” discussed in Section C, provides merely a bland introduction to the celebrated reproduction scheme of *Capital 2*, Chapter 20. That scheme is introduced by contrasting “the process of reproduction of an *individual capital*” with the analysis at hand concerning “the annual function of *social capital*” (MECW 36: 390–1; emphasis added). For in the first case it sufficed merely to *assume* sale of final product and repurchase of appropriate means of production, whereas this was no longer the case. Essentially, in standard value analysis the nature of a commodity’s “use value” was immaterial – “whether it was machines, for instance, corn, or looking glasses. It was always but a matter of illustration, and any branch of production could have served that purpose equally well” (392–3). All that needed to be assumed is that markets, whether of goods or labor, cleared. The macro-analysis at hand, by contrast, turned not simply on the replacement of values but of the replacement of specific categories of material goods:

This merely formal manner of presentation is no longer adequate in the study of the total social capital and of the value of its products. The reconversion of one portion of the value of the product into capital and the passing of another portion into the individual consumption of the capitalist as well as the working class form a movement within the value of the product itself in which the result of the aggregate capital finds expression; and this movement is not only a replacement of value, but also a replacement in material and is therefore as much bound up with the relative proportions of the value components of the total social product as with their use value, their material shape (393).

Marx adds the related clarification that in the standard value analysis fixed-capital values are transferred by wear and tear to the product “irrespective of whether or not any portion of this fixed capital is replaced *in natura* . . . out of the value thus

transferred”, whereas in the Reproduction analysis it is taken for granted that actual replacement *does* occur:

We saw in the study of the value of the product of individual capital [MECW 35: Ch. 8] that the value of which the fixed capital was shorn through wear and tear is transferred to the commodity product created during the time of wear, irrespective of whether or not any portion of this fixed capital is replaced *in natura* during this time out of the value thus transferred. At this point in the study of the total social product and of its value, however, we are compelled, at least for the present, to leave out of account that portion of value which is transferred from the fixed capital to the annual product by wear and tear, unless this fixed capital is replaced *in natura* during the year (395).

It is further assumed that products exchange at their values, though Marx of course recognizes that, in fact, “prices diverge from values.” He justifies this simplification on the grounds that *outputs* are unchanged in transfer from the price to the value scheme: “The fact that prices diverge from values cannot, however, exert any influence on the movement of the social capital. On the whole, there is the same exchange of the same quantities of products, although the individual capitalists are involved in value relations no longer proportional to their respective advances and to the quantities of surplus value produced singly by every one of them” (392). *Now this justification is wholly unconvincing*, since the Transformation process *does* entail output variations, as Marx himself clarifies in *Capital 3* (see above, Chapter 1), through the inconsistency is somewhat academic since the reproduction analysis deals with “social” capital, involving broad classes of goods not individual industries.<sup>16</sup> Moreover, *constant technology* is assumed throughout: “there is no revolution in the values of the component parts of the productive capital.” For this assumption Marx provides a rather half-hearted justification considering the *essential* role of technical change reflected in rising  $c/v$  in his general system: “As for revolutions in value, they do not alter anything in the relations between the value components of the total annual product, provided they are universally and evenly distributed.” And even if “partially and unevenly distributed . . . once there is proof of the law according to which one portion of the value of the annual product replaces constant, and another portion variable capital, a revolution either in the value of the constant or that of the variable capital would not alter anything in this law.”

Simple reproduction itself, zero net accumulation, was (it is allowed) as “abstract” an assumption as that of constant technology: “Simple reproduction, reproduction on the same scale, appears as an abstraction inasmuch as on the one hand the absence of all accumulation or reproduction on an extended scale is a strange assumption in capitalist conditions, and on the other hand conditions of production do not remain exactly the same in different years (and this is assumed)”

<sup>16</sup> See also: “. . . the distinction between price of production and value . . . disappears altogether when . . . the value of the total annual product of labour is considered, i.e., the product of the total social capital” (MECW 37: 818–19).

(393). A formal justification for his abstraction “as far as accumulation does take place” in practice, is that “simple reproduction is always a part of it, and can therefore be studied by itself, and is an actual factor of accumulation.” As for the *behavioral* assumption that capitalists devote their entire net revenue to consumption – that “[s]imple reproduction is essentially directed toward consumption as an end, although the grabbing of surplus value appears as the compelling motive of the individual capitalist” (410) – Marx in the same manner observes that since “simple reproduction is a part, and the most important one at that, of all annual reproduction on an extended scale, this motive remains as an accompaniment of and contrast to the self-enrichment motive as such.” All this confirms that, for Marx, there are *normally two* drives not one at play motivating capitalists’ savings behavior, as we demonstrated in Section D.

A further simplification – as in *Capital 1* – is neglect of the distribution of surplus value by the original industrial capitalist between landlords, rentiers, and so on: “In reality the matter is more complicated, because partners in the loot – the surplus value of the capitalist – figure as consumers independent of him.”

\* \* \*

The formal problem of Simple Reproduction posed in *Capital 2* is summarized thus: “How is the *capital* consumed in production replaced in value out of the annual product and how does the movement of this replacement intertwine with the consumption of the surplus value by the capitalists and of the wages by the labourers?” (MECW 36: 392). As we shall see in Chapter 11, Marx tried his hand in *Theories of Surplus Value* at a full-fledged *Tableau Economique* representation of simple reproduction (MECW 34: 244), which he elaborated in a letter to Engels dated 6 July 1863 (MECW 41: 485–7), incorporating distribution of the surplus between the various “partners in the loot.” But it is the procedure adopted in *Capital 2* that concerns us now, and this may be viewed as a reduced-form tableau.

The scheme (MECW 36: 394–6) entails a capital-goods “department” (I), a consumer-goods “department” (II), with capital in each comprising a *variable* component ( $v$ ) – namely, “the value of the social labour power employed . . .” or “the sum of the wages paid for this labour power” – and a *constant* component ( $c$ ) namely, the value of the fixed and circulating elements “consumed in the process of production and only transferred to the product . . .” (subject to the condition noted above, p. 69). The *value added* in the “year” comprises “the replacement of the advanced variable capital ( $v$ ) and the excess over and above it” or surplus value ( $s$ ). The rate of surplus value  $s/v$  is taken as a uniform 100%.<sup>17</sup> Marx considered as an inconsequential simplification “the ratio of the variable to the constant capital

<sup>17</sup> The profit rate for each department defined as surplus relative to the *total* capital stock is not specified, Marx’s data *implying* a uniform “profit rate” in the limited sense only of surplus relative to “used up” constant (and variable) capital. See also note 22.



of both I and II and . . . the identity of this ratio for I and II and their sub-divisions. As for this identity, it has been assumed here merely for the sake of simplification, and it would not alter in any way the conditions of the problem and its solution if we were to assume different proportions" (406). All data are (money) values:

|    |                  |   |
|----|------------------|---|
| I  | CAPITAL VALUE:   | $c_I(4000) + v_I(1000)$                           |
|    | COMMODITY VALUE: | $c_I(4000) + v_I(1000) + s_I(1000) = 6000$        |
| II | CAPITAL VALUE:   | $c_{II}(2000) + v_{II}(500)$                      |
|    | COMMODITY VALUE: | $c_{II}(2000) + v_{II}(500) + s_{II}(500) = 3000$ |

Marx posits the basic condition for Simple Reproduction as  $v_I + s_I = c_{II}$ : "The  $1,000_v + 1,000_s$  of department I must . . . be spent for articles of consumption; in other words, for the product of department II. Hence they must be exchanged for the remainder of this product equal to the constant capital part,  $2,000_c$ . Department II receives in return an equal quantity of means of production, the product of I, in which the value of  $1,000_v + 1,000_s$  of I is incorporated" (396). Again: ". . . on the basis of simple reproduction, the sum of the values of  $v + s$  of the commodity capital of I (and therefore a corresponding proportional part of the total commodity product of I) must be equal to the constant capital  $II_c$ , which is likewise taken as a proportional part of the total commodity product of department II;  $I_{(v+s)} = II_c$ " (401). In essence,  $v_I + s_I$  represents both (inter-departmental) supply of capital goods and demand for consumer goods, and  $c_{II}$  represents both (inter-departmental) demand for capital goods and supply of consumer goods; and expenditure on consumer goods by workers and capitalists in the capital goods department is balanced by expenditure on capital goods by capitalists in the consumer goods department.<sup>18</sup> More specifically: ". . . the new value created by the labour of one year (divisible into  $v + s$ ) in the natural form of means of production is equal to the value of the constant capital  $c$  contained in the value of the product created by the other part of the annual labour and reproduced in the form of articles of consumption. If it were smaller than  $II_c$ , it would be impossible for II to replace its constant capital entirely; if it were greater, a surplus would remain unused. In either case, the assumption of simple reproduction would be violated" (406). In brief, Department I supplies capital goods and at the same time demands consumer goods to an amount equal to  $v_I + s_I$ ; and Department II has a demand for capital goods and at the same time supplies consumer goods to an amount equaling  $c_{II}$ . Only if  $v_I + s_I = c_{II}$  is there a clearing of these markets, with "[t]he net output of group I . . . balanced by the replacement of capital in group II" (Robinson 1967 [1942]: 45).

<sup>18</sup> The condition  $v_I + s_I = c_2$  can be formally derived from the fact that output of producer goods replaces capitals used up in both sectors:  $c_1 + v_1 + s_1 = c_1 + c_2$ ; and output of consumer goods is allocated between workers and capitalists in both sectors:  $c_2 + v_2 + s_2 = v_1 + s_1 + v_2 + s_2$ . See on this Sweezy 1942: 76–7; Robinson 1967 (1942): 45.

Money accommodates inter-department exchanges even in our closed economy with zero net investment, though credit is explicitly excluded (407). Thus an *essential* role is played by “reserve capital in the form of money,” subject to a contrast between laborers and capitalists in this regard:

Since the working class lives from hand to mouth, it buys as long as it has the means to buy. It is different with the capitalist, as for instance in the exchange of 1,000  $I_c$  for 1,000  $I_v$ . The capitalist does not live from hand to mouth. His compelling motive is the utmost self-expansion of his capital. Now, if circumstances of any description seem to promise greater advantages to capitalist II in case he holds on to his money, or to part of it at least, for a while, instead of immediately renewing his constant capital, then the return of 1,000  $I_c$  (in money) to I is delayed; and so is the restoration of 1,000<sub>v</sub> to the form of money, and capitalist I can continue his business on the same scale only if he disposes of reserve money (444).

Marx concluded that “generally speaking, reserve capital in the form of money is necessary to be able to work without interruption. . . .” The “compelling motive” alluded to does not in fact seem appropriate in the static context assumed.

At issue is the process whereby variable capital is “restored” in monetary form so the employer “may advance [it] once more for the purchase of labor power” (398).<sup>19</sup> As for the capital-goods sector, Marx sets off the process by assuming £1000 paid by the “aggregate capitalist”-I to laborers, who purchase therewith wage-goods, thereby “converting” one-half of the (used-up) capital goods in the consumer-goods sector into money; this sum is then returned to department I in payment of *real* capital goods, money thus accommodating an exchange of part of the capital goods required by sector II against the wage-goods required by sector-I workers. The return of money to its origin permits renewed purchase of labor power in the capital-goods sector (398).

Money also acts to accommodate the purchase of consumer goods by department-I *capitalists* and that of the remaining capital-goods required by department II capitalists, i.e., to “exchange the s-portion of commodity capital I [ $s_I(1000)$ ] for the second half of constant capital II [ $c_{II}(1000)$ ].” In this context Marx specifies carefully that “[a] certain supply of money, to be used either for the advancement of capital or for the expenditure of revenue, must under all circumstances be assumed to coexist beside the productive capital in the hands of the capitalists . . .,” say a money-supply of £1000 – in addition to the £1000 paid out to capital-goods workers – one half initially in the hands of capitalists I and spent by them on consumer goods, and one half in the hands of capitalists II and “advanced” in the purchase of required producer goods. A money circulation of only £2000 can accommodate

<sup>19</sup> Marx takes the opportunity to observe that the real goods produced by labour already exist when money wages are paid: “The capitalist buys the labour power before it enters into the process of production, but pays for it only at stipulated times, after it has been expended in the production of use values. . . . [T]he labourer has already supplied the capitalist with the equivalent of his wages” (MECW 36: 397–8).

an exchange of commodities amounting to £4000, “because the entire annual product is described as exchanged in bulk, in a few large lots,” whereas money flows back and forth before returning to its origin (399). The outcome of the *two* sets of exchanges entailing capital goods of £2000 purchased by consumer-goods capitalists against £2000 of consumer goods (one half purchased by capital-goods workers and one half by their employers), with money acting solely as exchange medium, is described thus: “Of the money which the industrial capitalists throw into circulation to accomplish their own commodity circulation, whether at the expense of the constant part of the commodity value or at the expense of the surplus value existing in the commodities to the extent that it is laid out as revenue, as much returns into the hands of the respective capitalists as was advanced by them for the money circulation” (400). This summary must be supplemented, of course, by the initial flows entailing  $v_1$ , namely purchase of consumer goods by capital-goods workers (400–1).

Thus far the inter-departmental exchanges of  $v_1(1000) + s_1(1000)$  against  $c_{II}(2000)$  have been accounted for. Nothing has been said either of the goods consumed *within* the consumer-goods sector by workers and their employers ( $v_{II} + s_{II}$ ), amounting to £1000, or of the “reproduction” of constant capital *within* the capital-goods sector ( $c_I$ ) amounting to £4000 (396–7). As for consumer-goods workers, they are perceived simply as “buy[ing] back,” with money wages received, “a portion of their own product” – the remainder being consumed by capitalists; “[t]hereby the capitalist class II reconverts the money capital advanced by it in the payment of labour power into the form of money” (401). In fact: “It is quite the same as if it had paid the labourers in mere value tokens. As soon as the labourers would realise these value tokens by the purchase of a part of the commodities produced by them but belonging to the capitalists, these tokens would return into the hands of the capitalists” (401–2).

\* \* \*

Matters become more complex once a contrast is introduced between “necessaries” (Department IIa) consumed by both workers and capitalists, and “luxuries” (IIb) consumed by capitalists alone. The complexity does not affect laborers producing “necessaries” (402). By contrast, just as capital-goods workers do not purchase their own product but generate a process of inter-departmental exchange against consumer goods, so workers engaged in *luxury* production do not purchase their own product, but acquire wage goods via an exchange between sectors – or rather sub-sectors – a process requiring “mediation” (402–3). Commodity flows between the *sub-departments* are then traced out, depending on the relative magnitudes of the two sub-divisions, necessities (a) and luxuries (b); and the budget allocations by consumer-goods capitalists between necessities and luxuries (403–6). The outcome, allowing for labourers producing but not consuming luxury goods, supplements the primary inter-departmental exchange  $v_1 + s_1$  against  $c_{II}$  (406–7).

\* \* \*

We return to the basic simple-reproduction case and recall that one third of the output of the capital-goods sector ( $v_1$  and  $s_1 = £2000$ ) is exchanged for the consumer goods required by capital-goods workers and their employers, which leaves an amount  $c_1 = £4000$ , representing the replacement within Department I of that Department's constant capital consumed in the annual process (above, p. 71). Given that "[t]he capitalist class of I comprises the totality of the capitalists producing means of production,"  $c_1$  could not be treated in the manner of the *individual* producer of a particular capital good who engages in sale of his product against money and repurchase of the requisite means to set the production process going once again (421). (The contrast between the *individual* and *aggregate* dimensions is set out in general terms, above, p. 68). In any event, there is no part of the annual "social product" against which an exchange can be made: "One portion has been absorbed by the social consumption fund [ $\Sigma_v + \Sigma_s$ ], and another portion has to replace the constant capital of department II, which has already exchanged everything it could dispose of in an exchange with department I." The issue is phrased as the "riddle" of fixed-capital replacement even in the Simple scheme, for "[f]rom the standpoint of society, two-thirds of the labor expended during the year" – the entire labor force of department I represented by 2,000  $I_{v+s}$  – "have created new constant capital value realised in the natural form appropriate for department II . . . in order to replace the value of the constant capital expended in the production of articles of consumption," and *these newly produced means of production were "not resolvable into revenue in the form of wages or surplus value, but can function only as capital"* (437; emphasis added). Now since the remaining one-third of the workforce produces consumer goods for consumer-goods workers and their employers, the obvious problem arises that the reproduction of new constant capital in I is not apparently accounted for, since the noted applications have exhausted the workforce. The situation corresponds to the consumption of consumer goods by consumer-goods workers and their employers, namely *within* sector II: "In II a part of the commodity product is individually consumed *in natura* by its own producers while in I a portion of the product is productively consumed *in natura* by its capitalist producers" (421–2). This might be literally the case, but even when exchanges *within* the sector occur, "[i]t is an exchange of the different individual parts of constant capital among themselves" (423), such as would occur even under a Communist form of organization: "If production were social instead of capitalist, these products of department I would evidently just as regularly be redistributed as means of production to the various branches of this department, for purposes of reproduction, one portion remaining directly in that sphere of production from which it emerged as a product, another passing over to other places of production, thereby giving rise to a constant to-and-fro movement between the various places of production in this department." The "riddle" and the proposed solution are expounded in the *Economic Manuscripts* with the aid of a Physiocratic-type flow of funds diagram (see Chapter 11.B).

### F. The “Extended Reproduction” Scheme

Sectoral balance in a stationary system implies that purchases of consumer goods by capital-goods workers and their employers out of net income ( $v_1 + s_1$ ) – assumed to be devoted entirely to consumption – exchange against purchases of capital goods for replacement purposes by the consumer-goods sector ( $c_1$ ). Sectoral balance in an expanding system undertaking positive savings by capitalists out of their (growing) surpluses to finance net accumulation, implies that the increased consumer-goods purchases by the expanding capital-goods work force and their employers exchange against the capital-goods requirements in the consumer-goods sector for both maintenance and expansion. As before, exchanges internal to each sector are assumed to occur flawlessly and are not discussed further. Since the condition for “simple” reproduction may be viewed as embedded in that for growth (above, p. 70), the modification asserts merely that consumption demand by capital-goods sector I must grow along with net accumulation in consumer-goods sector II, or to be more precise – as we shall presently find – that net accumulation by II grows along with increased consumption demand emanating from I.

Marx does not actually state the problem as one entailing a stationary system subjected to a decision by producers to save out of a given surplus.<sup>20</sup> Rather, he selects an alternative set of assumed data to represent the departments in his initial exposition of “reproduction on an enlarged scale (which is here regarded merely as production carried on with a larger investment of capital)” (MECW 36: 506). In order to emphasize the divorce, as it were, of the two schemes, and start afresh with one having growth potential, he designs two data sets with the sum total of annual output differing from that assumed in the original Simple Reproduction case (9000):

$$\begin{array}{r}
 \text{Scheme a)} \\
 \text{Scheme b)}
 \end{array}
 \begin{array}{l}
 \text{I. } 4000_c + 1000_v + 1000_s = 6000 \\
 \text{II. } 1500_c + 376_v + 376_s = 2252 \\
 \\
 \text{I. } 4000_c + 875_v + 875_s = 5750 \\
 \text{II. } 1750_c + 376_v + 376_s = 2502
 \end{array}
 \left. \vphantom{\begin{array}{l} \text{I. } 4000_c + 1000_v + 1000_s = 6000 \\ \text{II. } 1500_c + 376_v + 376_s = 2252 \\ \text{I. } 4000_c + 875_v + 875_s = 5750 \\ \text{II. } 1750_c + 376_v + 376_s = 2502 \end{array}} \right\} 8252$$

Of these schemes, with equal annual output (in value terms) only scheme a) has an “arrangement” or “grouping” of elements that “forms the material basis of reproduction on an extended scale” indicated by the initial excess  $(v + s)_I > c_{II}$ , whereas in b)  $(v + s)_{II}$  are exchanged without any surplus” against  $c_{II}$  (507). The condition  $(v + s)_I > c_{II}$  allows capitalists in I the wherewithal to

<sup>20</sup> The key to the transition from Simple to Expanded Reproduction is outlined in a discussion of the finance of net investment: “In order that the transition . . . may take place, production in department I must be in a position to fabricate fewer elements of constant capital for II and so many the more for I” (MECW 36: 496).

make net additions to capital after all replacements (in both sectors) have been satisfied.<sup>21</sup>

The condition for accumulation is spelled out in a passage relating to a case where  $(c/v)_I = (c/v)_{II} = 5/1$ . The account stresses purchase of wage goods by capital-goods workers at *retail*, though their employers treat wage payments as capital outlay in money form, confirming once again that the notion of “labor power” has no operational significance as far as concerns economic process:

It goes without saying that as soon as we assume accumulation,  $I_{(v+s)}$  is greater than  $II_c$ , not equal to  $II_c$ , as in simple reproduction. For in the first place, I incorporates a portion of its surplus product in its own productive capital and converts 5/6 of it into constant capital, therefore cannot replace these 5/6 simultaneously by articles of consumption II. In the second place, I has to supply out of its surplus product the material for the constant capital required for accumulation within II, just as II has to supply I with the material for the variable capital, which is to set in motion the portion of I’s surplus product employed by I itself as additional constant capital. We know that the actual, and therefore also the additional, variable capital consists of labour power. It is not capitalist I who buys from II a supply of necessities of life or accumulates them for the additional labour power to be employed by him, as the slaveholder had to do. It is the labourers themselves who trade with II. But this does not prevent the articles of consumption of his additional labour power from being viewed by the capitalist as only so many means of production and maintenance of his eventual additional labour power, hence as the natural form of his variable capital. His own immediate operation, in the present case that of I, consists in merely storing up the new money capital required for the purchase of additional labour power. As soon as he has incorporated this in his capital, the money becomes a means of purchase of commodities II for this labour power, which must find these articles of consumption at hand (515).

Simple Reproduction was for Marx merely a point of theoretical reference of little practical relevance under capitalism with its typically *positive* accumulation rate. *Natural population increase* is here taken for granted: “considering the natural annual increase in population, simple reproduction could take place only to the extent that a correspondingly larger number of unproductive servants would partake of the 1,500 representing the aggregate surplus value [in the original example]. But accumulation of capital, real capitalist production, would be impossible under such circumstances.” The fact of capitalist accumulation therefore “excludes the possibility of  $II_c$  being equal to  $I_{(v+s)}$ ” (520–1). We shall return to this matter in Chapter 5.G.

\* \* \*

<sup>21</sup> On this condition Joan Robinson observed: “Part of the surplus of both group I and group II is saved, that is, not expended on the products of group II (consumption goods);  $v_1 + s_1$  then exceeds  $c_2$ , and must be matched by an equivalent outlay on new capital goods out of  $s_2$ . Saving represents sales without purchases, and can proceed smoothly only if it is offset by equivalent investment – purchases without sales” (Robinson 1967 (1942): 48). But in some of her later writings she qualifies this interpretation on the grounds that it represented Marx in too “Keynesian” a fashion (see Chapter 5, note 30).

In his primary illustration, to which we now turn, Marx adopts the following initial scheme for reproduction on an extended scale, satisfying the condition  $(v + s)_I > c_{II}$ :

$$\left. \begin{array}{l} \text{I. } 4000_c + 1000_v + 1000_s = 6000 \\ \text{II. } 1500_c + 750_v + 750_s = 3000 \end{array} \right\} 9000$$

Should capitalists-I save 50% of their surpluses  $s_I$  ( $g_I = .5$ ) the corresponding net investment outlays of 500 must be allocated between  $c_{II}$  and  $v_{II}$  according to the assumed  $c/v$  ratio of 4:1, so that capital-goods workers’ consumption ( $v_I$ ) amounts to 1100 which, added to capitalists’ consumption of 500, implies a net demand for consumer goods of 1600. For interdepartmental balance, this level of consumption *necessitates* investment in constant capital by II of 1600, that is a higher demand for capital goods by 100 from the initial 1500 (with corresponding increase by 50 in  $v$  to satisfy  $c/v = 2/1$ ). These inter-departmental exchanges – which supplement those reflecting “simple” reproduction, or “[t]he replacement of  $(1,000_v + 500_s)$  I by  $1,500_{II_c}$ ” – are accomplished by appropriate money flows:

II... buys from I for the purpose of accumulation the  $100 I_s$  (existing in means of production) which now form additional constant capital II, while the 100 in money which it pays for them are converted into the money form of the additional variable capital of I. We then have for I a capital of  $4,400_c + 1,100_v$  (the latter in money) = 5,500.

II has now  $1,600_c$  for its constant capital. In order to put them to work, it must advance a further  $50_v$  in money for the purchase of new labour power, so that its variable capital grows from 750 to 800. This expansion of the constant and variable capital of II by a total of 150 is supplied out of its surplus value (510–11).

Before proceeding, we emphasize that *the savings ratio of capitalists-I* dictates that of capitalists-II, for  $g_I = 50\%$  is a *datum* of the analysis, along with the differential  $c/v$  ratios and the common  $s/v = 1$ , whereas  $g_{II}$  is effectively a *dependent variable* (see further on this characteristic, pp. 81–2). Secondly, differing  $c/v$  ratios but uniform  $s/v$  indicate *differential “profit rates”* between sectors:

$$r_I = s/(c + v)_I = 20\%; \quad r_{II} = s/(c + v)_{II} = 33\frac{1}{3}\%$$

*which conflicts with Marxian “competition.”*<sup>22</sup> And thirdly, that capitalists invest their surpluses solely within the department in which they are generated, is, Joan Robinson has pointed out, “a severe assumption to make even about the era before limited liability was introduced, and becomes absurd afterwards” (Robinson 1951: 17).

<sup>22</sup> Without the further assumption that the entire capital stock “turns over” once a year (see Morishima 1973: 118n), the ratio  $s/(c + v)$  in the present context is *not* the “profit rate” since  $c$  “represent[s] the constant capital *consumed* in production [and] does not coincide with the value of the constant capital *employed* in production” (MECW 36: 395).

The outcome to this point – “the arrangement changed for purpose of accumulation” – is summarized thus:

A. INITIAL SCHEME FOR REPRODUCTION ON AN EXTENDED SCALE:

$$\left. \begin{array}{l} \text{I. } 4000_c + 1000_v + 1000_s = 6000 \\ \text{II. } 1500_c + 750_v + 750_s = 3000 \end{array} \right\} 9000$$

B. ARRANGEMENT CHANGED FOR PURPOSES OF ACCUMULATION:

$$\left. \begin{array}{l} \text{I. } 4400_c + 1100_v + 500 \text{ (capitalist' "consumption fund")}^{23} = 6000 \\ \text{II. } 1600_c + 800_v + 600 \text{ (capitalist' "consumption fund")} = 3000 \end{array} \right\} 9000$$

Assuming now that “production really goes on with this augmented capital” (511), the new arrangement yields at the close of the “year,” with  $s/v = 100\%$

$$\left. \begin{array}{l} \text{I. } 4400_c + 1100_v + 1100_s = 6600 \\ \text{II. } 1600_c + 800_v + 800_s = 3200 \end{array} \right\} 9800$$

This represents the new base with  $(v + s)_1 > c_{II}$  maintaining the condition for growth. And once more  $c_{II}$  must rise to assure equality with a rising  $v +$  consumption fund of capitalists-I. Marx traces out 5 stages as in Table 2.1.

Marx (513–14) points out the following expansions between the end of year zero and the end of year 5:

|               | ORIGINAL                   | FINAL                       |
|---------------|----------------------------|-----------------------------|
| TOTAL CAPITAL | $5500_c + 1750_v = 7250$   | $8784_c + 2781_v = 11565$   |
| TOTAL SURPLUS | $1000_I + 750_{II} = 1750$ | $1610_I + 1171_{II} = 2781$ |

Moreover, *total capitalist's consumption* rises from  $500_I + 600_{II} = 1100$  at the beginning of year 1 to  $732_I + 746_{II} = 1478$  at the beginning of year 5. But there are more specific patterns to be noted. First, the “profit rates” ( $s/(c + v)$ ) in the two sectors remain steady throughout at  $r_I = 20\%$  and  $r_{II} = 33\frac{1}{3}\%$ , the constancy in each case imposed by the given  $c/v$  ratio in each sector and  $s/v$ . Second, whereas the savings to surplus ratio of department I is imposed by assumption at  $g_I = 50\%$ , that in II rises from  $150/750 = 20\%$  (year zero) to  $240/800 = 30\%$  (year 1) and remains at that level thereafter. (The initial rise is achieved by the *absolute fall* in the capitalists' consumption fund from 600 to 560.) Third – and an aspect of what has just been said – the accumulation rate, or yearly percentage increase in  $c + v$ , is a steady 10% in department I but rises after year 1 from about 6.6% initially to 10% in department II, remaining at that level thereafter. The same pattern emerges

<sup>23</sup> Marx may have adopted the term “consumption fund” from Sismondi 1951: I, 95.



Table 2.1. (\* = "consumption fund")

|                  |   |         |
|------------------|---|---------|
| END YEAR "0"     | I. $4000_c + 1000_v + 1000_s = 6000$<br>II. $1500_c + 750_v + 750_s = 3000$   | } 9000  |
| BEGINNING YEAR 1 | I. $4400_c + 1100_v + 500^* = 6000$<br>II. $1600_c + 800_v + 600^* = 3000$    | } 9000  |
| END YEAR 1       | I. $4400_c + 1100_v + 1100_s = 6600$<br>II. $1600_c + 800_v + 800_s = 3200$   | } 9800  |
| BEGINNING YEAR 2 | I. $4840_c + 1210_v + 550^* = 6600$<br>II. $1760_c + 800_v + 560^* = 3200$    | } 9800  |
| END YEAR 2       | I. $4840_c + 1210_v + 1210_s = 7260$<br>II. $1760_c + 880_v + 880_s = 3520$   | } 10780 |
| BEGINNING YEAR 3 | I. $5324_c + 1331_v + 605^* = 7260$<br>II. $1936_c + 968_v + 616^* = 3520$    | } 10780 |
| END YEAR 3       | I. $5324_c + 1331_v + 1331_s = 7986$<br>II. $1936_c + 968_v + 968_s = 3872$   | } 11858 |
| BEGINNING YEAR 4 | I. $5856_c + 1464_v + 665^* = 7986$<br>II. $2129_c + 1065_v + 678^* = 3872$   | } 11858 |
| END YEAR 4       | I. $5856_c + 1464_v + 1464_s = 8784$<br>II. $2129_c + 1065_v + 1065_s = 4259$ | } 13043 |
| BEGINNING YEAR 5 | I. $6442_c + 1610_v + 732^* = 8784$<br>II. $2342_c + 1171_v + 746^* = 4259$   | } 13043 |
| END YEAR 5       | I. $6442_c + 1610_v + 1610_s = 9662$<br>II. $2342_c + 1171_v + 1171_s = 4684$ | } 14346 |

with respect to  $s_I$ ,  $s_{II}$  and total surplus; and, of course, the annual growth rate of capital goods ( $c_1 + v_1 + s_1$ ) is also a steady 10% while that of consumption-goods ( $c_2 + v_2 + s_2$ ) rises from 6.6% to a steady 10%. *Total* product grows at an initial 8.8% rising to a steady 10%.

The initial adjustments in department II – reduced consumption by capitalists, and increase in savings ratio, in rate of capital accumulation and in surplus – would

have been excluded had Marx started with *end* year-1. Those variations reflect the choice of initial values. But the choice does bring to light clearly that *for steady growth in Marx's scheme it is department I that sets the pace (all variables rising by 10%) to which department II must accommodate itself.* A savings ratio out of surplus of only 30% in the consumer-goods sector suffices to assure ongoing steady growth of capital-goods (and total output), though 50% is the *given* savings ratio in the capital-goods sector itself, and this because demand for consumer goods emanating from I does not turn on total accumulation in I but *only on the wages-goods component* (apart of course from department-I capitalists' consumption).

The initial savings rate in II of 20% falling short, must be adjusted upwards to assure steady and balanced growth. Does Marx explain how the necessary adjustment is achieved? To a degree he does so in a subsequent illustration, satisfying the initial condition  $I_{(v+s)} > II_c$ , which traces out the implications should capitalists-II *not* undertake the additions to  $c$  required by a decision on the part of capitalists-I to accumulate:

$$\left. \begin{array}{l} \text{I. } 5000_c + 1000_v + 1000_s = 7000 \\ \text{II. } 1430_c + 285_v + 285_s = 2000 \end{array} \right\} 9000$$

Here a savings ratio in I of 50% implies consumption of  $1000_v + 500$  exceeding  $c_{II}$  by 70, so that "it is necessary to add 70" from the surplus value in II (514). This, Marx points out, is not a matter of simple exchange but of a real accumulation requirement on the part of II which *if not actually undertaken renders "unsaleable" an equivalent amount of capital-goods* (517–18).

Conversely, it is possible that while  $I_{(v+s)} > II_c$ , satisfying the condition for *potential* accumulation, yet the sum of consumption expenditures emanating from I (after the decision is made to save out of surplus  $s/2$ ), *falls short of  $II_c$* , i.e., that the desired rate of saving in I is so high that consumption requirements do not suffice to provide capitalists-II with the wherewithal – via interdepartmental exchange – to acquire capital goods sufficient even to *replace  $c_{II}$* . In this case II must "purchase" its maintenance requirements, referring evidently to a *net* expenditure of money funds: " $I_{(v+1/2s)}$  is smaller than  $II_c$ . In this case II does not fully reproduce its constant capital by means of exchange and must make good the deficit by purchase from I. But this does not entail any further accumulation of variable capital II, since its constant capital is fully reproduced only by this operation. On the other hand, that part of capitalists I, who accumulate only additional money capital, have already accomplished a portion of this accumulation by this transaction" (520). However, apart from the unanswered question relating to the source of money funds for II, the case is anomalous in that only departmental-I is expanding, which is certainly not the Marxian norm, and does not figure at all as an issue in the main illustration.

\* \* \*

It is helpful to derive a general expression for the annual growth of *capital-goods* output. Let  $k_1 = (c + v)_1$ ;  $g_1 =$  the (given) proportion of surplus  $s_1$  converted into

net investment;  $s/v$  the (given) rate of surplus value; and  $(c/v)_I$  the organic composition of capital,  $v/(c + v)_I$  or  $(v/k)_I$  the wage-goods fraction in total “capital” and  $r_I = (s/v \cdot v/k)_I = (s/k)_I$  the profit rate.<sup>24</sup> Total-capital goods output in any year  $t$ ,

$$\begin{aligned} x_t^I &= k_t^I + s_t^I \\ &= (k_{t-1}^I + g_I s_{t-1}^I) + (s/k)_I (k_{t-1}^I + g_I s_{t-1}^I) \\ &= (k_{t-1}^I + g_I s_{t-1}^I) (1 + s/k)_I^I \end{aligned}$$

For example, using Table 2.1 data:

$$\begin{aligned} x_2^I &= ((4400 + 1100) + 1100/2)(1 + 1100/5500) \\ &= (5500 + 550)(1.2) \\ &= 6050(1.2) = 7260 \\ x_3^I &= ((5856 + 1464) + 1464/2)(1 + 1464/7320) \\ &= (7320 + 732)(1.2) \\ &= (8052)(1.2) = 9662 \end{aligned}$$

Generalizing:  $x_t^I = x_0^I(1 + g_I \cdot r_I)^t$ ,<sup>25</sup> capital-goods output in our case growing at a constant annual rate of 10% determined by the given profit rate ( $r_I = 20\%$ ) corrected by the given savings ratio ( $g_I = 50\%$ ):  $\dot{x}_I = g_I \cdot r_I = 10\%$ .<sup>26</sup> The process is described by Marx, following Sismondi, as a “spiral” (above, p. 8 and note 9).

\* \* \*

As for the consumer-goods sector, we recall that the proportion of surplus  $s_{II}$  converted into net investment is not a datum, but the “passive” outcome of the investment decisions in department-I, yielding – in Marx’s illustration – an initial value of 20% rising to a steady 30%. The  $c/v$  ratio is given at 2/1 so that  $(v/k)_{II} = 1/3$ . Assuming as usual  $s/v = 1$ , the formula

$$x_t^{II} = (k_{t-1}^{II} + g^{II} s_{t-1}^{II}) (1 + s/k)_{II}^{II}$$

<sup>24</sup> Again there is the ambiguity regarding the  $c$  element, whether it represents total capital stock or only the “used-up” portion (see note 21).

<sup>25</sup> With  $r_I$  is the “profit” rate,  $r_I \cdot x_0^I =$  total “profit” and  $g_I \cdot r_I \cdot x_0^I =$  net additions to the stock of “capital.”

<sup>26</sup> In our numerical instances, for end year 2 and end year 5:

$$\begin{aligned} x_2^I &= 6600 + 10\% \cdot 6600 = 7260 \\ x_5^I &= 8784 + 10\% \cdot 8784 = 9662 \end{aligned}$$

Generally:  $x_t^I = x_0^I(1 + g_I \cdot r_I)^t$ , so that for example we have for the *second* period – which is *end year 3*, the base year being end year 1 (6600) not end year “zero” (6000) since that is not yet an equilibrium situation:  $x_3^I = 6600(1.1)^2 = 7986$ .

where  $g_{II}$  is the “required” savings to surplus ratio and  $(s/k)_{II}$  the profit rate in department II, yields for year-5:

$$\begin{aligned}x_5^{11} &= (3194 + 3/10 \cdot 1065)(1 + 1065/3194) \\ &= (3513)4/3 = 4684\end{aligned}$$

The general rule applies: *the growth rate of output in department I =  $(r \cdot g)_I = 20\% \times 1/2 = 10\%$ , becomes the growth rate in department II required to assure balanced inter-departmental exchanges. This growth rate, given the profit rate of  $33^{1/3}\%$ , dictates a savings ratio of 30%.*

Marx’s main illustration therefore does not presume that capitalists-II attempt – like capitalists-I – to save 50% of surpluses, but treats their savings decisions as *responses* to those made in sector I – in effect the “lead” sector – required to assure ongoing or flawless growth. Morishima refers to Marx’s “very peculiar investment function, such that . . . capitalists of department I devoted a constant proportion of their surplus value to accumulation . . . and capitalists of department II adjusted their investment so as to maintain the balance between the supply and demand for capital goods” (Morishima 1973: 118; also Luxemburg 1951 [1913]: 120–38). But Marx was *obliged* to proceed in this fashion by the structure of the departmental analysis, for to impose a  $g_{II}$  ratio renders the system over-determined.

This same characteristic also made it impossible to start out with a Simple Reproduction scheme, for example:

$$\begin{aligned}\text{I. } &4000_c + 1000_v + 1000_s \\ \text{II. } &2000_c + 500_v + 500_s\end{aligned}$$

and trace out the implications of decisions by capitalists in each sector to engage in saving and net accumulation, i.e., to examine the *transition* from a static to a growing system; rather it was necessary to select *initial data* in the main scheme whereby  $(v + s)_I > c_{II}$  (see above, p. 75). Had Marx started out with the Simple Reproduction scheme, there would have been no way to set the system in motion. First, an assumed common increase in  $g$  from zero (say to  $1/2$ ) in each sector implies that total demand for consumer goods by department-I *falls short* of total demand for capital goods by department II:

$$\begin{aligned}\text{I. } &4400_c + 1100_v + 500 \text{ (consumption fund)} \\ \text{II. } &2200_c + 550_v + 250 \text{ (consumption fund)}\end{aligned}$$

But even  $g = 1/2$  in department I alone is problematic, since I’s savings ratio implies consumption of 1600 falling short of  $c_{II}$ . This problem, that part of department-II’s product is rendered unsaleable, is taken up by Marx thus: “Instead of 2,000  $I_{(v+s)}$ , only 1,500, namely  $(1,000_v + 500_s)$  I, are therefore exchangeable for 2,000  $II_c$ ; 500  $II_c$  cannot be reconverted from the commodity form into productive (constant) capital II. Hence there would be an overproduction in II, exactly equal in volume to the

expansion of production in I” (503–4). Marx goes on to suggest that the “overproduction” in question might even impede the ability of II to buy the capital-goods’ counterpart of  $v_I$  (504). *The transition to growth remained for Marx an enigma.*

\* \* \*

What now of the *economic logic* for regarding department-I as lead sector by treating the savings ratio  $g$  – not only the profit rate  $r$  – as a datum? No reason is given by Marx for this decision, whereas it would appear intuitively possible to fix the savings ratio in II so that the growth rate of the economy is determined in that sector, with I coming into line. However, if one carries out this exercise it is not clear that the required interdepartmental balance can be satisfied. For example, using as base (Table 2.1) the end year-one data II.  $1600_c + 800_v + 800_s$  – year zero is below “par” as we have seen – assume that department II saves 1/2 of surplus ( $g_{II} = 50\%$ ) and allocates the new accumulations ( $= 400$ ) according to  $c/v = 2/1$  so that  $c$  rises by 266.6 and  $v$  by 133.3. At the beginning of year 2 we now have:

$$\text{II. } 1866.6_c + 933.3_v + 400 \text{ consumption fund}$$

Inter-sectoral balance requires that consumption by workers and capitalists in department I must equal 1866.6. Applying the principle that the growth rate of the economy is determined once the departmental savings rate as well as the profit rate are given,  $g_{II} \cdot r_{II}$  will determine the growth rate at one half  $33.3\% = 16.6\%$ . The savings rate required of I must guarantee this same growth rate. Thus with the original end year 1 data for I:  $4400_c + 1100_c + 1100_s = 6600$  with  $r = 20\%$ ,  $g_I$  is determined thus:

$$g_I \cdot 20\% = 16.6\% \therefore g_I = 83\%$$

This savings rate implies that “required” net investment – and corresponding consumption – in I  $= 83/100 \times 1100 = 913$ , which, with  $c/v = 4/1$ , is allocated between  $c$  and  $v$  in the ratio  $730.4/182.6$  yielding:

$$\text{I. } 5130_c + 1282.6_v + 187 \text{ (consumption fund)} = 6600.$$

But the sum of consumption requirements thus emanating from department I ( $= 1469.6$ ), falls short of the capital-goods requirements of department II ( $c_{II} = 1750$ ). *It is not clear whether this imbalance is an inherent feature of the system precluding treatment of II as lead sector and, if so, why.*

## G. Concluding Comment

There is much more that might be said of the Departmental analysis relating to amortization (MECW 36:448 f) and the finance of net investment (488 f) (see note 20.) But all this would take us too far afield into the monetary domain. Our discussion has focused on the apparent inability of the departmental device to deal with the transition from a stationary to a growing economy – from “Simple” to

“Extended Reproduction” – an aspect of the modern “traverse.” Of this Marx was fully aware. For all that, he approached the problem in impressively original terms while paying generous tribute to the Physiocrats (e.g., MECW 45: 208, 265).

Notwithstanding the sectoral disaggregation procedure, the analyses of the falling wage-rate and profit-rate trends proceed in aggregative terms. We devote the next two chapters to these trends. The departmental analysis reappears in Chapter 5.G in the cyclical context.

## THREE

### Economic Growth and the Falling Real-Wage Trend

#### A. Introduction

To this day one frequently encounters an unwillingness to take seriously Marx's pronouncements regarding the tendency of the commodity wage to decline, the "law of immizeration" under capitalism (Sowell 1960; Dobb 1982: 90; Ramirez 1986; Lapidés 1994, 1998; Howard 2000: 1040).<sup>1</sup> Some Marxologists admit a secular decline in the value of labor power, but insist that it reflects increasing productivity cheapening the costs of wage goods (such decline being consistent even with rising commodity wages); or they allow only a relative decline in real wages compared with the return to property. Certainly, some confusion has been created by Marx's famous statement that "in proportion as capital accumulates, the lot of the labourer, be his payment high or low, must grow worse" (MECW 35: 639), for it can be read to imply increasing "immizeration" despite rising real wages. Rosdolsky maintains that if by the "accumulation of misery," Marx referred to the working class as a whole, "one would have to suppose that [he] expected this 'ignorant, brutalized and morally degraded' working class [to which he referred in our present context] to establish socialism – something which might perhaps be asserted by Bakunin, but not by Marx!" (1980: 303–4); and he argues further that any downward pressure on wages may be passed on to underdeveloped areas of the world (307f). Similarly, for Mandel: "l'idée selon laquelle les salaires réels des travailleurs avaient tendance à baisser de plus en plus est totalement étrangère à l'oeuvre de Marx" (1962: 180). The tendency of average wages to fall "applies only to capitalist society taken as a whole, that is, on the *world* scale" the burden being transferred "to the countries of

<sup>1</sup> See, however, Gottheil 1966: 157–9; Sweezy 1968: 115; Blaug 1980: 56–7. Sowell has apparently qualified his position: "During the economic distress years of the 1840s . . . Marx and Engels expected the actual real income of workers to decline under capitalism. . . . In later years, however, as the standard of living of the working class was visibly rising, Marx's views changed, though he was neither graceful nor prompt in announcing such changes" (Sowell 2006: 160–1). Sowell does not document this assertion. We shall take up the matter in our discussion of Marx's "revisionism" in Chapter 15.

the “Third World” (1971: 149). But this sort of reading does not allow for extensive textual evidence pointing to declining real earnings in the ordinary sense of that term, and the likelihood that Marx intended a decline in the general wage rate which affects *all* classes of laborers – those high on the wage scale as well as those at a lower level – in Britain, the primary industrial nation. There is even a prediction that the United States would experience the same pattern.

This chapter concerns then, more specifically, Marx’s adherence to a secular path of (industrial) wages which tends to decline towards the “subsistence” level defined in the orthodox manner as that wage at which population growth ceases. The underlying cause of the decline is shown to be a continually decelerating rate of growth in the demand for labor – though an absolute increase – in the face of ongoing (over some ranges possibly accelerating) population expansion. Insofar as the falling wage trend turns strategically on the demographic variable the model has much in common with the canonical classical growth model. But there is this difference, that whereas for the classics the declining growth rate of labor demand reflects declining productivity in the agricultural sector given technology, for Marx it is the consequence of technological change – increasing rather than decreasing productivity. Secondly, the orthodox classicals proposed measures to encourage “prudential restraint” designed to maintain the real wage by repressing the growth rate of population in line with that of labor demand; whereas Marx dismissed this line of approach, focusing to the contrary on *degeneration* of standards.

My general position on the role of population pressure has much in common with that of Tucker (1961: 265, 267–8). And Secombe remarks correctly that while Marx rejected any “natural or eternal law of human population growth or overpopulation,” he “did not consistently uphold the principle of historical specificity with regard to population patterns in *Capital*, but often slipped back into the naturalist discourse which he criticized Malthus for” (1983, 32). On the other hand, Sweezy categorically asserts that though “Marx never wrote much about the factors which determine the size of the population . . . this much is certain, that he had no use whatever for the Malthusian theory or any of its variants” (1942: 86); moreover, “the principle of the reserve army is independent of any particular population assumption . . . work[ing] equally well with a stationary or even a declining population. In this we have one of the decisive differences between Marx and his predecessors in the classical school” (89).<sup>2</sup> Harvey writes of “Marx’s rather surprising failure to undertake any systematic study of the processes governing the production and reproduction of labor power itself. . . . This omission is, perhaps, one of the most serious of all the gaps in Marx’s own theory, and one that is proving extremely

<sup>2</sup> Sweezy does not in fact deny “the practical and theoretical significance [for Marx] of the rate of population growth”; but he opines that “[t]he problem acquires great importance on a somewhat lower level of abstraction” (Sweezy 1942: 222).



difficult to plug” (1982: 163).<sup>3</sup> But Marx’s *purpose* was “to establish that capital produced an industrial reserve army no matter what the supply of labor power” so that “we could explain poverty and unemployment without reference to the processes of social reproduction that were frequently invoked though poorly understood by the classical *political* economists” (163–4). And more recently, Sinha – who accepts the *absolute* immiseration thesis and also that “the rate of population growth is ‘naturally’ positive during normal circumstances” (note 8) – maintains that a secular downward trend in real wages can be derived in Marx’s framework quite independently of a theory of population, holding good “even when the rate of growth of population is assumed to be zero” (Sinha 1998: 104); that “positive growth in population is not *essential* for Marx’s theory of increasing *absolute* immiseration” (108); and that “Marx’s theoretical framework is quite capable of generating an absolute immiseration result with a given stagnant population” (110).

Now it is this theme that I question. For, as we shall show, Marx represents population growth as no less an essential feature of capitalistic economy than capital accumulation itself. He also insisted on *increasing aggregate labor demand*, despite capital conversion as characteristic of a growing economy, envisaging only reduction in its rate of growth; accordingly, downward pressure on the wage is exerted provided the population growth rate does not fall more rapidly. (The wage will fall *a fortiori* should the population growth rate be increasing or even constant.) All this holds good on the implicit assumption of a constant participation rate, so that labor-supply strictly defined moves in tandem with population; conceivably labor supply might rise with population constant (or falling) and we shall address this complication.

We proceed as follows. Section B below documents Marx’s adherence to an (empirical) falling wage trend. Fully to appreciate his rationalization requires some understanding of the relation between the orthodox “subsistence” wage – that wage at which population growth ceases – and Marx’s “value of labor power”; the potential for population growth, it transpires, is built into the latter variable, the physiologically determined subsistence wage constituting its lower limit (Section C). Marx’s rationalization of the downward wage path is the subject matter of Section D. Here we show the underlying cause of the decline to be a continually decelerating growth rate of labor demand reflecting the conversion of “variable” into “constant” capital – but certainly not an absolute fall – in the face of ongoing (possibly accelerating) population expansion. Section E concerns the celebrated Industrial Reserve Army – incorporating the underemployed, those engaged in

<sup>3</sup> Harvey, like Sweezy, also maintains that although “the sociological, demographic and geographical aspects of labor supply are important for any general theory of accumulation,” they can be set aside as a first approximation considering Marx’s primary objective to show “that if misery, poverty and unemployment are found under capitalism, then they have to be interpreted as the product of this mode of production and not attributed to ‘nature’” (Harvey 1982: 166).

low-paying unskilled tasks as well as the wholly unemployed – specifically its function of providing a source of available labor to satisfy *cyclical* bursts of activity.

The analysis of the secular downward wage trend applies to the advanced industrial sector. We show in Section F that agriculture is treated differently, for there particularly extensive capital conversion had entailed *absolute* decline in the demand for labor, and the wage rate is represented as already at subsistence. (But see note 19.) Similarly, “domestic industry supernumeraries” – those displaced from the handicraft and decaying manufacturing sectors, as well as from agriculture – are said to be earning minimum wages. In effect, we have a *dual* labor market with the wage rate of active industrial labor exceeding that of various categories of labor falling into the “relative surplus population.”

Changes in the participation rate reflecting increasing use of juvenile and female labor, and changes in effort supply are taken up in Section G. Our concern is whether the falling wage trend can perhaps, after all, be ascribed to increase in labor supply independently of the demographic factor. We shall argue that the simple concept of a higher participation rate is misleading since, for Marx, the conditions of modern industry not only open up opportunities for juvenile labor in place of adult male labor but actually encourage the marriage and birth rates to assure an increased pool of such labor. *Demographic considerations enter strategically into the argument.* As for increased effort supply Marx emphasized limits to higher exploitation achieved in this manner.

I conclude this chapter with reflections on Marx’s rejection of deliberate population control to counter falling real wages as proposed by Malthus and Mill.

## B. The Falling Wage Trend

In a talk of 1865 to a working class audience “Value, Price and Profit” (also known as “Wages, Price and Profit”), Marx makes clear his view that the commodity wages of the employed work force tend downwards. He refers to the “continuous struggle between capital and labour, the capitalist constantly tending to reduce wages to their physical minimum, and to extend the working day to its physical maximum, while the working man constantly presses in the opposite direction” (MECW 20: 146). “[T]he very development of modern industry,” he continues, “must progressively turn the scale in favour of the capitalist against the working man, and . . . consequently the general tendency of capitalistic production is not to raise, but to sink the average standard of wages, or to push the *value of labour* more or less to its *minimum limit*” (148). Rosdolsky (1980: 303–56) has claimed that the passage must be understood subject to the absence of trade union counterpressure. That this is so, runs his argument, is implied by the continuation of the passage: “Such being the tendency of *things* in this system, is this saying that the working class ought to renounce their resistance against the encroachments of capital, and abandon their attempts at making the best of the occasional chances for their temporary improvement? If they did, they would be degraded to one level mass of

broken wretches past salvation” (MECW 20: 146). Now it is true enough that the wage rate is the outcome of a “continuous struggle between capital and labour,” so that “[t]he matter resolves itself into a question of the respective powers of the combatants.” But with which party does the advantage lie? Marx is explicit that trade unions at best “*are retarding the downward movement but not changing its direction; that they are applying palliatives, not curing the malady. They ought, therefore, not to be exclusively absorbed in these unavoidable guerilla fights incessantly springing up from the never-ceasing encroachments of capital or changes in the market. They ought to understand that, with all the miseries it imposes upon them, the present system simultaneously engenders the material conditions and the social forms necessary for an economical reconstruction of society*” (148–9; first emphasis added).

There can surely be no doubt that this discussion posits a declining commodity wage rate. Yet for all that we also find, in the very same speech, a more circumspect tone as far as concerns *recent* trends: “many contemporary writers have wondered that English capital having grown in the last twenty years so much quicker than English population, *wages should not have been more enhanced*” (147; emphasis added) – to which the “*progressive change in the composition of capital,*” i.e., labor-saving technology, is offered as explanation.

In *Capital* itself, Marx declaimed regarding the laborer’s worsening condition in consequence of technological advance: “the higher the productiveness of labour, the greater is the pressure of the labourers on the means of employment, the more precarious, therefore, becomes their condition of existence, viz., the sale of their own labour power for the increasing of another’s wealth, or for the self-expansion of capital” (MECW 35: 639). Consider also the account of “the material conditions” of factory labor which should certainly be included in any measure of the commodity wage: “Economy of the social means of production, matured and forced as in a hothouse by the factory system, is turned, in the hands of capital, into systematic robbery of what is necessary for the life of the workman while he is at work, robbery of space, light, air, and of protection to his person against the dangerous and unwholesome accompaniments of the productive process, not to mention the robbery of appliances for the comfort of the workman” (429–30). The falling commodity wage is a refrain repeatedly heard, Marx citing Ricardo’s “machinery” chapter: “The same cause which may increase the revenue of the country [rent and profit] . . . may at the same time render the population redundant and deteriorate the condition of the labourer” (435n, 626n; also 411n).<sup>4</sup> Andrew Ure is cited to similar effect regarding the impact of improved machinery within “Modern Industry” (435–6). Declining commodity wages is a central feature of the account of the cotton industry during the 1860s: “the inventive spirit of the master never stood still, but was exercised in making deductions from wages,” a trend supplemented

<sup>4</sup> Marx wrote of Ricardo’s *volte face* on machinery in 1821 as an instance of “the scientific impartiality and love of truth characteristic of him” (MECW 35: 441n).

by a deterioration in work conditions (460). The net outcome of cyclical periods of crisis and depression was a “general reduction of wages,” the period 1815–63 including “only 20 years of revival and prosperity against 28 of depression and stagnation” (461). There are also the responses made to Gladstone’s optimistic evaluations of contemporary trends in his Budget speech of 16 April 1863, according to which “while the rich have been growing richer, the poor have been growing less poor” (645–6).<sup>5</sup> Marx alluded favorably to Gladstone’s recognition of falling real wages in his earlier Budget speech of 1843 – “an increase in the privations and distress of the labouring class and operatives . . . [despite] a constant accumulation of wealth in the upper classes, and a constant increase of capital” – but rejected the later case on the basis of price data relating to “meat, butter, milk, sugar, salt, coals and a number of other necessary means of subsistence.” Similarly, amenity – with special reference to house room – had tended to deteriorate, for which proposition extensive evidence is brought (651f).<sup>6</sup> It is particularly revealing that Marx predicted a similar pattern in the United States to that supposedly under way in Britain: “Capitalist production advances there with giant strides even though the lowering of wages and the dependence of the wage worker are yet far from being brought down to the normal European level” (760).<sup>7</sup>

### C. The Subsistence Wage and the Value of Labor Power

“By labor power or capacity for labor is to be understood the aggregate of those mental and physical capabilities existing in a human being, which he exercises whenever he produces a use value of any description” (MECW 35: 177). This definition is important for the perception of surplus value as *unpaid labor time*, but plays no particular role in the positive analysis of the labor market, for “the price of labour power . . . appears as the prices of labour under the capitalist mode of production . . .” (MECW 37: 809). Now in Marx’s speech of 1865, market wages are said to tend “in the long run” towards equality with “the value of labour power,” this

<sup>5</sup> See also for further evidence, MECW 35: 638–9 cited below, p. 98.

<sup>6</sup> For a catalogue of references to Marx’s allusions to a contemporary fall in living standards in Britain, see Gottheil 1966: 157f; also Sinha 1998, note 1.

<sup>7</sup> There is one further matter. Marx’s Reserve Army includes a range of unemployed and under-employed and also those engaged in low-skilled non-industrial activities and the full-fledged pauper population, the welfare burden of which *falls on labor*:

Pauperism is the hospital of the active labour army and the dead weight of the industrial reserve army. Its production is included in that of the relative surplus population, its necessity in theirs; along with the surplus population, pauperism forms a condition of capitalist production, and of the capitalist development of wealth. It enters into the *faux frais* of capitalist production; but capital knows how to throw these, for the most part, from its own shoulders on to those of the working class and the lower middle class (MECW 35: 638).

To the extent that the welfare burden rises – and Marx maintained that “[t]he relative mass of the industrial reserve army increases . . . with the potential energy of wealth” – there is further pressure on the disposable income of employed labor.

latter comprising a “physical element” corresponding to “the necessities absolutely indispensable for living and multiplying” – which forms the minimum limit to the wage and is represented as an (apparently unchangeable) physiological quantum – and a cultural element reflecting the “traditional standard of life,” which is represented as variable (MECW 20: 144–5). Marx here explained that “[b]y comparing the standard wages or values of labour in different countries, and by comparing them in different historical epochs of the same country, you will find that the *value of labour* itself is not a fixed but a variable magnitude, even supposing the values of all other commodities” – alluding here to wage goods – to “remain constant” (145). For the present we may, therefore, assume that the value of labor power reflects variations in the magnitude of the wage basket, setting aside variations in the cost of producing a given basket.

Wages reflecting the “physical element” permits labor merely “to maintain and reproduce itself, to perpetuate its physical existence” (144); at the physical limit the wage is just equal to an amount “necessary for the physical perpetuation of the race” (144–5). Population at that wage is merely replaced but not expanded. The “ultimate limit” to the (long-run) wage corresponds therefore to the orthodox subsistence wage, that wage assuring zero population growth.<sup>8</sup> Now, in this same context, we find the presumption of ongoing contemporary population growth – Marx refers to the “English capital having grown in the last twenty years so much quicker than English population” (147) – although (long-run) wages are assumed equal to the value of labor power. And this is the essential point: for Marx a wage equal to the value of labor power is consistent with net population growth once allowance is made therein for the *cultural* element. (Here is a source of confusion, since for the orthodox economists the subsistence, or zero-growth, wage itself contained a cultural element.)

Let us again turn for further elucidation to *Capital 1*. The definition of the minimum wage will be found once more with reference to constancy of population: “The labour power withdrawn from the market by wear and tear and death, must be continually replaced by, at the very least, an equal amount of fresh labour power. Hence the sum of the means of subsistence necessary for the production of labour power must include *the means necessary for the labourer’s substitutes*,

<sup>8</sup> Sinha objects to my interpretation of Marx’s subsistence wage, on the grounds that the term “necessaries absolutely indispensable for living and multiplying” (MECW 20: 144) is given “a multiplication factor of one” which is arbitrary (Sinha 1998: 104–6). But my reading turns on numerous expressions in the 1865 paper all pointing in the same direction: “the necessities required for . . . *maintenance and reproduction*”; a sufficiency “*to maintain and reproduce itself, to perpetuate its physical existence*”; an amount “*necessary for the physical perpetuation of the race*.” “*Reproduction*,” “*maintenance*,” “*perpetuation*” – and also “*conservation*” in MECW 37: 845 (cited below, p. 92) – strongly suggest to me zero population growth. For all that, it probably mattered less to Marx whether *at subsistence* population growth is zero or positive (or even negative), than that there is a general downward trend of the real wage. And Sinha too insists on the absolute immiseration interpretation (1998: 104, 100), and agrees that the population growth rate is “naturally” positive “during normal circumstances” (110, also 115).

ie., his children, in order that this race of peculiar commodity owners may *perpetuate* its appearance in the market” (MECW 35: 182; emphasis added).<sup>9</sup> Now Marx, in this context, stressed the constancy of “the value of labour power” at any particular state of historical development – by which expression he intended (consistently with the 1865 speech) not merely the minimum wage but the minimum supplemented by the cultural element or the laborer’s “necessary” in addition to his “natural” wants. Here, too, he emphasized that the cultural element is governed by the habits under which “the class of free laborers has been formed” – contrasting with the natural element which varies “according to the climatic and other physical conditions of his country,” confirming the latter’s physiological character (181). Similarly: “The value of labour-power is determined by the value of the necessities of life habitually required by the average labourer. The quantity of these necessities is known at any given epoch of a given society, and can therefore be treated as a constant magnitude” (519). The same theme is restated in *Capital 3* in a passage which even refers to the physical minimum as a “natural law”: “Wages . . . are regulated on the one hand by a natural law; their lower limit is determined by the physical minimum of means of subsistence required by the labourer for *the conservation of his labour power and for its reproduction*; i.e., by a definite quantity of commodities” (MECW 37: 845). Again we see here the constant-population affirmation with respect to the minimum. “The actual value of his labour power,” on the other hand, “depends not merely upon the physical, but also upon the historically developed social needs, which become second nature. But in every country, at a given time, this regulating average wage is a given magnitude” (845–6).

We shall see presently, that in the full analysis of the growth process, the value of labor power is treated (as in the speech of 1865) as a *variable* – this is, in fact, what the falling wage trend is all about. *At this point, it is the Marxian position that a wage equal to the supposedly known value of labor power is consistent with population growth that I seek to establish.* On this Marx is explicit both in *Capital 1* and *Capital 3*. The wage-earning class under capitalism earns “ordinary” wages which “suffice, not only for its maintenance, *but for its increase*,” the formulation encapsulating

<sup>9</sup> Despite the wealth of statements pointing to *zero* population growth at the minimum limit, it may be necessary to allow a certain “fuzziness” in that respect, in the light of the following passage which suggest declining population at the minimum: “The minimum limit of the value of labour power is determined by the value of the commodities, without the daily supply of which the labourer cannot renew his vital energy, consequently by the value of those means of subsistence that are physically indispensable. If the price of labour power fall to this minimum, it falls below its value, since under such circumstances it can be maintained and developed only in a crippled state” (MECW 35: 183). We find, in fact, that Marx allows net population growth at subsistence in *agriculture* (below, note 19). See Ong 1980 for an interesting account of Marx’s concept of subsistence “not as a single level of real wage but as a range of possible levels of real wage which is consistent with the reproduction of the capitalist system” (264).

the meaning of accumulation or real net investment as the conversion of surplus product into “means of subsistence”:

Now in order to allow of these elements actually functioning as capital, the capitalist class requires additional labour. If the exploitation of the labourers already employed do not increase, either extensively or intensively, then additional labour power must be found. For this the mechanism of capitalist production provides beforehand, by converting the working class into a class dependent on wages, *a class whose ordinary wages suffice, not only for its maintenance, but for its increase. It is only necessary for capital to incorporate this additional labour power, annually supplied by the working class in the shape of labourers of all ages, with the surplus means of production comprised in the annual produce, and the conversion of surplus value into capital is complete* (MECW 35: 580; emphasis added).

As for the posthumous volume: “The working class must find at least the same quantity of necessities at hand if it is to continue living in its accustomed average way. . . . Moreover, there must be an additional quantity to allow for *the annual increase of population*” (MECW 37: 187; emphasis added). In a growing system, then, the long-run wage rate, while equal to the value of labor power, exceeds the (physiological) subsistence rate at which population growth ceases; *population growth is built into the value of labor power*.<sup>10</sup>

Let us now consider more closely the labor-supply function. Laborers engaged in the centers of modern industry – “factories, manufacturers, iron works, mines, &c.” as distinct from “domestic industry” – constitute a category with a particularly high death rate and extremely short life span: “The consumption of labour power by capital is . . . so rapid that the labourer, half-way through his life, has already more or less completely lived himself out. . . . It is precisely among the workpeople of modern industry that we meet with the shortest duration of life” (MECW 35: 635–6). Taking for granted net population growth as an aspect of the general process of capitalist development, Marx points to peculiarly high marriage and birth rates to assure such growth notwithstanding the high death rate:

In order to conform to these circumstances [physical disability and high mortality], the absolute increase of this section of the proletariat must take place under conditions that shall swell their numbers, although the individual elements are used up rapidly. Hence, rapid renewal of the generations of labourers (this law does not hold for the other classes of the population). This social need is met by early marriages, a necessary consequence of the conditions in which the labourers of modern industry live, and by the premium that the exploitation of children sets on their production (636).

<sup>10</sup> Objecting to my view of Marx on population, Perelman argues that “[a] diligent reader could select and organize hundreds or even thousands of extracts from Marx, which when taken together would appear to be a most conventional, conservative compendium of political economy. Such a work would accurately reflect elements of Marx’s analysis, but the sum of these parts would amount to considerably less than the whole” (1985: 463–4).

The net increase in labor supply in the modern industrial sector is thus a consequence of population growth *internal* to that sector, rather than of an inflow into that sector from (say) agriculture.<sup>11</sup>

We now address a complexity in Marx's analysis, namely assertions that both wage increases and wage decreases are consistent with an increased rate of population growth. For in a discussion of "absolute overproduction of capital" (upward pressure on wages exerted by particularly rapid accumulation), specific reference is made to a consequential acceleration of the population growth rate: "Prosperity would have led to more marriages among labourers and reduced the decimation of offspring. While implying a real increase in population, this does not signify an increase in the actual working population. But it affects the relations of the labourer to capital in the same way as an increase of the number of actually working labourers would have affected them" (MECW 37: 253–4). Yet we also read that a fall in wages—due to the capital-conversion process, a matter I postpone for the moment—“would be a breeding ground for a really swift propagation of the population, since under capitalist production misery produces population” (217).<sup>12</sup>

I propose the following solution to the apparent paradox consistently with the earlier exegesis: To each given “value of labor power” or “standard of life” and growth rate of labor demand there corresponds a specific growth rate of population to assure the maintenance of the standard; a wage increase, *given the standard*, will stimulate an increased population growth rate, and a wage decrease a decline. This much for fluctuations of the wage about a given standard. But should the fall in the wage reflect a *deterioration in the standard itself*, then matters are very different; at the lower standard the population growth rate may remain constant, or, indeed, may even rise compared to the original level if the degradation in standards is sufficiently marked. This latter possibility plays a part in the full account of the downward wage path as we shall now see.

#### D. The Falling Wage Trend and Population Growth

In the earliest stages of capitalism, accumulation proceeds with organic composition unchanged, so that the rate of labor demand is proportionate to the rate of accumulation (MECW 35: 608). Wage increases result from *deviations between the growth rates of labor demand and labor supply*, for “sooner or later a point must be

<sup>11</sup> On this matter, see Section F. The significance of the closing reference to “exploitation of children” is taken up in Section G.

<sup>12</sup> In *Capital 1* we encounter a similar statement, though applied specifically to domestic industry: “. . . not only the number of births and deaths, but the absolute size of the families stand in inverse proportion to the height of wages, and therefore to the amount of means of subsistence of which the different categories of labourers dispose. This law of capitalistic society would sound absurd to savages, or even civilised colonists. It calls to mind the boundless reproduction of animals individually weak and constantly hunted down” (MECW 35: 637). On this matter, see below pp. 103–4.



reached, at which the requirements of accumulation begin to surpass the customary supply of labour, and, therefore, a rise of wages takes place” (609). The same pattern is experienced in the colonies (755–6; also MECW 20: 146). There is nothing new in all this, since Marx followed orthodox reasoning that “it is neither the actual extent of social wealth, nor the magnitude of the capital already functioning, that lead to a rise of wages, but only the constant growth of accumulation and the degree of rapidity of that growth (Adam Smith, Book I, chapter 8)” (616–17).

Given labor productivity, rising wages imply, of course, a corresponding reduction in the profit rate. Smith is again cited, now to the effect that any such reduction has no depressing effect on accumulation since “[a] great stock, though with small profits, generally increases faster than a small stock with great profits” (614); but Marx did not quite commit himself, allowing also for the possibility of a slowdown in accumulation since the “stimulus of gain is blunted,” such slowdown acting as a corrective, with the result that “[t]he price of labour falls again to a level corresponding with the needs of the self-expansion of capital, whether the level be below, the same as, or above the one which was normal before the rise of wages took place” (614–15). This is problematic for there is no patent reason why a deceleration in accumulation due to the rise in wages should be able to force wages back to, and even below, its initial level. But Marx does later make the more reasonable allowance that the correction reduces the wage but to a level somewhat higher than at the start, thus allowing for an upward trend in wages. On this account any upward movement in the wage is held in check by the dampening effects on the rate of accumulation exercised by the falling return on capital: “But as soon as this diminution touches the point at which the surplus labour that nourishes capital is no longer supplied in normal quantity, a reaction sets in: a smaller part of revenue is capitalized, accumulation lags, and the movement of rise in wages receives a check. The rise of wages therefore is confined within limits that not only leave intact the foundations of the capitalistic system, but also secure its reproduction on a progressive scale” (616). There is no talk here of excess labor supply; merely a limit to the extent that the wage can rise.<sup>13</sup>

I now introduce the complexity of changing organic composition of capital – Marx’s main preoccupation – or “that change in the technical composition of capital by which the variable constituent becomes always smaller and smaller as compared with the constant” (620). Exogenous technical change seems to take precedence over wage-induced substitution against labor, Marx citing favorably Ure and Ricardo on “machinery” (see above, p. 89).<sup>14</sup> Certainly much emphasis

<sup>13</sup> In all this nothing is said of the effect of the higher wage on the growth rate of labor supply. A reference to “the customary supply of labour” (MECW 35: 609, cited above), suggests a given growth rate.

<sup>14</sup> Marx does, however, also recognize wage-induced substitution against labor, citing Ricardo’s “machinery and labour are in constant competition” (MECW 35: 433n; 20: 147). One passage relating to the steam-engine is open to alternative readings, depending on the sense of “the growing claims of the workmen”: “According to Gaskell, the steam-engine was from the very

is placed on innovations introduced by individual capitalists to raise productivity and cut costs in a scramble for markets – attempts sooner or later adopted by the industry as a whole – quite apart from any preceding wage increase: “The battle of competition is fought by cheapening of commodities. The cheapness of commodities depends, *caeteris paribus*, on the productiveness of labour, and this again on the scale of production” (621; also 455). And so machine-intensive technologies may be introduced even when wages have fallen to drastically low levels (473). Indeed, the “law” of the progressive increase in constant relative to variable capital, proceeds on the explicit (if provisional) assumption of *constant*, not rising, wages: “the increase or diminution of the variable capital corresponds rigidly with the increase or diminution of the number of labourers employed” (629).<sup>15</sup>

We note further that it is not merely the additions to capital which embody the new technologies that entail altered composition; the entire capital stock ultimately comes to be transformed: “The additional capitals formed in the normal course of accumulation . . . serve particularly as vehicles for the exploitation of new inventions and discoveries, and industrial improvements in general. But in time the old capital also reaches the moment of renewal from top to toe, when it sheds its skin and is reborn like the others in perfected technical form, in which a smaller quantity of labour will suffice to set in motion a larger quantity of machinery and raw materials. . . .”<sup>16</sup> Even so, *an absolute fall in the demand for labor in consequence of altered composition is not what Marx had in mind*, as far as concerns the advanced industrial sector. That Marx presumed net expansion of labor demand (though not necessarily in individual industries; 451) is frequently reiterated: “In the centers of modern industry – factories, manufactures, ironworks, mines, &c. – the labourers are sometimes repelled, sometimes attracted again in greater masses, *the number of those employed increasing on the whole*, although in a constantly decreasing proportion to the scale of production” (635; emphasis added). Similarly, in the 1865 speech: “In the progress of industry the demand for labour keeps . . . no pace with the accumulation of capital. *It will still increase*, but increase in a constantly diminishing ratio as compared with the increase of capital” (MECW 20: 148; emphasis added). And in *Capital 3*: “it is but a requirement of the capitalist mode of production that *the number of wage workers should increase absolutely*, in

first an antagonist of human power, an antagonist that enabled the capitalist to tread under foot *the growing claims of the workmen*, who threatened the newly born factory system with a crisis” (438–9; emphasis added). And substitution against labor is central to the case against Malthus. See further note 25.

<sup>15</sup> But it is an essential part of Sweezy’s interpretation that the capital conversion process (and the generation of the reserve army of unemployed) does reflect substitution against labor in response to a preceding wage increase (1942: 87–8). The only citation given in support is a passage relating the response by employers during the decade 1849–59 to a sudden and unusual fall in the supply of agricultural labor (see below, p. 108).

<sup>16</sup> The paragraph cited is from the fourth German edition of *Capital 1* (1890) as printed by Progress Publishers, Moscow 1965: 628.

spite of its relative decrease” (MECW 37: 262; emphasis added); indeed, were it otherwise there would be a revolution – surely the most remarkable pronouncement in *Capital*: “A development of productive forces which would diminish the absolute number of labourers, i.e., enable the entire nation to accomplish its total production in a shorter time span, would cause a revolution, because it would put the bulk of the population out of the running.”

Agriculture is viewed differently. Absolute reduction in demand for *agricultural* labor is recognized, and sharply contrasted with the higher demand insisted on for industry. In the *Capital 1* version: “As soon as capitalist production takes possession of agriculture, and in proportion to the extent to which it does so, the demand for an agricultural labouring population falls absolutely, while the accumulation of the capital employed in agriculture advances, without this repulsion being, as in non-agricultural industries, compensated by a greater attraction” (MECW 35: 636). And in the *Capital 3* version: “The increase in the absolute number of labourers does not occur in all branches of production, and not uniformly in all, in spite of the relative decrease of variable capital laid out in wages. In agriculture, the decrease of the element of living labour may be absolute” (MECW 37: 262).

Absolute increase in the demand for *industrial* labor is thus confirmed. But what of its rate of growth? Marx at one point writes of a decline in labor demand “relatively to the magnitude of the total capital, and at an accelerated rate, as this magnitude increases. With the growth of the total capital, its variable constituent or the labour incorporated in it, also does increase, but in a constantly diminishing proportion” (MECW 35: 623–4). But accumulation itself is *accelerating* – and at an increasing rate – leaving open the possibility that the growth rate of labor demand itself rises: “It is not merely that an accelerated accumulation of total capital, accelerated in a constantly growing progression, is needed to absorb an additional number of labourers, or even, on account of the constant metamorphosis of old capital, to keep employed those already functioning. In its turn, this increasing accumulation and centralisation becomes a source of new changes in the composition of capital, of a more accelerated diminution of its variable, as compared with its constant constituent” (624).<sup>17</sup> But the possibility that the growth rate of labor demand actually rises is not spelled out; and in fact Marx goes on to write of the “accelerated relative diminution of the variable constituent, that goes along with the accelerated increase of the total capital, *and moves more rapidly than this increase*” (emphasis added), strongly suggesting reduction in the rate of growth of labor demand.

It is certain that the *absolute* demand for industrial labor is envisaged as increasing, though apparently at a declining growth rate. But to appreciate the downward pressure on wages, we must also take account of labor-supply conditions. Here

<sup>17</sup> Cf. “whereas formerly an increase of capital by 20 per cent. would have sufficed to raise the demand for labour 20 per cent., now this latter rise requires a tripling of the original capital” (MECW 35: 619).

we recall the fact of population expansion repeatedly referred to – the “additional number of labourers” (624), or the “additional labour power, annually supplied by the working class in the shape of labourers of all ages” (580, cited above, pp. 93, 97). “What are set free” by capital conversion, Marx explains, “are not only the labourers immediately turned out by the machines, but also their future substitutes in the rising generation, *and the additional contingent, that with the usual extension of trade on the old basis would be regularly absorbed*” (633; emphasis added). There is in brief, “the more difficult absorption of *the additional labouring population through the usual channels*” (624–5; emphasis added). *And the consequence is the downward pressure on real wages* encountered earlier:

The first word of this adaptation [of variable into constant capital] is the creation of a relative surplus population, or industrial reserve army. Its last word is the misery of constantly extending strata of the active army of labour, and the dead weight of pauperism. . . . [The] higher the productiveness of labour, the greater is the pressure of the labourers on the means of employment, the more precarious, therefore, becomes their condition of existence, viz., the sale of their own labour power for the increasing of another’s wealth, or for the self-expansion of capital (638–9).

Absolute labor demand is thus expanding though at a decelerating rate. A fall in the wage can only be explained by too rapid a growth rate of labor supply. Rosdolsky – who ignores in this context the issue of population pressure – claims that Marx refers here only to the growing misery of the pauper or “lazarus layers of the working class,” *not* the general body of labor (1980: 302–3). We do not deny that Marx took account of growing misery of this category: “the greater this reserve army in proportion to the active labour army, the greater is the mass of a consolidated surplus population, whose misery is in inverse ratio to its torment of labour. The more extensive, finally, the lazarus-layers of the working class, and the industrial reserve army, the greater is official pauperism. *This is the absolute general law of capitalist accumulation*” (MECW 35: 638). But his reference to “the misery of constantly extending strata of the active army of labour” and the growing “precarious[ness]” of “their condition of existence” – applying to “labourers” without qualification – indicates that the general body of labor is also subject to growing immiseration. And thus we can easily appreciate the generalization that “in proportion as capital accumulates, the lot of the labourer, be his payment high or low, must grow worse” (639). All categories of labor suffer the consequences of capitalist accumulation.

A falling growth rate of labor demand puts downward pressure on the wage rate even in conjunction with a *constant* growth rate of labor supply. But here we recall (above, p. 94) Marx’s proposition that growing poverty, should it lower “standards,” may actually *stimulate* population growth, thus adding to the downward pressure, though ultimately – at the (physiological) “subsistence” level – the growth rate falls to zero. But Marx had little to say about the *approach* to stationariness – whether

it is smooth or subject to discontinuity, and speculation regarding this matter is to little purpose.

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Our argument has stressed the role of population pressure in appreciating Marx's immiseration thesis. We must now address what at first sight appears to be mysterious reference to "an *apparently* absolute increase of the laboring population," when we know that Marx has presumed throughout an *actual* absolute increase in population and employment, considering the net expansion of labor demand:

This accelerated relative diminution of the variable constituent, that goes along with the accelerated increase of the total capital, and moves more rapidly than this increase, takes the inverse form, at the other pole, of an apparently absolute increase of the labouring population, an increase always moving more rapidly than that of the variable capital or the means of employment. But in fact, it is capitalistic accumulation itself that constantly produces, and produces in the direct ratio of its own energy and extent, a relatively redundant population of labourers, i.e., a population of greater extent than suffices for the average needs of the self-expansion of capital, and therefore a surplus population (MECW 35: 624).

The mystery is resolved if we understand Marx as denying that the problem of excess labor supply was "due to" population growth as the operative cause. That ongoing population growth occurs is not in doubt. But the problem of excess labor supply has its *immediate source* in a falling rate of growth of labor demand reflecting the conversion process.

The *apparent* denial of an absolute increase in population emerges also during the course of a formal critique of Malthus – the complaint that while Malthus had recognized "overpopulation as a necessity of modern industry," he had "after his narrow fashion" explained it "by the absolute overgrowth of the labouring population, not by their becoming relatively supernumerary" (628). Marx's position here may be appreciated as a denial of any problem of absolute population growth *relative to land* and manifested in diminishing agricultural productivity. This is precisely how the matter is summarized in *Capital 3*, in passages *unambiguously allowing for ongoing population expansion*:

... the possibility of a relative surplus of labouring people develops proportionately to the advances made by capitalist production not because the productiveness of social labour *decreases*, but because it *increases*. It does not therefore arise out of an absolute disproportion between labour and the means of subsistence, or the means for the production of these means of subsistence, but out of a disproportion occasioned by capitalist exploitation of labour, a disproportion between the progressive growth of capital *and its relatively shrinking need for an increasing population* (MECW 37: 220; last phrase, emphasis added).

... as the capitalist mode of production develops, an ever larger quantity of capital is required to employ the same, *let alone an increased, amount of labour power*. Thus, on a capitalist foundation, the increasing productive power of labour necessarily and

permanently creates a seeming overpopulation of labouring people (221; emphasis added).

The fact of ongoing population growth is thus beyond doubt, as is the relatively slower growth of labor demand. And, to repeat (in terms of Marx's speech of 1865), the consequence is a reduction in the value of labor power "to its *minimum limit*" (above, p. 88).

### E. The Industrial Reserve Army and Cyclical Wage Fluctuations

On our reading, Marx's Industrial Reserve of Unemployed is a *consequence* of the process of population growth exceeding growth of labor demand described above. And the falling secular wage does not act as a corrective to excess labor supply insofar as the population growth rate is concerned – on the contrary, the population growth rate may even accelerate as wages fall. On the other hand, workers displaced are to some extent reabsorbed at lower wages into labor-intensive sectors (see MECW 37: 235). Yet any stimulation to labor demand could at best act as a partial corrective. For the conversion of variable into constant capital is an ongoing process, proceeding at an ever-faster rate which, always bearing in mind steady and possibly even accelerating population growth, aggravates the excess labor supply and assures continuous downward pressure on the wage; the problem is not defined in the static terms appropriate to a once-and-for-all disturbance.

But while the trend path of wages is certainly downward, allowance must be made for cyclical fluctuations about the trend, and the possibility of periods of constant wages. These short-term plateaux must not be mistaken for the secular trend itself, as by Robinson: "the existence of the reserve army of labour keeps the level of wages more or less constant" (Robinson 1967 [1942]: viii). (See also Morishima 1973: 129f; Samuelson and Wolfson 1986: 77). Rather, the role of the Reserve Army is to provide a pool of available labor to satisfy sudden bursts of activity characterizing expansion phases of the business cycle. The following passage from *Capital 1* emphasizes industrial capitalism's "capacity for sudden extension": "so soon . . . as the general conditions requisite for production by the modern industrial system have been established, *this mode of production acquires an elasticity, a capacity for sudden extension by leaps and bounds that finds no hindrance except in the supply of raw material and in the disposal of the produce*" (MECW 35: 453–4; emphasis added). That inadequate labor supply does *not* constitute a constraint upon the "elasticity" of the system is accounted for precisely in terms of the operation of the Reserve Army:

Independently of the limits of the actual increase of population, [the capitalist mode of production] *creates, for the changing needs of the self-expansion of capital, a mass of human material always ready for exploitation.* With accumulation, and the development of the productiveness of labour that accompanies it, the power of sudden expansion

of capital grows also; . . . [T]here must be the possibility of throwing great masses of men suddenly on the decisive points without injury to the scale of production in other spheres. Overpopulation supplies these masses. The course characteristic of modern industry, viz., a decennial cycle (interrupted by smaller oscillations), of periods of average activity, production at high pressure, crisis and stagnation, depends on the constant formation, the greater or less absorption, and the re-formation of the industrial reserve army or surplus population (626–7; emphasis added).

This pattern stands in sharp contrast to early capitalist experience where net accumulation, and the corresponding net increase in labor demand, although of slow growth, “found a check in the natural limits of the exploitable labouring population” (627). What, in short, was now occurring was “expansion by fits and starts of the scale of production” calling for “an increase in the number of labourers independently of the absolute growth of the population.” Again: “Capitalist production can by no means content itself with the quantity of disposable labour power which the natural increase of population yields. It requires for its free play an industrial reserve army independent of these natural limits” (629).

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The argument to this point implies that *cyclical* increases in employment can occur without upward pressure on wages. Yet this requires qualification. Wages may yet fluctuate within limits depending upon the extent of periodic excess labor supply:

Taking them as a whole, the general movements of wages are exclusively regulated by the expansion and contraction of the industrial reserve army, and these again correspond to the periodic changes of the industrial cycle. They are, therefore, not determined by the variations of the absolute number of the working population, but by the varying proportions in which the working class is divided into active and reserve army, by the increase or diminution in the relative amount of the surplus population, by the extent to which it is now absorbed, now set free. For modern industry with its decennial cycles and periodic phases, which, moreover, as accumulation advances, are complicated by irregular oscillations following each other more and more quickly, that would indeed be a beautiful law, which pretends to make the action of capital dependent on the absolute variation of the population, instead of regulating the demand and supply of labour by the alternate expansion and contraction of capital, the labour market now appearing relatively underfull, because capital is expanding, now again overfull, because it is contracting (631).<sup>18</sup>

Again: “The industrial reserve army, during the periods of stagnation and average prosperity, weighs down the active labour army; during the periods of overproduction and paroxysm, it holds its pretensions in check” (633). And in this manner “the law of supply and demand of labour is kept in the right rut, the oscillation of wages is penned within limits satisfactory to capitalist exploitation” (756). The wage rate may even rise in consequence of cyclical bursts of activity, if the pressure is sharp enough – the case of “absolute overproduction of capital” discussed in *Capital 3*

<sup>18</sup> I return to this discussion, below p. 108.

(MECW 37:250). Wages may even rise despite the existence of some unemployment where the surplus labor is of low efficiency implying a *dual* labor force:

It is no contradiction that this overproduction of capital is accompanied by more or less considerable relative overpopulation. The circumstances which increased the productive power of labour [increase in  $c/v$ ], augmented the mass of produced commodities, expanded markets, accelerated accumulation of capital both in terms of its mass and its value, and lowered the rate of profit – these same circumstances have also created, and continuously create, a relative overpopulation, an overpopulation of labourers not employed by the surplus capital owing to the low degree of exploitation at which alone they could be employed, or at least owing to the low rate of profit which they would yield at the given degree of exploitation (254–5).

There are not too many means of production produced to employ the able-bodied portion of the population. Quite the reverse. In the first place, too large a portion of the produced population is not really capable of working, and is through force of circumstances made dependent on exploiting the labour of others, or on labour which can pass under this name only under a miserable mode of production. In the second place, not enough means of production are produced to permit the employment of the entire able-bodied population under the most productive conditions, so that their absolute working period could be shortened by the mass and effectiveness of the constant capital employed during working hours (256–7).

#### F. Inter-Sectoral Labor Movements

We return to the downward secular trend in the real wage. This trend was particularly marked in the agricultural sector and had there been under way since the late eighteenth century (MECW 35: 665); indeed, Marx maintained that agricultural wages had actually fallen “to the minimum,” the farm laborer standing “with one foot already in the swamp of pauperism” (637) in consequence of *absolute* reduction in labor demand (see above, p. 97). Can the wage decline in the advanced industrial sector be explained by an inflow from agriculture (cf. 699; and 673n regarding the inflow from agriculture to mining), as Ramirez (1986: 546) suggests? It seems not. Consider again Marx’s declaration that “a development of productive forces which would diminish the absolute number of labourers . . . would cause a revolution, because it would put the bulk of the population out of the running” (see above, p. 97). This appears to mean that the net increase in labor demand in the advanced industrial sector exceeds the net decrease in agriculture and elsewhere. Under such conditions even were the entire displaced agricultural labor force to flow into the modern industrial sector there should be no downward pressure on the real wage – *unless there is some further source supplementing net labor supply in the industrial sector*, as I have argued there is.

But there is a further matter. Marx seems to reason as if such transfers as do occur from country to town are largely in response to cyclical peaks of industrial activity. If this is so then a flow from agriculture at the most puts a damper on the extent industrial wages can rise *cyclically*. We have seen that the primary



function of the Industrial Reserve Army is to provide “the possibility of throwing great masses of men suddenly on the decisive points without injury to the scale of production in other spheres” (above, p. 101). Agricultural labor provides one source for the reserve: “in England, an industrial country, the industrial reserve recruits itself from the country districts . . .” (699); but again, the inflow from agriculture is more directly the outcome of an attraction created at high points of the industrial trade cycle: “Part of the agricultural population is . . . constantly on the point of passing over into an urban or manufacturing proletariat, and *on the look-out for circumstances favourable to this transformation*. . . . But the constant flow towards the towns presupposes, in the country itself, a constant latent surplus population, the extent of which becomes evident only when its channels of outlet open to *exceptional width*” (636; emphasis added).

It remains to consider the so-called “stagnant” category of the “relative surplus population” which “forms a part of the active labour army, but with extremely irregular employment,” primarily “domestic industry” (637). This segment of the urban population provides capital with “an inexhaustible reservoir of disposable labour power.” For “[i]ts conditions of life sink below the average normal level of the working class; this makes it at once the broad basis of special branches of capitalist exploitation” – presumably with low skill requirements. “It is characterised by maximum of working time, and minimum of wages.” Now if our case has been well made out the advanced industrial sector draws upon this sector only for its *exceptional* needs; as for *secular* trends, the non-industrial urban sector is impinged upon by tendencies in the advanced industrial sector (and in agriculture) rather than the reverse: “It [domestic industry] recruits itself constantly from the supernumerary forces of modern industry and agriculture, and specially from those decaying branches of industry where handicraft is yielding to manufacture, manufacture to machinery. Its extent grows, as with the extent and energy of accumulation, the creation of a surplus population advances.”

It remains to add that net population growth is actually a feature not only of the advanced industrial sector, but of agriculture too – over the decade 1851–61 the rural growth rate was recorded by the Census as 6.5 percent, the difference with the 17.3 percent of the towns ascribed to migration from the country (636n).<sup>19</sup> The “domestic industry” segment of the urban population is also said to be “a self-reproducing and self-perpetuating element of the working class, taking a proportionally greater part in the general increases of that class than the other elements”(637). It is in this context that we encounter one of the declarations regarding the inverse relation between earnings and population growth (see above, note 12). Adam Smith’s belief that “[p]overty seems favourable to generation” is also cited here, as is Samuel Laing’s to the effect that “[m]isery up to the extreme

<sup>19</sup> It is problematic that population growth is positive although “the agricultural labourer is . . . reduced to the minimum of wages.” But the subsistence minimum may have been envisaged as flexible downwards.

point of famine and pestilence, instead of checking, tends to increase population” (637n). It follows that even were Marx’s downward wage trend in the advanced industrial sector to turn on an inflow from other sectors, it would still be impossible to ignore the demographic component of the analysis.

### G. The Participation Rate

We have thus far implicitly identified population and labor supply, subject to the qualification that in the *cyclical* context expansion proceeds by “fits and starts” requiring “an increase in the number of laborers *independently of the absolute growth of the population*,” that increase provided by pools of periodically unemployed or underemployed labor (above, p. 101). But what of the *secular trend* itself? Can it be that Marx after all allowed for the falling wage trend *independently of net population growth* in consequence of secular increase in the participation rate and/or increased effort per worker?<sup>20</sup>

Marx was certainly preoccupied by the tendency towards an increase of family labor with its depressant impact on the earnings of the adult male laborer:

The value of labour power was determined, not only by the labour time necessary to maintain the individual adult labourer, but also by that necessary to maintain his family. Machinery, by throwing every member of that family on to the labour market, spreads the value of the man’s labour power over his whole family. It thus depreciates his labour power. To purchase the labour power of a family of four workers may, perhaps, cost more than it formerly did to purchase the labour power of the head of the family, but, in return, four days’ labour takes the place of one, and their price falls in proportion to the excess of the surplus labour of four over the surplus labour of one. In order that the family may live, four people must now, not only labour, but expend surplus labour for the capitalist. Thus we see, that machinery, while augmenting the human material that forms the principal object of capital’s exploiting power, at the same time raises the degree of exploitation (MECW 35: 398–9).

And citing Ure: “The effect of improvements in machinery, not merely in superseding the necessity for the employment of the same quantity of adult labour as before, in order to produce a given result, but in substituting one description of human labour for another, the less skilled for the more skilled, juvenile for adult, female for male, causes a fresh disturbance in the rate of wages” (436). It is further observed that the trend respecting male juveniles has major implications for the significance of adult female labor:

In the automatic factories, as in all the great workshops, where machinery enters as a factor, or where only the modern division of labour is carried out, large numbers of

<sup>20</sup> Sinha 1998 cited above, p. 87. See also Gottheil: “The rate of population growth . . . is exogenous to the Marxian model. While Marx was aware of the population influx, he attached little significance to it as a cause of changes in the level of wages. Marx was interested in demonstrating that the capitalist system, not biological drives, created the excess supply of labor” (1966: 155)

boys are employed up to the age of maturity. When this term is once reached, only a very small number continue to find employment in the same branches of industry, whilst the majority are regularly discharged. This majority forms an element of the floating surplus population, growing with the extension of those branches of industry. Part of them emigrates, following in fact capital that has emigrated. *One consequence is that the female population grows more rapidly than the male, teste England.* (635; emphasis added).

Now at this point, Marx points out that absolute decline in the employment of male adults is consistent with *net* expansion of employment (see above, Section D) account taken of the demand for “youthful labourers:” “That *the natural increase* of the number of labourers does not satisfy the requirements of the accumulation of capital, and yet all the time is in excess of them, is a contradiction inherent to the movement of capital itself. *It wants larger numbers of youthful labourers, a smaller number of adults*” (emphasis added).

What are we to make of this proposition? In a section “Repulsion and Attraction of Workpeople by the Factory System,” Marx maintains that “*in some cases...* an extraordinary extension of the factory system may, at a certain stage of its development, be accompanied not only by a relative, but by an absolute decrease in the number of operatives employed” (451; emphasis added) – referring here specifically to adult male operatives: “we have considered this question entirely apart from the fact, that everywhere, except in the metal industries, young persons (under 18), and women and children form the preponderating element in this class of factory hands” (452). But this applied only “in some cases,” implying that on the whole net employment of adult male labor *expands*; and indeed the text goes on account for net expansion explicitly with reference to such operatives: “Nevertheless, in spite of the mass of hands actually displaced and virtually replaced by machinery, we can understand how the factory operatives, through the building of more mills and the extension of old ones in a given industry, may become more numerous than the manufacturing workmen and handicraftsmen that have been displaced.”

Let us, nonetheless, suppose that Marx intended an *absolute* decline in the demand for adult male labor and see where this leads us. There would then apparently be no need to introduce expanding population to account for the supposedly falling wages of this category and our earlier argument would have to be revised. This would be *a fortiori* the case were allowance also made for increasing effort supply per adult male laborer, both extensive and intensive (629), though as far as concerns *increased effort* as source of additional labor supply Marx himself emphasizes the *limits* to raising exploitation in this manner, as we shall see in Chapter 4,<sup>21</sup> suggesting that increasing effort is at most a supplementary force exerting downward pressure on the wage rather than as an alternative to expanded labor supply.

<sup>21</sup> There are also the restraints imposed by legislative intervention.

The complexity of an increased participation rate is more interesting as we are now obliged to widen our vision to encompass the *entire* work-force.<sup>22</sup> When we do so, it seems fair to suppose that Marx's "increasing immizeration" also applies across-the-board to include child and female labor. (*Vide* the graphic accounts of conditions given in *Capital 1*: Chapter 10: Section 3.) Now in dealing with a generalized labor supply, we must not lose sight of Marx's reference to population expansion in the sense of "the additional labour-power, annually supplied by the working-class *in the shape of labourers of all ages*" (580; cited above pp. 93, 98). Equally important is the actual stimulus provided population growth via early marriage and birth rates (636; above p. 93), enduced by (1) "the conditions in which the labourers of modern industry live" – doubtless the crowded living conditions which constitute an aspect of poor earnings, and (2) "the premium that the exploitation of children sets on their production," which evidently refers not to *high* child earnings but to growing opportunities for child employment. *Population growth is thus actually stimulated by accumulation given capitalist factory conditions*, such new additions finding their way *rapidly* into the labor market – there is no need to wait the standard generation of 20–25 years. Considering the net expansion of demand for labor *as a whole* that is supposed, demographic considerations must, we conclude, be introduced to account for falling wages in the *broad market* for labor.<sup>23</sup>

#### H. Concluding Remarks: Objections to Malthus

We have isolated in *Capital* a sort of "dual" labor market with the downward secular path of earnings of the "active" industrial workers determined by the market forces described in this chapter, *independently of the existence of pools of unemployed and semi-employed*. The separation can better be appreciated if we suppose some qualitative deficiency of the latter precluding regular employment in the modern factory environment (see Cottrell and Darity 1988: 179). However, the compartments are far from watertight and the effect of the "reserve army" does make itself felt by way of *cyclical* variations in employment and wages.

We shall devote this concluding section to aspects of the Marx-Malthus relation.<sup>24</sup> For both Malthus and Marx the growth of labor demand tends to decline secularly though, of course, for very different reasons. My concern is Marx's presumption in contrast to Malthus, of a *necessary* real-wage decline. His purpose, unlike that of Malthus or Ricardo or J. S. Mill, was not, of course, the design of a reform program to improve the living standards of the masses within capitalism.

<sup>22</sup> Marx, however, invites his reader to compartmentalize the workforce by describing the employment of women and children in terms of the "Appropriation of *Supplementary Labour Power by Capital*" (MECW 35: 398; emphasis added).

<sup>23</sup> The inflow from the middle classes into the proletariat, reflecting the "concentration" or "centralization" process, is also conspicuous in some of Marx's writings (see Chapter 6, p. 172–3; also p. 495).

<sup>24</sup> For a fuller treatment, see Hollander 2003.

Nonetheless, we are obliged to look more closely into his neglect of the “Malthusian” solution to falling wages – namely the encouragement of prudential population control. Here we distinguish two issues: prospects for birth control under capitalism, and the probable effectiveness of population restraint (assuming it to be feasible).

As for the first issue, we have Engels’s famous assertion that “should communist society ever find itself compelled to regulate the production of human beings . . . then it, and it alone, will be able to effect this without difficulty” (Engels to Kautsky, 1 February 1881; MECW 46: 57). The implied difficulties facing population control under capitalism are not clarified, though I suspect they include the “free-rider” phenomenon long before appreciated by Marx (below, Chapter 7, pp. 220–1). But Marx himself in fact recognized the steady decline in the rate of population growth over the years – that “[a]lthough the absolute increase of the English population in the last half century was very great, the relative increase or rate of growth fell constantly” (MECW 35: 642), census data showing a decline in the annual average from 1.533 percent 1811–21 to 1.141 percent 1851–61. And, citing the Registrar General, “[r]apidly as the population has increased, it has not kept pace with the progress of industry and wealth” (645), evidence for which progress is provided by a wide variety of indexes. Notwithstanding effective population control, living standards were (Marx supposed) falling, *presumably because in his view the growth rate of labor demand was declining even faster*.

This takes us to our second issue and Marx’s condemnation of the “folly of . . . the economic wisdom that preaches to the labourers the accommodation of their number to the requirements of capital,” since the “mechanism of capitalist production and accumulation constantly effects this adjustment” (638). This is unconvincing. The decelerating growth rate of labor demand is an ongoing process reflecting exogenous technical progress (the general context of the foregoing comment). A simultaneous program of continuous population control acting on the growth rate of labor supply must surely tend at the least to ease downward pressure on real wages.

Marx’s case was reinforced by allusion to Ireland (1840–60), where notwithstanding actual population *decline*, real wages had failed to improve: “the relative surplus-population is today as great as before 1846 . . . wages are just as low. . . . The revolution in agriculture has kept pace with emigration. The production of relative surplus-population has more than kept pace with the absolute depopulation” (695–6). But this too is unconvincing, for orthodox classical economics did not constitute a predictive engine forecasting the course of wages. The intervention of “disturbing causes” – in the present case the agricultural revolution involving consolidation of farms, conversion of arable into pasture and use of machinery – does not contradict the general principle that control of population growth would contribute to the maintenance of wages. Population control was considered by the orthodox economists as a necessary but not always a sufficient condition to assure against falling wages.

An objection to population control as an effective means for positively raising wages is stated in terms of substitution against labor.<sup>25</sup> We find an instance in the context of *cyclical* fluctuations (above, pp. 101–2):

According to [“the dogma of the economists”] wages rise in consequence of accumulation of capital. The higher wages stimulate the working population to more rapid multiplication, and this goes on until the labour market becomes too full, and therefore capital, relatively to the supply of labour, becomes insufficient. Wages fall, and now we have the reverse of the medal. The working population is little by little decimated as a result of the fall in wages, so that capital is again in excess relatively to them. . . . Then comes again the time, when the supply of labour is less than the demand, wages rise, and so on (MECW 35: 631).

Marx’s specific objection to this “beautiful mode of motion . . . for developed capitalist production” is then applied to the increase in real wages in English agricultural districts following a sudden and unusual fall in local labor supplies 1849–59: “What did the farmers do now? Did they wait until, in consequence of this brilliant remuneration, the agricultural labourers had so increased and multiplied that their wages must fall again, as prescribed by the dogmatic economic brain? They introduced more machinery, and in a moment the labourers were redundant again in a proportion satisfactory even to the farmers. There was now ‘more capital’ laid out in agriculture than before, and in a more productive form. With this the demand for labour fell, not only relatively, but absolutely” (632).

Two points must here be made. First, substitution against labor in the event of an absolute fall in labor supply of the foregoing kind could only *limit* the resultant wage increase; since such substitution is already reflected in the negative slope of the demand curve there is no reason to expect the creation of an excess labor supply with downward pressure on the wage. This principle, applied to the dynamic context, implies that there is no reason why a reduced population growth rate cannot retard the falling wage trend even should some substitution against labor, affecting the labor-demand growth rate, be induced. Second, the downward secular pressure

<sup>25</sup> The textual evidence is complex. In the *Grundrisse* we find an apparently favorable citation from Ravenstone to the effect that the adoption of machinery is *unrelated* to labor scarcity: “Machinery itself can seldom be applied with success to abridge the labours of an individual: *more time would be lost in its construction than could be saved by its application. It is only really useful when it acts on great masses, when a single machine can assist the labours of thousands.* It is accordingly in the most populous countries where there are most idle men that it is always most abundant. . . . It is not called into action by a scarcity of men, but by the facility with which they are brought to act in masses” (Ravenstone 1824: 45; cited MECW 28: 325, Marx’s emphasis). In the *Economic Manuscripts* Marx asserts that “[o]nly in isolated cases” does the capitalist intend to secure a *direct reduction of wages* by introducing machinery” (MECW 30: 319), which may bear on the empirical significance of substitution against labor. But we also find the contrary weighting, based on Ricardo and Barton, when Marx argues (as in *Capital*) against population control as a means of raising labor’s welfare, in that “diminishing the supply of labour, and, consequently, raising its price, would only accelerate the application of machinery, the conversion of circulating into fixed capital, and, hence, make the population artificially ‘redundant’ . . .” (MECW 32: 202).

for Marx reflects a continuous decline in the growth rate of labor demand (due to exogenous capital conversion) relative to that of labor supply; and Marx has given us no reason why population control would not, at the least, check that decline. Marx's thus failed to justify what Sweezy has called the "paradoxical effect of creating unemployment" by "slowing down the rate of population growth" (1942: 223).

There is one further matter. If what we have argued in Section G is correct, it also follows that the countervailing potential of population control cannot be neglected; for the increased demand for child labor is met by a high birth rate, a reduction of which would reduce the attractiveness of this source of supply and lessen the downward pressure on the adult wage.

## FOUR

### Economic Growth and the Falling Rate of Profit

#### A. Introduction

Marx considered his analysis of “*the tendency of the profit rate to fall as society progresses*” to be “one of the greatest triumphs over the *pons asini* of all previous political economy” (letter to Engels, 30 April 1868; in MECW 43: 24). He clarifies in his letter that “[t]his already follows from what was developed in Book I [MECW 35: 616–23] on *the change in the composition of capital with the development of the social productive power*.” And in fact we shall see that *Capital 1* is explicit enough about the matter (MECW 35: 309–10; below, p. 121). It has been argued that Marx in fact *abandoned* his analysis of the downward secular trend between writing the material that appeared in *Capital 3* and which dates to 1864–65 (see Introduction, above, pp. 3–4), and publishing his *Capital 1* in 1867 (Groll and Orzech 1987). But the letter to Engels suggests there was no such abandonment; certainly Engels insisted to the end on the downward secular trend as an essential feature of Marx’s doctrine (e.g., Preface to *Capital 3*, dated 4 October 1894; MECW 37: 23). And the passage I shall cite from *Capital 1* confirms the point. (See also Fine 1990: 154.)

In *Capital 3*, Chapter 13, on “The Law as Such” the trend is represented as “a logical necessity” flowing from “the nature of the capitalist mode of production” (MECW 37: 209). But we do well to keep in mind a further statement at the outset of the companion Chapter 14, “Counteracting Influences,” which rephrases the matter by seeking to understand “why this fall is not greater and more rapid” than the data revealed:

If we consider the enormous development of the productive forces of social labour in the last 30 years alone as, compared with all preceding periods; if we consider, in particular, the enormous mass of fixed capital, aside from the actual machinery, which goes into the process of social production as a whole, then the difficulty which has hitherto troubled the economists, namely to explain the falling rate of profit, gives place to its opposite, namely *to explain why this fall is not greater and more rapid*. There must be some counteracting influences at work, which cross and annul the effect of



the general law, and which give it merely the characteristic of a tendency, for which reason we have referred to the fall of the general rate of profit as a tendency to fall (230; emphasis added).

This is not to abandon the analysis as such but it does admit to uncertainty with regard to its predictive power.

The last passage is also of particular technical interest. The allusion to “the enormous mass of fixed capital” characterizing modern capitalist industry relates to the proposition that the dividends paid out by great stock companies, including railways, “do not . . . go into levelling the general rate of profit” though “they yield a lower than average rate of profit” (239, cited Chapter 1, pp. 31). To the point for us here is the further remark that “[i]f they did enter into it, the general rate of profit would fall much lower . . . because the constant capital particularly in these enterprises is largest in relation to the variable capital.” It would seem then that the basic analysis of the falling profit rate applied only to the traditional factory system, though to extend the analysis to the major stock companies would strengthen the downward trend.

Most of this chapter deals with the impact of technical change on the profit rate operating via the organic composition of capital. But attention will be given also to an “underconsumptionist” component that plays a role in Marx’s account of the falling trend, though the two are formally unrelated.

### B. The Basic Analysis

The analysis of “The Law as Such” commences with an assumption of a given rate of surplus value  $s/v$ , the real wage basket per day and labor embodied therein, the length of workday, and intensity of labor all held constant (MECW 37: 209–10, 215; also 230). On this assumption, \$100 of variable capital corresponds to the wages paid per period to a specific quantum of labor (or more accurately the value of these wages). The rate of surplus value  $s/v$  is (initially) taken as 100 percent – the laborers “work daily as many hours for themselves, i.e., for the reproduction of their wages, as they do for the capitalist, i.e., for the production of surplus value . . .” (209). This given  $s/v$ , however, represents different rates of profit ( $s/C$ ) according to the constant capital complement – again in terms of value – supporting labor. Thus:

| $c$ | $v$ | $s$ | $(c + v) = C$ | $p' = s/C\%$    |
|-----|-----|-----|---------------|-----------------|
| 50  | 100 | 100 | 150           | $66\frac{2}{3}$ |
| 100 | 100 | 100 | 200           | 50              |
| 200 | 100 | 100 | 300           | $33\frac{2}{3}$ |
| 300 | 100 | 100 | 400           | 25              |
| 400 | 100 | 100 | 500           | 20              |

Marx observes that the profit rate  $p'$  (we shall call it  $R$ ) declines because given  $s$  is calculated on a rising  $C$  (209–10). But his usual practice is to work with a given  $C$ . It is preferable, therefore, to convert  $c$  and  $v$  to fractions of a total  $C$  of \$100 value thus:

| $c$             | $v$             | $s$             |
|-----------------|-----------------|-----------------|
| $33\frac{1}{3}$ | $66\frac{2}{3}$ | $66\frac{2}{3}$ |
| 50              | 50              | 50              |
| $66\frac{2}{3}$ | $33\frac{1}{3}$ | $33\frac{1}{3}$ |
| 75              | 25              | 25              |
| 80              | 20              | 20              |

The consequence of an increase in the  $c/v$  ratio (given  $s/v$ ) – “the gradual fall of the general rate of profit” – is described in an important passage applying to the economy as a whole:

If it is . . . assumed that this gradual change in the composition of capital is not confined only to individual spheres of production, but that it occurs more or less in all, or at least in the key spheres of production, so that it involves changes in the average organic composition of the total capital of a certain society, then the gradual growth of constant capital in relation to variable capital must necessarily lead to a *gradual fall of the general rate of profit*, so long as the rate of surplus value, or the intensity of exploitation of labour by capital, remains the same (210).

It is apparent from his reference to average capital composition that in deriving the law of declining profits Marx presumes a solution to the Transformation problem; the complexities engendered by divergence between “values” and “prices of production” are set aside, and the analysis proceeds entirely in terms of values. This is a procedure with damaging consequences for the argument (e.g., Steedman 1977: 44; Wolff 1979; also Baumol 2001: 235–10), but we shall assume the problem away in order to proceed with the main formulation. Some analyses simply assume uniform composition (e.g., Dickinson 1956–57: 121n).

The assumption of a constant  $s/v$  seems to be crucial to the case for a falling profit rate. This was how Joan Robinson (1967 [1942]), and before her Bortkiewicz (1952 [1907]), approached the case. But the assumption raised insurmountable difficulties. For constant  $s/v$  requires that rising productivity in the wage-goods industries – which implies increasing  $s/v$  – be exactly counterbalanced by rising commodity wages: “Marx can only demonstrate a falling tendency in profits by abandoning his argument that real wages tend to be constant. This drastic inconsistency he seems to have overlooked, for when he is discussing the falling tendency of profits he makes no reference to the rising tendency of real wages which it entails” (Robinson 1967 [1942]: 36). In fact, holding the real wage constant, and allowing for productivity increase, the rate of surplus value is unconstrained: for  $(v + s)$  is constant (with given labor time of given intensity), so that as  $v$  falls towards zero,

$s/v$  rises towards infinity. Robinson concludes: “Marx’s argument fails to establish a presumption that the rate of profit tends to fall” (40).<sup>1</sup> A similar objection will be found in Sweezy (1942: 100–1) and Gillman (1956: 20); and we have a restatement of the Bortkiewicz–Robinson perspective in the charge that Marx failed to appreciate “that the rate of surplus value is not only functionally but positively related to the very same process of mechanization that raises the organic composition of capital” (Blaug 1980: 46).

There are, on the other hand, those who deny Joan Robinson’s contention, and go so far as to assert a *necessary* decline in  $R$ , on the basis of the absolute maximum to “new value.” For example: “an increase in the rate of surplus value cannot ultimately compensate for the rise in the organic composition of capital. That is, in the long run, the effect of the organic composition of capital will assert itself” (Cogoy 1987 [1973]: 59). Similarly, Ronald Meek allowed that while Marx was not justified in asserting “a continually falling”  $R$  upon increase in  $c/v$  (e.g., MECW 37: 211), his own arguments do allow one to say “that there will eventually come a point beyond which no conceivable rise in the rate of surplus value – not even a rise to infinity – could possibly prevent the mass of surplus value produced by the given capital (and thus the rate of profit) from falling below its original level” (Meek 1967: 135). And Dickinson maintained that assuming (as he believed Marx did assume)  $s/v$  to be constant, the profit rate declines continuously; whereas allowing for increasing  $s/v$  simply introduces the possibility of an *initial* increase in  $R$  which is followed by a falling trend (1956–57: 125). And he concluded his mathematical study thus: “The sole value of an investigation such as this makes it impossible summarily to dismiss Marx’s theory of the falling rate of profit as a mere chimera. Even though he left the proof of it in *Capital* mathematically incomplete, Marx’s assertion that there was a connection between increasing organic composition of capital and a falling rate of profit was a sound intuition that a more rigorous method has largely justified” (130).

In what follows, we shall take account of these disparate views regarding the implications flowing from the characteristics of surplus value. We shall also consider Marx’s assumption in deriving the “law” that an increase in the *technical* composition of capital – the “physical” capital/labor ratio – is reflected in an increased *value* composition – the ratio of the value of constant capital to the value of variable capital (e.g., MECW 37: 234);<sup>2</sup> for this assumption too has been subject to

<sup>1</sup> Robinson considered the analysis to be a “red herring,” and a particularly unfortunate one since it “prevented Marx from running the theory of effective demand to earth” – alluding to the underconsumptionist feature (1967 [1942]: 50–1).

<sup>2</sup> A word here regarding definition: “I call the value composition of capital, in so far as it is determined by its technical composition and mirrors changes of the latter, the *organic composition* of capital” (MECW 35: 608; also 37: 145). For much of what follows in this chapter the organic composition thus strictly defined is irrelevant because, following Marx, we have the values of capital goods and wage-goods varying differentially, so that changes in value-composition do *not* “mirror” precisely changes in technical composition.

considerable criticism (e.g., Sweezy 1987 [1973]; Groll and Orzech 1987). These tasks require that we develop a framework, faithful to Marx, to approach the issue; and that we get a firm grip on Marx's own position. It turns out that while the critics are correct that Marx failed to justify his case for a declining trend in the profit rate, the main reason offered for the failure – rising  $s/v$  – is invalid.

In the course of our analysis, which bears upon the contrast between Ricardian and Marxian economics, we consider the implications of allowing a differential impact of technology on the cost prices of wage-goods and capital-goods. Marx's case, it emerges rather unexpectedly, would be *strengthened* by assuming a relatively faster productivity increase in wage-goods production. Marx himself, however, did not take up this line of argument.

### C. The Conditions for a Falling Rate of Profit

The “standard” formula for the Marxian profit rate is:

$$R = 100 \cdot s/(c + v) = 100 \frac{s/v}{(c/v) + 1}$$

where  $s$ ,  $c$ , and  $v$  refer respectively to surplus, “constant” capital, and “variable” capital, all in “value” terms.<sup>3</sup> This formula implies that both constant and variable capital are turned over once per period, i.e., that  $(c + v)$  is the stock as well as the “flow” of capital. Marx himself justified the simplification in the chapter on the formation of a general rate of profit: “The magnitude of the actual value of [the] product depends on the magnitude of the fixed part of the constant capital, and on the portion which passes from it through wear and tear into the product. But since this circumstance has absolutely no bearing on the rate of profit, and hence, [on] the present analysis, we shall assume, for the sake of simplicity, that the constant capital is everywhere uniformly and entirely transferred to the annual product of the capitals” (MECW 37: 153).<sup>4</sup> In the discussion of the falling profit rate, Marx also proceeds in this manner, obliging Engels to spell out the implicit assumption that “capital is turned over in exactly one year” (225; cf. 54 regarding the period of turnover of variable capital).<sup>5</sup>

The formula is more revealing when rewritten to distinguish explicitly between the physical capital-labor ratio and the prices (values) of capital-goods and wage-goods. Moreover, we shall treat the variables in average terms (per unit of

<sup>3</sup> See the formula for the general profit rate, Chapter 1, p. 18.

<sup>4</sup> In proceeding with his formal Transformation analysis, Marx does include depreciation in his calculation of cost price, thus allowing for a difference between total and “used up” capital. “But,” he repeats, “this is immaterial to the rate of profit” (MECW 37: 155). In any event, cases existed where “the entire constant capital [goes] into the annual product” (154).

<sup>5</sup> The chapter dealing explicitly with the effect of the turnover on the rate of profit (*Capital 3*, Chapter 4) is an insertion by Engels.

labor – say, the workday) rather than as totals. Selecting a day's labor as value unit, we have:

$$\begin{aligned} R &= 100 \cdot s / (c + v) = 100 \frac{L \cdot (\text{surplus per workday})}{L \cdot (\text{constant capital per workday})} \\ &\quad + L \cdot (\text{variable capital per workday}) \\ &= 100 \frac{L(1 - P_L)}{L \frac{(P_K K)}{L} + L P_L} = 100 \frac{(1 - P_L)}{\frac{P_K K}{L} + P_L} \end{aligned}$$

where  $L$  is the number of workdays;  $P_L < 1$  the value of the (gives) commodity wage per day, the condition that labor embodied in the daily wage falls short of one day assuring a positive surplus;  $(1 - P_L)$ , the surplus generated per day; and  $(P_K K)/L$  the value of constant capital per day.<sup>6</sup> Dividing through by  $P_L$  we obtain:

$$\begin{aligned} R &= \frac{100 \cdot (1 - P_L)/P_L}{(P_K/P_L)(K/L) + 1} \\ &= \frac{100/P_L}{(P_K/P_L)(K/L) + 1} \cdot (1 - P_L) \end{aligned}$$

The profit rate is thus the product of the *number of workdays employed per \$100 of capital invested*<sup>7</sup> and *surplus per day*, which is intuitively convincing.

Technical progress largely takes the form of raising  $K/L$  – say by a constant rate of increase  $\alpha$ . Let the effect of such progress be to reduce the values of capital-goods (for simplicity without lag) by  $\beta_K$ , and those of wage-goods by  $\beta_L$ . We then have a time path for  $R(n)$ ,

$$\begin{aligned} R(n) &= L_{100}(n) \cdot [1 - P_L(1 - \beta_L)^n] \\ &= \frac{\frac{100}{P_L(1 - \beta_L)^n}}{1 + \frac{P_K(1 - \beta_K)^n}{P_L(1 - \beta_L)^n} \cdot \frac{K}{L}(1 + \alpha)^n} \cdot [1 - P_L(1 - \beta_L)^n] \end{aligned}$$

Evidently, a necessary (though insufficient) condition for falling  $R$  over time is falling  $L$  per \$100. For surplus per day is rising continuously towards 1, so that the product  $L_{100}(1 - P_L)$  can fall only if  $L_{100}$  is falling.

We proceed to summarize the results for the *limit* to  $R(n)$  – the “ultimate” trend in the profit rate – with reference to three sets of situations: (1)  $\beta_L = \beta_K$ ; (2)

<sup>6</sup> Our choice of value unit is arbitrary and one that Marx himself sometimes makes: “If . . . e.g. £1 = 1 working day (no matter whether you think in terms of a day or a week, etc.), the working day = 12 hours, and the necessary labour (i.e., reproductive of the pay) = 8 hours, then the wage of 30 workers (or working days) = £20 and the value of their labour = £30, the variable capital *per worker* (daily or weekly) = £2/3 and the value he creates = £1” (letter to Engels, 2 August 1862; in MECW 41: 395).

<sup>7</sup> The left-hand expression can be derived directly from the budget constraint:  $P_L L + P_K K = 100$ , i.e.,  $L$  per \$100 investment (written  $L_{100}$ ) =  $(100/P_L) - (P_K/P_L)K$ . But  $K = gL$  where  $g$  is the technologically-determined “capital-labour” ratio. Therefore

$$L_{100} = (100/P_L) - (P_K/P_L)gL_{100} = \frac{100/P_L}{1 + (P_K/P_L)(K/L)}$$

$\beta_L < \beta_K$ , implying some check to the impact of new technology on the wage-goods sector relative to that on the capital-goods sector;<sup>8</sup> and (3)  $\beta_L > \beta_K$ . Since  $\lim [1 - P_L (1 - \beta_L)^n]$  is 1, it does not enter into the calculation of  $\lim R(n) -$  only  $L_{100}$  is relevant. (The details of the analysis are given in Hollander 1991, Appendix A.)

### Uniform cost reductions ( $\beta$ ) in capital-goods and wage-goods sectors

$R$  tends to zero if  $(1 - \beta)(1 + \alpha) > 1$ , i.e., if  $\alpha > \beta/(1 - \beta)$  or  $\beta < \alpha/(1 + \alpha)$  where  $\alpha$  is the percentage annual increase in the technical capital-labor ratio or, in this case, in the organic composition of capital.

### Non-uniform cost reduction ( $\beta_L \neq \beta_K$ )

$$\text{If } \left( \frac{1 - \beta_K}{1 - \beta_L} (1 + \alpha) \right) \leq 1 \quad (4.1)$$

then  $R$  tends to infinity.

$$\text{If } \left( \frac{1 - \beta_K}{1 - \beta_L} (1 + \alpha) \right) > 1 \quad (4.2)$$

the outcome will vary: if (i)  $(1 - \beta_K)(1 + \alpha) \leq 1$ ,  $R$  tends to infinity; but if (ii)  $(1 - \beta_K)(1 + \alpha) > 1$ ,  $R$  tends to zero. Now the first condition for ultimately falling  $R$  (namely, 4.2) relates to the denominator in the expression

$$L_{100}(n) = 100 \frac{1/P_L(1 - \beta_L)^n}{1 + \frac{P_K(1 - \beta_K)^n}{P_L(1 - \beta_L)^n} \cdot (K/L)(1 + \alpha)^n};$$

and it implies that the value of capital-goods per labor unit relative to the value of the wage ( $P_K K / P_L L$ ) – the “value composition of capital” – is rising.<sup>9</sup> In the event  $\beta_K > \beta_L$ , the ratio  $P_K/P_L$  declines, and should this decline outweigh the increase in the physical capital-labor ratio, then  $L_{100}(n) \rightarrow \infty$ . However, with  $\beta_L > \beta_K$  the upward trend in the technical composition is reinforced by a rising price ratio. But the denominator may rise less than the numerator. To avoid this outcome the second condition (4.2ii) must be satisfied, namely  $(1 - \beta_K)(1 + \alpha) > 1$  or  $\alpha > \beta_K/(1 - \beta_K)$ , the latter constituting in fact the sufficient condition for (ultimately) falling  $L_{100}(n)$ .<sup>10</sup>

<sup>8</sup> Alternatively, let  $\beta_L = \beta_K$ , with  $\alpha_L > \alpha_K$  implying the need for more constant capital per man to assure a given level of cost reduction.

<sup>9</sup> Where  $\beta_K = \beta_L$  this condition is necessarily satisfied since the only force acting on the value composition is the rise in the capital-labor ratio,  $K/L$ .

<sup>10</sup> Note that  $\beta_K/(1 - \beta_K) = 1/(1 - \beta_K) - 1$  which is the percentage change:

$$\frac{\frac{1}{(1 - \beta_K)^n} - \frac{1}{(1 - \beta_K)^{n-1}}}{\frac{1}{(1 - \beta_K)^{n-1}}}$$

For a specific example of the case of *uniform price reductions* ( $\beta_K = \beta_L$ ), we consider values for  $\beta$  of .03, .05, .09, and .091 with  $\alpha = .10$ :

| $\beta$ | $(1 - \beta)(1 + \alpha)$      | $\lim_{n \rightarrow \infty} R(n)$ |
|---------|--------------------------------|------------------------------------|
| .03     | $.97 \times 1.1 = 1.067 > 1$   | 0                                  |
| .05     | $.95 \times 1.1 = 1.045 > 1$   | 0                                  |
| .09     | $.91 \times 1.1 = 1.001 > 1$   | 0                                  |
| .091    | $.909 \times 1.1 = 0.9999 < 1$ | $\infty$                           |

In brief, with the physical capital-labor rates rising at  $\alpha = 0.1$  per period, the profit rate will (ultimately) decline for all  $\beta$  up to a value just short of .091; for higher  $\beta$  value, the trend is upwards. (For a detailed comparison between the cases, especially the speed of decline in the first three, see Hollander 1991, Appendix B, Figures 1.1(a)–(d).)

In the case  $\beta_K > \beta_L$  consider first  $\beta_K = .09, \beta_L = .045$ . Then

$$\left[ \frac{1 - \beta_K}{1 - \beta_L} (1 + \alpha) \right] = 1.048 > 1$$

and  $(1 - \beta_K)(1 + \alpha) = 1.001$ , so that  $R$  tends to zero. Needless to say, satisfaction of the second condition assures satisfaction of the first. But the opposite is not true. Thus with  $\beta_K = 0.092$  and  $\beta_L = .046$ ,

$$\left[ \frac{1 - \beta_K}{1 - \beta_L} (1 + \alpha) \right] = 1.047 > 1;$$

but  $(1 - \beta_K)(1 + \alpha) = .999 < 1$  so that  $R$  tends to infinity. (Hollander 1991, Appendix B, Figures 1.2(a)–(d).)

When we reverse the relative magnitudes of  $\beta_K$  and  $\beta_L$  there occurs a startling transformation: in the case of  $\beta_L = .09$  and  $\beta_K = .045$ , the decline in  $R$  now sets in much earlier and markedly so; and a similar pattern now also emerges for  $\beta_L = .092, \beta_K = .046$ . (For  $(1 - \beta_K)(1 + \alpha) = .954(1.1) = 1.05 > 1$ .) Notice that  $\beta_L > \beta_K$  does not *guarantee* that  $L_{100}(n)$  and, therefore,  $R(n)$  tend to zero. (Thus  $\beta_K = .0909, \beta_L = .091$ , entails an ultimate decline in  $L_{100}$  and  $R$ ; a slightly different configuration,  $\beta_K = .09091, \beta_L = .091$ , yields a continuous increase.) But  $\beta_L > \beta_K$  does add to the pressures reducing  $L_n$  and  $R$ , and may transform a rising into a falling  $R$  trend. This result is not contingent upon the specific initial factor values or factor ratios selected. (For example: with  $K/L = 4$  and  $P_K/P_L = 1$ , almost the same pattern emerges as with the values in Hollander 1991, Appendix B, Figure 1.2, namely  $K/L = .25, P_K/P_L = 20$ .) An ultimate decline in  $R(n)$  does not, however, preclude an initially rising trend. Initial conditions do play a strategic role as far as concerns the entire course of  $R(n)$ . On the other hand, an upward trend is incompatible with an initial decline (see Hollander 1991, Appendix A).

#### D. Increasing Rate of Surplus Value and Cheapening of Constant Capital

We shall presently draw upon the foregoing results in our exegetical analysis of Marx's position. But before we can proceed to this task we must establish that Marx, who formulated his "tendency" with constant  $s/v$ , stood by the declining profit trend even in the event of rising  $s/v$ : "the rate of surplus value, at the same, *or even a rising*, degree of labour exploitation, is represented by a continually falling general rate of profit" (MECW 37: 211; emphasis added). Or again in a very useful summary of his position:

The law of the falling rate of profit, which expresses the same, *or even a higher, rate of surplus value*, states . . . that any quantity of the average social capital, say, a capital of 100, comprises an ever larger portion of means of labour, and an ever smaller portion of living labour. Therefore, since the aggregate mass of living labour added to the means of production decreases in relation to the value of these means of production, it follows that the unpaid labour and the portion of value in which it is expressed must decline as compared to the value of the advanced total capital. Or: An ever smaller aliquot part of invested total capital is converted into living labour, and this total capital, therefore, absorbs in proportion to its magnitude less and less surplus labour, *although the unpaid part of the labour applied may at the same time grow in relation to the paid part* (214; emphasis added).<sup>11</sup>

Subsequently in this chapter on "The Law as Such," Marx refers to an increase in the rate of exploitation "through a drop in the value of wages due to an increase in the productive power of labour" (as well as by lengthening or intensifying the working day) (218; cf., 224), without suggesting that such variation threatened the law. While he neglected to spell out the relevant constraints on surplus per man in the chapter now under discussion, he clearly stood by the profit-rate decline *notwithstanding* an increasing rate of exploitation, a fact much emphasized by Meek (1967: 131) following Rosdolsky (1980: 398–411).<sup>12</sup>

This conclusion may be reinforced by reference to the profit-rate decline in the subsequent chapter on "counteracting tendencies." Here, allusions to extensions of the workday and intensification of labor (MECW 37: 230–1) are followed by a most revealing observation regarding the reduced cost of producing wage-goods or increased "relative" surplus value:

Moreover, it has already been demonstrated – and this constitutes the real secret of the tendency of the rate of profit to fall – that *the manipulations to produce relative surplus value* amount, on the whole, to transforming as much as possible of a certain quantity of labour into surplus value, on the one hand, and employing as little labour as possible in proportion to the advanced capital, on the other, so that the same reasons which permit *raising the intensity of exploitation* rule out exploiting the same quantity

<sup>11</sup> Similarly, in an international comparison Marx provides an example where the profit rate is lower in that country which has a higher  $c/v$  ratio despite a higher  $s/v$  (MECW 37: 213).

<sup>12</sup> Rosdolsky (1980: 401) provides much textual evidence from the *Economic Manuscripts 1861–63*.



of labour as before by the same capital. These are the counteracting tendencies, which, while effecting a *rise in the rate of surplus value*, also tend to decrease the mass of surplus value, and hence the rate of profit produced by a certain capital (231; emphasis added).

Or again: the “same factors which raise the rate of relative surplus value, lower the mass of the employed labour power” (232). And yet more specifically: “The tendency of the rate of profit to fall is bound up with a tendency of the rate of surplus value to rise, hence with a tendency for the rate of labour exploitation to rise. . . . The rate of profit does not fall because labour becomes less productive, but because it becomes more productive. Both the rise in the rate of surplus value and the fall in the rate of profit are but specific forms through which growing productivity of labour is expressed under capitalism” (238).

The foregoing position is further reiterated at the outset of the third chapter of the trio dealing with the profit-rate decline – on “internal contradictions of the law”: “We have just seen that even a rising rate of surplus-value has a tendency to express itself in a falling rate of profit” (239). And subsequently in this same chapter the theme is again taken up in an elaboration of the development of the “social productive power of labour” (245). Rising productivity manifests itself both in rising  $s/v$ : “the reduction of the necessary labour time required for the reproduction of labour power,” and in rising  $c/v$ : “the decrease in the quantity of labour power (the number of labourers) generally employed to set in motion a given capital.” These “two movements not only go hand in hand, but mutually influence one another and are phenomena in which the same law expresses itself” (246).

Evidently the rising rate of exploitation alluded to here is *not* a “counteracting tendency” in the sense of a “disturbing cause” or change in *ceteris paribus* conditions, but a variation built into the process of rising  $K/L$ . Meek (1967: 136) defended Marx on these lines against the criticisms of Joan Robinson and others. But he does concede some validity to a further complaint that Marx treats reductions in the value of constant capital – the “cheapening” of constant capital – as a counteracting cause incidental only to the law (see also Dickinson 1956–57: 123; Dobb 1959: 99–100). The fact is, however, that just as Marx allows in stating the law for rising  $s/v$  due to reductions in  $v$ , so he allows for “cheapening” of  $c$ , taking the position that despite such cheapening the *value composition of capital* can be expected to rise with increases in the technical composition, thus reducing employment per \$100 of investment: “. . . the same development which increases the mass of the constant capital in relation to the variable reduces the value of its elements as a result of the increased productivity of labour, and therefore prevents the value of constant capital, although it continuously increases, from increasing at the same rate as its material volume, i.e., the material volume of the means of production set in motion by the same amount of labour power. . . . [T]he same influences which tend to make the rate of profit fall, also moderate the effects of this tendency” (MECW 37: 234). Still, as we shall see in Section E, there is this

important difference between the allowances in formulating the falling profit rate for rising  $s/v$  and for rising  $c/v$  – that the former has a sound rationale whereas the latter merely reflects a particular empirical estimate. It is also pertinent that Marx neglects the impact on  $c/v$  of rising productivity in the wage-goods sector (see below, p. 126).

Before proceeding, it should be noted that the impact of higher productivity in reducing capital-goods costs reflects *continuous advance of science and technology*, and extends beyond new additions to capital to the original stock upon its replacement:

The development of the productive power of labour reacts also on the original capital already engaged in the process of production. A part of the functioning constant capital consists of instruments of labour, such as machinery, &c., which are not consumed, and therefore not reproduced, or replaced by new ones of the same kind, until after long periods of time. But every year a part of these instruments of labour perishes or reaches the limit of its productive function. It reaches, therefore, in that year, the time for its periodical reproduction, for its replacement by new ones of the same kind. If the productiveness of labour has, during the using up of these instruments of labour, increased (*and it develops continually with the uninterrupted advance of science and technology*), more efficient and (considering their increased efficiency), cheaper machines, tools, apparatus, &c., replace the old. The old capital is reproduced in a more productive form, apart from the constant detail improvements in the instruments of labour already in use. The other part of the constant capital, raw material and auxiliary substances, is constantly reproduced in less than a year; those produced by agriculture, for the most part annually. Every introduction of improved methods, therefore, works almost simultaneously on the new capital and on that already in action (MECW 35: 600–1; emphasis added).

The emphasis on *continuous scientific and technological progress* – apart from ongoing minor improvements of a mechanical order – is striking. Such advance is in fact represented as “gratis” – gratis, that is, to the *capitalist*, since the impact of technological obsolescence is said to be passed on to labor under pressure of “competition”:

Like the increased exploitation of natural wealth by the mere increase in the tension of labour power, science and technology give capital a power of expansion independent of the given magnitude of the capital actually functioning. They react at the same time on that part of the original capital which has entered upon its stage of renewal. This, in passing into its new shape, incorporates gratis the social advance made while its old shape was being used up. Of course, this development of productive power is accompanied by a partial depreciation of functioning capital. So far as this depreciation makes itself acutely felt in competition, the burden falls on the labourer, in the increased exploitation of whom the capitalist looks for his indemnification (601).

### E. The Limited Impact of a Rising Rate of Surplus Value

We shall return to the value composition of capital and its trend after looking more closely at the rationale behind Marx’s presumption regarding the limited impact

of rising  $s/v$  or (for this amounts to precisely the same thing) the limits to surplus per unit of labor (say, per day).

In the *Grundrisse*, Marx states very clearly the limits to the rise in  $s$  as  $v$  per day falls, and one element of his rationale for a falling profit rate is explained far more satisfactorily than do the formulations given in *Capital* itself (see MECW 28: 265–6, cited Chapter 8, p. 253). The point made is that each given successive cost reduction of, say,  $\beta$  percent has a declining absolute impact on surplus per day; so that once the value of the wage basket has fallen to very low levels in consequence of the cumulative effect of the annual cost reductions, a further cost reduction of  $\beta$  percent will have a negligible absolute impact on the surplus. (This reflects the simple fact that value per day is a constant and divided between surplus and necessary labor; though  $s/v$  rises to infinity as  $v \rightarrow 0$ , absolute  $s$  has an upper limit.) Consequently, as  $P_L$  falls by  $\beta$  per cent annually, we have surplus per day,  $(1 - P_L)$ , rising *at an ever decreasing rate*.

The passage from the *Grundrisse* says nothing explicitly about the force of the (declining) rate of increase in surplus per man *relative to the fall in employment per \$100*, upon which depends surplus per \$100. This issue is broached in the *Economic Manuscripts 1861–63* (MECW 32: 433 as we shall see below Chapter 10, p. 308); and in *Capital 1*:

... the compensation of a decrease in the number of labourers employed, or of the amount of variable capital advanced, by a rise in the rate of surplus value, or by the lengthening of the working day, has impassable limits. Whatever the value of labour power may be, whether the working time necessary for the maintenance of the labourer is 2 or 10 hours, the total value that a labourer can produce, day in, day out, is always less than the value in which 24 hours of labour are embodied. . . . The absolute limit of the average working day – this being by nature always less than 24 hours – sets an absolute limit to the compensation of a reduction of variable capital by a higher rate of surplus value, or of the decrease of the number of labourers exploited by a higher degree of exploitation of labour power. This palpable law is of importance for the clearing up of many phenomena, arising from a tendency (to be worked out later on) of capital to reduce as much as possible the number of labourers employed by it, or its variable constituent transformed into labour power, in contradiction to its other tendency to produce the greatest possible mass of surplus value (MECW 35: 309–10).

There are, in brief, “impassable limits” to the compensation for falling net value per \$100 – i.e., falling employment per \$100 – that can be generated by rising surplus per workday, not only limits imposed on lengthening the working day – absolute surplus value – but those imposed on relative surplus value achieved by reducing the costs of wage goods (in line with the *Grundrisse*).

A famous passage from *Capital 3*, in the chapter on internal contradictions of the law, also touches on the issue of the relative strengths of the labor-reducing (and thus value-reducing) and surplus-increasing forces – on the one hand,  $L$  per \$100 and, on the other, surplus per hour and thus surplus per \$100:

Inasmuch as the development of the productive power reduces the paid portion of employed labour, it raises the surplus value, because it raises its rate [of surplus-value];

but inasmuch as it reduces the total mass of labour employed by a given capital [\$100], it reduces the factor of the number by which the rate of surplus value is multiplied to obtain its mass. Two labourers, each working 12 hours daily, cannot produce the same mass of surplus value as 24 who work only 2 hours, even if they could live on air and hence did not have to work for themselves at all. In this respect, then, the compensation of the reduced number of labourers by intensifying the degree of exploitation has certain insurmountable limits. It may, for this reason, well check the fall in the rate of profit, but cannot prevent it altogether (MECW 37: 246).<sup>13</sup>

The opening reference to reductions in the “paid portion of employed labour” due to “the development of the productive power” might, in itself, be read as an illusion to the fall in  $v$  due to technical progress – reductions in the cost of producing wage-goods. Unfortunately, Marx proceeds to illustrate his contention that the profit rate decline is only checked and not prevented, by reference to the limited effects of extensions in the length of the working day. Now of course such extensions are constrained by the “insurmountable limits” of nature (or by legislation). Marx seems to forget the impact of efficiency increase with which the passage apparently commences. This, however, is precisely the key issue; extensions of the working day or of the intensity of labor are merely sideshows because of their quantitative limits. But we need not stress this weakness, since Marx has said enough to make it clear that his proposition is intended to hold good generally – i.e., even if we assume working days of given length and intensity – once allowance is made for the impact upon  $v$  of new technology.

As we know, declining  $R$  requires that  $L_{100}$  fall over time (above, p. 115); for  $(1 - P_L)$  is rising and a rising  $L_{100}$  would confirm an upward trend in  $R$ . Marx proceeded by taking for granted that  $L_{100}$  does indeed decline. On this assumption he is correct that  $R$  will fall (at least ultimately); because of the limits to compensation deriving from rising surplus per unit of labor, the relative impact of declining  $L$  per \$100 is constantly growing.  $R$  may yet rise at initial stages of the trend path notwithstanding falling  $L$  per \$100, should this decline be outweighed by the rising trend in surplus per man. But this Marx seems to have appreciated; at least he sometimes states that the law applies “in the long run”: “The rate of profit could even rise if a rise in the rate of surplus value were accompanied by a substantial reduction in the value of the elements of constant, and particularly of fixed, capital. But in reality, as we have seen, the rate of profit will fall in the long run” (228). Similarly, the “long-period” property of the law emerges in the chapter on counteracting tendencies: “. . . the same influences which produce a tendency in the general rate of profit to fall, also call forth countereffects, which hamper, retard, and partly paralyse this fall. The latter do not do away with the law, but impair its effect. Otherwise, it would not be the fall of the general rate of profit, but rather its relative slowness, that would be incomprehensible. Thus, the law acts only as a tendency. And it is only under

<sup>13</sup> See also *Economic Manuscripts* 1861–63, MECW 33: 108–11, cited Chapter 10, p. 308.

certain circumstances *and only after long periods* that its effects become strikingly pronounced” (233; emphasis added).

Of course, even assuming that our parameters  $\beta_K$ ,  $\beta_L$ , and  $\alpha$  are such as to assure a fall in  $L(n)$  (and thus in  $R$ ) there is no guarantee that the decline will set in within a period of much interest to anyone: the “long-run” may be very long indeed (cf. Dickinson 1956–7: 129; Meek 1967: 135). And the decline may be almost imperceptible – except to a computer calculating to several decimal places. This too seems to be implied in the foregoing passage.

The major problem, however, is that  $L$  per \$100 need not necessarily fall; Marx and his defenders, who insist on the ultimate *necessity* of a declining  $R$ , have put excessive weight on the limit to surplus per hour – itself a valid notion within the “value” framework. For, as we have seen, even a rising value composition – the condition is that

$$\frac{1 - \beta_K}{1 - \beta_L}(1 + \alpha) > 1$$

– does not *guarantee* falling  $L_n$ . But secondly, the value composition of capital may not rise despite an increase in the physical capital-labor ratio. (For example with  $\beta_K = .091$ ,  $\beta_L = .0455$  and  $\alpha = .1$  the value composition rises; but with  $\alpha$  at .05 the same  $\beta$  values yield a decline.)

It has, on the other hand, emerged from our analysis that the case for falling  $R$  is enhanced by assuming  $\beta_L > \beta_K$ . Now a lag in the impact of new technology on wage-goods, so it may be supposed at first sight, will put *downward* pressure on the profit rate, since the rise in  $s/v$  is muted.<sup>14</sup> But in fact the opposite is true – a relatively unprogressive wage-goods sector implies a lower value composition than in the reverse case, for  $P_K/P_L$  is lower, and to that extent *stimulates*  $L$  per \$100 and  $R$ . In the next section we shall consider Marx’s position regarding the relative progressiveness of the two sectors.

## F. Implications of Differential Rates of Productivity Increase

We note first a possibly relevant concession on Marx’s part regarding the scope of his “law.” In the course of his exposition Marx, as we know, insists that the rate of

<sup>14</sup> Cf. Dickinson 1956–57: 128: “There is reason to believe that, as an empirical fact, the productivity of labour does not increase so fast in the production of workers’ consumption goods as in the production of capital goods and luxury goods. If this is so . . . [the rate of surplus value] increases more slowly than we have assumed, and the point of diminishing [rate of profit] is reached with a smaller  $K$  than we have assumed.” Also Meek 1967: 141–2: “The initial rise in the rate of profit will be higher and the point of downturn will be later . . . the greater is the rise in productivity in the wage-goods industries relatively to that in the capital-goods industries.” And Rosdolsky relates Marx’s position that a rise in the rate of surplus value will not suffice to prevent the profit rate from falling to the probability that productivity increase in agriculture will fall short of its overall increase (Rosdolsky 1980: 407–8).

profit falls despite a rising  $s/v$ . But he also adds the proviso that uniform technical progress is the exception:

*Outside of a few cases (for instance, if the productiveness of labour uniformly cheapens all elements of the constant, and the variable, capital), the rate of profit will fall, in spite of the higher rate of surplus value, (1) because even a larger unpaid portion of the smaller total amount of newly added labour is smaller than a smaller aliquot unpaid portion of the former larger amount, and (2) because the higher composition of capital is expressed in the individual commodity by the fact that the portion of its value in which newly added labour is represented decreases in relation to the portion of its value which represents raw and auxiliary material, and the wear and tear of fixed capital (MECW 37: 225; emphasis added).*

Clause (1) relates to the limited impact of rising surplus per unit of labor; clause (2) alludes to the rise in value composition. And the case for falling  $R$  is here said *not* to apply where  $\beta_K = \beta_L$ ;  $\beta_K \neq \beta_L$  is represented as a necessary condition for the argument.

What may Marx have intended by thus restricting the scope of his “law” of falling  $R$ ? After all, a uniform rate of value decrease, i.e., constant  $P_K/P_L$ , does assure a rise in value composition – in this case in organic composition – equal to  $\alpha$ . (It is true though that  $L_n$  and  $R$  will not necessarily fall.) In the event  $\beta_K > \beta_L$ , then  $P_K/P_L$  tends downwards checking the value composition and acting against a decline in  $L_{100}$  and  $R$  – a “counteracting force.” The case for a falling  $L_n$  and  $R$  is thus *strengthened* by assuming relatively rapid progress in wage-goods production, or  $\beta_L > \beta_K$ , and thus rising  $P_K/P_L$ . It cannot be ruled out that Marx intended by his restriction to limit his falling  $R$  to such cases. It is still possible on this view to incorporate the “cheapening of the elements of constant capital” as a counteracting force to the decline in  $R$ ; for the profit-rate decline would be yet sharper should the capital-goods sector be unaffected by new technology. Whether or not this was Marx’s intention, the notion that the value composition rises despite the impact of new technology upon the price of “constant capital” can be more easily justified if we assume a relatively greater impact upon the price of wage-goods.

But this is inconclusive. We must look more closely at Marx’s empirical evaluation of the relative impact of new technology. There is much written in the *Economic Manuscripts* 1861–63 regarding the issue, in particular the passages which suggest a faster rate of agricultural than industrial improvement under advanced capitalism (MECW 31: 341, cited Chapter 14, p. 420).<sup>15</sup> On this view there had occurred, or was actually underway, a transition between the relative growth rates of productivity favoring agriculture. However, as Perelman (1985) has pointed out, elsewhere in the same work a certain pessimism intrudes regarding prospects for agriculture

<sup>15</sup> Cf. letter to Engels, 2 August 1862: “a prerequisite for industry is the older science of mechanics, while the prerequisites for agriculture are the completely new sciences of chemistry, geology and physiology” (MECW 41: 397). On chemical applications and geological knowledge in Marx’s writings during the 1860s and 1870s, see references in Rubel 1963: 1567.

under capitalist organization, with special reference to soil exhaustion (MECW 32: 433–4, cited Chapter 10, pp. 308–9). Whether there occurred a “sudden change” in viewpoint, as Perelman proposes (1985: 470), is open to question. Marx may well have distinguished between shorter-run and longer-run prospects. This seems to be the case in *Capital*. Here agriculture is represented as subject to a peculiar degree to labor-displacing technology – so much so that while aggregate industrial employment expands over time, agricultural employment declines: “As soon as capitalist production takes possession of agriculture, and in proportion to the extent to which it does so, the demand for an agricultural labouring population falls absolutely, while the accumulation of the capital employed in agriculture advances, without this repulsion being, as in non-agricultural industries, compensated by a greater attraction” (MECW 35: 636; 37: 631). At the same time, Marx warned of dangerous prospects ahead:

... all progress in capitalist agriculture is a progress in the art, not only of robbing the labourer, but of robbing the soil; all progress in increasing the fertility of the soil for a given time, is a progress towards ruining the lasting sources of that fertility. The more a country starts its development on the foundation of modern industry, like the United States, for example, the more rapid is this process of destruction. Capitalist production, therefore, develops technology and the combining together of various processes into a social whole, only by sapping the original sources of all wealth – the soil and the labourer (507–8).

Similarly, it emerges in *Capital 3* that while capitalism promotes agricultural technology it does so at the expense of (ultimate) exhaustion of the soil: “The moral of history, also to be deduced from other observations concerning agriculture, is that the capitalist system works against a rational agriculture, or that a rational agriculture is incompatible with the capitalist system (although the latter promotes technical improvements in agriculture), and needs either the hand of the small farmer living by his own labour or the control of associated producers” (MECW 37: 123).<sup>16</sup>

But even allowing for soil exhaustion (and assuming this implies a lag in agricultural productivity) it would still not be certain that wage-goods prices fall less rapidly than capital-goods prices. After all, raw materials constitute an important part of *constant* capital – indeed an increasingly important part (110); to that extent any constraint upon the impact of new technology in the extractive industries acts to maintain the value composition of capital by raising  $P_K$  relative to  $P_L$  with a negative effect on  $R$ .

<sup>16</sup> On occasion, Marx seems actually to assume *positive cost increases*; thus “agriculture and the extractive industries” entail “a decrease in labour productivity and, therefore, an increase in the number of employed labourers” (MECW 37: 60). See also the *Economic Manuscripts* MECW 33: 290–1.

Burkett 1999 finds in our texts an important contribution to modern ecological issues.

The question that remains is whether similar constraints keep up the value of variable capital – wage-goods. The argument in the *Economic Manuscripts* regarding the limits to increasing surplus value relative to falling employment (referred to above, p. 121) is followed immediately by the assertion that “the value of labour capacity does not fall in the same degree as the productive power of labour or of capital increases” (MECW 32: 433). This might mean no more than  $\beta_L < \alpha$ ; but the assertion is justified in terms of the more rapid development of industry considering prospective land exhaustion (cited above, pp. 124–5) and this suggests  $\beta_L < \beta_K$ .<sup>17</sup> *The evidence, therefore, is mixed, but on balance it seems fair to conclude that Marx viewed with some pessimism the relative prospects for agricultural technology under capitalism in the very long term.*

But what to make of this weighting? One cannot escape the impression that Marx wished to avoid taking up the impact of wage-goods prices on  $R$  via the value composition of capital; it is the impact on  $R$  via the rate of surplus value – the limited impact – upon which he concentrates. Thus, in discussing the formation of a general rate of profit in *Capital* 3, he writes that “[t]he organic composition of capital depends at any given time on two circumstances: first, on the technical relation of labour power employed to the mass of the means of production employed [our  $K/L$ ]; secondly, on the price of these means of production [our  $P_K$ ]” (MECW 37: 153) – entirely neglecting  $P_L$ . The following chapter on countervailing influences to the law of falling  $R$  does allude to reduced wage-goods prices but allows for an impact on  $R$  only by way of the rate of surplus value: “Since foreign trade partly cheapens the elements of constant capital, and partly the necessities of life for which the variable capital is converted, it tends to raise the rate of profit by increasing the rate of surplus-value and lowering the value of constant capital” (235). Marx seems to forget that  $v$  is the denominator not only of  $s/v$  but also of  $c/v$ ; lowering the value of “constant capital” says very little if the value of wage-goods is also falling. In the same chapter he refers to increasing relative surplus value (by way of reduction in wage-goods costs) as a force raising or maintaining the profit rate in a case where technology is such as not to require a higher  $K/L$  ratio: “Everything that promotes the production of relative surplus value by mere improvement in methods, as in agriculture, without altering the magnitude of the invested capital, has the same effect [of raising the profit

<sup>17</sup> This order of magnitude is further reinforced: “An additional factor is that, as a consequence of landownership, agricultural products are more expensive compared with other commodities, because they are sold at *their* value and are not reduced to their cost price. They form, however, the principal constituent of the necessaries” (*Economic Manuscripts* 1861–63; MECW 32: 433). Marx is basing himself here on a presumption that the organic composition in agriculture is low – itself an index of relative technological backwardness – so that value exceeds cost price, a differential which is not competed away by inflows of capital but is absorbed by “absolute” rent. (See Chapter 1, Section E for the discussion in *Capital* 3.) And there is also allusion to a sort of diminishing returns applied, however, in a context of falling costs: “Furthermore, if one-tenth of the land is dearer to exploit than the other nine-tenths, these latter are likewise hit ‘artificially’ by this relative infertility, as a result of the law of competition” (433–4).



rate]" (231). Doubtless he intended to define instances where increasing  $K/L$  is not involved in order to assure the force of rising  $s/v$  undiminished by rising  $c/v$ ; but again he neglects the fact that, even with given  $K/L$ ,  $c/v$  rises with falling  $v$ . As a final example, consider the interesting complexity allowed by Marx, that a rise in productivity in the capital-goods sector can affect  $R$  by raising  $s/v$  as well as by lowering  $c/v$ :

If the decrease in the expenditure of constant capital is due to economies, etc., in lines of production whose products enter into the labourer's consumption, then this, just like the direct increase in the productivity of the employed labour itself, may lead to a decrease in wages due to a cheapening of the means of subsistence of the labourer, and may lead, therefore, to an increase in the surplus value; so that the rate of profit in this case would grow for two reasons, namely, on the one hand, because the value of constant capital decreases, and on the other hand, because the surplus value increases (844).

Again the fall in  $v$  is allowed to act on  $s/v$  but not on  $c/v$ .

Marx's rather cavalier approach towards the determinants of  $c/v$  cannot be justified. If, as seems to be his position, the fall of materials' prices is ultimately destined to lag behind those of capital goods proper because of the exhaustibility of natural resources, then  $\beta_K$  (which relates to capital-goods proper as well as materials) will exceed  $\beta_L$ , so that  $P_K/P_L$  falls, with a *positive* effect on  $R$ , via the lower value composition of capital.

### G. Technical Progress and the Falling Profit Rate: An Overview

A necessary and sufficient condition for the tendency of the profit rate ultimately to decline within a Marxian framework is  $(1 - \beta_K)(1 + \alpha) > 1$  or  $\alpha > \beta_K/(1 - \beta_K)$ , i.e., that the rate of increase in the physical capital-labor proportion exceeds  $\beta_K$  (the rate of decline in  $P_K$ ), relative to  $(1 - \beta_K)$ , a ratio equaling the rate of increase of  $1/(1 - \beta_K)^n$  (see note 10). This at first sight is a surprising property since  $\beta_L$ , the rate of change in  $P_L$ , does not appear at all. But of course  $\beta_L$  is relevant; for example, a sufficiently low  $\beta_L$  will assure

$$\frac{1 - \beta_K}{1 - \beta_L}(1 + \alpha) < 1$$

i.e., falling value composition, precluding satisfaction of the necessary and sufficient condition. We have seen that  $\beta_L < \beta_K$  rather than the reverse can, *ceteris paribus*, transform a falling into a rising trend in  $R$ .

The condition in question concerns the behavior of  $L_{100}$ , i.e., employment per \$100 of capital invested; the ultimate course of  $R$  depends on this alone and those criticisms of Marx which emphasize that surplus per hour rises continuously as the value of wage-goods declines (i.e., that  $s/v \rightarrow \infty$ ) are invalid. But it is true that

whether the condition is or is not satisfied is entirely an empirical matter: there is no *a priori* reason to justify a presumption in favor of falling  $R$ .<sup>18</sup>

There is first the fact, of which Marx himself was so well aware, that the very existence of a large stock of capital promotes *capital-saving* innovation (cf. Rosenberg 1976); there is no necessity for  $\alpha > 0$ .<sup>19</sup> In this chapter, however, we have concentrated on the  $\beta_K, \beta_L$  relation and have indicated that Marx himself seems to point to  $\beta_L < \beta_K$  as a long-term prospect, having in mind the likelihood of land exhaustion. This too mitigates against the falling profit-rate tendency. All in all, in deriving his “law” Marx insisted on rising  $c/v$ : his “forecast” might have been valid for conditions pertaining at his time, but not for those of a more advanced capitalism – one utilizing on balance capital-saving technology and running into land-exhaustion problems.

Let us take a broader view of these issues. Marx objected to Ricardo for identifying  $R$  and its variations with  $s/v$  and its variations (e.g., MECW 37: 49).<sup>20</sup> Marx wished, moreover, to avoid basing the falling trend of  $R$  on land scarcity – technological improvement was the order of the day within a capitalist organization. His new model takes into account the influence on  $R$  exerted by a range of cost variation – the cost prices of capital-goods proper and materials as well as of wage-goods. He apparently envisaged, at least for the distant future, a sluggish rate of decline of material and wage-goods prices relative to those of capital-goods in consequence of land exhaustion, and to this extent *the land constraint comes back into the picture*. He blames the phenomenon on *capitalist development* not nature (see above, pp. 124–5), although this is not altogether convincing since co-operative or peasant farmers must also devote resources to avoid the problem. Schefold has pointed to the *Economic Manuscripts*, 1861–63, MECW 33: 290–1 (referred to above, in note 16), as an indication that Marx, in order to assure rising  $c/v$ , “retreat[ed] to a Ricardian explanation of the tendency of the rate of profit to fall,” notwithstanding his “scorn” for the technological determinism of Ricardo and Malthus (Schefold 1976: 818). But this is not quite so. It emerges from our discussion that a differential

<sup>18</sup> The “empirical” perspective is emphasized by Sweezy. “The increasing rate of surplus value was obvious to Marx but the dominant trend was the quantum leap in the organic composition – the transition in mid-century from ‘*manufacture*’ to ‘*machinefacture*’” (1987 [1973]: 43; see also Sweezy 1968).

<sup>19</sup> There is also an intriguing observation regarding technological progress in chemistry – a modern science – which implies capital saving: “Every advance in chemistry not only multiplies the number of useful materials and the useful applications of those already known, thus extending with the growth of capital its sphere of investment. It teaches at the same time how to throw the excrements of the processes of production and consumption back again into the circle of the process of reproduction, and thus, without any previous outlay of capital, creates new matter for capital” (MECW 35: 601).

<sup>20</sup> There is good reason for the objection (see Chapter 1). Ricardo erred by neglecting for the most part the negative effect on  $R$  of secularly-rising material prices. He was able to do so by an unstated assumption that materials are required only by industry; should materials be required in all sectors there is no way capitalists in any single sector can pass on the burden of rising costs to the consumer.

against the extractive sectors – both materials and wage-goods production – has on balance a *positive* effect on  $R$  by reducing the value composition of capital. Any additional constraint on the decline in wage-goods prices compared with those of materials acts further to maintain the profit rate, again by lowering  $c/v$ . It is true, however, that a *positive increase* in wage-goods costs (on which see note 16) must – whatever the levels of  $\beta_K$  and  $\alpha$  – generate an ultimate fall in the profit rate.<sup>21</sup> The “classical” source of declining  $R$  thus emerges from Marx’s theoretical model as a special case.

### H. On Secular Underconsumption

The text of Chapter 15 of *Capital 3* on “Internal Contradictions of the Law of the Tendency of the Rate of Profit to Fall” declares: “Growth of capital, hence accumulation of capital, does not imply a fall in the rate of profit, unless it is accompanied by . . . changes in the proportion of the organic constituents of capital” (MECW 37: 262). Now this declaration is misleading. The falling profit-rate trend reflecting rising organic composition of capital is restricted to the “*creation*” of surplus value not its “*realization*.” This latter may be impeded by inter-sectoral discordance and by limits to “the consumer power of society”:

The creation of this surplus value makes up the direct process of production. . . . As soon as all the surplus labour it was possible to squeeze out has been objectified in commodities, surplus value has been produced. But this production of surplus value completes but the first act of the capitalist process of production – the direct production process. Capital has absorbed so and so much unpaid labour. With the development of the process, which expresses itself in a drop in the rate of profit, the mass of surplus value thus produced swells to immense dimensions. Now comes the second act of the process. The entire mass of commodities, i.e., the total product, including the portion which replaces the constant and variable capital, and that representing surplus value, must be sold. If this is not done, or done only in part, or only at prices below the prices of production, the labourer has been indeed exploited, *but his exploitation is not realised as such for the capitalist, and this can be bound up with a total or partial failure to realise the surplus value pressed out of him, indeed even with the partial or total loss of the capital.* The conditions of direct exploitation, and those of realising it, are not identical. They diverge not only in place and time, but also logically. *The first are only limited by the productive power of society, the latter by the proportional relation of the various branches of production and the consumer power of society* (242–3; emphasis added).

Two constraints on “the consumer power of society” are at play. First, constrained consumption by the working class: “But this last-named is not determined either by the absolute productive power, or by the absolute consumer power, but by the consumer power based *on antagonistic conditions of distribution, which reduce the*

<sup>21</sup> In this case, even if  $\frac{1-\beta_K}{1-\beta_L}(1+\alpha) < 1$ , i.e., if the value composition tends to zero,

$$\lim_{n \rightarrow \infty} R(n) = \lim_{n \rightarrow \infty} \frac{\frac{1}{1-\beta_L} \frac{1-\beta_K}{1-\beta_L} \frac{1}{1-\beta_L} \frac{1}{1-\beta_L} \dots}{1 + \frac{P_K}{P_L} \frac{(1-\beta_K)^n}{(1+\beta_L)^n} \cdot \frac{K}{L} (1+\alpha)^n} = 0 \text{ since } \lim_{n \rightarrow \infty} \frac{1}{P_L (1+\beta)^n} = 0.$$

consumption of the bulk of society to a minimum varying within more or less narrow limits” (243; emphasis added). This may not relate to the downward wage-rate trend as such, but simply to an assumption of “minimum” wages. Second, there is a constraint on *capitalists’* consumption – it is not clear whether *absolute* reductions are intended – reflecting their “drive to expand capital,” leading to the conclusion that “the more the productive power develops, the more it finds itself at variance with the narrow basis on which the conditions of consumption rest.” This second constraint relates to a view of capitalists as motivated by an exaggerated drive to accumulate, with “self-expansion of capital . . . its only purpose” (240). Citing the *Grundrisse* and the *Economic Manuscripts* (MECW 28: 339–40; 32: 126) Marx continues: “It will never do . . . to represent capitalist production as something which it is not, namely as production whose immediate purpose is enjoyment or the manufacture of the means of enjoyment for the capitalist. This would be overlooking its specific character, which is revealed in all its inner essence” (MECW 37: 242). The barrier to expanded output created by constrained consumption is very strongly expressed in a passage, also based on the *Grundrisse* and the *Economic Manuscripts* (MECW 28: 23; 34: 24–5), touching on extensions of the *world market* as providing one way out of the dilemma: “*The capitalist mode of production is, for this reason, a historical means of developing the material forces of production and creating an appropriate world market* and is, at the same time, a continual conflict between this its historical task and its corresponding social relations of production” (MECW 37: 249; emphasis added). Again, capitalist arrangement demands “that countries in which the capitalist mode of production is not developed, should consume and produce at a rate which suits the countries with the capitalist mode of production” (256).

Having said this we must point to an anomaly. For in Chapter 30 (“Money Capital and Real Capital”) *Marx seems to ascribe to the secular version of the Law of Markets* adopted by Ricardo, Say, and J. S. Mill to the effect that there are no constraints on expansion of aggregate activity emanating from some form or other of constrained markets: “[the] limits of consumption are extended by the exertions of the reproduction process itself. On the one hand, this increases the consumption of revenue on the part of labourers and capitalists, on the other hand it is identical with an exertion of productive consumption” (481). Shortly afterwards, however, he reverts to the original view of “restricted consumption” by labor and excessive investment by capitalists and indeed also adds the requisite of compensatory consumption by the “non-producing classes” including landlords: “. . . “as matters stand, the replacement of the capital invested in production depends largely upon the consuming power of the non-producing classes; while the consuming power of the workers is limited partly by the laws of wages, partly by the fact that they are used only as long as they can be profitably employed by the capitalist class” (482–3).

In taking this line Marx was in effect siding with Malthus *against* the orthodox view of the Law of Markets as a *secular* proposition. (On Malthus see Hollander

1997: Chapter 11). And in his Chapter 15 he objects to “economists who deny overproduction of commodities, admitting overproduction of capital” the latter referring to a profit-rate decline due to labor scarcity (see Chapter 5.E); to those who deny general overproduction but allow “disproportion within the various branches of production”; to those who say that “overproduction is only relative”; and to those who propose that “capitalists have only to exchange and consume their commodities among themselves” for the problem to be solved (255–6). The Law of Markets conflicted with his own position, which allowed for an “imminent barrier” to expanded production created by the “limited dimensions of consumption” (255). Under capitalist arrangement wherein “the aim of capital is not to minister to certain wants, but to produce profit . . . a rift must continuously ensue between the limited dimensions of consumption . . . and a production which forever tends to exceed this imminent barrier.”<sup>22</sup> The high significance of Marx’s Malthusian declaration cited above that, “as matters stand,” capital replacement “depends largely upon the consuming power of the non-producing classes” is apparent. It is all the more disconcerting to encounter a reference to “the fantastic idea of priest Chalmers [Chalmers 1832: 88–92; cf. MECW 32: 434–5] that the less of the annual product is expended by capitalists as capital, the greater the profits they pocket. In which case the state church comes to their assistance, to care for the consumption of the greater part of the surplus product, rather than having it used as capital” (244). This after all is the essence of Marx’s own position.<sup>23</sup>

<sup>22</sup> See also the insistence in *Capital 1* that “the real aim of the capitalist” is neither use value nor “the profit on any single transaction,” but “[t]he restless never-ending process of profit-making alone . . . . The never-ending augmentation of exchange value, which the miser strives after, by seeking to save his money from circulation, is attained by the more acute capitalist, by constantly throwing it afresh into circulation” (MECW 35: 164). Now Marx cites both Chalmers regarding money as “terminating object” (Chalmers 1832: 165–6) and also McCulloch on “[t]he inextinguishable passion for gain” as the capitalist’s end (McCulloch 1830: 179), but charges the latter with nonetheless denying the possibility of overproduction: “when in theoretical difficulties . . . [he] “transform[s] the same capitalists into a moral citizen, whose sole concern is for use values, and who even develops an insatiable hunger for boots, hats, eggs, calico, and other extremely familiar sorts of use values.”

<sup>23</sup> Joan Robinson understood Marx as “intending” a theory along the following lines having in mind his reproduction equations:

consumption by the workers is limited by their poverty, while consumption by the capitalists is limited by the greed for capital which causes them to accumulate wealth rather than to enjoy luxury. The demand for consumption goods (the product of group II) is thus restricted. But if the output of the consumption-good industries is limited by the market, the demand for capital goods (group I) is in turn restricted, for the constant capital of the consumption-goods industries will not expand fast enough to absorb the potential output of the capital-good industries. Thus the distribution of income, between wages and surplus, is such as to set up a chronic tendency for a lack of balance between the two groups of industries (Robinson 1967 [1942]: 49).

Now to demonstrate rigorously that “maldistribution of consuming power is the root of the trouble,” required a demonstration “that investment depends upon the rate of profit, and that the rate of profit depends, in the last resort, upon consuming power. It is necessary, in short, to supply a theory of the rate of profit based on the principle of effective demand”

We have understood Marx's underconsumptionism as relating to secular tendencies. We shall have more to say about the matter in Chapter 5, in the light of a declaration in *Capital 3* that "[t]he ultimate reason for all real crises always remains the poverty and restricted consumption of the masses as opposed to the drive of capitalist production to develop the productive forces as though only the absolute consuming power of society constituted their limit" (483).

### I. Concluding Comments: On the Significance of the Falling Profit Rate

If we inquire where precisely the importance of the falling profit rate lies we cannot point to a concerted discussion. There are though the suggestive indications, touched on in Chapter 2, pp. 66–7, in particular the weakening of the motive to accumulation and the resultant threat to the capitalist system (MECW 37: 240).<sup>24</sup> Yet the weight to place on the disincentive effect is unclear, since Marx commends Richard Jones for emphasizing "correctly that in spite of the falling rate of profit the inducements and faculties to accumulate are augmented . . ." (265). The curve relating the profit rate and accumulation – whatever its slope – is continually shifting outwards because of an increase in the purchasing power of aggregate profits, because "the wants and the greed for wealth increase," and because of various institutional changes which ease the savings-investment process.

Centralization too – or "the formation of capital . . . [by] a few established big capitals" (258) – is in part a consequence of the falling profit-rate trend: "A drop in the rate of profit is attended by a rise in the minimum capital required by an individual capitalist for the productive employment of labour. . . . Concentration increases simultaneously, because beyond certain limits a large capital with a small rate of profit accumulates faster than a small capital with a large rate of profit" (249) – a familiar Smithian theme. In fact, the "centralisation of existing capitals in a few hands and a deprivation of many of their capital . . . would soon bring about the collapse of capitalist production if it were not for counteracting tendencies, which have a continuous decentralizing effect alongside the centripetal one" (245; emphasis added).

Marx proposes a further consequence of the profit-rate fall, its *encouragement of instability* on the part of small firms specifically: "At a certain high point this increasing concentration in its turn causes a new fall in the rate of profit. The mass of

(50). The problem of the inducement to invest is central because "[i]f capitalists were always prepared to invest their surplus in capital goods, without regard to the prospect of profit, the output of capital goods would fill the gap between consumption and maximum potential output . . . however wretched the level of consumption."

For a comparison of Marx and Keynes on effective demand and unemployment, see Sardoni 1986.

<sup>24</sup> Marx recognized Ricardo's prescience in this regard (MECW 37: 258).

There is also a danger that if the profit rate falls below a certain minimum, capitalists might engage in hoarding, not compensating for reduced investment by increased consumption outlays (Bronfenbrenner 1965: 219).

small dispersed capitals is thereby driven along the adventurous road of speculation, credit frauds, stock swindles and crises,” in consequence of “a plethora of the capital for which the fall in the rate of profit is not compensated through a mass of profit” (here citing the *Economic Manuscripts*, MECW 33: 112). Similarly, the fall in the profit rate “breeds overproduction, speculation, crises, and surplus capital alongside surplus population” (MECW 37: 240). This process is again reiterated: “a fall in the rate of profit connected with accumulation necessarily calls forth a competitive struggle. Compensation of a fall in the rate of profit by a rise in the mass of profit applies only to the total social capital and to the big, firmly placed capitalists. The new additional capital operating independently does not enjoy any such compensating conditions. It must still win them, and so it is that a fall in the rate of profit calls forth a competitive struggle among capitalists, not vice versa” (255). We return to these matters in Chapter 5 on the cyclical dimension.

We have said nothing of the effect of the destruction of the lower strata of the middle classes in consequence of the “concentration” (or, better, the “centralisation”) process – a reflection in part of the falling return on capital – and their inflow into the proletariat putting downward pressure on the wage (on which see Chapter 6, pp. 172–3; Chapter 7, p. 495). Now in *Capital 1* Marx writes of the process whereby “the larger capitals beat the smaller,” forcing the latter to “crowd into spheres of production which modern industry has only sporadically or incompletely got hold of . . .,” a process which “always ends in the ruin of many small capitalists, whose capitals partly pass into the hands of their conquerors, partly vanish” (MECW 35: 621; also 750). But nothing is said here specifically of their “vanishing” into the proletariat. And this is true also of *Capital 3* (MECW 37: 240, 245).

Reduced real wages do, however, play a role in the story, capitalists depressing wages in an effort to check “the tendency of the rate of profit to fall” (234). The complexity we face here is that this is represented as a case of “depression of wages below the value of labour power” – this may, however, be an Engels insertion – which usually relates to *cyclical* not secular pressure (see Chapter 1, p. 44).

## FIVE

### The Cyclical Dimension

#### A. Introduction

The account given in *Capital 3*, Chapter 30 of the *secular* underconsumption trend with its reliance on “non-producing classes” to assure markets (MECW 37: 482–3; Chapter 4, p. 130), is prefaced by a statement regarding various sources of *cyclical* instability, including “price fluctuations, which prevent large parts of the total capital from replacing themselves in their average proportions and which, owing to the general interrelations of the entire reproduction process as developed in particular by credit, must always call forth general stoppages of a transient nature,” “sham transactions and speculations, which the credit system favours,” “disproportion of production in various branches of the economy,” and “*a disproportion between the consumption of the capitalists and their accumulation*” (MECW 37: 482; emphasis added).<sup>1</sup> This passage is followed by the assertion that “[t]he ultimate reason for all real crises always remains the poverty and restricted consumption of the masses as opposed to the drive of capitalist production to develop the productive forces as though only the absolute consuming power of society constituted their limit” (483; cited Chapter 4, p. 132). But we shall see that this is *not* the line followed in the detailed analyses of the cycle, *Marx positively rejecting underconsumptionist explanations of the cycle as far as expenditure out of wages is concerned*, in the light of labor scarcity and high wages immediately before the crisis. We shall show too that while he elaborated an indirect effect of the falling profit-rate trend on cyclical stability – in effect silently following a line already traced out by J. S. Mill – the emphasis in this context is upon rising organic composition and not secular underconsumption pressures. The so-called “ultimate reason” for cycles in limited consumption by labor falls into disuse. In fact, there are statements which insist also on high consumption out of revenue by *capitalists* during the upswing despite their heavy investment commitments.

<sup>1</sup> It is unlikely that Marx intended the departmental analysis of *Capital 2* by reference to “a disproportion in various branches to the economy.” The allusion seems rather to be the more mundane matter of simple misallocation of resources.



We proceed as follows in this companion to Chapter 4. Section B sets the stage by establishing the cyclical chronology with special reference to a ten-year sequence. Section C spells out a possible John Stuart Mill connection linking “speculative” ventures to downward pressure on the profit rate upon expanded investment during and after recovery. Of high interest is the limitation of this argument to “minor” or “independent” or owner-operated firms rather than large corporations; Marx is also explicit that the renewed investment program during recovery is initially motivated by the rate of profit – contrasting with capitalists’ behavior in accounts of secular underconsumption – though this too applies specifically to the small factory owner.

Sections D and E carry the story further by reference to additional pressures on the profit rate prior to the downturn exerted by raw material and labor shortages, raising (pecuniary) organic composition and lowering the rate of exploitation respectively. Here we spell out not only Marx’s formal *rejection* of the underconsumption basis for crises in terms of labor’s low purchasing power, but also his insistence upon high consumption expenditure by *capitalists* during the upturn despite heavy investment outlay.

The crisis itself and its aftermath is the subject of Section F. Again we find a Mill connection, now in the rejection of Say’s Identity. We also seek here to define the role of the credit system in generating the excess demand for money to hold characterizing the crisis and subsequent depression. Marx certainly insists on the priority of the production process, yet repeatedly we encounter a considerable degree of autonomy allowed the credit system in accounting for the crisis.

Sources of instability in inter- and intra-departmental imbalance are touched on in Section G. Section H provides a brief discussion of what has come to be known as the “echo effect” relating fluctuations in national income to fluctuations in the proportion of the capital stock falling due for replacement.

## B. The Cyclical Chronology

Marx in *Capital 1* describes the decade 1820–30 as one in which “modern industry itself was only just emerging from the age of childhood, as is shown by the fact that with the crisis of 1825 it for the first time opens the periodic cycle of its modern life” (MECW 35: 14–15). More specifically, “[t]he course characteristic of modern industry” is “a decennial cycle (interrupted by smaller oscillations), of periods of average activity, production at high pressure, crisis and stagnation . . .” (627); or again, “the periodic changes of the industrial cycle are characterized by “its decennial cycles and periodic phases, which, moreover, as accumulation advances, are complicated by irregular oscillations following each other more and more quickly . . .” (631).

The categorization in terms of “average activity, production at high pressure, crisis and stagnation” is impressionistic. It is not always clear whether by “crisis” is here intended the *upper turning point* alone with “stagnation” or “depression”

referring to the period preceding the upturn, or whether it includes all or part of the recessionary period.<sup>2</sup> The term “crisis” possibly includes “stagnation” in a reference to “the period of the crisis from 1857 to 1858,” and is certainly so used in the context of “the frightful cotton crisis from 1861–1865” (249). But this may not be true of an observation relating to the cotton trade between 1770–1815 (a period of British export monopoly) which experienced “only 5 years of crisis and stagnation” (461).

The period 1770–1815 is contrasted with that of 1815–63 – competition from Europe and the United States setting in between 1815 and 1830 – which experienced “20 years of revival and prosperity against 28 of depression, and stagnation;” or more narrowly, with 1846–63 and its “8 years of moderate activity and prosperity against 9 years of depression and stagnation” (461–2). Here a four-phrase periodicity entailing revival (and probably moderate activity), prosperity, *depression*, and stagnation, is implied and should be compared with our original, equally imprecise, pattern of “average activity, production at high pressure, *crisis*, and stagnation.” Similarly, in discussing capital accumulation Marx writes of “crisis” as a “phase” indicating depression, considering the parallel made with “prosperity”: “. . . when the industrial cycle is in the phase of crisis, a general fall in the price of commodities is expressed as a rise in the value of money, and in the phase of prosperity, a general rise in the price of commodities, as a fall in the value of money” (615). Yet elsewhere in the same chapter “crisis” is used in a sense paralleling “revival”: “One need only glance superficially at the statistics of English pauperism to find that the quantity of paupers increases with every crisis, and diminishes with every revival of trade” (637) – suggesting upper and lower turning points respectively.

*Volume 3* contains a description of cycles, representing them as comprising “state of inactivity, mounting revival, prosperity, overproduction, crisis, stagnation, state of inactivity, etc. . . .” (MECW 37: 358), where crisis is unambiguously used in the sense of upper turning point. Strangely, there is no formal emphasis on a “decennial” pattern as such in the posthumous volume.

Despite the sometimes loose terminology we need not be held up unduly when considering the perceived “decennial” periodicity of British industrial activity – using as proxy labor conditions in the cotton industry – for Marx does focus in most cases on a specific “crisis-year” which implies an upper turning point – 1825, 1847, 1857, 1866 – each followed by “misery” or depression; only with regard to 1837–38 does he refer to “depression and crisis.” Also indicative of crisis as upper turning point is the account of 1857 as the year that “brought one of the great crises *with which the industrial cycle periodically ends,*” and of 1866 as “[t]he next *termination* of the cycle” (MECW 35: 660–1; emphasis added).

This then, at least up until 1866, is the chronology of Marx’s decennial cyclical pattern with crisis years (the upper turning point) following upon periods of “prosperity” – or more specifically of “production at high pressure” or “overproduction” – and followed by depression, stagnation, and then revival.

<sup>2</sup> See e.g. Haberler 1958: 257 on definition and measurement of the business cycle.

The problem we face is that Marx's chronology turns on qualitative descriptions not quantitative series which makes interpretation extremely difficult. Particularly troublesome in this regard is the distinction between the primary cyclical pattern and "smaller" and "irregular oscillations." For that the minor oscillations follow each other "more and more quickly" is not evident from the dating provided; all we have to go on are the "glutted markets" and "distress" setting in in 1830 and the continued depression 1831–33 that disturb the pattern of (decennial) cyclical expansion of 1827–29 and 1834–36; the depression years 1840–43 that disturb the expansion beginning in 1839 and continuing through 1844–46; and the depression years 1851 and 1854 that disturb the expansion 1849–56. As for the 1860s, the recovery after the *decennial* crisis of 1857 (or 1857–8) begins in 1858 and prosperity continues into 1861 which may indicate the upper turning point of a *minor* cycle; in any event, a downturn sets in with the "cotton famine" reflecting the American Civil War – which lasts through to 1863 (and even 1865 on one account). Now the *decennial* crisis is said to occur in 1866, so one must suppose there to have been some recovery after 1863 (or 1865). But the decennial crisis of 1866 itself is something of a special case, taking on "an especially financial character" as a result of the effects of the cotton crisis (see below, p. 152).

Marx himself was sufficiently confident in his periodization based on the years 1825–66 that in January 1873 in the Afterward to the Second German edition of *Capital 1*, he forecast, with emphasis upon its *universality*, a new crisis to occur (presumably) in 1876–77: "The contradictions inherent in the movement of capitalist society impress themselves upon the practical bourgeois most strikingly in the changes of the periodic cycle, through which modern industry runs, and whose crowning point is the universal crisis. That crisis is once again approaching, although as yet but in its preliminary stage; and by the universality of its theatre and the intensity of its action it will drum dialectics even into the heads of the mushroom-upstarts of the new, holy Prusso-German empire" (MECW 35: 20).<sup>3</sup>

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The chronological pattern is revealed more sharply by reference to the course of the interest rate. In what follows we keep in mind Marx's generalization in *Volume 3*

<sup>3</sup> The French edition of *Capital 1* (see above, Introduction, p. 5) contains an important passage in the chapter "The General Law of Capitalist Accumulation" not appearing in the MECW edition:

But only after the mechanical industry had struck root so deeply that it exerted a preponderant influence on the whole of national production; only after foreign trade began to predominate over internal trade, thanks to mechanical industry; only after the world market had successively annexed extensive areas of the New World, Asia and Australia; and finally, only after a sufficient number of industrial nations had entered the arena – only after all this had happened can one date the repeated self-perpetuating cycles, whose successive phases embrace years, and always culminate in a general crisis, which is the end of one cycle and the starting-point of another . . . (Marx 1976: 786; see also Marx 1963: 1150).

There seems to be considerable jobbing backwards here, since the cyclical pattern is usually discerned by Marx to have set in early in the century.

that while “the average rate of profit is to be regarded as the ultimate determinant of the maximum rate of interest,” the interest rate itself might vary cyclically in opposite directions:

If we observe the cycles in which modern industry moves – state of inactivity, mounting revival, prosperity, overproduction, crisis, stagnation, state of inactivity, etc., . . . – we shall find that a low rate of interest generally corresponds to periods of prosperity or extra profit, a rise in interest separates prosperity and its reverse, and a maximum of interest up to a point of extreme usury corresponds to the period of crisis. The summer of 1843 ushered in a period of remarkable prosperity; the rate of interest still 4 ½% in the spring of 1842, fell to 2% in the spring and summer of 1843; in September it fell as low as 1 ½% . . . ; whereupon it rose to 8% and higher during the crisis of 1847 (MECW 37: 358).

. . . Again: “The demand for money capital,” as in the 1847 money crisis, and consequently the interest rate, “may rise even though the profit may decrease; as soon as the relative supply of money capital shrinks, its ‘value’ increases” (418). In fact, “[i]n this case the interest rose because profits decreased and the money values of commodities fell enormously” (419).

More generally, depression itself is characterized by ample loanable funds or “loan capital [lying] idle in great quantities” because of slack demand for loans (484; see below, p. 155). During the initial stages of recovery (or “improvement” as it is sometimes referred to, cf. 488), the interest rate rises above its minimum but to no great degree since renewed activity is largely accommodated by *commercial credit* (487). However, the situation alters with the onset of “overexertion,” a period of great expansion in fixed capital and “new enterprises” coupled with wholesale reliance on money credit by increasing numbers of “cavaliers” or purely speculative investors, both acting to increase the interest rate “to its average level”: “On the other hand, those cavaliers who work without any reserve capital or without any capital at all and who thus operate completely on a money credit basis begin to appear for the first time in considerable numbers. To this is now added the great expansion of fixed capital in all forms, and the opening of new enterprises on a vast and far-reaching scale. The interest now rises to its average level.” The interest rate continues to rise until “a new crisis sets in,” when “[c]redit suddenly stops . . . payments are suspended, the reproduction process is paralysed, and . . . a superabundance of idle industrial capital appears side by side with an almost absolute absence of loan capital.”<sup>4</sup>

Convenient summaries bring out the major movements of the interest rate over the cycle. First, there is coincidence at its “beginning” – immediately after the crisis – of industrial contraction accompanied by an ample supply of loanable funds, evi-

<sup>4</sup> The last statement is unhelpful, since MECW 37: 484 has it that loan capital “lies idle in great quantities” during depression; and again in what follows, it is confirmed that industrial contraction coincides with an *ample supply* of loanable funds. The “almost absolute absence” thus must reflect the paucity of *demand* for loanable funds.

dently relative to demand, “as expressed by the [low] rate of interest”; and at its “end” – just before the crisis – of industrial expansion or rather “superabundance of industrial capital” accompanied by a limited supply of loanable funds (again relative to demand) and high interest; and second, the coincidence in only two limited periods of an “abundance of loan capital” or low interest simultaneously with a great expansion of industrial capital” – the period just after the lower turning point when the interest rate has risen above its minimum, but remained low, and that somewhat later in the recovery when the average interest rate is achieved (488; 493).<sup>5</sup>

It remains to emphasize that the cyclical movements are perceived as superimposed upon an upward trend: “. . . during the ten-year cyclical periods of development of British industry (1815 to 1870), the maximum of the last prosperity *before* the crisis always reappears as the minimum of the following prosperity, whereupon it rises to a new and far higher peak” (499; also below, pp. 143, 144).

### C. Trend and Cycle: Causal Mechanisms

John Stuart Mill recognized the regular periodicity of cycles in his “Of the Influence of Consumption on Production,” composed 1830–31 and first published in 1844 (Mill 1963–91 [1844] 4: 275). As for causality, Mill had alluded several years earlier to the implications for “speculation” of a low rate of profit: “the Corn Laws . . . by lowering the rate of ordinary mercantile profit, really produce that tendency to hazardous speculation which is so erroneously, though so commonly, imputed to the system of our currency” (Mill 1963–91 [1826]: 109–10). And this is the general line followed in the *Principles* to account for the *cyclical* pattern: “By the time a few years have passed over without a crisis, so much additional capital has been accumulated that it is no longer possible to invest it at the accustomed profit,” investors turning increasingly to “speculative” ventures, from which follows the inevitable “revulsion”; while the loss of capital values during the subsequent “stagnation” – the depression characterized by the closure of factories and unemployment – acts to raise the profit and interest rates thereby “mak[ing] room for fresh accumulations” so that the “same round is recommenced” (Mill 1963–91 [1848]: 741–2; emphasis added).<sup>6</sup> In this manner “[p]rofits are prevented from reaching the minimum by commercial revulsions,” a “counteracting” principle amongst others (741). The *ceteris paribus* compound upon which the downward trend is predicated therefore includes the absence of capital wastage of various sorts – unsustainable capital projects during speculative periods and “unproductive” consumption and capital export during the depression that follows (see Hollander 1985: 465–6).

<sup>5</sup> The two periods are conflated into one in the text on MECW 37: 487, namely a period encompassing “recovery” and “improvement” prior to “overexertion.”

<sup>6</sup> In Mill’s account of 1844 an imminent rise in prices at some stage during the depression based on a normal price level also plays a part in encouraging the upturn (Mill 1963–91 [1844]: 276–7).

Now Marx, in Chapter 15 of *Capital 3* on “Internal Contradictions of the Law of the Tendency of the Rate of Profit to Fall,” maintains a position close to Mill’s in its broad outlines, though the rationalization of the downward profit-rate trend of course differs. For Marx, as for Mill, the decline constitutes a “threat” to the capitalist production process thereby breeding “overproduction” – in Mill’s terminology investment in factories and equipment “beyond what the market requires” – “speculation, crises and surplus capital alongside surplus population”; but one feature in particular distinguishes Marx’s account – the “concentration” and “centralization” of capital “through expropriation of minor capitalists”:

Accumulation . . . hastens the fall of the rate of profit, inasmuch as it implies concentration of labour on a large scale, and thus a higher composition of capital. On the other hand, a fall in the rate of profit again hastens the concentration of capital and its centralisation through expropriation of minor capitalists, the few direct producers who still have anything left to be expropriated. This accelerates accumulation with regard to mass, although the rate of accumulation falls with the rate of profit.

On the other hand . . . *the rate of profit, being the goad of capitalist production . . . its fall checks the formation of new independent capitals and thus appears as a threat to the development of the capitalist production process. It breeds overproduction, speculation, crises, and surplus capital alongside surplus population*” (MECW 37: 240; emphasis added).<sup>7</sup>

These trends are further elaborated by reference to their impact on “*the adventurous road of speculation . . . and crises,*” and confirm – the preceding passage is a little ambiguous in this respect” – that this consequence relates specifically to the minor or “small dispersed capitals”:

A drop in the rate of profit is attended by a rise in the minimum capital required by an individual capitalist for the productive employment of labour. . . . Concentration increases simultaneously, because beyond certain limits a large capital with a small rate of profit accumulates faster than a small capital with a large rate of profit. At a certain high point this increasing concentration in its turn causes a new fall in the rate of profit. *The mass of small dispersed capitals is thereby driven along the adventurous road of speculation, credit frauds, stock swindles, and crises* (249; emphasis added).

This outcome is in fact part of the intensified “competitive struggle” generated by the falling return on capital, again with reference for the most part to small firms (255; cited Chapter 4, p. 133).<sup>8</sup> And the intensification of competition takes the form of the adoption of “new methods,” but increasingly of an “adventurous” sort:

<sup>7</sup> “Concentration” is defined elsewhere as “employment of capital on a larger scale,” and “centralization” as “the swallowing up of the small capitalists by the big and their deprivation of capital” (MECW 37: 245). The few “direct” producers are “independent” firms contrasting with large enterprises under specialized management divorced from ownership (see e.g., 350).

<sup>8</sup> Marx here insists in effect against Smith that the profit-rate fall calls for a competitive struggle rather than the reverse as is implied by Smithian “competition of capitals.”

If the rate of profit falls, there follows, on the one hand, an exertion of capital in order that the individual capitalists, through improved methods etc., may depress the value of their individual commodity below the social average value and thereby realise an extra profit at the prevailing market price. *On the other hand, there appears swindling and a general promotion of swindling by recourse to frenzied ventures with new methods of production, new investments of capital, new adventures, all for the sake of securing a shred of extra profit which is independent of the general average and rises above it* (257–8; emphasis added).

There are too the graphic descriptions in Chapter 30 of the period of “overexertion” – or “production at high pressure” in *Capital 1* (above, p. 135) – which follows “prosperity,” a period of “great expansion of fixed capital in all its forms, and the opening of new enterprises on a vast and far-reaching scale” coupled with the appearance of “cavaliers” or speculative investors who “operate completely on a money credit . . .” (487).

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There is a tendency to think of Marx’s rising  $c/v$  as proceeding continuously and this may be valid as a first approximation in general accounts of secular tendencies; but net investment incorporating novel capital-intensive technologies is also more specifically represented as occurring in a bunched fashion at certain times during the cycle, particularly “periods of average activity” (above, p. 135) or “the phase of prosperity” (above, p. 136) – corresponding perhaps to Mill’s “quiescent” periods of “a few years [which] have passed without a crisis” – and during periods of “overexertion” or “production at high pressure.” Capitalists’ motivation, governing the timing of the investment program during the upswing, becomes the key issue. The evidence, we shall suggest, points to such investment as motivated by the promise of a *high* profit rate – as with Malthus (Hollander 1997: 531, 1003).

Statements to the effect that the “self-expansion of capital” is the “only purpose” of the capitalist (MECW 37: 240; Chapter 4, p. 130), or that “the production of . . . surplus value” and its “reconversion . . . into capital” is “the immediate purpose and compelling motive of capitalist production” (242) imply, certainly, a drive to accumulate *unrelated* to any expected rate of return; and this is *a fortiori* the case of the statement regarding restricted consumption by labor *in the face of* “*the drive of capitalist production to develop the productive forces . . .*” (483; above, p. 134). But these occur in the context of *secular* underconsumption pressures. When the emphasis is on the *cycle* the perspective seems to alter. Thus, we have the explicit statements – and Marx proceeds to *cyclical* implications – that “the rate of accumulation falls with the rate of profit” and that the rate of profit is the “goad of capitalist production” (240; above, p. 140); that “an increased rate of profit causes a greater demand for labour” (247); and that “the expansion or contraction of production” – we again note the cyclical tone – “are determined by . . . profit and the proportion of this profit to the employed capital, thus by a definite rate of profit . . .” (257).<sup>9</sup>

<sup>9</sup> Marx refers to “barriers at a certain stage of production” and the system coming to a “standstill”: “It is for this reason that the capitalist mode of production meets with barriers at a certain expanded stage of production which, if viewed from the other premiss, would reversely have

And we shall encounter an allowance in the cyclical context that capitalists also have an eye on consumption (303–4; below, pp. 149) which is consistent with the need for a compensatory stimulus to save at the margin of decision making.

We recall here the qualification explored in Chapter 2 (p. 68) that the positive relation between accumulation and the return on capital applies largely to the traditional industrial capitalist, rather than the large stock company. This latter feature would suggest that our reading whereby investment occurs predominantly at periods of the cycle promising relatively high returns, rather than at a steady or even increasing pace irrespective of the return, applies to the traditional capitalist sector comprising independent factory owners. For all that, it is difficult to believe that Marx intended by the “opening of new enterprises on a vast and far-reaching scale” which occurs during “overexertion” (above, p. 138), to exclude the large stock companies. (The railways come to mind; below p. 147). In any event, once the profit rate comes under threat as a result not only of rising  $c/v$  but also growing material and labor shortages – the subject of the following sections – “speculative” activity becomes increasingly significant, reinforcing – as with Mill – the conditions for crisis.

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We turn now to the aftermath of the crisis, or the period of “stagnation.” As with Mill, this stage is characterized by “glutted markets or fallen prices, a super-abundance of industrial capital . . . but in a form in which it cannot perform its function. Huge quantities of commodity capital, but unsaleable. Huge quantities of fixed capital, but largely idle due to stagnant reproduction” (MECW 37: 481–2). Again: “Factories are closed, raw materials accumulate, finished products flood the markets as commodities” (482).<sup>10</sup>

Now Mill had it that during periods of stagnation the “destruction” (or loss abroad) of “a considerable amount of capital,” reverses the (cyclical) profit-rate decline, “mak[ing] room for fresh accumulations” so that “the same round is recommenced” (above, p. 139). This is rehearsed by Marx without due credit, when he too elaborates the restoration of equilibrium by way of the “destruction of capital values” following the sharp fall in the profit rate that occurs near the upper turning point (248, 252–3). “Ultimately,” runs the conclusion, “the depreciation of the elements of constant capital would itself tend to raise the rate of profit. The mass of

been altogether inadequate. It comes to a standstill at a point fixed by the production and realization of profit, and not by the satisfaction of requirements” (MECW 37: 257). The terms “barriers” and “standstill” need not refer to some sort of *stationary state*; temporary crisis and depression seem intended. (See on this matter Sowell 2006: 169.)

<sup>10</sup> Here Marx points out the error of blaming depression conditions on “a scarcity of productive capital,” considering that it is “precisely at such times that there is a super-abundance of productive capital, partly in relation to the normal, but temporarily reduced scale of reproduction, and partly in relation to the paralysed consumption” (MECW 37: 482). He does not here name the culprits. He allows that a “real lack of productive capital, at least among capitalistically developed nations, can be said to exist only in times of general crop failure, either in the principal foodstuffs or in the principal industrial raw materials” (483).



employed constant capital would have increased in relation to variable, but its value could have fallen. The ensuing stagnation of production would have prepared – within capitalistic limits – a subsequent expansion of production” (254). As with Mill, the “tendency” to a fall in the profit rate itself encourages the “counteracting force” (see Hollander 1992: 261).

Also to be emphasized is the affirmation (encountered above, p. 139) that the *cyclical pattern* must be understood as superimposed upon an *expanding* system: “And thus the cycle would run its course anew. Part of the capital, depreciated by its functional stagnation, would recover its old value. For the rest, the same vicious circle would be described once more under expanded conditions of production, with an expanded market and increased productive forces” (MECW 37: 254).

In addition to the various pressures mentioned above as tending to halt and reverse the falling profit rate characterizing depression, Marx mentions “growing confidence” (488). This amounts to the counterpart of Mill’s reversal of expectational mood which plays a part in the recover process (see note 6).<sup>11</sup>

#### D. The Raw Material Constraint and Upper Turning Point

We shall now take account of Marx’s further rationalizations, in addition to rising  $c/v$ , of the downward pressure on the profit rate setting in late during the upturn. These include the “natural” characteristics of agricultural products acting via the prices of raw materials.

We recall first Marx’s valid objection that Ricardo, by his inverse wage-profit relation, effectively identified the rate of exploitation ( $s/v$ ) with the rate of profits  $s/(c + v)$ , neglecting the effect on the latter of changes in materials’ prices (MECW 37: 108, cited Chapter 1, Section I). “Other conditions being equal,” Marx concludes, “the rate of profit therefore falls and rises inversely to the price of raw material” (see also 113).<sup>12</sup> Of particular interest are the *cyclical* consequences flowing from natural constraints on the output of “vegetable and animal substances”:

It is the nature of things that vegetable and animal substances whose growth and production are subject to certain organic laws and bound up with definite natural time periods, cannot be suddenly augmented in the same degree as, for instance, machines and other fixed capital, or coal, ore, etc., whose augmentation can, provided the natural conditions do not change, be rapidly accomplished in an industrially developed country.

<sup>11</sup> Nothing is said explicitly of the positive effects of cheaper raw materials during the downturn and depression, the reverse of those touched on in discussing the period of “prosperity” to be discussed in the next section. What is said of cheaper raw materials of a *seasonal* variety as providing “the added stimulus of the . . . influence on the rate of profit” (MECW 37: 122), is in principle applicable. And the same presumably holds good of falling wages.

<sup>12</sup> On the objection to Ricardo, see also MECW 37: 239–40. Yet on at least one occasion Ricardo allowed that a rise in material prices directly affected the profit rate, the value of the capital stock rising with the increased cost of agricultural produce (Ricardo 1951–3 I: 117). Marx was aware of this specific allowance (MECW 37:116). J. S. Mill neglects the direct effect of changing materials prices on the profit rate allowing only an indirect effect via the cost of wage-goods (Mill 1963–91 [1848]: 743–5).

It is therefore quite possible, and under a developed system of capitalist production even inevitable, that the production and increase of the portion of constant capital consisting of fixed capital, machinery, etc., should considerably outstrip the portion consisting of organic raw materials, so that demand for the latter grows more rapidly than their supply, causing their price to rise (119–20).

Allowance is made for a degree of moderation of the materials' price increase because of supply adjustments of various sorts (120). Nonetheless, the stage arises when materials' price increases begin to act as a break upon the expansion of output – one may presume it manifests itself as pressure on the profit rate as explained earlier – at which point the entire process is reversed. The account thus accords the movement of materials' prices due to a species of diminishing returns, a *causal role in the cycle* in accounting for the upper turning point and the reaction that follows: “When this rise of prices begins to exert a marked influence on production and supply it indicates in most cases that the turning-point has been reached at which demand drops on account of the protracted rise in the price of the raw material and of all commodities of which it is an element, causing a reaction in the price of raw material.”

We take account now of an aspect of the *secular-cyclical* relation, namely the proposition that the more developed the capitalist economy the stronger the upward cyclical pressure on materials prices: “The greater the development of capitalist production, and, consequently, the greater the means of suddenly and permanently increasing that portion of constant capital consisting of machinery, etc., and the more rapid the accumulation (particularly in times of prosperity), so much greater the relative overproduction of machinery and other fixed capital, so much more frequent the relative underproduction of vegetable and animal raw materials, and so much more pronounced the previously described rise of their prices and the attendant reaction.” Marx goes on immediately: “And so much more frequent are the convulsions caused as they are by the violent price fluctuations of one of the main elements in the process of production.”

That cyclical instability *worsens* with general capitalist development is thus at least partially accounted for. Consistently with this view, Marx – here assuming an open economy – focuses on the circumstance that notwithstanding the contraction in demand for raw materials after the upper cyclical turning point, and the resultant contraction of margins of cultivation, “the basis on which production carries on after the extension of machinery, etc., and which, after some fluctuations, is to serve as the new normal basis, the new point of departure, is very much extended by the developments in the preceding cycle of turnover” (121). Accordingly, “[t]he aforesaid process of production of raw materials being gradually overtaken by the production of machinery, etc., is then repeated on a larger scale” (122); while “the closer we approach our own time in the history of production, the more regularly do we find, especially in the essential lines of industry, the ever-recurring alternation between relative appreciation and the subsequent resulting depreciation of raw materials obtained from organic nature.”

Empirical evidence for the cyclical role of material prices – or it may be that this evidence provided the basis for the analysis in the first place – is drawn from a witness examined in October 1858 before the English Factory Commissioners regarding the crisis year 1857 (123–4).<sup>13</sup> The experience of the cotton industry, especially the years 1861–65, is also referred to as evidence: “. . . the sphere of production of raw materials is, by fits, first suddenly enlarged, and then again violently curtailed. All this, and the spirit of capitalist production in general, may be very well studied in the cotton shortage of 1861–65, further characterized as it was by the fact that a raw material, one of the principal elements of reproduction, was for a time entirely unavailable” (122).

### E. The Labor Constraint and Upper Turning Point

We recall (above, p. 134) the general declaration in *Capital* 3 attributing “[t]he ultimate reason for all crises” to “the poverty and restricted consumption of the masses, as opposed to the drive of capitalist production to develop the productive forces as though only the consuming power of society constituted their limit” (MECW 37: 483, also 242–3). Yet Marx actually *rejected* “underconsumptionist” rationalizations of crises, on the grounds that employment, wages and expenditure by labor – and also consumption outlays by capitalists – were highest during “prosperity”: “In times of prosperity, intense expansion, acceleration and vigour of the reproduction process, labourers are fully employed. Generally, there is also a rise in wages which makes up in some measure for their fall below average during other periods of the commercial cycle. At the same time, the revenues of the capitalists grow considerably. *Consumption increases generally.* Commodity prices also rise regularly at least in the various vital branches of business” (444; emphasis added). A more technical account expresses the matter in terms of the “absolute overproduction of capital” or “overaccumulation,” when there occurs a “steep and sudden fall in the general rate of profit” resulting from pressure of demand for labor on scarce supply which cuts the rate of exploitation (250). The situation is deemed to be one of “overproduction, because capital would be unable to exploit labour to the degree required by a ‘sound,’ ‘normal’ development of the process of capitalist production, to a degree which would at least increase the mass of profit along with the growing mass of the employed capital; to a degree which would, therefore, prevent the rate of profit from falling as much as the capital grows, or even more rapidly” (254).

Ricardo had certainly recognized a falling profit rate due to labor shortage but always insisted that this simply transferred purchasing power to labor; economic growth would decelerate and even come to a halt only to be renewed if and when expansion of labor supply took place in response to the high wages (Ricardo 1951–73 1: 406–7). The difference lies in that Marx placed labor shortage in *cyclical*

<sup>13</sup> Marx’s *The Class Struggles in France* refers to the “retarding influence” of rising materials prices in France and in England on the upturn in 1850 (MECW 10: 132).

context, his “overaccumulation” forcing down  $s/v$  and generating crisis: “Overproduction of capital is never anything more than overproduction of means of production – of means of labour and necessities of life – which may serve as capital, i.e., may serve to exploit labour at a given degree of exploitation; a fall in the intensity of exploitation below a certain point, however, calls forth disturbances, and stoppages in the capitalist production process, crises, and destruction of capital” (MECW 37: 254).<sup>14</sup> Again: “too many means of labour and necessities of life are produced *at times* to permit of their serving as means for the exploitation of labourers at a certain rate of profit” (257; emphasis added).<sup>15</sup>

“Overproduction of capital,” we have seen, entails overproduction relative to scarce labor to which is attributed those sharp reductions in the profit rate that occur near the cyclical peak. It would be misleading, however, to describe this *strictly* as a “full-employment” situation though Marx himself does so on occasion (e.g., above p. 145), to the extent that part of the labor force is not in the running, *implying in effect a dual labor force* (see Chapter 3.F).

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We take account now of an important passage in *Capital 2* relating to the cycle, which confirms the general phenomena of rising wages and *high consumption spending by labor* – and also by a variety of “non-productive” consumers – when the market is turned in its favor; it alludes also to the upward pressure on the prices of raw materials, including imports, during the period of “pressure on society’s available productive capital” (MECW 36: 314). Marx then elaborates with particular attention accorded the speculative characteristics of late prosperity:

To this must be added that stock-jobbing is a regular practice and capital is transferred on a large scale. A band of speculators, contractors, engineers, lawyers, etc. enrich themselves. They create a strong demand for articles of consumption on the market, *wages rising at the same time*. So far as foodstuffs are involved, agriculture too is stimulated. But as these foodstuffs cannot be suddenly increased in the course of the year, their import grows, just as that of exotic foods in general (coffee, sugar, wine, etc.) and of articles of luxury. Hence excessive imports and speculation in this line of the import business. Meanwhile, in those branches of industry in which production can

<sup>14</sup> See also an intriguing passage referring to capital growing faster than population which probably entails the period of cyclical upturn: “The stupendous productive power developing under the capitalist mode of production relative to population, and the increase, if not in the same proportion, of capital values (not just of their material substance), which grow much more rapidly than the population, contradict the basis, which constantly narrows in relation to the expanding wealth, and for which all this immense productive power works. They also contradict the conditions under which this swelling capital augments its value. Hence the crises” (MECW 37: 265).

<sup>15</sup> The text then introduces a “realization” problem that seems inappropriate during a period of labor shortage preceding the crisis, when prices are prismsably rising: “Too many commodities are produced to permit a realization and conversion into new capital of the value and surplus value contained in them . . . i.e., too many to permit of the continuation of this process without constantly recurring explosions” (MECW 37: 257).

be rapidly expanded (manufacture proper, mining, etc.), climbing prices give rise to sudden expansion soon followed by collapse (314–15; emphasis added).

There follow observations on the role of the Reserve Army of Unemployed in servicing employers' requirements late in the upturn, confirming one of the main themes of Chapter 3.E:

*The same effect is produced in the labour market, attracting great numbers of the latent relative surplus population [the reserve army], and even of the employed labourers, to the new lines of business. In general such large-scale undertakings as railways withdraw a definite quantity of labour power from the labour market, which can come only from such lines of business as agriculture, etc., where only strong lads are needed. This still continues even after the new enterprises have become established lines of business and the migratory working class needed for them has already been formed, as for instance in the case of a temporary rise above the average in the scale of railway construction. A portion of the reserve army of labourers, which kept wages down, is absorbed. A general rise in wages ensues, even in the hitherto well employed sections of the labour market. This lasts until the inevitable crash again releases the reserve army of labour and wages are once more depressed to their minimum, and lower (315; emphasis added).*

At this point we encounter the same complexity as in *Capital 3* (above, p. 145). I refer to a note inserted by Marx for future elaboration (reported by Engels) referring to *periodic* “overproduction” relative to labor’s constrained consumption power apparently with *secularly* low wages intended:

Contradiction in the capitalist mode of production: the labourers as buyers of commodities are important for the market. But as sellers of their own commodity – labour power – capitalist society tends to keep them down to the minimum price. – Further contradiction: the periods in which capitalist production exerts all its forces regularly turn out to be periods of overproduction, because production potentials can never be utilized to such an extent that more value may not only be produced but also realised; but the sale of commodities, the realisation of commodity capital and thus of surplus value, is limited, not by the consumer requirements of society in general, but by the consumer requirements of a society in which the vast majority are always poor and must always remain poor (315n).

This position conflicts with high consumption by laborers prior to the upper turning point.

Moreover, the rejection of underconsumptionism as causal feature in cyclical analysis is in fact made explicitly later in *Capital 2*. The case turns formally on the demonstration that sectoral balance requires purchase of necessities by luxury-producing workers to correspond with purchase of luxuries by capitalists engaged in the production of necessities (see Chapter 2, pp. 73). This requirement had implications for any expansion of the luxury sector:

Since  $(I\text{Ib})_v$  is realized in an equivalent part of  $(IIa)_s$ , it follows that in proportion as the luxury part of the annual product grows, as therefore an increasing share of the labour power is absorbed in the production of luxuries, the reconversion of the variable capital advanced in  $(I\text{Ib})_v$  into money capital functioning anew as the money form of the

variable capital, and thereby the existence and reproduction of the part of the working class employed in IIb – the supply to them of consumer necessities – depends upon the prodigality of the capitalist class, upon the exchange of a considerable portion of their surplus value for articles of luxury (408–9).

And here we come to the cyclical implications. A reduction in capitalists' demand for luxuries – as in a “crisis” (Marx is perhaps using the term to mean “depression”) – had implications for employment and thus spending more generally: “Every crisis at once lessens the consumption of luxuries. It retards, delays the reconversion of (IIb)<sub>v</sub> into money capital, permitting it only partially and thus throwing a certain number of the labourers employed in the production of luxuries out of work, while on the other hand it thus clogs the sale of consumer necessities and reduces it” (409).<sup>16</sup> Conversely – and of immediate relevance to us – “[t]he reverse takes place in periods of prosperity, particularly during the times of bogus prosperity, in which the relative value of money, expressed in commodities, decreases . . . (without any actual revolution in values), so that the prices of commodities rise independently of their own values.” Here Marx points out that *luxury consumption by labor* during periods of full employment is partly responsible for general price increases: “It is not alone the consumption of necessities of life which increases. The working class (now actively reinforced by its entire reserve army) also enjoys momentarily articles of luxury ordinarily beyond its reach, and those articles which at other times constitute for the greater part consumer ‘necessities’ only for the capitalist class. This on its part calls forth a rise in prices.”<sup>17</sup> And at this point we encounter the firm rejection of “underconsumption” explanations of crisis – in particular underconsumption by labor – since to the contrary *wages are highest just before the upper turning point*: “It is sheer tautology to say that crises are caused by the scarcity of effective consumption, or of effective consumers. . . .” Were one to say “that the working class receives too small a portion of its own product and the evil would be remedied as soon as it receives a larger share of it and its wages increase in consequence, one could only remark that crises are always prepared by precisely a period in which wages rise generally and the working class actually gets a larger share of that part of the annual product which is intended for consumption” (409–10).<sup>18</sup>

<sup>16</sup> Marx adds here: “And this is without mentioning the unproductive labourers who are dismissed at the same time, labourers who receive for their services a portion of the capitalists’ luxury expense fund (these labourers are themselves *pro tanto* luxuries) and who take part to a very considerable extent in the consumption of the necessities of life, etc.” (MECW 36: 409).

<sup>17</sup> The reference to absorption of the “entire reserve army” provides another instance of true full employment; see above, p. 146.

<sup>18</sup> The initial objection to the (unattributed) “tautology” is purely formal: “The capitalist system does not know any other modes of consumption than effective ones, except that of *sub forma pauperis* or of the ‘thief.’ That commodities are unsaleable means only that no effective purchasers have been found for them, i.e., consumers (since commodities are bought in the final analysis for productive or individual consumption)” (MECW 36: 409).

Eduard Bernstein opined that the passage from *Capital 3* regarding “[t]he ultimate reason for all crises . . .” (cited above, pp. 134, 145) had in common with Rodbertus’s approach that “crises are not occasioned simply by under-consumption by the masses, but . . . by it in conjunction with the increasing productivity of labour” (Bernstein 1961 [1899]: 75). The contrast between this qualified passage and the wholly rejectionist passage from *Capital 2* beginning “It is sheer tautology to say that crises arise from a want of consumers to pay . . .,” he believed reflected the circumstance that the *Capital 3* had been written by 1864 or 1865, whereas the *Capital 2* passage must have been written about 1878. Be that as it may, we have encountered passages in *Capital 3* that reject underconsumptionism quite as unreservedly as the strong passage in *Capital 2*, and on precisely the same grounds.

\* \* \*

Thus far our concern has been with the irrelevance of underconsumption in the cyclical context from the perspective of the laborers. But we can go further. Chapter 18 of *Capital 3* (“Turnover of Merchant’s Capital”) describes the state of full employment just prior to the upper turning point as one of high consumption out of revenue by *capitalists*, not only by laborers; and continued production of capital goods in expectation of continued high final demand (“prospective demand”):

Consumption is then generally at its highest, either because one industrial capitalist sets a succession of others in motion; or because the labourers employed by them are fully employed and have more to spend than usual. The capitalists’ expenditures increase together with their growing income. Besides . . . continuous circulation takes place between constant capital and constant capital (even regardless of accelerated accumulation). It is at first independent of individual consumption because it never enters the latter. But this consumption definitely limits it nevertheless, since constant capital is never produced for its own sake but solely because more of it is needed in spheres of production whose products go into individual consumption. However, this may go on undisturbed for some time, stimulated by prospective demand, and in such branches, therefore, the business of merchants and industrialists goes briskly forth (MECW 37: 303–4).

The phenomenon of continued high consumption by capitalists just before the crisis, we shall find, plays an important part in the empirical accounts of the operation of the credit system.

Only one feature of underconsumption remains at play during the upturn – and it is scarcely much emphasized – that relating to the “unproductive” classes (landlords presumably included) and fixed-income recipients whose purchasing power tends to decline: “The incomes of the unproductive classes and of those who live on fixed incomes remain in the main stationary during the inflation of prices which goes hand in hand with overproduction and overspeculation. Hence their consuming capacity diminishes relatively, and with it their ability to replace that portion of the total reproduction which would normally enter into their consumption. Even when their demand remains nominally the same, it decreases in reality” (490).

Though this theme is not expanded it at least implies a causal feature contributing to the downturn.

It is an inconvenient fact that Marx did formally ascribe cycles to underconsumption in the note to *Capital 2* uncovered by Engels (above, p. 147) and in the passages from *Capital 3* (above, pp. 134, 145). Our investigation of the texts has led us to conclude that the ascriptions are not substantiated.

## F. The Monetary Dimension

The state of affairs immediately prior to the upper turning point is patently not one of *general excess supply*; to the contrary, there are then manifestations of material and labor shortage and general prices are rising not falling. “Gluts” are the conspicuous feature of “*stagnation*” and begin to manifest themselves during crises (above, p. 142). There are some allusions to “overproduction” *even before the turning point*,<sup>19</sup> but these should perhaps be understood not as glutted markets, but rather as “overtrading” or “overextensions” of activity or “production at high pressure” or as “intoxicating prosperity” reflecting the speculative frenzy that precedes the crisis.

What now of the glut issue itself? Again we shall keep before us the observation in J. S. Mill’s “On the Influence of Consumption on Production,” that what is now sometimes called “Say’s Identity” holds good only in a *barter* economy (Mill 1963–91 [1844] 4: 276). Less often cited, though equally important, is a formulation in the *Principles* addressed against the “overproduction” error of those such as Malthus, Sismondi, and Chalmers who, on Mill’s reading, maintained that expansion of output in aggregate is accompanied by deficiency of purchasing power thus precluding sale at unchanged prices and profits (Mill 1963–91 [1848] 3: 571). The source of the error was seen to lie in a misconceived appeal to “mercantile facts,” which pointed only to *temporary* price and profit movements, the problem of profitability residing precisely in their non-permanent character. Here we find all the key elements of the earlier essay with its allowance for excess commodity supply and counterpart in excess demand for money to hold (574). Although the “immediate cause” of the crisis – and the advent of excess commodity supply – is “a contraction of credit,” the *underlying* problem remains the preceding “excess of speculative purchases,” implying that suppliers of credit become fearful and call in loans.

<sup>19</sup> There is, for example, an ambiguous reference to a “superabundance of industrial capital” and surplus of real goods or “objects of utility . . . available in times of crises,” representing “[o]n the eve of a crisis, and during it” – in consequence of falling commodity prices – “less money capital for its owner and his creditors (as well as security for bills of exchange and loans) than it did at the time when it was bought . . .” (MECW 37: 489–90; emphasis added). But the conclusion reduces the problem: “It follows from the above that commodity capital, during *crises and periods of business depression in general*, loses to a large extent its capacity to represent potential money capital” (492; emphasis added).



Now Marx became familiar with the *Unsettled Questions* soon after its appearance, copying out passages in his Manchester Notebooks for 1845 (MECW 36: 533–43). Yet he makes no mention of Mill when in *Capital 1* he condemns the “childish dogma” relating to Say’s Identity precisely along Mill’s lines and in very similar terms, concluding: “If the interval in time between . . . the sale and the purchase become too pronounced, the intimate connexion between them, their oneness, asserts itself by producing – a crisis” (MECW 35: 123; emphasis added). A footnote refers to a citation in the *Grundrisse* of James Mill’s barter assumption (MECW 29: 332–4; see also Chapter 9, p. 282), as if J. S. Mill had never written at all.<sup>20</sup>

But all this is merely a preliminary to the main analysis of the crisis in *Capital 1* which is also broadly in line with that of Mill. In the first place, Marx writes of that phase of every industrial and commercial cycle entailing a panic *demand for money to hold*, which replaces the desire to acquire commodities characterising the period of “intoxicating prosperity” immediately preceding (MECW 35: 148–9). Here he cites his *Grundrisse* regarding the implications for the crisis of the contraction of *credit*: “The sudden reversion from a system of credit to a system of hard cash heaps theoretical fright on top of the practical panic; and the dealers by whose agency circulation is affected, shudder before the impenetrable mystery in which their own economic relations are involved [MECW 29: 378–9].”<sup>21</sup>

The passage refers to some unidentified “cause” that sets off a transition to excess demand for money; certainly on “the eve of the crisis,” during the period of “intoxicating prosperity,” such excess is not yet manifest. It is only safe to say that excess demand for money to hold *accompanies* the crisis – and that “money famine” continues during the period of depression which follows – with credit contraction contributing to excess money demand. Marx’s opposition to Currency School reasoning also suggests that he considered variations in excess money demand as a *consequence* rather than *cause* of changes in activity. Thus, with reference to the high prices characterizing “prosperity” and the low prices characterizing periods of “crisis” – intending by the latter in this context not the upper turning point itself but the “phase” of depression – Marx complains that the Currency School “concludes from this that with high prices too much, with low prices too little money is in circulation” (615 and note). The causality relation was in fact the reverse. As for credit variation, that too is formally represented as *symptomatic* of the industrial cycle rather than a causal feature: “The superficiality of political economy shows itself in the fact that it looks upon the expansion and contraction of credit, which is a mere symptom of the periodic changes of the industrial cycle, as their cause. As the heavenly bodies once thrown into a certain definite motion,

<sup>20</sup> An unstated obligation to Sismondi is emphasized in Sowell 2006: 174–5.

<sup>21</sup> Relevant also is the discussion in *Capital 1* of deviations from the average quantity of money in circulation, which are said to be relatively small except for “excessive perturbations periodically arising from industrial and commercial crises, or, less frequently, from fluctuations in the value of money” (MECW 35: 133).

always repeats this, so is it with social production as soon as it is once thrown into this movement of alternate expansion and contraction” (627). Taking this line Marx undermines the entire notion of one-way causation; he himself goes on to allow that “[e]ffects, in their turn, become causes, and the varying accidents of the whole process, which always reproduces its own conditions, take on the form of periodicity.”

For all that, brief comments on the decennial crisis of 1866 do perhaps accord credit a degree of independence in precipitating the collapse. Thus writing in late March 1867 Marx describes the effect of the “cotton famine” (elsewhere dated 1861–63 or 1861–65), in redirecting “capital” from its regular investments to the money market, “the crisis assum[ing], at this time, an especially financial character” (661); and we also find mention of the preceding period of “overproduction” or “overtrading” in iron shipbuilding, particularly the credit-financed speculative ventures which ended precipitously upon the collapse of credit.

Chapter 18 of *Capital 3* (“Turnover of Merchants’ Capital”) also contains relevant material, conspicuously the absence just prior to the upper turning point, of any indication of imminent collapse of *retail sales* (see above p. 149). According to this account, crises break out not because of circumstances relating (immediately) to the “production” process and final sale,<sup>22</sup> but rather because of circumstances pertaining to merchants’ capital and bank accommodation. For though “the movement of merchant’s capital is never more than the movement of industrial capital within the sphere of circulation,” it has a certain “independent status” allowing it to operate “within certain limits, independently of the bounds of the reproduction process and thereby even drives the latter beyond its bounds. This internal dependence and external independence push merchant’s capital to a point where the internal connection is violently restored through a crisis” (MECW 37: 303). Consequently, “crises do not come to the surface, do not break out, in the retail business first, which deals with direct consumption, but in the spheres of wholesale trade, and of banking, which places the money capital of society at the disposal of the former.” Nonetheless, it is perhaps not justified to exaggerate the independent role of merchant’s capital and banking accommodation. For “[t]he crisis occurs when the returns of merchants who sell in distant markets (or whose supplies have also accumulated on the home market) become so slow and meagre that the banks press for payment, or promissory notes for purchased commodities become due before the latter have been resold. Then forced sales take place, sales in order to meet payments. Then comes the crash, which brings the illusory prosperity to an abrupt end.” Accordingly, even if the calling in of loans by the banks may be said to trigger the crash, we must yet refer back to the circumstance that “at some particular imperceptible point” wholesalers’ stocks begin to accumulate unduly – and

<sup>22</sup> But see above p. 149, regarding reduced purchasing power with rising prices on the part of fixed-income recipients and unproductive classes.

this despite still buoyant consumer demand – awakening concern on the part of banks.

Having said this, it remains true that “speculative frenzy” was held responsible for decline in the real sector (see above, pp. 140–1); and to the extent that speculation was encouraged by the credit system the latter may in one sense legitimately be accorded ultimate responsibility. Two chapters in *Capital 3* are particularly relevant in this regard. Chapter 25 on “Credit and Fictitious Capital” cites a *Manchester Guardian* report of November 1847 regarding “the swindle in East Indian trade, in which drafts were no longer drawn because commodities were being bought, but rather commodities were bought to be able to make out discountable drafts convertible into money” (407); and there is reference to evidence of “swindling” in the East Indian and Chinese markets drawn from the Parliamentary Report on Commercial Distress 1847–8 relating to the practice of brokers “not only of advancing upon goods after their arrival to meet the bills drawn against those goods, which is perfectly legitimate, and upon the bills of lading . . . but . . . [advancing] upon the produce before it was shipped, and in some cases before it was manufactured” (409). Marx also alludes to evidence relating to the “first great railway swindle” during the prosperity 1844–47 and the grave consequences for business in general of excessive reliance on bank credit (408, 410, 485–6). All of this seems to allow an “independent” role for credit.

Chapter 30 formally concerns “money loans, which are made by bankers as middlemen, to industrialists and merchants,” for example, by discounting their bills of exchange; but “commercial credit,” or “the advances industrialists and merchants make to one another in commodities and within the compass of the reproduction process” is analyzed as a preliminary (477). Both issues are relevant for us. Setting aside provisionally the banking sector Marx sets out by consideration of “commercial credit” and confirms the source of the 1847 crisis in speculation. As a preliminary, he elaborates the indispensability of credit for the reproduction process and real growth and conversely the extension accorded the sphere of credit by such expansion, with scope for “the speculative element” rising *pari passu* with the increasing distance from markets that characterises large-scale production, and the corresponding increase in the “time duration” of the credit instrument, emphasizing in this manner the *interdependence* of the credit and production processes (479–80).<sup>23</sup> Commercial credit relates in these accounts to *inter-firm finance*

<sup>23</sup> See also Chapter 15 (“Internal Contradictions of the Law of the Tendency of the Rate of Profit to Fall”), citing the *Economic Manuscripts* (MECW 32: 127–88):

It must be added that definite, presupposed, price relations govern the process of reproduction, so that the latter is halted and thrown into confusion by a general drop in prices. This confusion and stagnation paralyses the function of money as a medium of payment, whose development is geared to the development of capital and is based on those presupposed price relations. The chain of payment obligations due at specific dates is broken in a hundred places. *The confusion is augmented by the attendant collapse of the credit system, which develops simultaneously with capital, and leads to*

of the industrial and trading activities comprising the “reproduction” process – recall J. S. Mill’s “book credit” – allowing a short-circuiting of C-M-C by avoiding repeated commodity sales for money (480–1). In sum: “Credit . . . promotes here 1) as far as the industrial capitalists are concerned, the transition of industrial capital from one phase into another, the connection of related and dovetailing spheres of production; 2) as far as the merchants are concerned, the transportation and transition of commodities from one person to another until their definite sale for money or their exchange for other commodities” (481).<sup>24</sup>

In all this, it is the mutually *reinforcing production and credit processes* that receive emphasis. Marx, it is true, seems in the end to accord precedence to the former, with credit variation the passive reflection of output variation. For he goes on to maintain that “[a]s long as the reproduction process is continuous and, therefore, the return flow assured, this credit exists and expands, and its expansion is based upon the expansion of the reproduction process itself,” whereas “if there is a disturbance in [the] expansion or even in the normal flow of the reproduction process, credit also becomes scarce; it is more difficult to obtain commodities on credit” (481–2). But once again to the extent that the source of the “disturbance” in the real sector is to be found in the operation of the contemporary credit system this apparent passivity must be qualified.

There remains the elaboration of “money credit” in Chapter 30. Bank lending, it is first explained, is made from the money capital of the depositors comprising industrialists, workers and landlords (483). And here Marx again alludes to the common practice, touched on in Chapter 25, of “manipulating” bills of exchange or of transactions entered into in order to “manufacture” such bills for discount: “One of the principal causes of the crisis of 1847 was the colossal flooding of the market and the fabulous swindle in the East Indian trade with commodities” (486). Moreover, the outcome of such practices was to *camouflage* indications of an imminent “crash,” providing an explanation for the emerging difficulties in the wholesale sector at a time when retail sales are still buoyant; even the experts were confounded: “The best proof of this is furnished, for instance, by the Reports on Bank Acts of 1857 and 1858, in which all bank directors, merchants, in short all the invited experts with Lord Overstone at their head, congratulated one another on the prosperity and soundness of business – just one month before the outbreak of the crisis in August 1857” (483). Similarly: “Tooke in his *History of Prices* [Tooke 1848: 329–48; Tooke and Newmarch 1857 6: 218–29] succumbs to this illusion

violent and acute crises, to sudden and forcible depreciations [of capital], to the actual stagnation and disruption of the process of reproduction, and thus to a real falling off in reproduction. (MECW 37: 253); emphasis added).

<sup>24</sup> Marx adds: “The maximum of credit is here identical with the fullest employment of industrial capital, that is, the utmost exertion of its reproductive power without regard to the limits of consumption” (MECW 37: 481).

once again as historian for each crisis. Business is always thoroughly sound and the campaign in full swing, until suddenly the debacle takes place” (484).<sup>25</sup>

In Marx’s account, at the crisis stage itself the demand for credit remains high just when the willingness to offer credit contracts, merchants now demanding cash payment; and at such periods “the shortage of credit is most acute” and “therefore the rate of discount highest for banker’s credit” (482).<sup>26</sup> By contrast, “in the phase of the industrial cycle immediately following a crisis . . . loan capital lies idle in great quantities. And such times, when the production process is curtailed (production in the English industrial districts was reduced by one-third after the crisis of 1847), when the prices of commodities are at their lowest level, when the spirit of enterprise is paralysed, the rate of interest is low, which in this case indicates nothing more than an increase in loanable capital precisely as a result of contraction and paralysation of industrial capital” (484).<sup>27</sup>

The cycle is described once again at the close of Chapter 30. The emphasis is on the necessary repetition of its phases “once the first impulse is given”: “The industrial cycle is of such a nature that the same circuit must periodically reproduce itself, once the first impulse has been given. During a period of slack, production sinks below the level, which it had attained in the preceding cycle and for which the technical basis has now been laid. During prosperity – the middle period – it continues to develop on this basis. In the period of overproduction and swindle, it strains the productive forces to the utmost, even beyond the capitalistic limits of the production process” (488–9). Here the emphasis is upon the *inevitability* of crisis, entailing excess demand for money (“means of payment”), and which legislation could not possibly eliminate but certainly could aggravate: “It is self-evident that there is a shortage of means of payment during a period of crisis. The convertibility of bills of exchange replaces the metamorphosis of commodities themselves, and so much more so exactly at such times the more a portion of the firms operates on pure credit. Ignorant and mistaken bank legislation, such as that of 1844–45 . . . can intensify this money crisis. But no kind of bank legislation can eliminate a crisis” (489). *The inevitability of crisis is thus attributed to the extensive use of credit and the consequential rush for cash payments when credit failed.* Marx does insist that while the crisis appeared to be “merely a credit and money crisis,” the matter went

<sup>25</sup> Commencement of unplanned inventory accumulation even when activity at the final consumption level remains buoyant – such accumulations setting in motion forced sales to satisfy emergency demands for cash payment – is alluded to also in *Capital 2* (MECW 36: 80–1).

<sup>26</sup> See also regarding the altered values, during crises, of “fictitious capital, interest-bearing paper”: “Its price falls with rising interest. It falls, furthermore, as a result of the shortage of credit, which compels its owners to dump it in large quantities on the market in order to secure money” (MECW 37: 492). Stock prices also fall.

<sup>27</sup> One of Marx’s objectives set out at the outset of Chapter 30 was to discern the relation between variation in interest-bearing “money” capital – loanable funds in effect – and *real* accumulation, whether in particular its accumulation indicated “reproduction on an extended scale” (MECW 37: 475). The present passage denies such a relation.

deeper since the mass of bills of exchange on the market represented “actual sales and purchases” – though “extend[ing] far beyond the needs of society” – and it is this that constituted “the basis of the whole crisis;” even so, to this must be added large amounts representing “plain swindle, which now reaches the light of day” (indicating that the issue of fallacious bills of exchange occurs earlier in the cycle but had been camouflaged as we have seen above, p. 154), “unsuccessful speculation,” depreciated commodity capital and the like. He goes on to opine that the Bank of England could not solve the problem – reflecting as it does “[t]he entire artificial system of forced expansion of the reproduction process” – by providing to “all the swindlers the deficient capital by means of its paper and having it buy up all the depreciated commodities at their old nominal values.” But the Bank could certainly assuage the problem to some extent.<sup>28</sup>

Marx adds that in the great monetary centers all connection with “real processes” disappears from sight: “. . . everything here appears distorted, since in this paper world, the real price and its real basis appear nowhere, but only bullion, metal coin, notes, bills of exchange, securities. Particularly in centres where the entire money business of the country is concentrated, like London, does this distortion become apparent; the entire process becomes incomprehensible; it is less so in centres of production.” Certainly Marx sought to distance himself from those who focused too heavily on monetary explanations of the cycle; and he insisted in *Capital 2* that “what appears as a crisis in the money market is in reality an expression of abnormal condition in the very process of production and reproduction” (MECW 36: 317). Yet we have found that, time and again, Marx finds himself – *malgré lui* – obliged to allow a certain, even considerable, degree of autonomy to the money market and to credit in accounting for the cycle.

A final illustration, again from *Capital 3*, may be drawn from an important summary statement in Chapter 27 (“The Role of Credit in Capitalist Production”) which *reinforces* the responsibility of the credit system for cyclical perturbations, at least the “violent eruptions,” by reference to *the separation of ownership and control under joint-stock arrangement*: “The credit system appears as the main lever of overproduction and overspeculation in commerce solely because the reproduction process, which is elastic by nature, is here forced to its extreme limits, and is so forced because a large part of the social capital is employed by people who do not own it and who consequently tackle things quite differently than the owner, who anxiously weighs the limitations of his private capital in so far as he handles it himself” (MECW 37: 438). Thus while “the credit system accelerates the material development of the productive forces and the establishment of the world market,” it also “accelerates the violent eruptions” of such development in crises “and thereby the elements of disintegration of the old mode of production” (439).

<sup>28</sup> I refer to Marx’s citations from the Parliamentary Report on Commercial Distress 1847–48 regarding the crop failure of 1846–47, which had necessitated large-scale food imports paid for in gold, a resultant drain on the banks and reduction in credit and finally suspension of the 1844 Bank Act to prevent the worst consequences (MECW 37: 413).

### G. Inter- and Intra-Departmental Imbalance

Crises are partly explained in terms of failure to satisfy the inter- and intra-departmental balances outlined in Chapter 2. Assuming Single Reproduction, Marx considers the implications of a *change* in actual fixed-capital replacements by department II *given* its aggregate fixed capital, including equipment and structures in course of depreciation but continuing to function in the production process until worn out (MECW 36:460). Now a consequence of the purchase by department II from department I of increased amounts of fixed capital is the production by the latter of smaller amounts of *circulating* capital (including raw materials etc.), a result threatening the supposed constant flow of output from department II; in addition, the increased purchases by II of fixed-capital goods from I is accomplished by an increased money flow *unaccompanied* by reciprocal purchases of consumer goods on the part of I (466–7). The basic requirements for Simple Reproduction are not fulfilled. In the reverse case “in which the reproduction of demises of fixed capital II in a certain year is less and on the contrary the depreciation part greater . . . [t]here would be a crisis — a crisis of overproduction [of capital goods] — in spite of reproduction on an unchanging scale.” Of this “overproduction” Marx goes on to say that “I must curtail its production, which implies a crisis for its labourers and capitalists, or produce an excess which again implies crisis,” adding that “[s]uch excess is not an evil in itself, but an advantage; however, it is an evil under capitalist production” (468).

One is struck by Marx’s pride in his discovery of the potential for disruptions in the capitalist production process even in the course of “*preserving*” total fixed capital: “This illustration of fixed capital, on the basis of an unchanged scale or reproduction, is striking. A disproportion in the production of fixed and circulating capital is one of the favourite arguments of the economists in explaining crises. That such a disproportion can and must arise even when the fixed capital is merely preserved, that it can and must do so on the assumption of ideal normal production on the basis of simple reproduction of the already functioning social capital is something new to them” (468–9). And in our day Joan Robinson paid tribute to Marx’s “simple and penetrating argument” demonstrating the possibility of aggregative disequilibrium in a “simple reproduction” system:

[Marx] shows how even a system of simple reproduction (with zero net investment) is not free from the danger of disequilibrium. The value of  $c$  partly consists of amortization funds attached to long-lived equipment, and these are generally allowed to accumulate over a period of years and are then expended in a single burst when the equipment requires to be renewed. If the age-composition of the stock of equipment is such that renewals are required at a steady rate, equilibrium is not disturbed. If, however, the ages of the machine are not spread evenly, outlay on renewals in some years will exceed, and in some years fall short of the amortization funds, and equilibrium will be ruptured. When renewals are in excess,  $v_1 + s_1$  exceeds  $c_2$ ; the increase in  $v_1$  in turn increases  $v_2 + s_2$  and boom conditions develop. When amortization funds exceed renewals there is a slump (Robinson 1967 [1942]: 45–6).

Robinson focusses on Marx's suggestion according to which "the fact that the trade cycle has a period of ten years may indicate that the average length of life of plant is ten years" (46). This "passing hint" was, she observes, unconvincing since "the differences in the length of life of various types of plant must dampen down the cycle of renewals, while variations in net investment swamp it altogether." And the high importance of *net* investment in Marx's general vision – the cycle occurring about a *rising* trend – reinforces Robinson's criticism of the *regularity* feature of Marxian cycles.<sup>29</sup> Nonetheless, Robinson opines that "Marx was on the track of the idea that variations in investment are the key to the trade cycle" – a view attributed to Robertson 1915: 36–45, and suggesting affinities with Keynes.<sup>30</sup>

\* \* \*

The potential for crisis emerges also in the chapter on Extended Reproduction with reference to the requirement for balanced purchase and sale at numerous points, the achievement of which balance would be purely *accidental* "owing to the spontaneous nature" of production in a *monetary* system (494). Of particular interest is an insistence – it confirms the picture of economic organization given in Chapter 2.B – that "the exchange of  $I_v$  for a corresponding value of  $II_c$ " must not be viewed as a *direct* exchange between "aggregate capitalists" of the two departments. Rather capital-goods workers and consumer-goods producers are engaged in the commodity market, and those same workers and capital-goods producers face each other in the labor market (the market for labor power):

$II_c$  sells its commodities to working class I. The latter confronts it one-sidedly, as a buyer of commodities, and it confronts that class one-sidedly as a seller of commodities. With the money proceeds so obtained  $II_c$  confronts aggregate capitalist I one-sidedly as a seller of commodities up to the amount of  $I_v$ . It is only by means of this sale of commodities that I finally reproduces its variable capital in the form of money capital. If capital I faces that of  $II$  one-sidedly as a seller of commodities to the amount of  $I_v$ , it faces working class I as a buyer of commodities purchasing their labour power. And if working class I faces capitalist  $II$  one-sidedly as a buyer of commodities (namely, as a buyer of means

<sup>29</sup> The generation of boom conditions by (net) investment has been touched on above (see pp. 146–7) regarding MECW 36: 314–15); and the technical basis for that case, in substance involving an excess of investment over saving – as Joan Robinson suggested in 1942 – may be found in the analysis of Extended Reproduction (Chapter 2, note 21).

There are international implications flowing from Marx's *Volume 2* analysis, namely that boom conditions reflecting heavy home investment generate an excess of imports over exports, while a deficiency of home investment may be balanced by an export surplus (MECW 36: 315, 465–6).

<sup>30</sup> Subsequently, Robinson may have had second thoughts: "I have argued elsewhere [1942: Chapter VI] that the theory adumbrated in Volume II of *Capital* has close affinities with Keynes. But it is possible that I have overemphasized the resemblance. The last two volumes of *Capital*, which Marx did not complete, are excessively obscure and have been subjected to many interpretations. The waters are dark and it may be that whoever peers into them sees his own face" (Robinson 1980 [1948]: 140). Any such revision is not apparent in the Preface to the second edition of her *Essay* (1967 [1942]: vi–vii, xvi).



of subsistence), it faces capitalist I one-sidedly as a seller of commodities, namely, as a seller of labour power (495).

Here too Marx emphasizes the “occasions for running abnormally” created by the complexities entailed: “The constant supply of labour power on the part of working class I, the reconversion of a portion of commodity capital I into the money form of variable capital, the replacement of a portion of commodity capital II by natural elements of constant capital II<sub>c</sub> – all these necessary premises demand one another, but they are brought about by a very complicated process, including . . . processes of circulation which occur independently of one another but intermingle. This process is so complicated that it offers ever so many occasions for running abnormally.”

### H. A Note on the “Echo Effect”

Marx’s discussion in *Capital 2* of the *periodic* character of crises based on the average life of fixed capital has attracted considerable attention from early days (see for example Bernstein 1961 [1899]: 76–7). As for the life cycle or “turnover period” of fixed capital itself, that was dependent upon physical depreciation reflecting wear and tear and “moral” depreciation reflecting the availability of cheaper replacements in consequence of new technology: “In any investment of capital the separate elements of the fixed capital have different lifetimes, and therefore different turnover times” dependent on rate of usage (and natural forces), supplemented in “modern industry” by the phenomenon of “moral depreciation” as in the railways, whereby (citing Lardner 1850: 120) “[a]fter the lapse of ten years, one can generally buy the same number of cars and locomotives for £30,000 that would previously have cost £40,000. Depreciation in the rolling stock must be set at 25 per cent of the market price even when there is no depreciation whatever in its use value” (MECW 36: 172–3). The average life cycle reflects a balance between industrial pressures tending to lengthen the potential *physical* life span of equipment and the availability of new technology tending in the opposite direction. Two important passages convey this notion each of which links crises to fixed-capital replacement as determined by the average life of equipment, and the second specifying that “in the essential branches of large-scale industry this life cycle now averages ten years”:

The instruments of labour are largely modified all the time by the progress of industry. Hence they are not replaced in their original but in their modified form. On the one hand the mass of the fixed capital invested in a certain bodily form and endowed in that form with a certain average life constitutes one reason for the only gradual pace of the introduction of new machinery, etc., and therefore an obstacle to the rapid general introduction of improved instruments of labour. On the other hand competition compels the replacement of the old instruments of labour by new ones before the expiration of their natural life, especially when decisive changes occur. *Such premature renewals of factory equipment on a rather large social scale are mainly enforced by catastrophes or crises* (173; emphasis added).

As the magnitude of the value and the durability of the applied fixed capital develop with the development of the capitalist mode of production, the lifetime of industry and of industrial capital lengthens in each particular field of investment to a period of many years, say of *ten years on an average*. Whereas the development of fixed capital extends this life on the one hand it is shortened on the other by the continuous revolution in the means of production, which likewise incessantly gains momentum with the development of the capitalist mode of production. This involves a change in the means of production and the necessity of their constant replacement, on account of moral depreciation, long before they expire physically. *One may assume that in the essential branches of large-scale industry this cycle now averages ten years*. However we are not concerned here with the exact figure. This much is evident: *the cycle of interconnected turnovers embracing a number of years, in which capital is held fast by its fixed constituent part, furnishes a material basis for the periodic crises*. During this cycle business undergoes successive periods of depression, medium activity, precipitancy, crisis. True, periods in which capital is invested differ greatly and far from coincide in time. *But a crisis always forms the starting-point of large new investments. Therefore, from the point of view of society as a whole, more or less, a new material basis for the next turnover cycle* (187–8; emphasis added).

It may be allowed with Matthews that we have in these passages an intimation of the so-called “echo effect” relating fluctuations in national income to fluctuations in the proportion of the capital stock falling due for replacement, reflecting the uneven age-composition of the capital stock (Matthews 1959: 67).<sup>31</sup>

### I. Concluding Remarks

It is to Marx’s great credit that he should have spelled out the superposition of cycles on an upward trend (MECW 37: 499; above, pp. 139, 143, 144, 158). Unfortunately, the rather casual attempts that he made to integrate trend and cycle are riddled with difficulties.

We recall from Chapter 4 that the analysis of the falling profit-rate trend runs in terms of rising organic composition and underconsumption, Marx focusing – in Malthusian fashion – on falling consumption by workers accompanied by falling (or low) consumption by capitalists engaged in an exaggerated drive to accumulate, with “self-expansion” of capital their only goal. Now the “ultimate reason” for crises is said to be underconsumption. But this can only be understood as a very loose proposition; for when we examined the texts devoted to the cycle we found the primary motive for investment attributed to capitalists to be the promise of *high* returns, the underconsumptionist element falling away entirely. For Marx insists on high spending prior to the upper turning point not only by workers but also by capitalists whose “[consumption] expenditures increase together with their growing income” (above, p. 149). If investment rises with the promise of high

<sup>31</sup> Explanation of persistent fluctuations in terms of an echo of an original boom is ascribed also to Robertson 1915: 36–45, Kaldor 1954: 56–61.

returns, so too does consumption, the posited “ultimate reason” disappearing from sight. All that remains of the effort to link trend and cycle is an argument encountered (above, pp. 140–1) – it resembles that of J. S. Mill – representing the falling profit-rate trend as responsible for bursts of largely *speculative* investment.

The “echo effect” discussed in Section H is of the highest technical interest with its insight into regular variations in innovatory investment as providing the key to the trade cycle. But this approach applies rather better to a *stationary* economy, for where net investment is involved the entire case is weakened (above, p. 158). Taking a broader view of Marx’s life-cycle analysis it is clear that there lacks not only a rationale for the implied regularity of *technical progress* (and resultant bursts of replacement investment responsible for excess of renewals over amortization funds) to which the 10-year cycle is formally attributed, but also any causal linkage between the crisis and the average life cycle. In fact, Marx nowhere relates his discussion to his other accounts of the cycle. Were we to seek to do so on his behalf a sequence might be suggested whereby the postulated regular bursts of innovatory replacement investment generates crises by way of their depressing effect upon the profit rate – having in mind not only rising technical organic composition but rising materials’ prices and rising wage rates under pressure of the investment program – and the encouragement to engage in speculative ventures with its consequence in crisis. But this supposes that Marx did intend a causal sequence running from investment to crisis. Unfortunately, the two assertions in the passages cited above from *Capital 2* (pp. 159–60) – “Such premature renewals of factory equipment on a rather large social scale are mainly enforced by catastrophes or crises” and “a crisis always forms the starting-point of large new investments” – entail a reverse sequence whereby it is the crisis that generates or encourages bursts of innovatory investment. For this sharp contrast I can suggest no resolution.

Finally, the requirement of inter- and intra-departmental balances discussed in Section G should be noted as introducing a potentially promising line for business-cycle research, though Marx himself made only a tentative exploration. This is how Leontief saw the matter (1966 [1938]: 76).



## PART TWO

ORIGINS: MARX IN THE 1840s



## SIX

### Marx's Economics 1843–1845

#### A. Introduction

The so-called *Economical and Philosophical Manuscripts* – three documents, the first of which is broken off unfinished while only a fraction of the second is extant – written in Paris between Spring and August 1844, contain Marx's first tentative steps in economics.<sup>1</sup> Ricardo and Smith figure large, and Pierre Joseph Proudhon emerges as a central figure. In the Preface we find a general obligation expressed to the German socialists Hess, Weitling and Engels and to unspecified French and English socialists. Also on record are Marx's Paris reading notes in nine notebooks, with extracts from and commentary on (*inter alia*) Engels, Smith, Ricardo, James Mill, McCulloch (the last four in French translation), Bentham, Lauderdale, Say, Destutt de Tracy, Sismondi, and Boisguillebert. The least fragmentary of the notebook comments is devoted to Mill – a 7000-word commentary on his *Elements*. As for their composition, accounts range from late 1843 through January 1845.<sup>2</sup> Considering the unfinished state of both sets of documents and doubts regarding the precise dating of the notebooks, it is unsafe to take for granted a "progression" of substantive ideas from the notebooks to the manuscripts although the latter are somewhat more formal in character. In fact, it will emerge that the notebooks in some respects show greater analytical maturity, or at least greater familiarity with Ricardian economics.

The general opinion in the literature appears to be that the documents are of considerable "philosophical" interest but contain little of significance regarding

<sup>1</sup> Rubel points to the early neglect of the *Manuscripts*: "n'ayant éveillé ni la curiosité d'Engels ni celle des premiers éditeurs, ils mettront près de quatre-vingt-dix ans à sortir de l'oubli" (Rubel 1982: 422).

<sup>2</sup> Oakley 1983: 20–31; Oakley 1984: 10–12, 27–30, 36, 46–7, 67; Bottigelli 1969: vii–lxix; Mandel 1971: 40; Rubel 1963: lxi–lxvii; Rubel 1968: liv–lx, 1606–7; Claeys 1984: 228. Also see editorial comments, MECW 3: xvi–xviii, 596–7, 610. The notebook comments devoted to James Mill have been frequently translated into English, as in the MECW edition. The translations from other notebook entries given below are by the present author, based upon Rubel's French version.

economic theory (Rosdolsky 1980: 1–2; Wolfson 1979: 133; Oakley 1983: 27–8). There is also much written of Marx's "humanist" concerns with particular reference to a debt to Adam Smith (Claeys 1984: 228–9; Oakley 1984: 28). In this chapter I review the evidence with an eye to two issues: Does there emerge from the informal documents a *positive theory* – even if primitive and not necessarily consistent – pertaining to a class-organized, private-property system? And if so, how does it relate to Ricardian theory in particular, and to positions found later in the "mature" Marxian doctrine? Of particular interest in this regard is Mandel's position that the *Manuscripts* reveal little appreciation of the problem of surplus value, and failed to take Ricardo seriously (Mandel 1962: 34), while the *Notebooks* "rejette explicitement la valeur travail" (39), and opposed "l'univers des conceptions abstraites en faveur de la 'réalité phénoménologique,' c'est-à-dire du monde des prix" (41). This reading is close to that of Dobb, in his introduction to Marx's *A Contribution to the Critique of Political Economy* of 1859: "The progress and maturing of Marx's thought . . . lay in the direction of deepening it in a sense quite opposite to the development of "bourgeois economics" with its increasing formalisation of purely quantitative market relations and linkages. Marx started, indeed, from concepts such as supply and demand, competition and the market. This is most in evidence in the manuscripts of 1844 . . ." (Dobb 1970: 6); only later, in the *Critique*, were the economic concepts in question (market relations and linkages) put in their proper – for Dobb, secondary – place.

## B. Price Theory

In the 1844 *Manuscripts* (MECW 3: 236), Marx cites, and apparently accepts, Adam Smith's cost-pricing principles and the mechanism of adjustment or "gravitation" of market to natural price, the latter envisaged as the sum of wage, rent, and profit costs (Smith 1937 [1776]: 55–7). The adjustment is impeded by labor immobility, labor itself treated as a *commodity*: "*The demand for men necessarily governs the production of men, as of every other commodity*" (MECW 3: 235).<sup>3</sup> But the "gravitation" process is not it seems seriously impeded by labor immobility, considering the high degree of capital mobility supposed: "*Thus in the gravitation of market price to natural price it is the worker who loses most of all and necessarily. And it is just the capacity of the capitalist to direct his capital into another channel which either renders the worker, who is restricted to some particular branch of labour, destitute, or forces him to submit to every demand of this capitalist*" (236). Notwithstanding, Smith is subsequently also cited regarding monopoly restrictions on capital mobility (Smith 61; cited 248–9).

<sup>3</sup> The notion of labor as commodity is sometimes attributed to Ricardo, for whom "[p]roduction does not simply produce man as a *commodity*, the *human commodity*, man in the role of *commodity*; it produces him in keeping with this role as a *mentally* and physically *dehumanised being*" (MECW 3: 284); and sometimes to the Ricardians generally (see below, p. 182).



The Smithian proposition (Smith: 86, 98) that increases in the wage and profit rate are passed on to the consumer in higher (cost) prices – subject to productivity improvement – also emerges: “. . . rising wages and rising interest on capital operate on the price of commodities like simple and compound interest respectively” (MECW 3: 239). It is found also in modified form later in the manuscript with respect to the landlord’s alleged interest in reducing wages as a means of assuring lower prices (263). Now these citations are from the First Manuscript. In the Second Manuscript, we encounter *the inverse wage-profit relation*, following immediately upon a citation from Ricardo and James Mill illustrating “a great and consistent advance of modern English political economy” over Smith and Say, that “whilst elevating *labour* to the position of its *sole* principle, it should at the same time expound with complete clarity the *inverse* relation between wages and interest on capital, and the fact that the capitalist could normally *only* gain by pressing down wages, and vice versa. Not the defrauding of the consumer, but the capitalist and the worker taking advantage of each other, is shown to be the *normal* relationship” (284–5).

This reading actually over-simplifies Ricardo’s theorem on distribution which concerns the *cost* of producing the commodity wage and the “proportional” wage both indicated by the money wage (Hollander 2001: 9–10). But shortly thereafter, a somewhat more accurate rendition is given – at least it is consistent with the Ricardo position – in the course of a discussion of landowners’ defense of agricultural protection. Thus, capitalists claim that “the landowner – this idle, parasitic grain-profitteer – raises the price of the people’s basic necessities and so forces the capitalist to raise wages without being able to increase productivity, thus impeding [the growth of] the nation’s annual income, the accumulation of capital, and therefore the possibility of providing work for the people and wealth for the country . . .” (MECW 3: 288). On this view, a rise in the corn price generates a compensatory rise in the *money* wage and (so it is implied) a depression of the profit rate, rather than an increase in prices. In this light, the earlier rejection of the notion of “defrauding the consumer” should be understood as an *abandonment* of the Smithian notion – expounded in the First Manuscript – that increased wage costs are passed on to consumers in higher prices. For all that, there is still no indication of the proper sense of Ricardian “real wages.”

A positive reference is also made in the Second Manuscript to *differential rent*, again with the “modern” literature in mind: “It is . . . another great achievement of modern English political economy to have declared rent of land to be the difference in the interest yielded by the worst and the best land under cultivation; to have [exposed] the landowner’s romantic illusions – his alleged social importance and the identity of his interest with the interest of society, a view still maintained by *Adam Smith* after the Physiocrats” (285). The formulation, which perceives the differential in *interest* yielded by the worst and the best land, is not quite how Ricardo expressed the matter. This is no accident, for the context involves prospective change in institutional and social arrangement, the moderns “anticipat[ing] and

prepar[ing] the movement of the real world which will transform the landowner into an ordinary, prosaic capitalist, and thus simplify and sharpen the contradiction [between capital and labour] and hasten its resolution.” Again: “The final consequence is . . . the abolition of the distinction between capitalist and landowner, so that there remain altogether only two classes of the population – the working class and the class of capitalists” (266). Here we have a hint of what was to come.

There is a complexity of high historiographical interest in the First Manuscript, that the concept of *rent-free* land is illustrated from the *Wealth of Nations* rather than Ricardo's *Principles* (MECW 3: 261). Thus Smith is paraphrased: “*Rent cannot be paid on all commodities. For instance, in many districts no rent is paid for stones*” (see Smith 1937 [1776]: 163); and he is cited explicitly to the effect that “rent enters into the composition of the *price of commodities* in a *different way* from wages and profit. *High or low wages and profit* are the *causes* of high or low price; high or low rent is the *effect* of it” (Smith: 146). Similarly, the highest conceivable profit rate is said by Smith to be that rate “which in the price of the greater part of commodities eats up the whole of the rent of land . . . rent can disappear entirely” (Smith: 97, cited 248).<sup>4</sup>

\* \* \*

We turn to the *Notebooks*. Here Marx commends Proudhon's use of cost-price formulations attributed to Ricardo and to Say to arrive in effect at the, or rather *a*, notion of *surplus value in a private-property system*: “Ricardo demonstrates that labor accounts for the entire price since capital too is labor; Say shows [Say 1819, 1: 28–9n] that he has forgotten the return to capital and to land, since these are not provided free. Proudhon *rightly* concludes from this that, where private property exists, a commodity costs more than it is worth; it is precisely this tribute that is paid to the owner of private property” (Marx 1968: 8–9; emphasis added).<sup>5</sup> This commendation of Proudhon is repeated in a passage excluding both rent and profits from “necessary” costs other than in a qualified sense: “The need for land and capital in production cannot be counted within costs except insofar as labor etc. is required for the maintenance of capital and land. . . . But it is solely the surplus, the excess over these costs, that constitute interest and profit, and rent [le fermage et la rente]. *Consequently*, the prices of all commodities are too high, as Proudhon has already proven” (Marx 1968: 9–10; emphasis added).

Now Proudhon's reading of Ricardo, based in part on Say, in the first of the foregoing passages, was accepted by Marx too hastily. Ricardo himself went out of his way to reject that sort of representation of his position (Ricardo 1951–73, 1: 46–7). Proudhon's discernment of the source of surplus value in an excess of price over value is thus based on a common misunderstanding of Ricardo which neglects

<sup>4</sup> Say too had insisted on Smith's priority (e.g., Say 1843 [1828–9]: 103). For a modern claim along these lines, see Samuelson 1978.

<sup>5</sup> The allusion is to Proudhon's *Qu'est-ce que la propriété?* (1840), chapter IV: “La propriété est impossible, parce que là où elle est admise, la production coûte plus qu'elle ne vaut” (Rubel 1968: 1601).

the simple proposition that *relative* price is proportional to *relative* labor input (setting aside, of course, various well-known “modifications”). Reading Ricardo in *absolute* terms with value reflecting labor alone, the trap was set – since price includes profits, it necessarily exceeds “value:” “a commodity costs more than it is worth,” which excess constitutes “the tribute” paid to property owners. This perspective is far from Marx’s ultimate solution – namely that though there should be no such deviation of absolute price from labor value, all products selling at their values, a surplus nonetheless exists due to the fact that the “product” *labor* also sells at *its value*, essentially that only part of each workday is devoted to the production of wage goods.<sup>6</sup>

In what follows, Marx refers to the “natural rates” of wages, profit, and rent; and this perhaps implies the meaningfulness of cost price. On the other hand, there is considerable doubt whether Marx stood by this position. In the first place, he asserts that “the natural rate of wages, rent and profit depends entirely on custom and monopoly, and in the final resort on competition; it does not derive from the nature of the land, of capital and of labor. Costs of production are themselves determined by competition and not by production” (Marx 1968: 10).<sup>7</sup> And in what follows, he attacks Ricardo for treating market-price deviations from “natural price” as “momentary or accidental,” whereas – following Say – *it is natural price itself that is “chimérique”* since there are *only* highly variable current market prices in economics:

Ricardo says that when he talks of “exchangeable value” he always intends “natural price,” setting aside the accidents of competition that he calls a “temporary or accidental cause” [Ricardo 1819: 125]. To give more substance and precision to its laws, political economy is obliged to represent reality as accidental and abstraction as real. Say remarks in this regard that “natural price . . . appears to be chimerical. There are only current prices in political economy” [Say 1819, 1: 126]. This he demonstrates by saying that the prices of labor, capital and land, are not determined according to some fixed rate, but according to the relation between quantity supplied and quantity demanded.<sup>8</sup>

<sup>6</sup> Rubel, however, asserts of Proudhon 1840 that he *was* familiar with “la conception de la plus-valeur qui devait alors germer dans l’esprit de Marx” (Rubel 1968: 1601), thereby implying that Proudhon was Marx’s source for his *ultimate* solution. Mandel recognizes that “Marx approves of Proudhon’s remark that rent and profit are ‘super-added’ and thus are a factor in bringing about increases in price” (Mandel 1971: 41), but quite rightly does not see this as a contribution to a “*genuine*” theory of surplus value by which is intended the final Marxian resolution.

<sup>7</sup> Rent is not here treated as a *differential* transfer from profit as it is in the *Second Manuscript* (see above, p. 167), raising the possibility that the latter superseded the *Notebooks* in this particular respect.

<sup>8</sup> A sharp distinction is drawn between Ricardo’s “definition” of value as entirely cost oriented and Say as focussing on “competition” (which strangely is here identified by Marx with “utility”): “With Say, competition replaces production costs. Utility, that is to say competition, therefore depends, according to Say himself, solely on fashion, caprice, etc” (Marx 1968: 8). Yet, paradoxically, Marx proceeds to point out that it is Say (Say 1819, 1: 14n) – not Ricardo – who insisted on the *constant value of corn* (on grounds of the interdependence of supply and demand with reference to the population variable).

In this objection to Ricardo we have a denial of what was later to be an essential tenet – the “essence” of value relationships disguised by the surface manifestation of the market. *More immediately, we have here an actual rejection of the very meaningfulness of the cost-price concept.*<sup>9</sup> A further passage commends Smith’s “natural price” – but only when “*abstraction [is] made from private property*”; as for “political economy” whose sphere is limited to the private-property institution – “all that is involved is current price” or “sordid trading” (“*trafic sordide*”) and not “costs of production.”

A complex picture has emerged regarding Marx’s adherence to cost pricing. The complexity reflects a particular methodological stance as is made particularly clear in the *Notebook* comments on James Mill. Here Marx charges Mill and the entire Ricardo school firstly for expounding an *abstract law of value or price* (the two are here identified) in terms of cost, whereas in reality cost prices pertain only “momentarily” and “accidentally” when supply and demand happen to be equal; and secondly, for neglecting that equally “constant” law according to which there is *no* “necessary relation” between value and costs considering the continual fluctuations of supply, fluctuations which – *pace* Ricardo – he designates “*real movements*” rather than merely “accidental” and “inessential” (MECW 3: 211; also Marx 1968: 16).

Marx’s raises the question *why* the Ricardian economists should take their faulty position: “Why? Because in the acute and precise formulas to which they reduce political economy, the basic formula, if they wished to express that movement abstractly, would have to be: In political economy, law is determined by its opposite, absence of law. The true law of political economy is *chance*, from whose movement we, the scientific men, isolate certain factors arbitrarily in the form of laws.” According to this critique Marx represents cost price as no more than a chance phenomenon that has “arbitrarily” been accorded law-like quality by economists. As mentioned, Marx is here taking a standpoint which he attributed to Say.<sup>10</sup>

It is important to recognize Marx’s allowance that Ricardo and his followers do admit a tendency of market to cost prices which *turns on the mechanism of demand and supply*, thereby implying that the emergence of cost prices is not for them an “accidental” matter; it is only that Marx himself rejected that process. That this is indeed so emerges clearly in the *Notebook* comments on McCulloch. The context relates to the praise accorded the Ricardians by McCulloch’s translator Prévost for working with *averages*: “Prévost lauds the Ricardians, those profound economists, for having simplified the science to a high degree, by taking *averages* for its base, and by setting aside all accidental circumstances (just as the great Ricardo, for example, dismisses the number of inhabitants of a country) that might hinder

<sup>9</sup> For a discussion of Say on value determination, focusing on the *apparent* rejection of cost-price analysis, see Hollander 2005: 30, 42–6. Say is there shown to have in fact *retained* cost-price analysis – except in the case of corn – emphasizing, however, that price fluctuations around cost are the greater the less broadly based the demand.

<sup>10</sup> Also to be noted is Say’s use of the term “abstract” in a perjorative sense in his *Notes on Ricardo’s Principles* (Say 1819, 1: 2–3).

them in their generalizations” (Marx 1968: 35). Marx responded that their focus on “averages” was no credit to the Ricardians since it abstracted from “la vie réelle”: “What do these averages prove? That one abstracts more and more from mankind, that one dismisses more and more real life, and that one considers only the abstract movement of material and inhuman property. *Averages* are real offences inflicted upon real individuals.”

Secondly, Prévost had praised Ricardo for divorcing costs from demand and supply: “Prévost praises Ricardo for having discovered that price represents costs of production independently of supply and demand.” Again Marx insists that this approach abstracted from reality: “the courageous man forgets that the Ricardians only prove this principle with the help of a calculus based on *averages*, that is by abstracting from reality.” But he objected further, on grounds of positive theory, that Prévost’s reading implied that goods might be produced without demand – which Marx found inconceivable: “according to his thesis, it suffices to put a product on the market, though there are no buyers, in order to determine price by production costs. . . .” Moreover, “these gentlemen allow that accidental causes may generate price oscillations above and below production costs, and that competition causes price to rise or fall to the level of production costs. But what is competition if not the relation of supply and demand? *Thus the supply-demand relation is allowed in under the guise of competition*” (emphasis added).

Now, if Marx *accepted* all this, he would have undermined his own insistence that actual prices reflect cost only “accidentally” – that “there is only a momentary equilibrium of demand and supply. . . .” But he did *not* accept it, once more rejecting the entire Ricardian argument on the grounds that price is a matter of *chance*: “What then do [the Ricardians] wish to prove? That assuming free competition the price of commodities is on a par with production costs. We have spoken elsewhere of the effect of free competition as a means of determining prices. To express this abstractly: price is determined by competition – price is a matter of chance (le prix est affaire de hasard).” He allows that “if these gentlemen say that nobody wants to sell below production costs, they are right. But mere wanting is not enough” (36).

Marx’s apparent rejection of cost pricing turns partly on an insistence that genuine analysis focused upon “la vie réelle” of *actual markets*, so very different from the later Marx. But how such rejection fits in with his commendation at the *same early period* of Proudhon’s position that the excess of actual cost price over value constituted surplus – the tribute “paid to the owner of private property” (above p. 168) – is a mystery. The approach to value reflects serious ambiguity regarding the market as *regulative* or *chaotic*, that was never to be properly corrected (see the concluding chapter).

### C. Wage-Rate and Profit-Rate Trends

We turn now to consider more closely aspects of distribution theory touched on in Section B. Once again there arise questions of consistency between the views of the market as *chaotic* and as *regulative*.

As for wage-rate determination, we find the generalization in the *Manuscripts* – based on an exaggerated reading of Adam Smith – that the “ordinary” wage reflects *physiological subsistence* assuring a constant (working) population: “The lowest and the only necessary wage rate is that providing for the subsistence of the worker for the duration of his work and as much more as is necessary for him to support a family, and for the race of labourers not to die out. The ordinary wage, according to Smith, is the lowest compatible with common humanity, that is, with cattle-like existence” (MECW 3: 235). The strong monopsony pressures at play – also to be found in Smith in some contexts (1937 [1776]: 67–8, 71, 532) – and the absence of alternative sources of income for labor assures the outcome in question. Moreover, immobility of labor restricted its exit from declining trades to its disadvantage.

Notwithstanding the representation of the subsistence wage as the “ordinary” case, Marx recognizes – again following Smith – that a condition of increasing wealth “is the only one favourable to the worker;” for “here competition between capitalists sets in. The demand for workers exceeds their supply” (MECW 3: 237).<sup>11</sup> Marx adds, however, the paradoxical proposition that rapid growth of “capital and revenue” is itself only possible because of *extractions* from labor (238), or – as he phrased it in his *Notebooks* – accumulation presupposes “la privation majeure, la propriété” (Marx 1968: 9), here adopting Say’s term “privation antérieure” (Say 1819, 1: 92) but giving it his own reading, for Say intended abstinence on the part of *capitalists* and neglected that the private property institution presupposes privation on the part of *labor*.<sup>12</sup> But all this is somewhat academic since any initial upward pressure on the real wage is outweighed by *ongoing* structural changes inherent in the growth process enhancing the divorce of the class of labor from that of capitalists and with it the *dependency* of the former on the latter (MECW 3: 237),<sup>13</sup> while “the *increase in the class of people wholly dependent on work intensifies competition among the workers, thus lowering their price*. In the factory system this situation of the worker reaches its climax” (237–8; emphasis added). The downward pressure on the wage towards subsistence, it is to be noted, does not emanate from *population growth*; rather, the “increase in the class of people wholly dependent on work” entails inflows from the middle classes as we shall now see.<sup>14</sup>

<sup>11</sup> Nonetheless, upward pressure on the real wage induces “overwork” – also a Smithian concept (Smith 1937 [1776]: 81–2) – and even an *increase* in the death rate, though from the perspective of the laboring class this latter is a “favourable circumstance” since the market is turned to its advantage.

<sup>12</sup> See also: “wages are a deduction which land and capital allow to go to the worker, a concession from the product of labour to the workers, to labour” (MECW 3: 240–1).

<sup>13</sup> On J. S. Mill’s preoccupation with labor’s “dependence,” see Hollander 1985: 776–7, 782–3, 820–1.

<sup>14</sup> As Mandel says of the downward wage trend: “In contrast to Malthus and Ricardo, however, Marx pointed out that this was not the inevitable consequence of some ‘law of increase of population,’ but resulted from the separation of the workers from their means of production” (Mandel 1971: 31). But he also believes that Marx came to modify the increasing *absolute* pauperization thesis 10 years later (32).

A falling interest rate characterizing growing economies (which Marx here takes for granted) contributes to *concentration* of capital and a resultant flow of small bankrupt employers into the labor force. The argument sets out with a Smithian theme regarding the demise of the rentier, whereby – in Marx’s paraphrase – “[i]n an increasingly prosperous society only the richest of the rich can continue to live on money interest. Everyone else has to carry on a business with his capital, or venture it in trade” (Smith 1937 [1776]: 96). “As a result,” Marx continues:

competition between the capitalists becomes more intense. The concentration of capital increases, the big capitalists ruin the small, and a section of the erstwhile capitalists sinks into the working class, which as a result of this supply again suffers to some extent a depression of wages and passes into a still greater dependence on the few big capitalists. The number of capitalists having been diminished, their competition with respect to the workers scarcely exists any longer; and the number of workers having been increased, their competition among themselves has become all the more intense, unnatural, and violent. Consequently, a section of the working class falls into beggary or starvation just as necessarily as a section of the middle capitalists falls into the working class (238).

And there are further damaging consequences for labor’s welfare arising from capitalists’ “competition,” including the adoption of machinery and “overproduction” (on which see below Section E). Certainly, productivity increase is no benefit to labor: “Thus the advance made by human labour in converting the product of nature into the manufactured product of nature increases, not the wages of labour, but in part the number of profitable capital investments, and in part the size of every subsequent capital in comparison with the foregoing” (249).

All of this is the very best the worker can expect: “Such are the consequences of a state of society most favourable to the worker – namely of a state of *growing, advancing* wealth” (239). Evidently any upward pressures on the wage are seen to be overwhelmed. But in any event growth itself must sooner or later peter out: “Eventually, however, this state of growth must sooner or later reach its peak,” Marx citing Smith’s stationary state but adding that its achievement entails an increase in mortality: “both the wages of labour and the profits of stock would probably be very low. . . . [T]he competition for employment would necessarily be so great as to reduce the wages of labour to what was barely sufficient to keep up the number of labourers, and, the country being already fully peopled, that number could never be augmented” (Smith 1937 [1776]: 94–5). The surplus would have to die.” The argument closes with a depressing summary: “Since, however, according to Smith, a society is not happy, of which the greater part suffers – yet even the wealthiest state of society leads to this suffering of the majority – and since the economic system (and in general a society based on private interest) leads to this wealthiest condition, it follows that the goal of the economic system is the *unhappiness* of society.”

\* \* \*

We turn next to the profit rate, and a reference in the *Manuscripts* to Smith’s distinction between profit as such “regulated by the value of the capital employed” and the wages of management (MECW 3: 249). As for the former: “[The capitalist]

would have no *interest* in employing the workers, unless he expected from the sale of their work something more than is necessary to replace the stock advanced by him as wages and he would have no *interest* to employ a great stock rather than a small one, unless his profits were to bear some proportion to the extent of his stock” (Smith 1937 [1776]: 48; cited 248).<sup>15</sup> An index of the profit rate is provided, again as in Smith, by the rate of interest: “Wherever a great deal can be made by the use of money, a great deal will be given for the use of it; wherever little can be made by it, little will be given” (Smith: 88). And Marx relies on Smith’s proposition basing the falling rate of profit on increasing “competition of capitals” (Smith: 87, 342; cited 250). The full Smithian exposition of the effects of increasing competition – *upward* pressure on the wage rate as well as *downward* pressure on prices – is rehearsed (Smith: 336, cited 252), although we have seen that the upward wage component is discounted. A final stationary state – gratuitously said to be “the situation most dear to the heart of political economy” (251) – is also defined in Smith’s own terms.

Now for Marx “increased competition” partly takes the form of enhanced “*concentration of capital*” (a phenomenon encountered above, p. 173), since activity subject to the high wages and low prices generated by the (assumed) competition could be faced more easily by the “big capitalist”: “The larger size of his capital compensates him for the smaller profits, and he can even bear temporary losses until the smaller capitalist is ruined and he finds himself freed from this competition” (252) – a theme encountered in *Capital*. There are also scale economies, both pecuniary and technical. As for the former: “the big capitalist always buys cheaper than the small one, because he buys bigger quantities. He can, therefore, well afford to sell cheaper”; and “the credit which a big capitalist enjoys compared with a smaller one means for him all the greater saving in fixed capital – that is, in the amount of ready money he must always have at hand” (252–3). As for technical economies of scale: “where industrial labour has reached a high level, and where therefore almost all manual labour has become factory labour, the entire capital of a small capitalist does not suffice to provide him even with the necessary fixed capital”; while “the accumulation of large capital is also accompanied by a proportional concentration and simplification of fixed capital, as compared to the smaller capitalists. The big capitalist introduces for himself some kind of organisation of the instruments of labour” (253–4).

How much is left of the Smithian doctrine of secularly falling profit rates considering the alterations in industrial structure now allowed for, namely

<sup>15</sup> Oakley observes: “It is evident in this passage, that the origin of the return to capital is to be found in a *surplus* over the advances to employ labour. Neither Smith nor Marx explicitly recognised this principle, and Marx went on directly to consider the *phenomenal form* of profit as a *rate* relative to capital advanced without any concern for the *origin* of the revenue” (Oakley 1984: 55). But we recall that the source of profit is touched on in Marx’s references to Proudhon on the “tribute” paid capital (above, p. 168). And in the *Manuscripts* themselves, we find the Smithian notion of the source of profits in current labor (below, p. 175).



“concentration” and the related advantages of size? Marx himself does not go so far as to say that the fall in the profit rate due to competition is actually *prevented* by these structural changes, only that it is *counteracted*: “The accumulation of capital increases and the competition between capitalists decreases, when capital and landed property are united in the same hand, also when capital is enabled by its size to combine different branches of production” (258). And Smith himself is cited to illustrate “other fortuitous causes which can raise the profit on capital” by reducing “competition of capitals” such as “[t]he acquisition of new territories, or of new branches of trade” (Smith: 93, cited 249); moreover “the number of profitable capital investments” is also increased in a more specific sense, citing Smith’s proposition that “[as] any particular commodity comes to be more manufactured, that part of the price which resolves itself into wages and profit, comes to be greater in proportion to that which resolves itself into rent. In the progress of the manufacture, not only the number of profits increases, but every subsequent profit is greater than the foregoing; because the capital from which it is derived must always be greater” (Smith: 51). We conclude that in his *Manuscripts* of 1844 Marx stood by the falling profit rate based on “increasing competition” despite various counteracting forces.

One further feature of the *Manuscripts* may be noted in this regard. It is the proposition based on the foregoing Smithian text that *since profit is generated by human labor it rises with the labor intensity of products*: “[The capitalist] profits doubly – first, by the division of labour; and secondly, in general, by the advance which human labour makes on the natural product. *The greater the human share in a commodity, the greater the profit of dead capital*” (MECW 3: 249; emphasis added). This assertion – which clashes with the profitability attributed to the use of fixed capital by large firms also outlined above – is in line with the falling profit rate due to rising  $c/v$  of the later doctrine.

We recall, finally, Marx’s continued adherence to a falling real wage trend and ultimate stationariness. Unfortunately, the transition from a state of growth to one of stationariness is left unexplored. This had been a weakness in the *Wealth of Nations*, resolved by Ricardo and Malthus in terms of a land-based growth model (Hollander 1992, 2001). The problem is aggravated because Marx, again following Smith, has it that a falling return on capital actually *encourages* accumulation: “A great stock though with small profits, generally increases faster than a small stock with great profits. Money, says the proverb, makes money” (Smith: 93, cited MECW 3: 252). There is no *decelerating* force in the system to bring it to a state of stationariness.

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This leads us to the *Notebooks* and the impression that in some respects they may have reinforced the *Manuscripts*. In the first place, Marx paraphrases Ricardo approvingly to the effect that should technical progress reduce the real costs of wage goods, “in very few years his circumstances would be found to have scarcely improved” – as a result of “competition” adds Marx; “Ricardo emphasises

splendidly that the worker gains nothing from increased labor productivity” (Marx 1968: 8). Conspicuously absent is any mention of the population component on which Ricardo himself relied to obtain this result (1951–73 1: 16). More generally, Marx found the empirical importance of Ricardian theory to lie in its presumption against Smith’s upward wage movement during the course of accumulation, relying, however, on the non-Ricardian gloss relating to a *pool of unemployed* available to service increase in demand for labor: “Ricardo’s theory is important in current circumstances solely because it shows how, during a process of on-going accumulation, competition between capitalists and the fall in their profits, in no way entails – as Smith supposed – a rise in wages. At the present time, in all industrial countries, labor supply exceeds demand, and laborers can be recruited daily from the unemployed proletariat. . . .” But wages do not in fact remain constant; for to the contrary, “by dint of competition, accumulation brings with it a *continuous fall in wages*” (11; emphasis added).

There is then a superposition of Smithian, Ricardian, and various empirically related elements. The Smithian component is still indicated by the reference to “competition between capitalists” as cause of the falling profit rate, though Marx rejects Smith’s upward pressure on the wage, forgetting that Smithian theory too implies *ultimately* falling wages (above, p. 174). The reference to Ricardo is limited to an alleged constant-wage proposition. Conspicuous too is the empirical proposition relating to contemporary unemployment, though the possibility of drawing in labor from such a pool does not gainsay the more general proposition that *accumulation as such entails a continual fall in the wage rate*.

Elsewhere in the same *Notebooks* (37–8) there is reference to the fall in the secular rate of profits as rationalized by Ricardian theory in McCulloch’s *Discours*. But though Marx rejects a “refutation” by Prévost (McCulloch’s French translator) *he does not commit himself to the land-based doctrine itself*. And this raises further complexities. The need to account for a transition from a rising to a declining wage had been removed to the extent that Marx rejected Smith’s upward pressure on the wage; nevertheless, the supposed *simultaneous* decline in both the wage and the profit rates remains unjustified, Marx neglecting to explain who the beneficiaries of economic progress could be in the absence of land scarcity, indeed assuming technological advance or at least increasing economies of scale. (The outcome in the absence of land-scarcity considerations and assuming technical progress will be determinate provided labor-supply and capital-supply functions are defined. But in this case we would expect the wage rate and profit-rates to *rise* not to fall.) Marx also neglected to investigate the consistency between the simultaneous decline of the factor returns and the inverse wage-profit relation – to which, we recall, he had subscribed in the *Manuscripts* (above, p. 167).

#### D. The Private-Property System: Ricardo as *bête noire*

The Paris *Manuscripts* lists several propositions relating to the “claims of labour” in a private-property system, and contrasts the “theoretical” with the “practical

claims” of the workers derived from “the standpoint of the political economist” (MECW 3: 239). The *Wealth of Nations* as source is not always stated but (as we shall suggest by our interpolations) a Smith connection is evidently at play in most of the attributions to Marx’s composite authority:

He tells us that originally and in theory the *whole product* of labour belongs to the worker [Smith 1937 (1776): 47, 64]. But at the same time he tells us that in actual fact what the worker gets is the smallest and utterly indispensable part of the product – as much, only, as is necessary for his existence, not as a human being, but as a worker, and for the propagation, not of humanity, but of the slave class of workers [Smith 48]. . . . Whilst the rent of the idle landowner usually amounts to a third of the product of the soil [Smith: 49, 318], and the profit of the busy capitalist to as much as twice the interest on money [Smith: 97], the “something more” which the worker himself earns at the best of times amounts to so little that of four children of his, two must starve and die [Smith: 79]. Whilst according to the political economists it is solely through labour that man enhances the value of the products of nature, whilst labour is man’s active possession [Smith 49], according to this same political economy the landowner and the capitalist, who *qua* landowner and capitalist are merely privileged and idle gods, are everywhere superior to the worker and lay down the law to him [Smith: 674] (239–40).

There are also allusions to *overproduction* and *depression* unrelated to Smith.<sup>16</sup> Finally, there is the generalization that “[w]hilst the interest of the worker, according to the political economists, never stands opposed to the interest of society, society always and necessarily stands opposed to the interest of the worker.” Specifically: “According to the political economists, the interest of the worker is never opposed to that of society: (1) because the rising wages are more than compensated by the reduction in the amount of labour time . . . [Smith: 86, 242–3]; and (2) because in relation to society the whole gross product is the net product, and only in relation to the private individual has the net product any significance.” Marx concludes with a *non sequitur*: “But that labour itself, not merely in present conditions but insofar as its purpose in general is the mere increase of wealth – that labour itself, I say, is harmful and pernicious – follows from the political economist’s line of argument, without his being aware of it” (239–40; see also Marx 1968: 44–5).

Now, Smith did not maintain that “the whole gross product is the net product. . . .” Marx is in fact paraphrasing the reaction by Say to Ricardo’s objection that “Adam Smith constantly magnifies the advantages which a country derives from a large gross, rather than a large net income” (Ricardo 1951–73, 1: 347).<sup>17</sup> What then of Marx’s attitude towards *Ricardo* in the present context? A citation

<sup>16</sup> For an elaboration, see below p. 182f.

<sup>17</sup> Smith indeed asserted that “the whole value of the annual produce is thus divided among and constitutes a revenue to its different inhabitants . . .,” but he also added that “[t]he whole expense of maintaining the fixed capital, must evidently be excluded from the real revenue of the society” (Smith 1937 [1776]: 270–1). (On this matter see Chapter 2, pp. 493–4) Say commended the unqualified affirmation: “On ne devrait parler de revenu-net que lorsqu’il est question des intérêts d’un particulier par opposition à ceux d’un autre. . . . Le revenu total d’une nation se compose de son produit brut; c’est-à-dire, de la valeur brute de tous ses produits qui se distribue entre les producteurs” (Say 1819, 2: 218).

in the first *Manuscript* from Ricardo's chapter "On Gross and Net Revenue" is relevant: "Provided [the nation's] net real income, its rent and profits be the same, it is of no importance whether the nation consists of ten or of twelve millions of inhabitants" (Ricardo 1951–73, 1: 348, cited MECW 3: 256–7). Marx read into this passage the message that "[n]ations are merely production-shops; man is a machine for consuming and producing; human life is a kind of capital. For Ricardo, men are nothing, the product everything" (256). In the second *Manuscript*, the same theme is repeated with sarcastic praise accorded Ricardo and James Mill for their "advance" over Smith and Say "to declare the *existence* of the human being . . . to be *indifferent* and even *harmful*. Not how many workers are maintained by a given capital, but rather how much interest it brings in, the sum-total of the annual *savings*, is said to be the true purpose of production" (284). This charge that Ricardo countenanced reduction in gross produce, total wages and employment in the interest of a net product consisting of gross profit and rent alone, had indeed been made by Say and also by Malthus; and Ricardo had actually protested in the third edition of his *Principles*: "M. Say [Say 1819, 2: 224] has totally misunderstood me . . . I think the text sufficiently shews that I was confining my remarks to the particular grounds on which Adam Smith had rested it" – namely concern with national *power* and focus on "the fund from which all taxes must ultimately be paid" in terms of *net* not gross revenue (Ricardo 1951–73 1: 348–9).<sup>18</sup> It is not clear whether or not Marx was aware of Ricardo's response.

Marx's sarcastic reference to Ricardo's "advance on Smith and Say" reflects in part hostility to Malthusianism, as Marx perceived it, that emerges most clearly in a relationship – also sarcastic – drawn between political economy and ethics containing an illustration from population theory to demonstrate that "political economy expresses moral laws *in its own way*": "Frugality as the principle of political economy is *most brilliantly* shown in its *theory of population*. There are too *many* people. Even the existence of men is a pure luxury; and if the worker is "*ethical*," he will be *sparing* in procreation. [James] Mill suggests public acclaim for those who prove themselves continent in their sexual relations, and public rebuke for those who sin against such barrenness of marriage" (MECW 3: 311).<sup>19</sup> "Is this not ethics, the teaching of asceticism? The production of people appears as public destitution."

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The *Notebooks* contain several of the foregoing themes. To be noted first is a positive obligation to J.B. Say, as Rubel pointed out: "Chez Say, Marx a retenu l'idée que 'the right of landowners . . . extends back to plunder. . . . Even if we suppose that

<sup>18</sup> See also Ricardo's *Notes on Malthus's Principles* (Ricardo 1951–73, 2: 122).

<sup>19</sup> Similarly with regard to Malthus, who is blamed for the 1834 Poor Law legislation (MECW 3: 194). Marx concludes: "With this philanthropic theory the English Parliament combines the view that pauperism is *poverty which the workers have brought upon themselves by their own fault*, and therefore it is not a misfortune which must be prevented, but rather a crime which has to be suppressed and punished" (195).

capital is not the fruit of plunder, but of slow accumulation proceeding over several generations, nonetheless that too, like land, requires the assistance of the law in sanctioning the right of inheritance . . .’ [Say 1817, 1: 136]” (Rubel 1968: 1600).<sup>20</sup> Several of the objections raised in the *Notebooks* against Ricardo as an apologist for private property are not directed against Say.

Marx, thus, writes sarcastically in his *Notebooks* of the “philanthropic Ricardo,” who had in his chapter “On Wages” defined the natural wage in terms of subsistence and whose entire purpose was to justify a property-based class system with all that implied; and here too the schizophrenia attributed to political economy in the *Paris Manuscripts* (above, pp. 176–7) is apparent: “We well recall that, at the outset of this chapter, the philanthropic Ricardo defined the *means of subsistence* as the *natural price* of the laborer, thus as the sole object of his work, since he works with an eye to his wage. . . . What Ricardo really and specifically has in view, are the distinctions between the various classes. It is the standard vicious circle of political economy. . . . Its object is property; thus, for the majority, no property” (Marx 1968: 11). As in the *Manuscripts*, Marx speaks with forked tongue of his “admiration” for “the cynicism of the economist Ricardo” a pure cynicism free of “human illusion” – intending here “illusion” from the perspective attributed to Ricardo (14). And here too we find repeated the more specific charge – following Sismondi (1819 1: 331) – that Ricardo was “infamously” prepared to sacrifice the lives of millions in the cause of a maximum *net* revenue.

Marx touched on various objections directed by Say as well as Sismondi against the alleged Ricardian position, but points out that by their objections they were in effect *rejecting political economy as such, since political economy was essentially inhuman*: “Ricardo’s thesis is correct and logical from the economic perspective. If Say and Sismondi, in order to combat the inhuman consequences of political economy, are obliged to reject that science, what does that prove? Only one thing: that humanity resides *outside* political economy, inhumanity *within*” (Marx: 13). As for Adam Smith, his focus on the *gross* revenue was a sign of “human weakness,” *conflicting with political economy*. Thus the alleged Ricardian thesis indicated for Marx the “cynical” *essentials* of political economy;<sup>21</sup> and he rejected Say’s position that – in Marx’s paraphrase – “the contrast between net and gross revenue is only

<sup>20</sup> Marx might well have referred to Adam Smith directly – it is possible that Smith was Say’s source in this regard – that “the affluence of the few supposes the indigence of the many” (Smith 1937 [1776]:670); or that “civil government, so far as it is instituted for the security of property, is in reality instituted for the defence of the rich against the poor, or of those who have some property against those who have none at all” (674).

<sup>21</sup> Oakley, referring to Marx’s “critical admiration” for Ricardo’s “cynicism, adds that “[t]his critical admiration for Ricardo’s work was to carry it forward as a central source in the evolution of the critique of political economy. In the *Principles*, as Marx saw it in the light of his critical *telos*, political economy had reached its ‘scientific’ apogee” (Oakley 1984: 39). There is certainly something to this, but at this early stage the “critical admiration” is without question combined with *disgust*.

important for individuals and not for the nation” (12–13).<sup>22</sup> For political economy to abandon the gross-net distinction at the national level implied the abandonment of all distinction between capital and its return, land and its return, indeed private property in general (14).

In the same context as his sarcastic expression of “admiration” for the cynical Ricardo, Marx refers to an “amusing remark” by Ricardo against Say’s reaction to the proposition whereby international-trade patterns are governed by factor-ratio differentials (Ricardo 1951–73, 1: 349). Ricardo here cites Say’s comment in translation: “It is fortunate that the natural course of things draws capital, not to those employments where the greatest profits are made, but to those where the [1817: their] operation is most profitable to the community” (Say 1814, 2: 122); and objects: “M. Say has not told us what those employments are, which, while they are the most profitable to the individual, are not the most profitable to the State.” Ricardo’s “amusing” position illustrated for to Marx his *apologia* for capital, disguised by a hypocritical pretense of an identity of private and social interest: “What does this remark by Ricardo amount to in the final resort? Only one thing: considered apart from the capitalists, the welfare of the nation is a fiction, since by ‘nation’ we understand the body of capitalists” (Marx: 15).

We have encountered the disconcerting circumstance that the usefulness to Marx of Ricardo’s hypocritical “cynicism” led him to *defend* various technical propositions by Ricardo (above, pp. 178, 179–80). In the present case he similarly seems to reject Say’s insistence – also found in the *Wealth of Nations* – upon possible *deviations* between private and social interest. For Say, as for Smith, these included the social advantage of investments that generate *rent* in addition to profits (Say 1819, 2: 226; cited Marx: 14–15). To this Marx simply responds that Say’s objection to Ricardo “relates to the distinction between net and gross revenue that we have already examined” (15) – *a distinction which, following Ricardo, Marx insisted on*. Say had also maintained against Ricardo that “there are even certain employments of capital which, despite the profit they generate for the capitalist, yield no revenue to the nation” (Say 1819, 2: 226–7; cited 15). This too Marx rejected using his interpretation of Ricardo – that national gain is defined *solely* in terms of the incomes of capitalists and landlords (“Ricardian” net revenue): “Say’s remark reduces to the notion that the profits of individual capitalists may be increased without profits in the aggregate increasing, one gaining what the other loses. Consequently, Say’s

<sup>22</sup> An observation by Say that a population of seven million workers would save more than a population of five million (Say 1819, 2: 223) – accepted by Ricardo himself in 1821 since part of wages must be included in the national surplus (Ricardo 1951–73, 1: 348) – is dismissed by Marx with the unhelpful comment that seven million might *waste* more than five (Marx 1968: 13). Also rejected is Say’s case for a large population on defence grounds (Say 1819, 2: 224), since a large population, constituting a threat by labor to reclaim “its share of net revenue,” would rather “endanger the lives of speculators.” As for Say’s position that there is more aggregate happiness in a large population, the opposite was true: “there is surely more misery in a population of seven millions than one of five.”

objection does not refute Ricardo's thesis. . . . It by no means implies that such profit differs from that of the nation."

We return to Marx's reading into Ricardo of apologetic intent. It emerges again in his interpretation of Ricardo's rejection of the Say position (following Smith) regarding the particular advantages flowing from *domestic* trade, specifically that "[t]he most productive employment of capital, for the country in general, after that on the land, is that of manufactures and of home trade; because it puts in activity an industry of which the profits are gained in the country, while those capitals which are employed in foreign commerce, make the industry and lands of all countries to be productive, without distinction. The employment of capital the least favourable to a nation, is that of carrying the produce of one foreign country to another" [Say 1814, 2: 120–1] (Ricardo 1951–73, 1: 347). For Marx, Ricardo's objective in rejecting Say was to *justify the theft inherent in a capitalist system*: "when Ricardo fails to understand why Say only sees a gain by way of home trade, and not foreign trade, he intends in sum to say: in both cases equally there is theft, and it matters little to the nation that its merchants enrich themselves by despoiling the foreigner rather than their own compatriots; since each merchant is a foreigner vis-à-vis his own nation . . ." (Marx: 15–16). Private property in fact knew no homeland: "the homeland extends for the property owner as far as his own property, and for him foreign parts begin precisely where someone else's property begins" (16).

What Marx goes on to label the "infamy" of Ricardian political economy, resided precisely in its neglect of social conflict created by the private property institution – a neglect accomplished not only by the identification of private and social interests but also by the methodological recourse to "averages," "general laws," and "abstractions" amounting to the disappearance of the individual within a "person society": "What concerns the Ricardians is solely the *general law*. The law and the economists are absolutely indifferent to the thousands of people destined to be ruined by the operation of this law" (36). The equilibration process provided an instance: "The thesis thanks to which economics accomplishes all its miracles requires that a loss due to [higher?] production costs be balanced by advantages in the case of another product, such that society suffers no detriment. . . . Considered as a single person, society gains at one point what it loses at another. . . . Equilibrium here is an equilibrium involving abstract capital and abstract labor, without reference to the capitalist and the individual laborer [la personne]. And society is seen solely as an average figure" [un chiffre moyen] (36–7). In brief, Ricardian political economy starts out by assuming private property "that sets interests apart [qui divise les intérêts] and renders them mutually hostile," and then engages in speculative exercises "as if the interests were not alienated and as if property were held in common" (37). Political economy had built up a body of "infamous sophisms" entailing the *harmony* of social relations and proving one thing, that "in the going state of relationships, reasonable laws can only be obtained by abstracting from the specific nature of ruling conditions, in other words that the operation of these laws is a pure abstraction" (37).

Finally, Marx asserted in the *Notebooks* that the “Ricardian” reduction of capital to accumulated labor went hand in hand with a degradation of labor and reduction of work to the status of mere commodity: “As we see it, the substitution of *accumulated labor* for capital so much insisted on by the Ricardians – the expression is already found in Smith – signifies only one thing. The more political economy recognise labor as the sole principle of wealth, the more it degrades and impoverishes the laborer and turns labor itself into a commodity; this is as much a theoretical axiom essential to their science as it is a practical truth in today’s social life” (36).

### E. On Aggregate Demand and “Overproduction”

In discussing “the state of society most favourable to the worker, namely of a state of *growing, advancing, wealth*” (MECW 3: 239; see above, p. 173), Marx points to the inevitability, even in this best case, of overproduction, unemployment, and “minimum” wages. He recognizes upward pressure on wages generated by capital accumulation, but on balance these are outweighed by structural changes increasing the size of the *dependent* work-force (above, p. 172). Now, in addition, “as the amassing of capital increases the amount of industry and therefore the number of workers, it causes the same amount of industry to manufacture a *larger amount of products*, which leads to over-production and thus either ends by throwing a large section of workers out of work or by reducing their wages to the most miserable minimum” (238–9). Again, increased division of labor “impoverishes the worker and reduces him to a machine,” and though capital accumulation and “increasing prosperity” is due to labour, in this process the worker becomes “ever more dependent on the capitalist” and is driven “into the headlong rush of over-production, with its subsequent corresponding slump.”<sup>23</sup>

“Overproduction” can perhaps be understood as relating to a *cyclical* component entailing unemployment and reduced wages (see Mandel 1971: 31–2). Yet, there remains some doubt, for Marx’s intentions in introducing overproduction may also relate to the secular trend itself, a complexity that persists even in *Capital* (see Chapter 5.E). Marx refers to the great Ricardo-Say-Malthus debate regarding the possibility of “overproduction,” and this debate referred to the secular dimension, since even Ricardo and Say allowed periods of depression (Hollander 1979: 474–539, 2005: 189–225). But Marx cannot be pinned down so easily since his account relates in part at least to the question of the Law of Markets as pertinent to the *short-run* as we shall now see.

On Marx’s account “[t]he one side (Lauderdale, Malthus, etc.) recommends *luxury* and execrates thrift. The other (Say, Ricardo, etc.) recommends thrift and execrates luxury” (MECW 3: 309). In this context Say is classed *with* Ricardo within the “hypocritical school” – in contrast with Marx’s practice elsewhere (see

<sup>23</sup> Marx was here following the lead of Wilhelm Schulz 1843 and Constantin Pecqueur 1842.



Section D) – which, so runs the charge, conveniently forgets the significance of the demand component: "The Say-Ricardo school is hypocritical in not admitting that it is precisely whim and caprice which determine production. It forgets the 'refined needs'; it forgets that there would be no production without consumption; it forgets that as a result of competition production can only become more extensive and luxurious. It forgets that, according to its views, a thing's value is determined by use, and that use is determined by fashion" (310).

In the *Notebooks* Marx similarly condemns both Ricardo and Say for the Law of Markets – originating, runs this account, with Say, "the first to formulate the principle that demand is only limited by production itself" (Marx 1968: 11–12).<sup>24</sup> Neither could account for the facts of over-production, commercial failures and crises: "Political economy knows nothing of . . . the miracle of overproduction and super-misery. . . . No more than Ricardo, is Say able to answer the question: whence the competition and bankruptcies, trade crises etc., if all capital finds a corresponding occupation? If employment is always proportional to the number of capitals?" (12). Indeed, Say's Law flew in the face of the principle of "*competition*" (the governing principle of political economy) and its underlying rationale, that each individual recognizes and acts according to his *own* interest and consequently according to that of *society* as a whole: "Why would these individual sages ruin themselves and bring about the ruin of others if for each capital there existed at all times a profitable use?" And yet Marx allowed that Say, whose "théorie des débouchés" asserted the impossibility of overproduction on the grounds that "when a good cannot find buyers, it is solely because not enough is produced (whether at home or abroad) to assure equivalent exchanges," "admits – followed by Mill and Ricardo – the possibility of overproduction in specific branches of production; and accordingly in all branches together since *in any specific country* it is always a matter of specific products" (40; emphasis added). This allowance is difficult to appreciate.

The source of the overproduction problem for Marx – and he seems now to be concerned with the *secular* dimension – was the *limited aggregate demand* characterizing a private-property system, which pertained even supposing conditions most favorable to Say's argument, namely an *open* economy each country producing to maximum capacity and thus assuring "the maximum possible number of equivalents to be exchanged against their respective productions." Essentially, "the problem goes back to the *heedlessness* [l'*inconscience*] of production: production is not *human*, since it operates under conditions of alienation, or private property," alluding it seems to the depressed incomes of the mass of the population under the private-property institution: "In other words, private property produces for private property. Accordingly, production can exceed demand, at the same time that there is on both sides an excess of reciprocal equivalents, given that demand for wine and cotton – all products – has *limits* and is, besides, governed by the number of people whose demand is *effective* [réelle], that is who are able to pay for their purchases."

<sup>24</sup> But see also Marx's reference to Boisguillebert as precursor, in Marx 1968: 39.

In fact, in the best case, “if producers wish to exchange the maximum possible, they are obliged to sell to a number of buyers who pay less than the production price [le prix de production], that is to give away their commodities, which is *not* selling” (41).<sup>25</sup>

A partial solution would be to assure that “the maximum number of people have products to exchange,” which would be the case where “wealth was general” alluding to an approximately equal income distribution. But even so, general overproduction remained a *possibility*; and as things were in actuality, a patent *certainty*: “Demand, in the economic sense, necessarily diminishes with industrialization. For the *mass* of products has to grow in proportion, and thus exceed demand to a greater and greater extent, in other words lose its value” (42). Marx adds parenthetically that the free-trade economists failed to perceive that the private-property institution, by constraining working-class consumption, created barriers to exchange similar to trade restrictions: “A productive system that itself creates general poverty loses an outlet [un débouché] with each impoverished individual. The liberal economists, who certainly see that monopolies surround individuals with customs barriers rendering exchange impossible, fail to see that private property does the same.”

What though of Malthus? Marx is miserly in his praise, charging him – on the basis of a crude interpretation of the population doctrine – with self-contradiction: “It is truly bizarre that Malthus, who unlike Say speaks of overproduction of populations or of men, also recognizes the possibility of overproduction in the case of products, considering it as a misfortune. . . . The same economist affirms that there is excess population relative to output, at the same time as excess output relative to sales, thus more than should be produced.”

## F. In Partial Defense of Proudhon

The next stage in our investigation of the early texts is *The Holy Family or Critique of Critical Criticism* written in Autumn 1844. Although this was formally a joint production, Engels himself was actually unaware of Marx's full contribution, which includes observations on Proudhon's criticism of political economy in *Qu'est-ce que la propriété?*<sup>26</sup> Here we find a warm tribute to the scientific advance achieved by Proudhon. Indeed, any future progress – Marx evidently has himself in mind here – was made possible only because of the breakthrough in question: “Proudhon's treatise will . . . be scientifically superseded by a criticism of *political economy*,

<sup>25</sup> Marx adds: “The extreme limit to sales in general is imposed by production costs, plus a margin to assure the producer a certain gain” (Marx 1968: 41) a proposition somewhat at odds with the mature doctrine of surplus value.

<sup>26</sup> *Ou recherches sur le principe du droit et du gouvernement* (Paris, 1st ed. 1840; 2nd ed. 1841). Marx's discussion of Proudhon is a response to Edgar Bauer's article “Proudhon” in the *Allgemeine Literatur Zeitung*, April 1844. The “Critics” referred to are the so-called Young Hegelians, preeminently Bruno Bauer and his brother Edgar. On this, see Rubel 1982: 419–26; and MECW 4: 683–5. Also Oakley 1983: 29 and Oakley 1984: 29, 67–72.

including Proudhon's conception of political economy. This work became possible only owing to the work of Proudhon himself, just as Proudhon's criticism has as its premise the criticism of the mercantile system by the physiocrats, Adam Smith's criticism of the physiocrats, Ricardo's criticism of Adam Smith, and the works of Fourier and Saint-Simon" (MECW 4: 31).

The "premise" in question is *private property*: "All treatises on political economy take *private property* for granted. This basic premise is for them an incontestable fact to which they devote no further investigation, indeed a fact which is spoken about only '*accidentellement*,' as Say [Say 1803, 2: 471] naively admits" (31–2).<sup>27</sup> It was Proudhon's great merit to have made "a critical investigation – the first resolute, ruthless, and at the same time scientific investigation – of the basis of political economy, *private property*. This is the great scientific advance he made, an advance which revolutionises political economy and for the first time makes a real science of political economy possible" (32).

The need for such a breakthrough reflected the circumstance that "[a]ccepting the relationships of private property as human and rational, political economy operates in permanent contradiction to its basic premise, private property." Marx illustrates the contradictions from value and distribution theory. For example, "in political economy wages appear at the beginning as the proportional share of the product due to labour. Wages and profit on capital stand in the most friendly, mutually stimulating, apparently most human relationship to each other. Afterwards it turns out that they stand in the most hostile relationship, in *inverse* proportion to each other." This illustration reveals that Marx misunderstood or mistated the Ricardian inverse wage-profit relation, which is consistent with contemporaneous *increase* or *decrease* in both wages and profits; and this despite the reference in the 1844 documents to Ricardo's "advance" over Smith for the fundamental theorem on distribution (above, p. 167). Secondly: "Value is determined at the beginning in an apparently rational way, by the cost of production of an object and by its social usefulness. Later it turns out that value is determined quite fortuitously and that it does not need to bear any relation to either the cost of production or social usefulness." This illustration focuses on the allegedly random character of "value" unrelated to either costs or "social utility," recalling the attribution to Say in the 1844 documents (above p. 169). Thirdly: "The size of wages is determined at the beginning by *free* agreement between the free worker and the free capitalist. Later it turns out that the worker is compelled to allow the capitalist to determine it, just as the capitalist is compelled to fix it as low as possible" (32–3). This assumes that

<sup>27</sup> Cf: "Propriété . . . une possession reconnue. L'économie politique en suppose l'existence comme une chose de fait, et n'en considère qu'accidentellement le fondement et les conséquences" (Say 1817, 2: 471). Marx insists, against Edgar Bauer's reading, that Say "far from inferring from the greater possibility of appropriating land [than air or water] a property *right* to it, says instead quite explicitly: 'Les *droits* des propriétaires de terres – remontent à une *spoliation*' [Say 1817, 1: 136]. That is why, in Say's opinion, there must be '*concours de la législation*' and '*droit positif*' to provide a basis of the right to landed property" (MECW 4: 43).

wages are determined monopsonistically, and imposed at the lowest possible rate, again a theme of the 1844 documents probably drawn from a reading of Smith (above, p. 172).<sup>28</sup>

Marx allowed that various economists had recognized some at least of these (and other) contradictions, leading them to criticize the private-property institution, though only in special or “local” situations, while insisting on the essential *rational* nature of capitalistic value, wages, and trade: “Adam Smith, for instance, occasionally polemises against the capitalists, Destutt de Tracy against the money-changers, Simonde de Sismondi against the factory system, Ricardo against landed property, and nearly all modern economists against the *non-industrial* capitalist . . .” (33). It is here precisely where Marx saw Proudhon’s contribution to lie – in its explicit generalization of the contradictions *inherent* in political economy and flowing from the private-property axiom; and in so doing “[h]e has done all that criticism of political economy from the standpoint of political economy can do.”

Despite his warm commendation, Marx still envisaged the need for further revisions, including correction of “Proudhon’s conception of political economy” (above, p. 185). For Proudhon had objected to political economy – essentially to private-property – but on the basis of the premises of political economy *including* private property. A word of explanation is required.

For Marx, labor time is the essential constraint under *all* social arrangements, and its allocation provides the key to production decisions: “As far as immediate material production is concerned, the decision whether an object is to be produced or not, i.e., the decision on the *value* of the object, will depend essentially on the labour time required for its production. For it depends on time whether society has time to develop in a human way” (49). And though Proudhon’s “criticism of political economy from the standpoint of political economy recognises all the essential determinants of human activity,” it did so “only in an estranged, alienated form . . . converting the importance of time for *human labour* into its importance for *wages*, for wage-labour” (50). The problem is thus that *Proudhon retained concepts such as “wages” that are only relevant assuming private property and the wage-labor institution*, and this notwithstanding his claim to have “excluded” private property in arriving at the significance of labor for “value.” Here lay the “contradiction” in question. For all that, Proudhon at least was *honest*, since unlike the followers of Fourier and Saint-Simon, he rejected the “exaggerated *fee claims*” of “talent.”<sup>29</sup>

<sup>28</sup> For the “contradictory” character of political economy in the 1844 documents, see above p. 177.

<sup>29</sup> See Rubel: “Proudhon défend la thèse de l’égalité de salaires contre les saint-simoniens et les fouriéristes . . . : *À chacun selon sa capacité, à chaque capacité selon ses oeuvres* (Saint-Simon). *A chacun selon son capital, son travail et son talent* (Fourier)” (Proudhon 1840: 97; cited Rubel 1982: 1602). In brief: “Dans le sillage de Saint-Simon, Marx ira plus loin que Fourier et Proudhon: seule la disparition du salariat et du commerce peut conduire à la conquête d’une liberté authentique.”

Proudhon, it is implied by Marx's temperate criticism, had failed to arrive at a positive economics under collectivist arrangement rid of all inappropriate categories. And Marx credits *Engels* for having set out in 1844 on the right path. For to the passage expounding on Proudhon's "great scientific advance" which "for the first time makes a real science of political economy possible" (above, p. 185), Marx adds a qualification that seems to refer precisely to Proudhon's retention of entities appropriate only assuming the private-property institution, and requiring transformation or abolition in its absence: "Proudhon does not consider the further creations of private property, e.g., wages, trade, value, price, money, etc., as forms of private property in themselves, as they are considered, for example, in the *Deutsch-Französische Jahrbücher* (see *Outlines of a Critique of Political Economy* by F. Engels), but uses these economic premises in arguing against the political economists . . ." (32).<sup>30</sup>

\* \* \*

There remains to consider the matter of *exploitation and the source of surplus-value in a private-property system* that was already touched upon in Marx's 1844 documents (see above, p. 168). I have in mind the contention, formally based on Proudhon, that though laborers are each paid a full (presumably a competitive) wage, there is a sense in which *aggregate* wages fall short: "Although you have paid for all the individual powers you have still not paid for the collective power." Proudhon was the *first* to draw attention to the fact that the sum of the wages of the individual workers, even if each individual labour be paid for completely, does not pay for the collective power objectified in its product, that therefore the worker is not paid as a part of the *collective labour power* [*gemeinschaftlichen Arbeitskraft*] (52). The extract should be read in the light of an objection by Edgar Bauer to Proudhon's position that the "impossibility" of private property – its inherent contradictoriness – was revealed by the fact that the worker could not buy back the [entire] product of his work out of his wage (see paraphrase of Bauer by Marx, 51). Marx protested that Bauer failed to explain "why the capitalist, who himself is . . . *paid* by profit and interest, can buy back not only the product of labour, but still more than this product. To explain this Herr Edgar would have to explain the relationship between labour and capital, that is, to expound the essence of capital." There is a hint here of the lines along which Marx was thinking for he points out that the source of the wage shortfall was, in principle, clear: "the worker can *not* buy back his product because in general he must *buy it back*" (52) – alluding to the circumstance of his product being an "estranged object" under capitalism. Still all

<sup>30</sup> Cf. Rubel: "En appelant Engels à la rescousse, Marx se reconnaît disciple de son ami dont il vantera, encore quinze ans plus tard, 'l'esquisse géniale' de 1844" (Rubel 1982: 1597). See also Stedman Jones 1987: 144.

Marx subsequently further diluted his qualified praise of Proudhon. See a letter to the editor of *Der Social-Demokrat* of January 24 1865: "In a strictly scientific history of political economy the book would hardly be worth mentioning" (MECW 20: 27).

this does not carry us far, and it is clear that Marx was, as in the 1844 documents, far from his final solution, despite his use (following Proudhon) of the term *labor power* in the extract cited above.

### G. Objections to Friedrich List

An incomplete draft of an article written by Marx in Brussels (1845) – discovered in 1971 – against the German protectionist economist Friedrich List (1841) carries us a step further in our quest to define Marx's starting point. As a preliminary, we note Marx's defense of Smith, Say, and Sismondi against List's aspersions. Thus he rejected the suggestion that Smith ordered his manuscripts burned in order to hide the insincerity of his free-trade teaching, fearing that it would become manifest that his object had been the *national* not the international interest (MECW 4: 268–9). The charge that Say supported free trade “because his factory was ruined by the Continental System” and “because Napoleon drove him out of the Tribunate,” was a falsification based on distorted readings of various authors designed “to discredit” Say (269–70). And List “reache[d] the height of infamy” by representing Sismondi as recommending that “the spirit of inventiveness . . . be curbed and bridled”; for Sismondi was arguing not against machinery but against the private-property system and competition, particularly the distorted distribution pattern inherent therein (Sismondi 1827 2: 433, cited 272).

In stating the case against List's protectionism Marx applies the standard argument that it entails a sacrifice of real income: “. . . protective tariffs demand a sacrifice of exchange values from the consumers (chiefly from the workers who are to be superseded by machines, from all those who draw a fixed income, such as officials, recipients of land rent, etc.)” (275). He adds that “the industrial bourgeois” – the beneficiary – “has therefore to prove that, far from hankering after material goods, he wants nothing else but the sacrifice of exchange values, material goods, for a spiritual essence.” (The “supercession” of labor by machines, presumably refers to the ultimate purpose of protection, which is domestic industrialization.) The last remark reflects Marx's disdain for the priority accorded “productive force” by List – its character of “inner essence” (284). Contemporary political economy, quite rightly for Marx, made no such distinction; whereas List's protectionist case to surrender exchange value for “productive force” was reinforced thereby: “the supernatural world of forces takes the place of the material world of exchange values;” and the protectionists could “very well demand of the German people that it should sacrifice the bad exchange values for phantoms!”<sup>31</sup>

<sup>31</sup> Marx does not object to the recognition and analysis of the processes entailing man's control “of his own forces and the forces of nature” – evidently referring to economic development – provided “one's standpoint is *not* from within the industrial epoch, but *above* it” (MECW 4: 281); for then the place of the contemporary mode of production in world historical development is properly recognized and so too is the inevitable conclusion “that the hour has come . . . for the abolition of the material and social conditions in which mankind has had to

The rejection of the notion of “inner essence” is of interest considering Marx’s later methodological position. And it is clear that in playing down the “mystical radiance” allegedly attached to productive force, Marx gives no hint of that special character of “*labor-power*” as source of surplus to emerge later: “In order to destroy the mystical radiance which transfigures ‘productive force,’ one has only to consult any book of statistics. There one reads about water-power, steam-power, manpower, horse-power. All these are ‘productive forces.’ Is it a high appreciation of man for him to figure as a ‘force’ alongside horses, steam and water? . . . It is a fine recognition of man that degrades him to a ‘force’ capable of creating wealth!” (285–6).<sup>32</sup>

We turn next to *rent*. Marx correctly represents the Ricardian theory as reflecting growing land scarcity under conditions of expanding population and demand for food, with allowance for an *intensive* as well as extensive margin. The account posits Ricardo’s position that “[*l*]and rent adds nothing to the productivity of land. On the contrary, rising land rent is proof that the productive force of land is falling” (290). Specifically: “The price of grain is determined by the cost of production on the least fertile land that has to be cultivated because of the needs of the population. If land of a poorer quality has to be resorted to, or if amounts of capital have to be applied with a lesser yield to the same piece of land, then the owner of the most fertile land sells his product as dearly as the peasant who has the worst. He pockets the difference between the cost of production on the best land and that on the most infertile.” But Marx goes further when, in an overview of early nineteenth-century industrial development, he emphasizes *as his own position* its impact on population growth independently of domestic land resources: “It is in the nature of modern factory industry, firstly, to estrange industry from the native soil since it processes mainly raw materials from abroad and bases itself on foreign trade. It is in the nature of this industry [secondly] to cause the population to grow in a ratio which, under the system of private property, does not correspond to the exploitation of the soil” (289).

We also find a statement of the Ricardian growth model, superior to those of the previous year (above, p. 185), *involving rising money wages, though falling real wages, and accordingly a falling general profit rate*: “These higher grain prices – since the worker always consumes a certain amount of grain, however dear it may be, and therefore his nominal wage increases even when in reality it decreases – must be deducted from the profits of Messrs. the industrialists” (286).<sup>33</sup> Thus, even where there is scope for a real-wage decline the profit rate falls nonetheless. But there is a

develop its abilities as a slave.” But List “remains within the present system, who desires only to raise it to a level which it has not yet reached in his own country, and who looks with greedy envy on another nation that has reached this level . . .” (282).

<sup>32</sup> Marx’s point is that labor is classified as a “productive force” even if physically and mentally deformed.

<sup>33</sup> The decrease in the real wage with a constant corn wage implies a mixed wage basket. Marx emphasizes the drastic fall in farm wages since 1815, despite which (and despite the protective Corn Laws) agriculture remained depressed (MECW 4: 288–9).

limit to the decline – beyond which point the inverse relation still applies should the corn price increase: “Ricardo is wise enough to assume that wages cannot be depressed further. Hence, when there is a rise in the price of grain, there follows a reduction in profits and an increase in wages, without the latter increasing in reality” (286–7).<sup>34</sup> The transfer to landowners and the policy implications are then elaborated thus, all in opposition to List: “However, the increase in the price of grain raises the production costs of the industrialists, thereby making accumulation and competition more difficult for them. . . . Therefore the bad ‘exchange value,’ which falls in the form of land rent into the pockets of the landowners . . . must in one way or another be *sacrificed* to the general good – by free trade in grain, by shifting all taxes on to land rent, or by outright appropriation of land rent, i.e., of landed property, by the state,” as proposed by James Mill, Hilditch, and Cherbuliez (287).

Marx goes on to complain that List falsified Ricardo by attributing to him “the opposite view, that of the *Physiocrats*, according to which land rent is nothing but a proof of the natural productive force of land”; and that he did so in order to hide from German landed interests the clash at play between them and the industrialists (see also 271). He goes on with his charge to say: “Hence, in relation to the higher nobility, Herr List does not dare to keep up his shadow play with ‘productive force.’ He wants to lure this nobility with ‘exchange values’ and therefore slanders the School of Ricardo, who neither judges land rent from the standpoint of productive force, nor judges the latter from the standpoint of the modern large-scale factory system” (288). Now List had been cited earlier as understanding Ricardo *to exclude the theory of exchange value* by his formulation of the economic problem: “At the present time the theory of exchange value has fallen into such impotence . . . that Ricardo . . . could say: ‘to determine the laws by which the yield from land is distributed between landowners, tenant-farmers and workers is the chief task of political economy’” (272). What we now see is Marx’s wholly justified insistence that the Ricardian exposition in fact turns intimately on exchange value.<sup>35</sup>

## H. Summary and Conclusion

There is considerably more theoretical economics in the 1844 documents than seems generally to be appreciated. We are able to define with some accuracy Marx’s

<sup>34</sup> Marx does not touch on the question whether, after the wage has fallen to subsistence, there can be any further expansion of population. Logically, there cannot be; and the corn-price increase supposed would have to be due to some extraneous disturbance (e.g., a tax) rather than to diminishing returns.

<sup>35</sup> At one stage, Marx states the law of demand – the fall of “exchange value” with quantity increase; but perceiving “human needs” as a sort of qualitative usefulness, he has no way of relating exchange value to utility: “But exchange value is entirely independent of the specific nature of the ‘material goods’. . . . Exchange value falls when the quantity of material goods rises, although both before and afterwards these bear the same relation to human needs. Exchange value is not connected with quality. The most useful things, such as knowledge, have no exchange value” (MECW 4: 278).



starting line, notwithstanding the tensions between the Smithian and Ricardian elements characterizing the account.

Regarding price theory, we have encountered Marx's initial adherence in the *Manuscripts* to Smithian cost pricing including the natural-market price relation and the "adding-up" concept whereby increases in wages or profits are passed on to consumers, though coupled with versions of two Ricardian features: (1) the inverse wage-profit relation and (2) differential rent (above, p. 167). As for the first, it is possible that there occurred a "progressive" development from the First to the Second manuscript involving the actual abandonment of the adding-up concept, though we cannot be sure; it is, however, apparent that at this time Marx neglected the significance for the inverse relation of *labor embodied in the wage* or of *proportional* wages. As for the second, despite praise for Ricardo's achievement as an "advance" over Smith and the Physiocrats, Marx – like Say – quite correctly also finds rent-free land in the *Wealth of Nations* itself, thereby complicating the story (p. 168); conceivably, the "advance" relates to the abandonment of the notion of a superior productivity attached to agriculture such that it "always" yields rent.

Marx elaborated the secular tendencies playing on both wage and profit rates (Section C). With regard to wages, the general point of departure in the *Manuscripts* is the *Wealth of Nations*. Marx recognized Smith's upward wage pressure due to capital accumulation but emphasized counteracting pressures – endogenous to an expanding capitalist system – depressing the wage towards "subsistence." These forces – which include the effects on labor supply of increasing "concentration," the adoption of machinery, and "overproduction" – supplement Smith's *own* notion of a subsistence wage in the ultimate stationary state (pp. 172–3). As for the profit-rate trend, there is reliance on Smithian "competition of capitals," despite various counteracting pressures at play (pp. 174–5). Here too we find important allusions to increasing "concentration" and related technical advantages of size supplementing, but also drawing on, Smith's account.

*Per contra*, in the *Notebooks* the declining wage-rate and profit-rate trends are represented as a *Ricardian* contribution directed against Smith's upward wage pressure due to capital accumulation, though the central characteristic of the Ricardian model – scarce land subject to population pressure – is not elaborated (p. 176); on the other hand, there are allusions here to a pool of unemployed – an actual phenomenon in all industrial economies – as one source of labor supply. Unfortunately, the consistency between the falling trend paths of the wage and profit rates and the inverse wage-profit relation is not touched on; nor is it clarified who are the beneficiaries of a growth process in the absence of a land-scarcity axiom (p. 176). The problem, of course, is compounded once ongoing technical progress is introduced into the picture. This complexity was to remain unresolved even in the "mature" doctrine.

Two particular theoretical propositions relating to the nature of profits also emerge. One is the identification in the *Notebooks* of surplus value with the excess of *cost price* over *labor value*, a concept that Marx attributes to Proudhon with a

bow to Say (pp. 168).<sup>36</sup> With the benefit of Marxian hindsight, this approach may be described as “naïve” by its suggestion that prices are, so to speak, jacked up to assure a positive return to capital. On the other hand, Marx did insist – as in the mature doctrine – that the factor returns do not reflect their contributions to production (p. 169). Secondly, we find it asserted that the return on capital rises with *labor-intensity* since profit is generated by human labor (p. 175), an assertion with potent implications – though again only in hindsight.

We have cited Dobb's position that Marx in 1844 was satisfied with the surface manifestations of market process and competition (pp. 166). But Dobb makes the point rather too weakly. For Marx denounces the “infamy” of Ricardo and the Ricardians for losing sight of the real world of markets, and for engaging in “abstraction” (pp. 170–1, 181). In some cases this attitude is carried so far as to suggest a weakening of Marx's adherence to the very meaningfulness of the notion of cost price, *following in this regard J.B. Say*: “natural price . . . appears to be chimerical. There are only current prices in political economy” (cited p. 169). Against his methodologically-based insistence on attention to the world of markets there must, however, be placed Marx's own adherence to the Proudhon quest for the source of surplus value (p. 187).

We do encounter praise for Ricardo in the context of differential rent and subsistence-wage reasoning (pp. 167, 175–6). But Marx is not to be taken literally where he expresses his “admiration” for the “cynical” Ricardo (p. 179), since hostility towards Ricardo and the Ricardo school – Say and Sismondi are not guilty parties – is one of the outstanding characteristics of the 1844 documents.<sup>37</sup> As mentioned, Marx's hostility emerges in the methodological context where he attributes the alleged excessive abstraction to class apologetics (pp. 179, 181). It is conspicuous in the course of his baseless condemnation of Ricardo on Gross and Net revenue – involving a common enough misreading, again along Sayian lines (pp. 177–80). And, of course, it is to be found in Marx's rejection of Malthusianism (p. 178) and his insistence on the inevitability in a private-property system of “overproduction” (p. 184), though in this latter regard he finds Say equally at fault.

Marx's commendation – albeit qualified – of Proudhon in *The Holy Family* of late 1844 for having accomplished a “great scientific” advance is a remarkable tribute considering the major reversal of attitude that was to occur shortly afterwards. As for technical matters, this document confirms a failure at this time to appreciate properly Ricardo's inverse wage-profit relation (p. 185). It also emerges that Marx was still far from the “mature” position on the source of surplus value (p. 187).

<sup>36</sup> There is much in common between Proudhon's position and that of Thomas Hodgskin, raising the question of Proudhon's own originality.

<sup>37</sup> Mandel, however, does take Marx literally: “Marx is here [in the *Notebooks*] beginning to *defend* Ricardo against his critics, to grasp that what seems cynicism is really a frank recognition of the realities of the capitalist mode of production, which other writers seek to conceal” (Mandel 1971: 43).

The 1845 document on Friedrich List is historiographically important for its defense of Say and Sismondi (p. 188). Its theoretical importance lies in recognition of the role of the endogenous margin in Ricardian rent theory (p. 189); and also in its accurate statement of the inverse wage-profit relation in the canonical growth context involving a falling commodity wage but a rising money wage due to rising corn prices, and accordingly a falling profit rate (pp. 189–90) – a major advance over the previous year. Here too Marx emphasizes population growth relative to scarce land as a central feature of early nineteenth-century economic growth. On methodological grounds the significance of the paper lies in its denial of List’s notion of an “inner essence” attributed to “productive forces” (p. 188). There is as yet no hint of the source of surplus value in “*labor power*.”

## SEVEN

### A “First Draft” of *Capital* 1847–1849

#### A. Introduction

This chapter explores the status of Marx’s economics in the late 1840s, having in mind two later affirmations. First, there is Marx’s claim in 1880 that his *Poverty of Philosophy* (1847) – the answer to Proudhon’s *Philosophie de la misère* (1846) – “contains in embryo what after a labour of twenty years became the theory that was developed in *Capital*” (MECW 6: xviii).<sup>1</sup> Second, in *Capital* itself Marx cites *Wage Labour and Capital*, a series of lectures delivered in Brussels late in 1847 and published in April 1849 – referred to by Rubel as Marx’s “premier texte proprement théorique” (Rubel 1963: 1595) – as already containing the essentials of the mature surplus-value doctrine (MECW 35: 577). Particular attention will also be given a document entitled “Wages” composed in December 1847.<sup>2</sup>

We have too Engels’s assertion in his Preface of 1885 to *Capital 2*, in answer to charges made against Marx of plagiarism by Rodbertus in 1875, that by the late 1840s Marx had discovered the source of surplus value: “That . . . Marx knew very well . . . not only whence but also *how* ‘the surplus value of the capitalist’ originated is proved by his *Poverty of Philosophy*, 1847, and by his lectures on wage labour and capital, delivered in Brussels the same year and published . . . in 1849” (MECW 36: 11). Even so, Engels is difficult to pin down, for in a retrospect of 1891 on the significance of *labor power* for a proper appreciation of surplus value, Engels observed that the terms “value of labour,” “price of labour,” “sale of labour” used in the 1840s and 1850s “from the point of view of the later works, appear unfortunate and even incorrect” (MECW 27: 194). Now more than terminology is apparently intended, since he explained that “[i]n the forties, Marx had not yet finished his critique of political economy. This took place towards the end of the fifties” – with

<sup>1</sup> Engels called the reply to Proudhon “our programme” (letter to Marx, October 25–26, 1847; MECW 38: 134). Marx attempted to republish the entire work in 1880.

<sup>2</sup> “Wages” is the name later given a draft outline of the concluding lectures Marx delivered in Brussels but had no time to prepare for the press (see MECW 6: 692–3). This document remained unpublished until 1924.

the appearance of *A Contribution to the Critique of Political Economy* in 1859.” The key transitional date on this account is 1859 rather than 1849, an evaluation maintained in the modern literature by Dobb 1982.

This chapter will seek to justify the designation of Marx’s economics 1847–49 as a “First Draft” of *Capital*. We focus on the features which were to figure large in the later doctrine though enmeshed still with non-“Marxian” features, including Smithian “competition of capitals.” A sharp reversal in attitude towards Ricardo and Proudhon compared with 1843–45 – much in Ricardo’s favor – will be documented.

### B. Allocation, Cost Price, and the Labor Theory

We take as starting point Proudhon’s objection in *Philosophie de la Misère* that contemporary economists failed to appreciate the “contradictory nature” characterizing “exchange value” and “use value” – the “profound mystery” that “use value and exchange value stand in inverse ratio to each other” (Proudhon 1846 *I*: 36, 38; cited MECW 6: 114), in effect the so-called Paradox of Value. This relation, Marx responded, was not at all mysterious, as Ricardo had made clear (Ricardo 1951–73, *I*: 276). Ricardo had based himself on the principle of *scarcity*, and in dealing with Proudhon Marx does the same, rehearsing certain “truisms” – in the original French version, certain “vérités, nous dirons presque banales” (Rubel 1963: 14) – relating precisely to the property of scarcity value: “The exchange value of a product falls as the supply increases, the demand remaining the same; in other words, the more abundant a product is *relatively to the demand*, the lower is its exchange value, or price. *Vice versa* . . . the greater the scarcity in the products supplied, relatively to the demand, the higher the prices. The exchange value of a product depends upon its abundance or its scarcity, but always in relation to the demand” (MECW 6: 115). This principle provided the solution to Proudhon’s alleged “mystery.” Similarly: “M. Proudhon’s abundance seems to be something spontaneous. *He completely forgets that there are people who produce it, and that it is to their interest never to lose sight of demand.* Otherwise, how could M. Proudhon have said that things which are very useful must have a very low price, or even cost nothing?” (116; emphasis added).<sup>3</sup>

More serious was Proudhon’s neglect of the *reciprocal*-demand property – that “[d]emand is at the same time a supply, supply is at the same time a demand” – a deficiency reflecting “futile abstraction.” The point for us now is Marx’s position that the final outcome in the market involves balancing the differing perspectives regarding “marketable value” (“la valeur vénale” in the original), on the part of individuals engaged in *production* and *consumption* decision-making: “The conflict . . . takes place between the marketable value demanded by the supplier and the marketable

<sup>3</sup> According to Rubel, Proudhon (1846) *did* in fact recognize the scarcity principle (Rubel 1963: 1544).

value supplied by the demander. The exchange value of the product is each time the resultant of these contradictory appreciations. In the final analysis, supply and demand bring together production and consumption, but production and consumption based on individual exchanges" (118). And here the character of interdependence reflecting the reciprocal-demand perspective emerges very strongly.

Supply — which must satisfy consumers' subjective perceptions of "utility" — itself reflects a sum of exchange values, namely those of the various inputs incorporated: "The product supplied is not useful in itself. It is the consumer who determines its utility. And even when its quality of being useful is admitted, it does not exclusively represent utility. In the course of production, it has been exchanged for all the costs of production, such as raw materials, wages of workers, etc., all of which are marketable values. The product, therefore, represents, in the eyes of the producer, a sum total of marketable values. What he supplies is not only a useful object, but also and above all a marketable value." On the demand side too, demand only becomes "effective" when backed by purchasing power, and thus ultimately by outputs and their exchange values: "As to demand, it will only be effective on condition that it has means of exchange at its disposal. These means are themselves products, marketable values." In summary: "In supply and demand, then, we find, on the one hand, a product which has cost marketable values, and the need to sell; on the other, means which have cost marketable values, and the desire to buy."

We have then not only insistence on price determination in terms of the demand-supply mechanism, but a thoroughgoing "general equilibrium" perspective — consistent with Say's (and in my opinion also Ricardo's) — involving a network of interdependent markets for products and factors. There was, however, a constraint — that decisions relating to both production and consumption, indeed the entire system of "needs," turned on the state of "social organization" (118–19). Needless to say, there is nothing in a "Sayian" — or even "Walrasian" — perception of things that necessarily excludes a role for the social constraints here insisted on by Marx, and that henceforth was to characterize Marxist economics.<sup>4</sup>

There remains to note an objection to Proudhon of a methodological order.<sup>5</sup> Marx alludes to the extreme "abstraction" entailed by Proudhon's reduction of producers and consumers to *trading bodies* — I use Jevons's term — which excluded the role played "in the real world" by competition *among* buyers and *among* sellers: "He carries abstraction to the extreme limits when he fuses all producers into *one single* producer, all consumers into *one single* consumer, and sets up a struggle between these two chimerical personages. But in the real world, things happen otherwise. The competition among the suppliers and the competition among the demanders form a necessary part of the struggle between buyers and sellers, of which marketable value is the result" (119). All this is consistent with the Smithian

<sup>4</sup> On this matter, see Schumpeter on "Methodological Individualism" (1954: 888–9).

<sup>5</sup> It resembles a complaint addressed in 1844 at Ricardo and the Ricardians (Chapter 6, pp. 170–1).

notion of “competition” as involving a race to acquire goods in excess demand or to get rid of goods in excess supply (Smith 1937 [1776]: 55–7). And this approach is confirmed by the analysis of commodity pricing provided in “Wage Labour and Capital” of 1849 (MECW 9: 205). First, there is competition amongst buyers in the case of excess demand such that “one buyer will seek to drive the other from the field by offering a relatively higher price per bale of cotton. . . . The result is a more or less considerable rise in commodity prices” (206). Marx — unlike Smith (see Hollander 1992: 64–9) — says little regarding the extent of the price rise except that “even the most persistent and eager buyers have very definite limits,” presumably alluding to the effect of price on quantity demanded. Even less is said of the reverse case of excess supply, when “*competition takes place among the sellers, which depresses the price of the commodities offered by them*” (205).<sup>6</sup>

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We return to the *Poverty of Philosophy* where Marx refers to Ricardo’s objection to the Smithian limitation of the labor theory to the “primitive state” (MECW 6: 122). He goes on to represent the labor theory as “the scientific interpretation of actual economic life,” the truth of which Ricardo had established “by deriving it from all economic relations, and by explaining in this way all phenomena, even those like rent, accumulation of capital and the relation of wages to profits which at first sight seem to contradict it; it is precisely that which makes his doctrine a scientific system” (124). Marx appreciated that Ricardo’s cost price — *including within cost the profit rate* — implies exchange according to labor ratios: “. . . according to the Ricardian doctrine [1951–73 I: 46–7], the price of all objects is determined ultimately by the cost of production, including the industrial profit; in other words, by the labour time employed” (199).

As for Proudhon, Marx focused on his so-called “synthetic” or “constituted value” — or labor time — as determinant of relative values (given utility): “Once utility is admitted, labour is the source of value. The measure of labour is time. The relative value of products is determined by the labour time required for their production. Price is the monetary expression of the relative value of a product. Finally, the *constituted* value of a product is purely and simply the value which is constituted by the labour time incorporated in it” (MECW 6: 120).<sup>7</sup> But Proudhon

<sup>6</sup> Cases of excess supply are said in practice to occur “more frequently. Considerable surplus of supply over demand; desperate competition among the sellers; lack of buyers; disposal of goods at ridiculously low prices” (MECW 9: 206). A third category of competition is that “between buyers and sellers,” where “the former desire to buy as cheaply as possible, the latter to sell as dearly as possible,” the outcome depending upon “whether the competition is stronger in the army of buyers or in the army of sellers” (205). It is not clear how Marx intended to be understood since the cases of excess demand and excess supply had been covered, and these seem to be inclusive of all situations, apart of course from that where markets clear.

<sup>7</sup> The Hegelian term “antimonie” was used by Proudhon to refer to a sort of dialectical conflict between use value or utility and exchange value. The “synthesis” resolved the conflict by proposing that relative labor time expresses the relative degrees of utility by bringing demand and supply into line.

had not been generous in his attributions; he certainly referred to Ricardo, but as "trash" ("du fratas"), though he had in fact plagiarized Ricardian labor doctrine: "posterity . . . will say perhaps that M. Proudhon, afraid of offending his readers' Anglophobia, preferred to make himself the responsible editor of Ricardo's ideas" (121).

In order to "confront M. Proudhon with his predecessor Ricardo," Marx quotes Ricardo to the effect that labor-input conditions alone determine relative prices independently of demand – though utility is a necessary condition – in the constant-cost case: "By far the greatest part of those goods which are the objects of desire, are procured by labour; and they may be multiplied . . . almost without any assignable limit, if we are disposed to bestow the labour necessary to obtain them" (Ricardo 1951–73, 1: 12). Lauderdale's position was correct only in the case of "monopoly" – commodities in limited supply: "their price has no necessary connexion with their natural value: but the prices of commodities, which are subject to competition, and whose quantity may be increased in any moderate degree, will ultimately depend, not on the state of demand and supply, but on the increased or diminished cost of their production" (385).

Marx left it to his readers to compare the "simple, clear, precise language of Ricardo's and M. Proudhon's rhetorical attempts to arrive at the determination of relative value by labour time" (MECW 6: 123). But he goes on to do the exercise for them, emphasizing two specific differences. Firstly, Proudhon's so-called "revolutionary theory of the future," was in fact "what Ricardo expounded scientifically as the theory of present-day . . . bourgeois society"; and secondly, Proudhon took "for the solution of the antinomy between utility and exchange value what Ricardo and his school presented long before him as the scientific formula of one single side of this antimony, that of *exchange value*" (121). This latter formulation – and the direct citations from the *Principles* – might suggest that Marx read Ricardo as expounding a cost theory that allowed no place for demand. But this is not the case. The labor theory turns, Marx explained, on factor *mobility*, and "it is the *variations in demand and supply* that show the producer what amount of a given commodity he must produce in order to receive at least the cost of production in exchange. And as these variations are continually occurring, there is also a continual movement of withdrawal and application of capital in the different branches of industry" (134). *And Ricardo is cited for this very principle*: "It is only in consequence of such variations, that capital is *apportioned* precisely, in the requisite abundance and no more, to the production of the different commodities which happen to be in demand. With the rise or fall of price, profits are elevated above, or depressed below their general level, and capital is either encouraged to enter into, or is warned to depart from the particular employment in which the variation has taken place" (Ricardo 1951–73, 1: 88; Marx's italics). Again: "the principle which apports capital to each trade *in the precise amount that is required*, is more active than is generally supposed" (Ricardo: 89–90; Marx's italics).



In what then consists Marx's rejection of Proudhon in favor of Ricardo? I suggest that it reflects a distinction between the labor theory of value attributed to Proudhon as a *static* theory of general equilibrium and that version attributed to Ricardo which emphasizes the *process of adjustment* to equilibrium: "If M. Proudhon admits that the value of products is determined by labor time, he should equally admit that it is the fluctuating movement alone that makes labor time the measure of value. *There is no ready constituted 'proportional relation,' but only a constituting movement*" (MECW 6: 135; emphasis added). But after all is said and done, the perceived difference between Proudhon and Ricardo is rather less than Marx sometimes makes it appear; thus elsewhere Marx complains only that the sequential *order* relating demand-supply and costs was inverted by Proudhon: "Everyone knows that when supply and demand are evenly balanced, the relative value of any product is accurately determined by the quantity of labour embodied in it. . . . M. Proudhon inverts the order of things. Begin, he says, by measuring the relative value of a product by the quantity of labour embodied in it, and supply and demand will infallibly balance one another. Production will correspond to consumption, the product will always be exchangeable. Its current price will express exactly its true value" (131). One has the impression that Marx had been deliberately overdoing the difference, possibly in order to undermine Proudhon's reputation and divorce his stance from that of Ricardo.

There is, however, another matter – to be explored further in Chapter 13 – relating to "the 'equalitarian' consequences which M. Proudhon deduces from Ricardo's doctrine . . . based," Marx complained, "on a fundamental error. He confounds the value of commodities measured by the quantity of labour embodied in them with the value of commodities measured by '*the value of labour*,'" whereas "[t]he value of labour can no more serve as a measure of value than the value of any other commodity" (127–8). Proudhon had erred despite Ricardo's correction of Smith in this regard (128). Moreover, "[i]t is in order to find the proper proportion in which workers should share in the products, or, in other words, to determine the relative value of labour, that M. Proudhon seeks a measure for the relative values of commodities. To find out the measure for the relative value of commodities he can think of nothing better than to give as the equivalent of a certain quantity of labour the sum total of the products it has created, which is as good as supposing that the whole of society consists merely of immediate workers who receive their own produce as wages" (128–9).

We return to the proposition that the labor theory presupposes the free operation of "competition." It emerges conspicuously in a discussion of cost-cutting technology: "Competition forces the producer to sell the product of two hours as cheaply as the product of one hour. Competition implements the law according to which the relative value of a product is determined by the labour time needed to produce it" (135). Ricardo is cited to the effect that "[b]y constantly increasing the facility of production, we constantly diminish the value of some of the commodities

before produced" (Ricardo 1951–73, 1: 274).<sup>8</sup> Marx asserts that Proudhon was unaware of the *least-cost* principle (or the "socially necessary" labor of *Capital*): "It is important to emphasise the point that what determines value is not the time taken to produce a thing, but the *minimum* time it could possibly be produced in, and this minimum is ascertained by competition. . . . It will suffice to spend six hours' work on the production of an object, in order to have the right, according to M. Proudhon, to demand in exchange six times as much as he who has taken only one hour to produce the same object" (MECW 6: 136).

Comments on *the value of money* are relevant to the relation Marx himself envisaged between production costs and demand-supply. Marx points out that Ricardo "after basing his whole system on value determined by labour time, and after saying: 'Gold and silver, like all other commodities, are valuable only in proportion to the quantity of labour necessary to produce them, and bring them to market,' . . . adds, nevertheless, that the value of *money* is not determined by the labour time its substance embodies, but by the law of supply and demand only" (150; citing Ricardo 1951–73, 1: 353). This case had led Say to suggest that Ricardo should have drawn a general lesson: "This *example* should suffice, I think, to convince the author that the basis of all value is not the amount of labor needed to make a commodity, but the need felt for that commodity, balanced by its scarcity" (Say 1819, 2: 234). Marx's *own* position is that the value of money specifically is to be accounted for – as Ricardo insisted – in terms of demand-supply *not* cost analysis; it was the exception that proved the rule. All the more important is it to reiterate that for Marx, as for Ricardo, the demand-supply mechanism is essential for the achievement of cost pricing in the standard case.

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We turn now to the complexity that Marx himself designated the "least cost" principle as a "disproportional relation" – a play on Proudhon's terminology, intending prices diverging from labor ratios – having in mind the tendency to "*monopoly*" engendered by rapid technical progress, a tendency undermining the entire concept of proportionately *between* products, or Proudhon's "proportional relation": "It is only in a few branches of industry, like the cotton industry, that very rapid progress can be made. The natural consequence of this progress is that the products of cotton manufacture, for instance, fall rapidly in price: but as the price of cotton goes down, the price of flax must go up in comparison. What will be the outcome? Flax will be replaced by cotton. In this way, flax has been driven out of almost the whole of North America. And we have obtained, instead of the proportional variety of products, the dominance of cotton" (MECW 6: 136). Nothing remained of the "proportional relation" than "the pious wish of an honest man who would

<sup>8</sup> Sismondi was yet more sophisticated by his focus on *expected* costs. "‘Mercantile value,’ he says, ‘is always determined in the long run by the quantity of labour needed to obtain the thing evaluated: it is not what it has actually cost, but what it would cost in future with, perhaps, perfected means; and this quantity, although difficult to evaluate, is always faithfully established by competition’" (Sismondi 1837–38, 2: 267; cited MECW 6: 135).

like commodities to be produced in proportions which would permit of their being sold at an honest price” — the long-standing desire of good-hearted bourgeois and philanthropic economists.

The problem is that by going so far Marx seems to turn away entirely from the Ricardo vision of cost pricing — with its demand-supply based allocative underpinning — which he had apparently favored so wholeheartedly. He is explicit enough. That vision was irrelevant in the real world of “large-scale industry” characterized by cyclical instability: “This correct proportion between supply and demand . . . ceased long ago to exist. It has passed into the stage of senility. . . . With the birth of large-scale industry this correct proportion had to come to an end, and production is inevitably compelled to pass in continuous succession through vicissitudes of prosperity, depression, crisis, stagnation, renewed prosperity, and so on” (137). He adds that Sismondi and others who wished to reestablish the “correct proportion of production, while preserving the present basis of society,” were reactionaries, since to do so entails reestablishing out-dated industrial conditions. Interestingly, Marx does not bring himself to mention Ricardo!

In a further exploration of the theme, Marx pointed to the implicit assumption behind the principle of “correct proportion,” that the pattern of final demand governed allocation — demand “preceding” supply — as in the almost defunct exchange system entailing *small-scale* activity: “What kept production in correct, or more or less correct, proportions? It was demand that dominated supply, that preceded it. Production followed close on the heels of consumption. Large-scale industry, forced by the very instruments at its disposal to produce on an ever-increasing scale, can no longer wait for demand. Production precedes consumption, supply compels demand.” In large-scale industry based on individual exchange, “anarchy of production” was the rule, which though “the source of so much misery, is at the same time the source of all progress.” There follows a statement with profound implication for social arrangement: “Either you want the correct proportions of past centuries with present-day means of production, in which case you are both reactionary and utopian. Or you want progress without anarchy: in which case, in order to preserve the productive forces, you must abandon individual exchange” (138). At this point Marx repeats his charge (above, p. 198) that Proudhon’s “determination of value by labour time — the formula M. Proudhon gives us as the regenerating formula of the future” — is “the scientific expression of the economic relations of *present-day society*, as was clearly and precisely demonstrated by Ricardo long before M. Proudhon” (138; emphasis added). But this contrast is very difficult to appreciate so far as it relates to Ricardo, since Marx had just ascribed to “present-day society” those features of large-scale industry that rendered *irrelevant* the entire allocative base implicit in the labor theory. Conceivably the solution lies in a vision of the present as one in which small-scale activity still existed though on the path to extinction.

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“Wage Labour and Capital” (1849) is silent on the complexities created by monopoly and large scale; *cost-price analysis* seems more clear cut: “What . . . serves the

bourgeois as his measure of profit? The *cost of production* of his commodity. . . . And he calculates the fall or rise of the profit according to the degree in which the exchange value of his commodity stands below or above zero — the *cost of production*" (MECW 9: 206–7). Marx notes that "[i]f the price of a commodity rises considerably [above costs] because of inadequate supply or disproportionate increase of the demand, the price of some other commodity must necessarily have fallen proportionately . . ." (207). And the actual adjustment of market to cost price follows orthodox lines involving output flows between industries to eliminate excess demands and supplies and establish uniformity of return on capital, though with one important difference — that for Marx *over-reaction* precludes smooth adjustment: "What will be the consequence of the rising price of a commodity? A mass of capital will be thrown into that flourishing branch of industry and this influx of capital into the domain of the favoured industry will continue until it yields the ordinary profits or, rather, until the price of its products, through over-production, sinks below the cost of production. . . . [C]apital continually migrates in and out, out of the domain of one industry into that of another. High prices bring too great an immigration and low prices too great an emigration."<sup>9</sup> Nonetheless, taking an appropriate time interval, deviations between market and cost prices cancel out: "We have just seen how the fluctuations of supply and demand continually bring the price of a commodity back to the cost of production. *The real price of a commodity, it is true, is always above or below its cost of production; but rise and fall reciprocally balance each other*, so that within a certain period of time, taking the ebb and flow of the industry together, commodities are exchanged for one another in accordance with their cost of production . . ." (208). In brief, "the periods in which the price of [a] commodity rises above its cost of production are compensated by the periods in which it sinks below the cost of production, and vice versa."<sup>10</sup>

This conclusion does not appear to justify a contrast perceived by Marx between his own and the orthodox "average": "The economists say that the *average price* of commodities is equal to the cost of production; that this is a *law*. The anarchical movement, in which rise is compensated by fall and fall by rise, is regarded by them as chance. With just as much right one could regard the fluctuations as the law and the determination by the cost of production as chance, as has actually been done by other economists." In fact, he insists, "these fluctuations . . . bring with them the

<sup>9</sup> Marx adds the mouth-watering assertion: "We could show from another point of view how not only supply but also demand is determined by the cost of production. But this would take us too far away from our subject" (MECW 9: 207). Marx *may* have intended the notion that depending on the pattern of income distribution implied by "cost" so the pattern of demand will vary.

<sup>10</sup> Marx proceeds to qualify his analysis. Such adjustment he affirmed "does not hold good, of course, for separate, particular industrial products but only for the whole branch of industry. Consequently, it also does not hold good for the individual industrialist but only for the whole class of industrialists" (MECW 9: 208).

most fearful devastations and, like earthquakes, cause bourgeois society to tremble to its foundations — it is solely in the course of these fluctuations that prices are determined by the cost of production.” For all that, the so-called “anarchy” characterizing markets is under strict constraint: “The total movement of this disorder is its order. In the course of this industrial anarchy, in this movement in a circle, competition compensates, so to speak, for one excess by means of another.” Indeed, “in spite of the fluctuations in prices of commodities, the average price of every commodity, the ratio in which it is exchanged for other commodities, is determined by its *cost of production*” (219). Marx reverts to orthodoxy after all.

What though of the relation between cost-price and the labor theory? Marx throughout takes for granted a 1:1 relation: “The determination of price by the cost of production is equivalent to the determination of price by the labour time necessary for the manufacture of a commodity, for the cost of production consists of 1) raw materials and instruments of labour [1891: depreciation of instruments], that is, of industrial products the production of which has cost a certain amount of labour days and which, therefore, represent a certain amount of labour time, and 2) of direct labour, the measure of which is, precisely, time” (208).

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We return to the *Poverty of Philosophy* and a discussion of various derivations by Proudhon from his version of the labor theory, including the dismissal of qualitative distinctions between types of labor (MECW 6: 124). Proudhon was unjustified in supposing that the labor theory *demonstrated* the qualitative identity of all types of work: “Does labour time, as the measure of value, suppose at least that the days are *equivalent*, and that one man’s day is worth as much as another’s? No” (126). In another version of the complaint: “. . . he takes for granted the equivalence of the working days of different workers. In short, he seeks the measure of the relative value of commodities in order to arrive at equal payment for the workers, and he takes the equality of wages as an already established fact, in order to go off on the search for the relative value of commodities. What admirable dialectic!” (129).

It was, Marx maintained, perfectly reasonable to apply the labor theory taking account of differentials reflecting quality, by use of the scale provided by *competition*: “values can be measured by labour time, in spite of the inequality of value of different working days; but to apply such a measure we must have a comparative scale of the different working days: it is competition that sets up this scale. . . . Competition, according to an American economist, determines how many days of simple labour are contained in one day’s compound labour” (126–7).<sup>11</sup> But Marx may have realized that his wage-scale did pose a threat to the labor theory, for he immediately sought to explain that a reduction to simple labor in fact “*presupposes*” such labor to be the standard, which in turn “presupposes that simple

<sup>11</sup> Possibly Thomas Cooper 1826. The principle, of course, was formulated earlier by Smith (1937 [1776]: 100–18) and by Ricardo (1951–73, I: 20–1).

labor has become the pivot of industry" characterized by "the subordination of man to the machine or by the extreme division of labour" where "[t]ime is everything, man is nothing. . . . Quality no longer matters. Quantity alone decides everything; hour for hour, day by day" (127). Such "equalizing of labour" was not, Marx proceeds, "the work of Proudhon's eternal justice; it is purely and simply a fact of modern industry." Indeed, in the modern automatic factory "one worker's labour is scarcely distinguishable in any way from another worker's labour. . . . It is upon this equality, already realised in automatic labour, that M. Proudhon wields his smoothing-plane of 'equalisation,' which he means to establish universally in 'time to come!'" While Marx *admitted* the wage-scale principle, in practice the entire matter was fortunately becoming academic.

### C. Differential Rent

Marx refers in *Poverty of Philosophy* to Proudhon's representation of Ricardian rent doctrine as a "tumult of words" ("fracas de mots"); and he gives his own understanding of that doctrine (MECW 6: 198f). Agricultural and manufacturing cost conditions are sharply distinguished. In agriculture the highest-cost units *at both margins of cultivation* govern cost price, whereas in industry it is least-cost that dictates cost price. Agricultural rent emerges as a differential surplus under pressure of demand for raw produce on scarce land supposing price equalization via competition (199). The emphasis on the endogeneity of the agricultural margin under pressure of demand – which confirms that the demand-supply and cost determinants of equilibrium price are mutually compatible – is all the more significant because to this day Ricardo is criticized for *failing* to realize that where the margin falls depends on demand (on which see Hollander 1998): "In agricultural industry . . . it is the price of the product obtained by the greatest amount of labour which regulates the price of all products of the same kind. . . . The needs of the population having rendered necessary this increase of labour, the product of the land whose exploitation is the more costly has as certain a sale as has that of a piece of land whose exploitation is cheaper. As competition levels the market price, the product of the better soil will be paid for as dearly as that of the inferior" (MECW 6: 199–200). "If one could always have at one's disposal plots of land of the same degree of fertility" or – here Marx alludes to the intensive margin – "if the subsequent outlays of capital produced as much as the first, then the price of agricultural products would be determined by the cost price of commodities produced by the best instruments of production, as we have seen with the price of manufactured products. But from this moment rent would have disappeared also" (200).

The role of demand is particularly insisted upon: "So long as necessity forces the purchase of all the agricultural products brought into the market, the market price is determined by the cost of the most expensive product. Thus it is this equalisation of price, resulting from competition and not from the different fertilities of the lands,

that secures for the owner of the better soil a rent . . . ” (202).<sup>12</sup> (This formulation has the merit of avoiding the common error of attributing Ricardian rent to the “different fertilities of the lands” *as such*.) This same perspective is also reflected in an insistence that rent “is a product of society and not of the soil” (205), the Ricardian doctrine implying the “industrialization” of agriculture and a degree of competition sufficient to assure uniform profit rates; thus: “the farmer should be no more than an industrial capitalist claiming for the use of his capital on inferior land [on the land] a profit equal to that which he would draw from his capital if it were applied in any kind of manufacture [for example, in the cotton industry]; that agricultural exploitation should be subjected to the regime of large-scale industry; and finally, that the landowner himself should aim at nothing beyond the money return” (200).<sup>13</sup> Ireland — where rent is the entire excess over wage costs, rather than the excess over wages plus profits — could not be treated by the model (200–201). Ricardo’s sole error — Marx possibly drawing here on Jones 1831 — was to *universalize and eternalize* the phenomenon: “Ricardo, after postulating bourgeois production as necessary for determining rent, applies the conception of rent, nevertheless, to the landed property of all ages and all countries” (202).

Against Proudhon, who saw in improvement a source of continual *increase* in rent, Marx represented technical progress in Ricardian fashion as “so many temporary obstacles” to the secular rise of rent by allowing output expansion without the necessity of recourse to the higher cost extensive or intensive margins: “Thanks to these improvements, the farmer . . . has no need . . . to resort to inferior soils, and instalments of capital applied successively to the same soil remain equally productive” (206). Also against Proudhon, who represented rent as “the interest on a capital which never perishes, namely — land,” Marx maintained that “[t]he proceeds yielded by land as capital are interest and industrial profit, not rent. There are lands which yield such interest and profit but still yield no rent” (205).

Reference to various complexities that continually disturb “land valuations” (“*cadastre*”) help us understand why Marx objected to rent-confiscation proposals by James Mill, Cherbuliez, and Hilditch, which he represented as “a frank expression of the hatred the industrial capitalist bears towards the landed proprietor” (203), a matter to which we shall return in Chapter 13. Thus “rent often includes interest paid to the landowner on capital incorporated in the land”; “rent could not be the invariable index of the degree of fertility of the land, since every moment the modern application of chemistry is changing the nature of the soil, and geological knowledge is just now, in our days, beginning to revolutionise all the old estimates

<sup>12</sup> The excess of marginal over average cost is designated an “overcharge levied on the consumer” (MECW 6: 203). The insistence on marginal-cost pricing was designed to counter the egalitarian implications of cost theory drawn by Proudhon (202–3).

<sup>13</sup> The modifications inserted in square brackets were made by Marx himself sometime before 1876.

of relative fertility"; and "fertility is not so natural a quality as might be thought [but] is closely bound up with the social relations of the time. A piece of land may be very fertile for corn growing, and yet the market price may induce the cultivation to turn it into an artificial pastureland and thus render it infertile" (203–4). And in rejecting Proudhon's position on land as "capital which never perishes," Marx points out that "[l]and as capital is fixed capital; but fixed capital gets used up just as much as circulating capital. Improvements to the land need reproduction and upkeep. . . . There are even instances when land as capital might disappear even though the improvements remain incorporated in the land" — such as the case when "rent proper is wiped out by the competition of new and more fertile soils" or when once scarce improvements lose their value on becoming "universal owing to the development of agronomy" (205). Accordingly, the notion of the "eternity of the land" had no economic significance: "we grant readily it has this virtue as matter. Land as capital is no more eternal than any other capital." All of this pointed away from the *static* conception of rent attributed to Proudhon — his notion (in Marx's terms) of an "invariable index of the degree of the fertility of the land" (203).

#### D. Labor as Commodity

Citing Ricardo (1951–73, I: 382), Marx in *Poverty of Philosophy* applies the labor theory to labor itself understanding the *subsistence* wage in the orthodox sense: "Labour, being itself a commodity, is measured as such by the labour time needed to produce the labour-commodity. And what is needed to produce this labour-commodity? Just enough labour time to produce the objects indispensable to the constant maintenance of labour, that is, to keep the worker alive and in a condition to propagate his race. The natural price of labour is no other than the minimum wage" (MECW 6: 125).<sup>14</sup> Allowance is made for short-term deviations, "[b]ut the minimum wage is nonetheless the centre towards which the current rates of wages gravitate." Now for Say too labor was a commodity, but since its value varied with market conditions any notion of labor as "determining cause of value" entailed, Say maintained, circular reasoning.<sup>15</sup> Marx, however, adopted Ricardo's perspective. While labor as commodity had to be taken seriously there was no circular reasoning in the notion of labor as "cause of value," since it is labor *quantity*, not the *value* of labor, that is relevant: "Labour [Labour, labour power], inasmuch as it is bought and sold, is a commodity like any other commodity, and has, in consequence, an exchange value"; but "the value of labour, or labour as a commodity, produces as

<sup>14</sup> Marx took it as self-evident that labor as commodity is bought by employers with an eye "to the utility to be derived from it, the application to be made of it," that is as an intermediate good (MECW 6: 130). He did not dispute Proudhon's position that labor is bought "[i]n view of the values it is supposed to contain potentially."

<sup>15</sup> For a sampling of Say's position, see 1819 I: 12–13, 2: 69–70, discussed in Hollander 2005: 42–3.



little as the value of wheat, or wheat as a commodity, serves as food” (MECW 6: 130).<sup>16</sup>

The discussion of labor as commodity provides an amusing indication of Marx’s changing attitude towards Ricardo. It relates to Ricardo’s famous analogy between the cost of production of *hats* and of *men* (1951–73 1: 382), Marx rejecting objections by various French economists: “Doubtless, Ricardo’s language is as cynical as can be”; but “[t]he cynicism is in the facts and not in the words which express the facts. French writers like MM. Droz, Blanqui, Rossi and others take an innocent satisfaction in proving their superiority over the English economists, by seeking to observe the etiquette of a ‘humanitarian’ phraseology; if they reproach Ricardo and his school for their cynical language, it is because it annoys them to see economic relations exposed in all their crudity, to see the mysteries of the bourgeoisie unmasked” (MECW 6: 125). This *defense* of Ricardo contrasts radically with the objections levelled against him on precisely these grounds in the documents of 1843–45 (Chapter 6, pp. 179, 192).

### E. On “Labor Power” and the Source of Surplus Value

In the 1847 version of *The Poverty of Philosophy* there is mention only of *labor* not *labor-power*. Similarly, the original version of the pamphlet “Wage Labour and Capital” (1849), refers only to labor, treating the wage – in Ricardian fashion – in the manner of all other prices: “Wages . . . are the *price* of a definite commodity, of labour [1891: labour power]. Wages are, therefore, determined, by the same laws that determine the price of every other commodity” (MECW 9: 204). This statement – the editorial amendments of 1891 are by Engels – refers back to a summary formulation whereby “wages are the sum of money paid by the bourgeois [1891: capitalist] for a particular labour time or for a particular output of labour” (201): “The bourgeois [1891: capitalist it seems], therefore, *buys* their labour with money. They *sell* him their labour for money. [1891: But this is merely the appearance. In reality what they sell to the capitalist for money is their labour *power*. The capitalist buys this labour power for a day, a week, a month, etc. And after he has bought it, he uses it by having the workers work for the stipulated time.]” As in 1847, the wage rate (subject to fluctuations) is determined by subsistence costs: “*Within these fluctuations, however, the price of labour will be determined by the cost of production, by the labour time necessary to produce this commodity – labour* [1891: labour power]” (209). Here allowance is made for *training*: “*What, then, is the cost of production of labour* [1891: labour power]? *It is the cost required for maintaining the worker as a worker and for developing him into a worker.* The less the period of training, therefore, that any work requires the smaller is the cost of production of the worker and the lower is the price of his labour, his wages.” Where apprenticeship is not required “and where the mere bodily existence of the worker suffices, the

<sup>16</sup> The insertion relates to Marx’s correction at some later time though before 1876.

cost necessary for his production is almost confined to the commodities necessary for keeping him alive [1891: and capable of working].<sup>17</sup> Allowance is also made for *wear and tear*: "in calculating the cost of production of simple labour [1891: labour power], there must be included the cost of reproduction, whereby the race of workers is enabled to multiply and to replace worn-out workers by new ones." In sum, "[t]he cost of production of simple labour [1891: labour power]," therefore, amounts to the *cost of existence and reproduction of the worker*. The price of this cost of existence and reproduction constitutes wages. Wages so determined are called the *wage minimum*.<sup>18</sup>

The concept of wage advances is conspicuous in the 1849 document: "*Wages are, therefore, not the worker's share in the commodity produced by him. Wages are the part of the already existing commodities with which the capitalist buys for himself a definite amount of productive labour* [1891: labour power]" (202).<sup>19</sup> And "the sale of labour," or "the worker's own life-activity" — "a commodity . . . made over to another" — is undertaken "in order to secure the necessary *means of subsistence*." (This is later reworded by Engels: "the exercise of labour power, labour, is the worker's own life-activity . . ." and "the commodity" that is sold to the capitalist is "labour power.") In both versions "free labour" is contrasted with the slave and the serf, the free laborer selling "himself piecemeal" (203), or: "sell[ing] at auction eight, ten, twelve, fifteen hours of his life, day after day, to the highest bidder, to the owner of the raw materials, instruments of labour and means of subsistence, that is, to the capitalist. The worker belongs neither to an owner nor to the land, but eight, ten, twelve, fifteen hours of his daily life belong to him who buys them. The worker . . . *belongs not to this or that bourgeois, but to the bourgeoisie, the bourgeois class* [1891: not to this or that capitalist, but to the capitalist class], and it is his business to dispose of himself, that is to find a purchaser within this bourgeois [1891: capitalist] class."<sup>20</sup>

The notion of labor as "the worker's own life-activity," or that of the free laborer's selling "at auction eight, ten, twelve, fifteen hours of his life . . . [which]

<sup>17</sup> On the tendency of training costs to decline with simplification of the labor process, see pp. 203–4, 216.

<sup>18</sup> A further stipulation is that "[t]his wage minimum, like the determination of the price of commodities by the cost of production in general, does not hold good for the *single individual* but for the *species*. Individual workers, millions of workers, do not get enough to be able to exist and reproduce themselves; but the *wages of the whole working class* level down, within their fluctuations, to this minimum" (MECW 9: 209–10). A similar qualification applies to industry (note 10).

<sup>19</sup> But in a subsequent formulation focusing on wages relative to profits, we encounter what may be a modification regarding the *advance* of wages: "relative wages . . . express the price of direct labour in relation to the price of accumulated labour, the relative value of wage labour and capital, the reciprocal value of the capitalist and worker" (MECW 9: 218).

<sup>20</sup> Marx proceeds to the famous observation: "If the silkworm were to spin in order to continue its existence as a caterpillar, it would be a complete wage-worker" (MECW 9: 203). Rubel observes that "Marx reprend ici presque textuellement certaines notes de ses manuscrits parisiens de 1844, où il commente le concept de 'travail aliéné'" (Rubel 1963: 1592).

belongs to him who buys them” – the expressions used in 1849 – seem to be consistent with the mature concept of “labor power.” But whether Engels’s systematic adjustments of 1891 in the passages cited above can be justified remains to be decided. Similarly, we have yet to resolve whether Marx had hit upon *the source of surplus-value* in *Poverty of Philosophy*, as Engels asserted in his 1885 Preface to *Capital 2* (above, p. 194). For the change of wording may be nothing more than an *ex post* tidying up of little consequence, though Engels himself certainly intended an extension to *surplus-value* – which after all is the main theoretical outcome attributed to the “labor-power” entity. To these matters we turn next.<sup>21</sup>

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In Marx’s view, Proudhon had disqualified himself from appreciating *non-labor incomes* in contemporary society by implicitly treating labor as sole factor (and of uniform quality). “Let us see now,” Marx challenged, “to what extent the application of labour time as a measure of value is incompatible with the existing class antagonism and the unequal distribution of the product between the individual worker and the owner of accumulated labour,” or whether “exchange of products measured by labour time results in an equality of payment for all the producers” – as Proudhon maintained (MECW 6: 125–6). Proudhon had in fact *proven* nothing, and indeed had undermined this position by effectively identifying *labor embodied* and *labor commanded*: “Any man’s labour,’ he says, ‘can buy the value it represents’ [Proudhon 1846, 1: 81]. Thus, according to him, a certain quantity of labour embodied in a product is equivalent to the worker’s payment, that is, to the value of labour” (128). This identification, which implied that labor was the sole factor, was also reflected in the identification of production costs with wage costs: “It is the same reasoning that makes him confuse cost of production with wages. ‘What are wages? They are the cost price of corn, etc., the integral price of all things. Let us go still further. Wages are the proportionality of the elements which compose wealth’ [110].”<sup>22</sup>

While Proudhon, runs the charge, had disqualified himself from appreciating non-labor incomes, Marx himself made no positive contribution to the matter, though his criticism *implied* that the labor theory was (in some manner) essential for an appreciation of surplus. The same conclusion emerges from Marx’s contention that Proudhon’s egalitarianism based on (his understanding of) the labor theory was unoriginal, considering the massive literature by the Ricardian

<sup>21</sup> “Exploitation” in a *general* sense is certainly throughout taken for granted by Marx. In discussing indirect taxation of luxury goods, for example, he remarks in 1847 that industrial capital “maintains, reproduces and increases itself by the direct exploitation of labour . . .” (MECW 6: 196). But this does not carry us far from a technical point of view.

<sup>22</sup> Marx, we recall, also charges Proudhon with circular reasoning in attempting to specify the “just” return to labor by reference to commodity exchange rates, while basing those rates on labor commanded; and he compounded the error by *assuming* all labor to be of uniform quality (MECW 6: 128–9; above, pp. 199, 203).

Socialists — as the group in question has since come to be labeled — including Hodgskin (1827),<sup>23</sup> Thompson (1824), Edmonds (1828), and Bray (1839): “does the ‘*equalitarian*’ application of this formula [‘the determination of value by labour time’] at least belong to M. Proudhon? Was he the first to think of reforming society by transforming all men into immediate workers exchanging equal amounts of labour?” (MECW 6: 138). Extensive quotations are offered from Bray’s “remarkable” *Labour’s Wrongs and Labour’s Remedy*. Now some of the citations from Bray certainly imply the notion of capitalist exploitation *in the sense of unpaid hours of labour*: “We have heretofore acted upon no other than [a] most unjust system of exchanges — the workmen have given the capitalist the labour of a whole year, in exchange for the value of only half a year,” an “inequality of exchanges — of buying at one price and selling at another —” whereby “the capitalists and proprietors . . . give the working man, for his labour of one week, a part of the wealth which they obtained from him the week before! — which just amounts to giving him *nothing* for *something*. . .” (Bray 1839: 48–9).

The citation of Bray might have provided a splendid opportunity for Marx to expound the character of labor power as source of surplus — *surplus conceived as unpaid labor hours* — demonstrating in particular that it in no way turned upon “unequal exchange” if by that term is intended the advantage taken by capitalists of monopsony power in the labor market. *But Marx says nothing on the technical issue of exploitation*. Engels’s attribution to Marx — indeed Marx’s own claim — of an early comprehension of the source of surplus value is, in the texts of 1847 so far considered, unsubstantiated.

One section of our document, however, whets the appetite — “Surplus Left by Labour” (“L’excédent du travail”) (MECW 6: 152). Here Marx cites a statement by Proudhon regarding “[a]n axiom generally admitted by economists . . . that all labour must leave a surplus,” which Proudhon considered to be “universally and absolutely true,” but “meaningless according to their theory, and . . . not susceptible of any *demonstration*” [Proudhon 1846, 1: 73] (152). Proudhon’s own proof of the proposition that all labor must generate a surplus, Marx proceeds — he does not dispute the proposition itself — entailed an illegitimate procedure: “To prove that all labour must leave a surplus, M. Proudhon personifies society; he turns it into a *person-society* — a society which is not by any means a society of persons, since it has its laws apart, which have nothing in common with the persons of which society is composed, and its ‘own intelligence,’ which is not the intelligence of common men, but an intelligence devoid of common sense” (152–3).<sup>24</sup> There follows pages

<sup>23</sup> “Hopkins” appears in the original edition.

<sup>24</sup> Marx cites the American Thomas Cooper (1826) to the effect that the common fiction of collective decision making was the source of “deplorable misunderstands” in economics (MECW 6: 153).

of criticism, but no substantive statement of Marx’s own view of the nature and source of surplus value.<sup>25</sup>

We turn now to “Wage Labour and Capital,” published in April 1849, recalling Engels’s systematic replacement in 1891 of “labour” by “labour power” in that document (above, pp. 207–9). Did Engels mislead by imposing a later perspective on the early Marx?

That Marx had progressed towards an appreciation of the “Marxian” notion of labor power in its value-creating capacity seems to be confirmed from a discussion of the transition of “commodities” into “capital”: “Capital does not consist in accumulated labour serving living labour as a means for new production” – the traditional view – but “in living labour serving accumulated labour as a means for *maintaining and multiplying the exchange value of the latter*” (MECW 9: 213; emphasis added). Yet more strikingly, the text refers to the worker’s “*creative power*” in generating surplus value: “The worker receives means of subsistence in exchange for his labour [1891: labour power], but the capitalist receives in exchange for his means of subsistence labour, the productive activity of the worker, *the creative power whereby the worker not only replaces what he consumes but gives to the accumulated labour a greater value than it previously possessed.*” Indeed, in illustrating the capital-labor relationship, Marx himself uses the terms “power” of the labourer and “labour power” with respect to the source of surplus value: “[The farmer] has bought with . . . five silver groschen just that labour and *power of the labourer* [le travail et la force; Marx 1982: 215] which produces agricultural products of double value and makes ten silver groschen out of five. . . . The five silver groschen . . . have been exchanged for *labour power* [une force de travail] which produced ten silver groschen . . .” (214; emphasis added). One other passage is suggestive: “Finally, in whatever proportion the capitalist class, the bourgeoisie . . . shares the net profit of production within itself, the total amount of this net profit always consists only of the amount by which, on the whole, accumulated labour has been increased by living [1891: direct] labour” (220). Here we have the proposition that surplus value, pertaining in the first instance to the capitalists, is then redistributed in its various forms although Marx largely identified surplus value with *profit* (e.g., 218).

It seems fair to conclude that Marx in 1849 maintained the principle that labor power has a “capacity” to yield surplus value. And, as pointed out at the outset of this chapter, when dealing with the exploitative nature of capitalist production in *Capital* Marx cited his 1849 contribution.<sup>26</sup> Yet for all that, still missing is the

<sup>25</sup> See also Rubel for this conclusion. The single adjustment by Marx in 1847 of “labour” to read “labour power” (first printed in the reedition of 1896) “*anticipe sur une étape ultérieure de la pensée économique de Marx*” (Rubel 1963: 1548). See note 16.

<sup>26</sup> See also for this view Rubel 1963: 1592–3, Mandel 1971: 54. See too an editorial comment (MECW 9: xviii).

notion of surplus expressed in terms of *the breakdown of the work-day between paid and unpaid labor* (though Bray to all intents and purposes had hit upon it). In this respect we are no further in 1849 than in *Poverty of Philosophy* – which is scarcely surprising since the publication of 1849 comprised lectures given two years earlier.

### F. The Inverse Wage-Profit Relation

In his section on "Surplus Left by Labour" in *Poverty of Philosophy* (above, p. 210), Marx refers to Proudhon's position that the notion of a doubling of all prices was "absurd," considering the "law of proportionality" that is the labor theory of *relative price* (cited MECW 6: 152). "Unfortunately" Marx protests, "in the very same work [Proudhon 1846, I: 110] . . . we read the absurd hypothesis that, 'if wages rose generally, the price of everything would rise'" – the old Smithian view of course.<sup>27</sup> Marx's own position refers back to an earlier brief allusion to Ricardo's "proof" of the inverse wage-profit relation: "Then he develops a whole theory of wages and profits, and proves that wages and profits rise and fall in inverse ratio to each other, without affecting the relative value of the product" (122). He also noted Ricardo's related "endeavour to prove" first, that rent payments leave relative values unaffected, and that secondly, capital accumulation – with capital reduced to "accumulated labour" – "has only a passing and fluctuating effect on the relative values determined by the comparative quantity of labour expended on their production." At the same time Marx touched on Ricardo's recognition of "the influence that the accumulation of capital and its different aspects (fixed capital and circulating capital), as also the rate of wages, can have on the proportional value of products," although he did not here elaborate this complexity citing only passages allowing "accidental and temporary deviations" from relative labor values (Ricardo 1951–73, I: 88). However, in a subsequent analysis of the effect of "strikes and unions" Marx elaborated: ". . . as the relation of manual labour to fixed capital is not the same in different industries, all the industries which employ a relatively greater mass of fixed capital and fewer workers, will be forced sooner or later to lower the price of their goods" (MECW 6: 207); should they not do so "their profit will rise above the general rate of profits. . . . But as competition always tends to level the rate of profits, those profits which rise above the general rate cannot but be transitory. Thus . . . a general rise in wages will lead, not as M. Proudhon says, to a general increase in prices, but to a partial fall, that is a fall in the current price of the goods that are made chiefly with the help of machines."<sup>28</sup> All this is consistent with the earlier discussion of profit-rate uniformity assured by actual output flows between industries (above, pp. 198, 202), although the full

<sup>27</sup> Senior, Tooke, and J. S. Mill are cited to the effect that the phrase *a general price increase* when used by economists excluded one commodity, usually money (or labor).

<sup>28</sup> That Marx cites specifically a *fall* in prices upon a wage *increase* reflects his use of Ricardo's early editions.

adjustment mechanism is not spelled out. Furthermore, Marx plays down the *price* effects — as had Ricardo: “the rise and fall of profits and wages express merely the proportion in which capitalists and workers share in the product of a day’s work, without influencing in most instances the price of the product.”

\* \* \*

A Ricardian analysis of the Inverse Wage-Profit Relation is also to be found in “Wage Labour and Capital” (1849). It appears in the discussion of “relative” wages in the sense of *proportional wages* (MECW 9: 218). The *proportional wage* may fall, even though the *real (commodity) wage* rises, should the money wage fall less than the price of wage-goods. The Inverse Relation is then formally spelled out as a “general law”: “What, then, is *the general law which determines the fall and rise of wages and profit in their reciprocal relation? They stand in inverse ratio to each other. The exchange value of capital* [1891: Capital’s share], *profit, rises in the same proportion as the exchange value of labour* [1891: labour’s share], *wages, falls, and vice versa. Profit rises to the extent that wages fall; it falls to the extent that wages rise*” (219).

All this reflects Ricardian theory. But one passage is problematic: “Profit can only increase rapidly if the exchange value [1891: price] of labour, if relative wages, decrease just as rapidly. Relative wages can fall although real wages rise simultaneously with nominal wages, with the money value of labour, if they do not rise, however, in the same proportion as profit” (220). Here “the exchange value of labour” is identified with “relative wages,” which is consistent with the Ricardian view whereby the labor embodied in the wage corresponds with the proportional wage; and that Marx by the “exchange value of labour” (the cost of labor) intended labor embodied in the wage, is probable.<sup>29</sup> The problem is that, within a Ricardian framework, the *nominal* (money) wage will *decline* to reflect the circumstances supposed — a higher profit rate due to a fall in the relative wage — whereas Marx has the nominal wage *rising*. It is, of course, possible that the foregoing was a slip. However, it may be significant that Marx neither dealt explicitly with the “canonical” case of a falling real wage but a *rising* proportionate (or money) wage and thus a falling profit rate, nor elucidated the constant value of the product allocated between labor and capital. All the features of Ricardian theory may still not yet have been entirely clear to him.

An additional sense is accorded the relative wage-profit relation, namely a growing gap between the psychic pleasures enjoyed by the respective classes, notwithstanding any real-wage increase — an aspect of what has come to be called the “relative immiseration thesis”: “A noticeable increase in wages presupposes a rapid growth of productive capital. The rapid growth of productive capital brings about an equally rapid growth of wealth, luxury, social wants, social enjoyments. Thus, although the enjoyments of the worker have risen, the social satisfaction that they give has fallen in comparison with the increased enjoyments of the capitalist . . .”

<sup>29</sup> On the cost of labor see pp. 207–8, 216. Engels’s “price” is unhelpful.

(216); because “[o]ur desires and pleasures spring from society . . . they are of a relative nature.”<sup>30</sup> This same theme is elaborated with an emphasis on the “antagonism” between classes: “Even the *most favourable situation* for the working class, the *most rapid possible growth of capital*, however much it may improve the material existence of the worker, does not remove the antagonism between his interests and the interests of the bourgeoisie, the interests of the capitalist. *Profit and wages* remain as before in *inverse proportion*” (220–21).<sup>31</sup>

### G. The Falling Real-Wage Trend

In his discussion of Proudhon in 1847, Marx accepted and attempted to rationalize the “decay” (“*dépérissement*”) of the working class as the condition of a growing surplus and development of productive forces (MECW 6: 159; below Chapter 13, pp. 387–8). But though the term “decay” certainly implies absolute impoverishment, it is not definitive, and in fact in this specific context Marx seems satisfied to argue for *constancy* of the secular real wage in opposing received doctrine. Thus, he accepted the view of the “optimistic economists” that “in the existing relations of production, the wealth of the bourgeoisie has grown and must grow still further” (159–60), but only in brief periods could it be claimed that wages in Britain had positively *increased*: “As for the working classes, it still remains a very debatable question whether their condition has improved as a result of the increase in so-called public wealth” (160). Workers in the cotton industry had benefited but “only in the rare moments of trade prosperity [which] are to the periods of crisis and stagnation in the ‘correct proportion’ [Proudhon’s term] of 3 to 10.” And even this could be accounted for by the exploitation “of the millions of workers who had to perish in the East Indies so as to procure for the million and a half workers employed in the same industry in England three years’ prosperity out of ten.”

A downward secular path of real wages certainly emerges in “Wage Labour and Capital.” The context involves a commentary on the assertion by “the bourgeois and their economists” that “[t]he interests of the capitalist and those of the worker are . . . *one and the same*,” in the sense that “[t]he indispensable condition for a tolerable situation of the worker is . . . *the fastest possible growth of productive capital*” (MECW 9: 214–15). Now Marx accepted that capital accumulation implies

<sup>30</sup> Rubel cites Cherbuliez 1841 and Schulz 1843 as source for “la relativité des besoins” (Rubel 1963: 1593–4).

<sup>31</sup> The paradoxical relation between labor and capital also reflects expansion of the *subordinate* work force in consequence of accumulation: “To say that the most favourable condition for wage labour is the most rapid possible growth of productive capital is only to say that the more rapidly the working class increases and enlarges the power that is hostile to it, the wealth that does not belong to it and that rules over it, the more favourable will be the conditions under which it is allowed to labour anew at increasing bourgeois wealth, at enlarging the power of capital, content with forging for itself the golden chains by which the bourgeoisie drags it in its train” (MECW 9: 221). On this passage Rubel comments: “C’est la conception, déjà développée par F. Bray et A. E. Cherbuliez, de l’appauvrissement *moral* . . .” (Rubel 1963: 1594–5).



expansion of the work force: “Capital can only increase by exchanging itself for labour [1891: labour power], by calling wage labour to life. . . . Hence, increase of capital is increase of the proletariat, that is, of the working class” (214). And he allowed also that “in the most favourable case . . . the price of labour, wages, goes up” (216). But such was not the norm: “Are growth of productive capital and rise of wages really so inseparably connected as the bourgeois economists maintain? We must not take their word for it” (222).

Marx intended here the counteracting effects of increased “*competition between capitalists*” – drawing silently upon Adam Smith – taking the form of cost cutting by means of extended division of labour and the adoption and improvement of machinery. Unfortunately, the account is unclear regarding causal sequence by confusing firm and industry size, a problem already encountered in the *Wealth of Nations* in precisely the same context (Hollander 1973: 142–3). Thus “[t]he numerical increase of the capitals increases the *competition between the capitalists*. . . . The greater the labour army among whom labour is divided, the more gigantic the scale on which machinery is introduced, the more does the cost of production proportionately decrease, the more fruitful is labour. Hence a general rivalry arises among the capitalists to increase the division of labour and machinery. . . .” (MECW 9: 222–3). More specifically: “The more powerful and costly means of production that [the capitalist] has called into life enable him, indeed, to sell his commodities more cheaply, they *compel* him, however, at the same time to sell more commodities, to conquer a much *larger* market for his commodities” (223). And this end he achieves “if he puts the price of his goods only a small percentage lower than that of his competitors. He drives them from the field, he wrests from them at least part of their sales by *underselling* them.” Any success is, however, only temporary, as others follow suit – and here emerges again (see above, p. 202) the notion of *over-adjustment*: “However, the *privileged position* of our capitalist is not of long duration; other competing capitalists introduce the same machines, the same division of labour, introduce them on the same or on a larger scale, and this introduction will become so general that the price of linen is reduced not only *below its old*, but *below its new cost of production*” (223–4).

Such over-adjustment is temporary, Marx referring to a repetition of the process starting from the *new* cost level: “The capitalists find themselves, therefore, in the same position relative to one another as *before* the introduction of the new means of production. . . . On the basis of this new cost of production, the same game begins again. More division of labour, more machinery, enlarged scale of exploitation of division of labour and machinery. And again competition brings the same counteraction against this result” (224). Thus “the mode of production and the means of production are continually transformed, revolutionised. . . . *the division of labour is necessarily followed by greater division of labour, the application of machinery by still greater application of machinery, work on a large scale by work on a still larger scale.*” Indeed, Marx represents the compulsion “to intensify the productive forces of labour” as a “law . . . which within the fluctuations

of trade periods, necessarily levels out the price of a commodity to its *cost of production* – presumably to successively lower levels. The compulsion is said to be *explosive*: “the old struggle begins again *all the more violently the more fruitful the already discovered means of production are. The division of labour and the application of machinery, therefore, will go on anew on an incomparably greater scale.*”

We return to the main issue: “*how do these circumstances, which are inseparable from the growth of productive capital, affect the determination of wages?*” Marx’s response is that the real wage rate is forced downwards by intensified competition *between laborers*: “The greater *division of labour* enables *one* worker to do the work of five, ten or twenty; it therefore multiples competition among the workers fivefold, tenfold and twentyfold.” Beyond this, “as the *division of labour* increases, labour *is simplified*. The *special skill* of the worker becomes worthless,” Marx reminding readers “that the more simple and easily learned the labour is, the lower the cost of production needed to master it, the lower do wages sink, for, like the price of every other commodity, they are determined by the cost of production.” And to all this must be added the adoption of *machinery*, which “brings about the same results on a much greater scale, by replacing skilled workers by unskilled, men by women, adults by children. It brings about the same results, where it is newly introduced, by throwing the hand workers onto the streets in masses, and, where it is developed, improved and replaced by more productive machinery, by discharging workers in smaller batches” (226). All in all, “the industrial war of the capitalists among themselves . . . *has the peculiarity that its battles are won less by recruiting than by discharging the army of labour.*” Now the discharged adult male might be replaced by, say, three children and a woman; but in this case, whereas originally the man’s wages necessarily sufficed for these dependents in order “to maintain and to propagate the race . . . now *four times* as many workers’ lives are used up in order to gain a livelihood for *one* worker’s family” (227).

What can be deduced from all this regarding the course of the aggregate demand for labor? That the “industrial war” between capitalists is “won less by recruiting than by discharging the army of labour” seems to imply *absolute reduction* in the aggregate demand for labor – at least for adult males – and it is this that is responsible for downward pressure on the real wage. But what follows suggests a more complex outcome. For Marx also rejects the orthodox contention that *new* branches of industry will reabsorb *those actually displaced*, on the grounds that they will *at best* only absorb the *new entrants* into the work force: “The economists . . . dare not assert directly that the same workers who are discharged find places in the new branches of labour. The facts cry out too loudly against this lie. They really only assert that new means of employment will open up for *other component sections of the working class*, for instance, for the portion of the young generation of workers that was ready to enter the branch of industry which has gone under” (226). Conceivably, Marx intended here net population growth, but it is not safe

to take this for granted.<sup>32</sup> Rather the “young generation” seems to refer to what is later termed the *replacements* of those displaced. And his point is that *aggregate employment* will be unchanged – those actually displaced remaining unemployed. But this was Marx’s gloss on the orthodox reabsorption position. For his own part, even were those displaced by machinery *and* the “new generation” to find employment – *implying net expansion of labor demand* – the wage nonetheless, and necessarily, falls: “Let us suppose, however, that those directly driven out of their jobs by machinery, and the entire section of the new generation that was already on the watch for this employment, *find a new occupation*. Does any one imagine that it will be as highly paid as that which has been lost? *That would contradict all the laws of economics.*” And this because of deskilling: “. . . modern industry always brings with it the substitution of a more simple, subordinate occupation for the more complex and higher one” (226–7). But *total* reabsorption of the displaced together with the “new generation” is considered unlikely; wage reduction is *a fortiori* the outcome.

An inflow into the labor market from the “higher strata of society” – already a major theme in 1844 (see Chapter 6, p. 173) – aggravates the downward pressure on the wage. Here what is entailed is the consequence of increasing *concentration* of capital implied by the process of capital accumulation described above: “That the small industrialist cannot survive in a war [1891: contest], one of the first conditions of which is to produce on an ever greater scale, that is, precisely to be a large and not a small industrialist, is self-evident” (227). Moreover, since “the interest on capital decreases in the same measure as the mass and number of capitals increase, as capital grows . . . the small rentier can no longer live on his interest but must throw himself into industry, and consequently, help to swell the ranks of the small industrialists and thereby of candidates for the proletariat” (228).<sup>33</sup> As for an orthodox assurance of the expanded employment of high-skilled labor in the machine-making industries, Marx points to the empirical circumstance that those industries were experiencing precisely the same labor-displacing and skill-debasing phenomena as the cotton industry: “Since the year 1840 this assertion, which even before was only half true, has lost all semblance of truth because ever more versatile machines have been employed in the manufacture of machinery, no more and no less than in the manufacture of cotton yarn . . .” (227).

“Wage Labour and Capital” closes with a repetition of the theme that has come to be known as “*absolute immizeration*”: “Thus we see: *if capital grows rapidly, competition among the workers grows incomparably more rapidly, that is, the means of employment, the means of subsistence, of the working class decrease proportionately*

<sup>32</sup> Net population growth figures in other texts of the same period, as we shall see in the next section. See also Chapters 3.D, 8.D, 12.D.

<sup>33</sup> For the increasing “competition of capitals” alluded to here as cause of a falling return on capital, see below, section I.

so much the more, and, nevertheless, the rapid growth of capital is the most favourable condition for wage labour" (228).<sup>34</sup>

#### H. More on the Real-Wage Trend: Increasing Organic Composition, Demographic Patterns, and the Reserve Army

Lectures given in December 1847, originally designed for "Wage Labour and Capital" and commonly known as "Wages," add considerably to our appreciation of Marx's early position on labor-market trends. The document contains an excellent formulation of secularly rising organic composition of capital and the downward real-wage trend. Here the term "Reserve Army of Unemployed Workers" is used by Marx possibly for the first time. There is also an important cyclical component.

As a preliminary, not only does Marx predict a falling real-wage trend, but he extends this vision to a declining wage *share*, in contrast with the "canonical" growth model: "The position of the worker *relative to that of the capitalist* worsens" adding – as in 1849 (above, p. 214) – Cherbuliez' theme that "the value of the things enjoyed is relative. The enjoyments themselves are indeed nothing but social enjoyments, relations, connections" (MECW 6: 422; emphasis added).<sup>35</sup> All the more important it is to emphasize the "absolute" fall in the real wage, that "the quantity of commodities which the worker receives in exchange becomes less and less" (426).

The downward real-wage trend is much emphasized. Thus what Marx refers to as a "general law . . . that there cannot be *two market prices*, and that the *lower* market price prevails (given equal quality)," is applied to labor: "Take 1,000 workers of equal skill; 50 are without work; the price is then determined not by the 950 who are employed but by the 50 who are unemployed" (419); and this "law" "weighs more heavily on the commodity labour than on other commodities," considering labor's "*evanescent nature* . . . the impossibility of *accumulating* it, and . . . the fact that the *supply* cannot be increased or reduced with the same facility as with other products" (419; cf. 423–4). The document also alludes to a sort of ratchet effect: "Once wages have fallen, they never rise to their previous height" (422).<sup>36</sup> In fact, the "minimum" wage itself is subject to depression: "The daily wage the worker takes home is the profit which his machine, his body, yields to its owner. Included in it is the sum necessary to replace the wear and tear of the machine, or, what is the

<sup>34</sup> See also Rubel for recognition of the absolute immization theme in 1849 (1963: 1595).

<sup>35</sup> The falling *quality* of wage goods is emphasized, Marx citing Carlyle 1840 (MECW 6: 416). The contemporary "truck system" whereby "the employer cheats the worker by raising the price of goods while leaving the nominal wage the same" also makes an appearance (424), Marx drawing on Babbage 1833 (see MECW 6: 693).

<sup>36</sup> There is a brief reference to "[c]ompetition between workers from villages and farms" (MECW 6: 424), that may refer to inflows from the countryside. The "[a]dvantages of the unmarried over the married worker" is also mentioned.

same thing, to replace old, worn-out workers by new ones . . . ;<sup>37</sup> and “[a]lthough the minimum wage is determined on average by the price of the most indispensable provisions . . . [it] sinks always further towards the absolutely lowest level” (425). A summary of the main theme in “Wage Labour and Capital” – with mention of increasing scale of operation, adoption of machinery, and *concentration* of capital reflecting “the law of competition [whereby] more must be produced” – contains a strong reiteration of the falling secular trend of “the minimum itself”: “This producing in more and more difficult conditions also extends to the worker as part of capital. He must produce more, in more and more difficult conditions, i.e., for less and less wages and more work, at constantly decreasing production costs. So the minimum itself is constantly being reduced to greater exertions with minimum enjoyment. *The disproportion rises geometrically, not arithmetically*” (430; emphasis added).

Some attention is also accorded the international dimension in considering labor’s condition. Thus the *minimum* real wage “tends to become the same in different countries” (426). This might relate to an observation that “[w]ages become more and more dependent on the world market and the position of the worker increasingly subject to chance” (422), or to the *aide-mémoire*: “Influence of the *Irish* on the position of the *English workers* and of the *Germans* on the position of the *Alsatian workers*” (424).

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We turn now to a more detailed rationalization of the downward wage trend, attending first to the forces playing upon labor demand. Productive capital is classed into three input categories: raw material; machines, and materials such as coal to drive the machines, and buildings; and wage-goods (430). The first two, or *constant capital* in later parlance, tend to rise relative to the third, or *variable capital*. For “[t]he growth of productive capital is linked with its concentration, and with that the fact that it can only be profitable if it is exploited on an ever larger scale”; and “the more the productive forces grow, the larger will be [the] part of capital which is directly transformed into machinery,” while “the part of capital transformed into raw materials necessarily increases” along with the expansion of output due to expanded use of machinery and specialization (430–1). On the other hand, similar growth of wage-goods capital would thwart the purpose of the use of machinery and the increased division of labour (431). It was in fact “a general law which necessarily arises from the nature of the relation between capital and labour that in the course of the growth of the productive forces the part of productive capital which is transformed into machinery and raw material . . . increases in disproportion to the part which is intended for wages. . . .” (432).

<sup>37</sup> Marx cites McCulloch: “The wages earned by the labourer . . . yield only the common and ordinary rate of profit to the proprietors of the machine called *man*, exclusive of a sum to replace the wear and tear of the machines, or, which is the same thing, to supply the place of the old and decayed labourers with new ones [McCulloch 1825: 319]” (MECW 6: 416).

Now, since "the share of machinery and raw materials grows much faster than that of *approvisionnement*," it followed that the increase in capital is "not accompanied by a similar increase of the demand for labour" (422).<sup>38</sup> But a lag in the rate of growth of variable capital behind that of total capital as distinct from an absolute decline implies that the consequential fall in the wage rate – such as Marx goes on to describe – entails a labor supply expanding faster than variable capital: "[T]he more *productive capital* grows, the more, in proportion, the means of employment and the means of subsistence for the workers are reduced, and the more rapidly, in other words, the working population grows in proportion to its means of employment" (432; emphasis added). In brief, "the increase of the proletariat must proceed relatively even faster" than aggregate wage-fund capital (433).

To appreciate why this is so, we are again directed to the inflow into the work force reflecting "the ruin of the small industrialists which is fatally linked with the growth of productive capital" (429), their "ruin" reflecting the fall in the profit rate due to accumulation: "at the same time as the rate of interest falls, small capitalists formerly not participating in industry directly are forced to become industrial, i.e., to supply big industry with further victims. From this side, too, the working class is enlarged and competition among the workers increased."<sup>39</sup> All this reiterates what was said in the publication of 1849, indeed in 1844 (above, p. 217). There is too what is termed – in notes on Ure 1836 – a "[g]eneral principle of modern industry: to replace adults by children, skilled workers by unskilled, men by women" (420).

But to these tendencies endogenous to capital accumulation, there is added *demographic pressure*, similarly endogenous, "a positive premium being placed on the production of people . . ." (430; emphasis added). A discussion of the effects of *cyclical instability* may suggest that short-term real-wage increase is intended in addition to the living conditions characterizing modern industry: "While the growth of the productive forces leads to work on a larger scale, momentary overproduction becomes more and more necessary, the world market more and more extensive, and competition more universal. The crises, therefore, become more and more violent. So the workers are given a sudden encouragement to marry and multiply, they are agglomerated and concentrated in large masses, and their wages fluctuate more and more" (429–30; emphasis added). The matter of living condition is weighed heavily, in the course of a rejection of the Malthusian recommendation to control labor supply "by making as few children as possible" as "utter stupidity, baseness and hypocrisy" (428). For "the nonsense that the entire working class

<sup>38</sup> Marx (MECW 6: 421) again cites Cherbuliez (1841: 103). But Cherbuliez in fact refers to an absolute reduction in the wage-fund rather than a lag in its growth rate behind that of capital.

<sup>39</sup> Simplification of tasks in consequence of more refined division of labour also acts as a depressant: "in the measure in which productive capital grows, there grows the competition among the workers because the division of labour is simplified, and every branch of labour is open to everybody . . ." (MECW 6: 429).

[can] possibly take the decision not to make any children,”<sup>40</sup> was irreconcilable with the fact that “their condition, on the contrary, makes the sexual instinct their chief pleasure and develops it one-sidedly” (433). Beyond these forces at play, we also find a reference in this context to the use of child labour: “By replacing adults with children, modern industry places a veritable premium on the making of children;” and Marx objected to proposals for the solution to poverty by way of “industrial education” on the grounds “that modern industry replaces compound labour more and more with simple labour which requires no education . . .” and “throws more and more children from the age of seven upwards behind the machine and turns them into a source of income not only for the bourgeois class *but for their own proletarian parents*” (427; emphasis added).

This key demographic dimension to Marx’s secular real-wage decline had to be seen as part of the broader picture of capital accumulation, and not as an independent “law of nature” in Malthus’s fashion: “This law” – excess labor supply generated by capital accumulation – “the bourgeois have changed from a social law into a law of nature by saying that by a law of nature the population grows more rapidly than the means of employment or the means of subsistence. They fail to understand that the growth of this contradiction is inherent in the growth of productive capital” (432). The growing “disproportion between the supply of labour and the demand for it . . . depends neither on the increase of means of subsistence nor on the increase of the population regarded by itself. It follows necessarily from the nature of large-scale industry and the relationship of labour and capital” (432–3).<sup>41</sup>

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Marx, we have seen, found the Malthusian solution of population control to be *hypocritical* since it was patently impossible to achieve for the reasons given above, including the “premium” placed on children. An elaboration of this charge contains reference to the Reserve Army of Unemployed: “*Big industry constantly requires a reserve army of unemployed workers for times of overproduction. . . . Overpopulation is therefore in the interest of the bourgeoisie, and it gives the workers good advice which it knows to be impossible to carry out*” (433; emphasis added). That the

<sup>40</sup> This is garbled in the English translation where *can* is rendered *cannot*. (See the French version in Rubel 1968: 165 for a proper rendition.) The text probably alludes to the “free rider” problem. Carlyle may be Marx’s source. In a section containing brief observations on Carlyle’s *Chartism* 1840, Marx notes: “The entire theory of Malthus and the economists amount to saying that it lies with the workers to reduce the demand [sic] by not making children” (MECW 6: 416).

<sup>41</sup> Marx likes to see the worst of all worlds. The problem had been said to reflect the damaging consequences for labor, both from the demand and supply side, of *positive accumulation*. But Marx discerns a problem even in the absence of growth: “If the growth of productive capital progresses only slowly, however, if it remains stationary or even decreases, the number of workers is always too large in proportion to the demand for labour. In both cases, the most favourable and the most unfavourable, it follows from the relationship of labour to capital, from the nature of capital itself, that the supply of labour will always be too great for the demand for labour” (MECW 6: 433).

"constant" requirement for a reserve of unemployed refers specifically to "times of overproduction" points to a labor reserve available to accommodate high activity at cyclical peaks rather than as a source to support secular growth. We have here features of a dual labor market.

As for periods of "stagnation," those remaining in employment undergo either reduced wages or reduction in the working week (420). Wage fluctuations reflect — apart from changes in fashion or season — "fluctuations in trade" due to market fluctuations; and here a "circular" relation is emphasized, in that the reduced market opportunities reflect reduced working-class spending: "In all crises the following circular movement relates to the workers: The employer cannot employ the workers because he cannot sell his product. He cannot sell his product because he has no buyers. He has no buyers because the workers have nothing to offer in exchange but their labour, and precisely for this reason they cannot exchange their labour" (424–5).<sup>42</sup>

\* \* \*

Apart from the Malthusian proposal, Marx takes up Trade Unions as a means of improving labor's situation. He agrees with "the economists" that "in the long run" union activity generates substitution against labor and thus reduces wages: "The economists are right when they remark that "[i]n the long run [workers' associations] cannot withstand the laws of competition. These combinations bring about new machines, a new division of labour, removal from one place of production to another. In consequence of all this a reduction of wages" (435; also 420).<sup>43</sup> And should unions be successful, the resultant reduction in the profit rate (relative to that available abroad) would check domestic accumulation, again with damaging consequences for labor.

The case was different from the point of view of training in revolutionary activity designed to overturn "the entire old society with its class contradictions." But it is unclear whether Marx was entirely decided on the purely economic effects, since we also find more positive references to union-induced wage increases: "the fluctuations of wages not only revolutionise the worker, but . . . without the temporary rise of wages above the minimum he would remain excluded from all advances of production, from public wealth, from civilisation, hence from all possibility of emancipation" (426). The wage increases referred to here are temporary, such as occur during cyclical upturns; yet, at least for the "best-paid workers," we also read — in the context of union activity — of apparently more permanent gains: "And if in

<sup>42</sup> Marx draws on Wade 1833 (MECW 6: 419). There is a resemblance to Keynes's concern that labor in the aggregate may not be able to reduce its real wage by making revised money bargains, because *money-wage reductions engender reduction in consumption* (Keynes 1936: 269).

<sup>43</sup> This is in line with the position in *Poverty of Philosophy*: "In England, strikes have regularly given rise to the invention and application of new machines. . . . If combinations and strikes had no other effect than that of making the efforts of mechanical genius react against them, they would still exercise an immense influence on the development of industry" (MECW 6: 207).



their moments of philanthropy Messrs the bourgeois and their economists are so gracious as to allow in the minimum wage, that is, in the minimum life, a little tea, or rum, or sugar and meat, it must by contrast appear to them as shameful as incomprehensible that . . . out of their revolutionary activity they even make the maximum of their enjoyment of life" (436).

Proposals for Industrial Education are opposed on the strange grounds – entirely at odds with Adam Smith of course – that increased mobility must be to labor's detriment: "All improvements in the means of communication, for example, facilitate the competition of workers in different localities and turn local competition into national, etc." (423). As for the proposal by the "philanthropic economists" that "every worker should be trained in as many industries as possible," Marx objected that "[t]he consequence would be that if there were a surplus of hands in one industry, this surplus would at once spread to all other industries, and even more than before the reduction of wages in one business would lead directly to a general reduction in wages" (427). In any event, "since modern industry simplifies work everywhere and makes it easy to learn, the rise of wages in one industry at once causes an influx of workers into this industry and the reduction of wages will more or less directly assume a general character" (428).<sup>44</sup>

### I. Profit-Rate Determination: "Competition of Capitals"

In *Poverty of Philosophy* Marx refers to Proudhon's position that "interest or profit on a loan (*mutuum*) tends to diminish continually through abundance of capital" (MECW 6: 204). Marx says nothing to controvert this "Smithian" proposition, and indeed seems to accept it, subject to a distinction between interest on agricultural and manufacturing capital: "The interest on capital invested in land is in general lower than the interest on capital invested in manufacture or commerce. . . . [T]he interest on land as capital diminishes still more than does the interest on other capital." Does Marx justify the falling rate of interest?

In discussing the theme in "Wage Labour and Capital" whereby a falling interest rate results in an inflow of working-class recruits from amongst the small industrialists (above, p. 217), Marx simply takes the declining interest rate for granted. Nonetheless, the decline is evidently derivative; and the industrial capitalist is indeed said to experience a reduced return because of the competitive pressures "compelling" firms to introduce new methods with the consequences described above, pp. 215–16 (MECW 9: 222f). This trend is reinforced by pressures engendered by *ever-worsening crises* originating in secular output expansion in the face of limited markets: "They become more frequent and more violent, if only because, as

<sup>44</sup> Marx cites Bowring's House of Commons speech of July 1835 which represents "distress" as "an inevitable consequence of a species of labour easily learned" (MECW 6: 416; see also 422). The damaging consequences of enhanced mobility is also found in the section of notes on John Wade 1833 (420).

the mass of production, and consequently the need for extended markets, grows, the world market becomes more and more contracted, fewer and fewer markets [1891: new markets] remain available for exploitation, since every preceding crisis has subjected to world trade a market hitherto unconquered or only superficially exploited" (228).

The general notion of "competition of capitals" is typically Smithian. But in Smith's case the falling profit rate results, in one version, from the presumed entry of more and more firms into each industry in the course of accumulation, a perspective reflecting an error of composition (1937 [1776]: 87); or, in a more satisfactory version, from increasing paucity of investment priorities: "As capitals increase in any country, the profits which can be made by employing them necessarily diminish. It becomes more and more difficult to find within the country a profitable method of employing any new capital" (336), Smith referring specifically to increasing land scarcity as one source of the problem (92–3). Marx, by contrast, takes on board the tendency towards "concentration" and organizational and technological change related to scale as characteristic of accumulation; and yet he still insists on the falling profit rate due to "competition" of capitals. His argument is scarcely made out. It is not surprising that he should later seek to reinforce the case for a falling profit rate.

We also take note of a serious anomaly emerging already in the late 1840s, one which was never to be resolved. For Marx, both the wage and profit rate tend downwards, as in the "orthodox" classical position; but since he made no appeal to increasing land scarcity, but to the contrary supposed productivity to be rising continually, there seems to be no *beneficiary* from productivity increase. At this very period Marx seems to have accepted the differential-rent concept based on increasing land scarcity (above, Section C), but presumably this acceptance related only to the principle of the matter; in practice new technology took precedence (see below, p. 226).

### J. Labor and Free Trade: On Marx's Ricardian *bonâ fides*

Marx treated the labor market in a speech on Free Trade delivered in Brussels on 9 January 1848.<sup>45</sup> As in the case of "Wages," his technical propositions must be extracted from an exercise in persuasion. The speech allows us to evaluate Marx's Ricardian *bonâ fides* in the late 1840s.

The case against agricultural protection that Marx attributed to manufacturers in addressing their workers is the orthodox case based on land scarcity and

<sup>45</sup> Delivered at the Association Démocratique de Bruxelles. See editorial note, MECW 6: 695–6; also Rubel 1963: 139–40.

The workers were aware that the empirical record regarding real wages did not favor the employers' case: "The workers . . . asked of the manufacturers, – 'How is it that in the course of the last thirty years, while our industry [1888: commerce and manufacture] has immensely increased, our wages have fallen far more rapidly, in proportion, than the price of corn has gone up?'" (MECW 6: 453). The adjustment dated 1888 is by Engels.

the desirable prospect of national specialization – in an extreme version *total* specialization (MECW 6: 453). One consequence of the proposal (not admitted by employers to their workers) would be lower money wages (454). The effect of free trade in diminishing differential rent with the abandonment of marginal tracts is spelled out more fully in a paraphrase of the position of W. R. Greg, a Prize Essayist in a competition organized by the National Anti-Corn Law League in 1842 (455).

To how much of this did Marx himself subscribe? Greg's position as recounted by Marx is wholly Ricardian. That Marx represents the anti-Corn Law arguments as "cant" creates no difficulty, because he specifically intended thereby the allegedly hypocritical pretense by employers that Free Trade would *benefit labor*.<sup>46</sup> That labor was not fooled is spelled out in a passage emphasizing the effect of a lower money wage in raising the profit rate, not appearing in the representation of Greg (457). And here Ricardo's inverse *wage-profit* relation, to which Marx had subscribed in the *Poverty of Philosophy*, is explicitly cited: "Ricardo, the apostle of the English Free Traders, the leading economist of our century, entirely agrees with the workers upon this point. In his celebrated work upon Political Economy he says: 'If, instead of growing our own corn . . . we discover a new market from which we can supply ourselves . . . at a cheaper price, wages will fall and profits rise'" (Ricardo 1951–73 I: 132). To this Marx rightly adds: "The fall in the price of agricultural produce reduces the wages, not only of the labourer employed in cultivating the soil, but also of all those employed in commerce or manufacture."

Yet notwithstanding the appeal to Ricardo regarding Free Trade, Marx evidently diverged in key respects. First, he proceeds to argue that a low corn price is actually to labor's *disadvantage*, an argument supposing that the corn price governs the money wage, while – it is implied – industrial prices remain unchanged or at least do not fall in proportion to that of corn: "So long as the price of corn was higher and wages were also higher, a small saving in the consumption of bread sufficed to procure him other enjoyments. But as soon as bread is cheap, and wages are therefore low, he can save almost nothing on bread, for the purchase of other articles" (MECW 6: 457). This sort of argument is to be found in the Physiocratic literature and in Malthus (see Hollander 1997: 831).

Strangely, Marx himself goes on to allow that "if the price of all commodities falls – and this is the necessary consequence of Free Trade – I can buy far more for a franc than before" (MECW 6: 458). Now Ricardo had, of course, denied that *general* prices would be affected by a free corn trade at least as far as concerns the impact of the lower money wage. The assertion can still be said to be in line

<sup>46</sup> In a letter to Lassalle dated 23 January 1855, Marx refers to the consequences of free trade 1849–52, namely an increase in the purchasing power of (given) money wages, but a fall in relative wages: "What did show a relative *increase* . . . was *profits*. Hence relative wages, i.e. wages in relation to profits, have in fact *fallen* – a result which I showed to be inevitable in a pamphlet (French) written as long ago as 1847" (MECW 39: 513). Marx neglects to mention that he had predicted a *fall* in the real wage, on the presumption that the money wage falls along with the corn price other prices remaining steady.

with Ricardo, if Marx intended the *welfare* implications of free trade – we cannot be sure (see below, p. 227) – a general increase in output reflecting efficiency advantages implying (given the aggregate money supply) a lower general price level. But there is no Ricardian counterpart to the next stage of his argument, whereby labor's money-income falls *more* than general prices in consequence of free trade: "If all commodities are cheaper, labor, which is a commodity too, will also fall in price, and . . . this commodity, labor, will fall far lower in proportion than all other commodities." The case is elaborated in the course of Marx's rejection of the orthodox position that the effect of a free corn trade is rather to *raise* real wages by stimulating net accumulation (459). To the contrary, labor *necessarily* suffers, notwithstanding any such stimulus, considering the sort of argument encountered in "Wage Labour and Capital" and "Wages," that while "[t]he most favorable condition for the workingman is the growth of capital . . . [he] will go to the wall just the same. The growth of capital implies the accumulation and the concentration of capital. This centralization involves a greater division of labor and a greater use of machinery. The greater division of labor destroys the especial skill of the laborer; and by putting in the place of this skilled work labor which any one can perform it increases competition among the workers."

Now when elaborating this argument in 1848 Marx refers to a falling interest rate "in proportion as capital accumulates," *despite an assumed free corn trade*, suggesting that *the Ricardian land-scarcity case* to which he had apparently appealed earlier in his speech which predicts *a rising return on capital on this assumption was not in fact one to which he himself subscribed* (459–60). Alternatively, we might be justified in concluding that Marx subscribed unwittingly to conflicting paradigms.

We turn to Marx's general conclusion – that Free Trade will *necessarily* be detrimental to labor by allowing free rein to capital, a matter that will prove of high relevance in Chapter 15. Specifically, "[a]ll the laws formulated by the political economists from Quesnay to Ricardo" – the first of which "is that competition reduces the price of every commodity to the minimum cost of production" – have been based upon the hypothesis that the trammels which still interfere with commercial freedom have disappeared" (462). Applying this principle to labor: "the minimum of wages is the natural price of labor. And what is the minimum of wages? Just so much as is required for production of the articles absolutely necessary for the maintenance of the worker, for the continuation, by hook or by crook, of his own existence and that of his class." Wages above subsistence paid in prosperous times of the cycle are allowed, but these merely compensate for below-subsistence wages paid in depression.<sup>47</sup>

<sup>47</sup> See also the emphasis on *cycles* earlier in the document: "As a matter of principle in Political Economy, the figures of a single year must never be taken as the basis for formulating general laws. We must always take the average of from six to seven years, a period during which modern industry passes through the successive phases of prosperity, overproduction, crisis, thus completing the inevitable cycle" (MECW 6: 458).

We also find the added notion that the cost of “subsistence” itself declines and this as a result of the “progress of industry [which] creates less and less expensive means of subsistence” (463). One instance is cotton in place of wool and linen; but another is potatoes in place of bread and it is upon the latter that Marx focuses: “Thus, as means are constantly being found for the maintenance of labor on cheaper *and more wretched food*, the minimum of wages is constantly sinking” (emphasis added).

The idea that free trade would enhance international harmony – a brain-child of the bourgeoisie – is rejected on the grounds that “[e]very one of the destructive phenomena to which unlimited competition gives rise within any one nation is reproduced in more gigantic proportions in the market of the world” (464). More specifically, Marx here rejects the case for international trade based on “natural advantages” – a rather narrow perspective on the efficiency case – on the grounds that it implies a pattern engraved in stone: “Two centuries ago, nature, which does not trouble itself about commerce, had planted neither sugar-cane nor coffee trees [in the West Indies]. And it may be that in less than half a century you will find there neither coffee nor sugar, for the East Indies, by means of cheaper production, have already successfully broken down this so-called natural destiny of the West Indies.” Beyond this, the *quantitative* significance of industries could not be dismissed, Marx alluding to advantages of scale justifying *some kind of protection*: “there are . . . nowadays some branches of industry which prevail over all others, and secure to the nations which especially foster them the command of the market of the world. . . .” And finally, we encounter a remarkable regression to the standard Mercantilism of an earlier era: “one nation can grow rich at the expense of another,” just as “in the same country one class can enrich itself at the expense of another” (464–5). All in all, Marx’s developmental perspective was wholly at odds with Ricardo’s.

## K. Summary and Conclusion

Section B above brings to the fore Marx’s new defense of Ricardo against Proudhon on the theory of value, contrasting radically with the early 1840s when he condemned the former and favored the latter, a total transformation of attitude originating between 1845 and 1847. The attempt to divorce Proudhon from Ricardo is reflected in an emphasis on the principle of scarcity value and in the insistence on demand-supply interdependence extending to that between final and factor markets (pp. 195–6). This general-equilibrium framework is more sharply stated than in earlier years. At the same time there is one addition that was to become a firm feature of the mature doctrine – insistence upon *social constraints* governing “needs” both with respect to production and consumption. Conceivably this is one of the features that Marx had in mind by the high significance accorded *Poverty of Philosophy* as prototype of *Capital*.

As in the early documents, Marx attacks extreme “abstraction,” but now Proudhon – no longer Ricardo – is the target, particularly by his use of the Trading Bodies

concept in the analysis of value, rather than a framework recognizing *individual* demanders and suppliers (above, p. 196). Marx, on methodological grounds, finds it essential to stay close to the real world of markets. His objections to Trading Bodies is reinforced subsequently in the context of Proudhon's "fiction of the person-society" when treating surplus (p. 210). Marx's new positive attitude towards Ricardo also emerges strikingly in his representation of the latter's labor theory no longer as an *abstraction*, as in 1843–44, but to the contrary, as "the scientific interpretation of actual economic life," scientific because from it was derived a series of apparently disparate phenomena including rent, capital accumulation, and the wage-profit relation (p. 197).

Both in 1847 and 1849, Marx expressly accepted Ricardo's position that cost prices are arrived at by way of *supply variation*, the labor ratios requiring the free operation of "competition" (pp. 198, 202). The output-adjustment mechanism is conspicuous in the analysis of the inverse wage-profit relation, a wage increase creating profit-rate differentials that are equalized by the "competitive" process, a wholly Ricardian position that was to become part and parcel of Marx's mature doctrine. Actual output flows figure large in the adjustment process required by new technologies; indeed, in 1849 *over*-adjustment of outputs is emphasized (pp. 202, 215). Particularly significant here is the notion of *socially necessary* or least-cost labor, with a bow to Ricardo and Sismondi (pp. 199–200).

How much had really changed since 1843–44 in this regard? We found then a conflict in the texts between the market as *chaotic* and the market as *regulative* with hostile remarks against Ricardo for neglecting that "price is a matter of chance" (Chapter 6, p. 171). Now in his attacks on Proudhon in place of Ricardo, Marx at one point once more takes a position that seems to undermine his own adherence to (labor-ratio) cost pricing based on free competition. I refer to his insistence both on the displacement of entire industries by technical change, illustrated by "the dominance of cotton" and on the trend towards monopoly (above, p. 200). On this view the competitive process was *outmoded*. We seem to be back in the early 1840s. Yet the 1849 document neglects these complexities and rehearses the orthodox cost-price analysis based on "competition" (pp. 201–2). And though *overreactions* to excess supplies or excess demands preclude smooth adjustments of market to cost price, it remained true that "within a certain period of time, taking the ebb and flow of the industry together, commodities are exchanged for one another in accordance with their cost of production" (p. 202). Marx sought to distinguish this position from orthodoxy, but at the end of the day it is to cost pricing that he adheres, and in this we see a clear adjustment (due probably to Engels) from the much more critical stance of the early documents. Indeed, he now refers to an "*average* price of every commodity" — in the sense of its ratio of exchange — "determined" by cost (p. 203), in contrast with the rejection of "averages" in 1843–44 as an instance of the then despised Ricardian "abstractions." These labor costs, it will also be recalled, are said to reflect relative labor ratios,

allowance made for quality adjustment via the process of competition, i.e., a wage scale (pp. 203–4).

There is also the full Ricardian treatment of the differential-rent principle based explicitly on land scarcity allowing for endogenous (extensive and intensive) margins with reference to demand – all in formal opposition to Proudhon (p. 204f). The only objection relates to Ricardo’s alleged *universalization* of the principle, an objection that probably owed something to Richard Jones; and there are soundly based objections to contemporary rent-confiscation proposals based on allowance for technical change and market processes (p. 205).

Also Ricardian is treatment of labor as a commodity – against Proudhon – where Marx praises Ricardo’s *cynical language* though with no hint of the earlier hostility intended by this sort of designation (p. 207). But though it is “the cost of existence and reproduction of the worker” – subsistence cost – that determines the real wage, allowance made for training expenses and human-capital depreciation (pp. 207–8), the role accorded population growth in wage determination is not elaborated at this particular juncture. Much of this discussion of the labor market is in tune with the 1844 documents (see note 20).

This leads us to the issue of Exploitation. Here we recall that in the early documents Marx commended Proudhon’s *Qu’est que la propriété* (1840) for hitting upon a notion of surplus value in a private-property system (Chapter 6, p. 168). Rubel finds the true surplus value concept in Proudhon’s related propositions in 1846 that “toute valeur naît du travail et se compose essentiellement de salaires,” that “tout travail doit laisser un excédent,” and that labor has value not merely as a commodity but specifically “en vue des valeurs qu’on suppose renfermées puissamment en lui. *La valeur du travail* est une expression figurée, une anticipation de la cause sur l’effet” (Proudhon 1846: 77, 113 cited Rubel 1963: 1548–9; also see 1545–6). Proudhon, Rubel concludes, “a deviné la plus-valeur, et Marx est encore ici son débiteur, qui expliquera (par exemple dans le ch. VI du *Capital*) que le travail (il dira mieux: la *force de travail*) est une marchandise vendue, dont la valeur apparaît après sa mise en oeuvre.” Now Rubel does not apparently maintain that Marx was already indebted to Proudhon on surplus value in the *Poverty of Philosophy* itself. And he is correct not to do so. As we have pointed out, Marx did not dispute that “all labour must leave a surplus” (above, p. 210); and not only did he insist that “[l]abour, insofar as it is sold and bought, is itself a commodity,” but he agreed that it is a commodity “bought [i]n view of the values it is supposed to contain potentially” (above, note 14). All of this is *formally* consistent with the mature doctrine of surplus value. But this is to read in hindsight. We recall in particular Marx’s objection that Proudhon had actually failed to account for non-labor income (above, p. 209), without himself positively contributing to a solution. Marx does cite Bray’s approach towards exploitation in the sense of unpaid hours of labor (p. 210), but this is inconclusive since he does not formally commit himself.

While Marx does not seem to have progressed in *Poverty of Philosophy* much beyond the early 1840s towards the mature view of surplus-value, the raw materials were now at hand, for the references to Proudhon and, in particular, Bray are suggestive. A further step is taken in "Wage Labour and Capital" – published in 1849 though written in December 1847 – with its explicit reference to "the creative power whereby the worker not only replaces what he consumes but gives to the accumulated labour a greater value than it previously possessed," and to the capitalist's purchase of labor whereby he buys "just that . . . power of the labourer which produces agricultural products of double value and makes ten silver groschen out of five" (p. 211). Marx indeed in *Capital* cites the 1849 paper to the effect that the worker "produces values that give fresh command over his labour, and that, by means of such command, create fresh values." But the fact remains that he does not yet take account in that paper of surplus value in terms of the division of the work-day between paid and unpaid labor hours (pp. 211–12).

Marx's discussion in 1849 of the fundamental theorem on distribution – the inverse wage-profit relation – we have found to be broadly Ricardian (pp. 212–14) though formulated at no more sophisticated a level than in 1843–44 and in fact even a *step back* from what appears in the paper of 1845 on List (Chapter 6, pp. 189–90). Marx was still drawing on Ricardo's early editions, recognizing only the possibility of a *fall* in prices upon a wage increase (note 28); and he errs in discussing the implications for the profit rate of a variation in *nominal* wages. Absent is a discussion of the "canonical" case of secular falling real wage but rising proportionate (money) wage and thus falling profit rate (p. 213); and Marx also writes in non-canonical fashion of a secularly falling wage *share* (p. 218).

The neglect of the full canonical case is significant because of the discussion in "Wage Labour and Capital" and even more elaborately in "Wages" – though already to be found in 1843–44 (Chapter 6, p. 172) – of the falling wage trend, or *absolute impoverishment*. As in the more mature Marxian doctrine, the real-wage decline results from an increase in aggregate labor demand lagging behind total capital – as a result of what was later labelled a rising organic composition of capital (pp. 219–21) – in the face of growing labor supply. As for the latter, that entailed *net population growth*, confirming a central demographic component – in addition to inflows into the labor force from the lower middle classes and the use of females and children – endogenous to the accumulation process (p. 220). All this was to appear essentially unchanged in *Capital*. This holds good also of the rather impressive objections to Malthus appearing in "Wages" where the term Reserve Army of Unemployed is used by Marx (pp. 218, 221). Those displaced by technological change fall into the pool, while the ongoing net expansion of demand for labor is satisfied from the sources just enumerated; only at cyclical peaks is labor drawn from the pool to meet capitalists' *exceptional* needs (p. 222).



As for the profit-rate trend, that remains in 1849 formally as in the early years a matter of increasing “competition of capitals” in some respects reminiscent of Adam Smith. But a major difference with Smith – and Ricardian classicism – lies here. For the land-scarcity model assures a *beneficiary* from the declining wage and profit rates; whereas it is unclear who is the beneficiary for Marx considering the central role accorded ongoing productivity increase (pp. 224). Finally, in the context of the falling profit rate we encounter – as in the early 1840s – the phenomenon of ever-worsening crises related loosely to a sort of secular underconsumption (pp. 223–4). The combination of sometimes conflicting Ricardian and non-Ricardian features in Marx’s economics of the late 1840s is confirmed in the applied context relating to labor and free trade (section J).



PART THREE

A “SECOND DRAFT” OF *CAPITAL*:  
THE *GRUNDRISSE* 1857–1858



## EIGHT

### 1857–1858 I: Surplus Value

#### A. Introduction

Marx's 1000-page manuscript known as the *Grundrisse* (*Outlines of the Critique of Political Economy*), its existence announced to the world only in 1923, was written during the second half of 1857 and early 1858 for "self-clarification" (Rubel 1968: xc, 173–4; McLellan 1970: 35–6; MECW 28: xix; MECW 29: 261; MECW 40: 610n 250).<sup>1</sup> Here we see Marx struggling with the appropriate ordering of his material. Repeatedly we find references to topics that would have to be fitted in at some other stage of the argument, which promise is not always fulfilled at this time (see in particular MECW 28: 96, 213, 217, 334, 336, 354, 376–9, 442–7, 454, 456), numerous repetitions, significant variations and contradictions, and notes of all kinds interspersed not always coherently within the text. Inevitably some passages remain distressingly opaque. Some commentators tend to play down the document's positive analytical accomplishment: "It provided a *foundation* for Marx's later critico-theoretical development, but no more" (Oakley 1979: 287). Orzech and Groll recognize that "[t]he basic elements of Marx's theoretical system are already delineated in *Grundrisse*," but add "although in a very unpolished and unfinished form" (1989: 58). McLellan considers the *Grundrisse* as "the center-piece of Marx's thought" (McLellan 1970: 36, 41), but he refers to materials extending beyond the strictly economic with which we are largely concerned.

It will be our argument in this and the following chapter that, notwithstanding the state of the text, a body of theory encompassing most of the essentials of the "mature" doctrine – and beyond this a range of crucial applications – does emerge distinctly; there are in fact to be found observations and insights of permanent interest. Brief comments by Marx himself point to his pride in some of his achievements in the documents. One is to Engels: "I am by the way, discovering some nice arguments. E.g. I have completely demolished the theory of profit as

<sup>1</sup> Rubel suggests that by "self-clarification" Marx may have intended also the Paris and Brussels manuscripts 1844–45 and his London research 1851–54 (Rubel 1968: xcvi). McLellan writes to similar effect (McLellan 1970: 40).

hitherto propounded” (16 January 1858; MECW 40: 249);<sup>2</sup> and another to Lassalle: “. . . Ricardo’s exposition of profit conflicts with his (correct) definition of value, thus giving rise among his followers either to a complete departure from his basis, or to the most objectionable eclecticism. I believe I have cleared the matter up” (11 March 1858; 287).<sup>3</sup> In all likelihood Marx was alluding to Ricardo’s confusion of the rate of surplus value,  $s/v$  in the later jargon, with the rate of profit or  $s/(c + v)$ .

## B. The Basic Doctrine

An Introduction to the *Grundrisse* sets out by declaring the intended subject to be “material production” (MECW 28: 17). The primacy formally accorded production over distribution, consumption, and exchange will be taken for granted in treating surplus value; whether Marx applied the principle in practice is a question we shall address in discussing the problem of “realization” in Chapter 9. We recall the references in the documents of 1847–49 to “labor power” and to the “creative power” of labor. But these are still rather general. It is in the *Grundrisse* where we take a further step forward with the breakdown of the *workday* between necessary and surplus labor – the surplus envisaged as *unpaid labor*. And beyond this we encounter the distinction between the rate of surplus value and the rate of profit; the secular decline in the profit rate with rising organic composition of capital and limits to increase in the rate of surplus value; and the formulation of, and indeed solution to, the Transformation problem.

Fundamental to the capital-labor relation is the circumstance that the worker himself, unlike the slave, “has no *value*,” that “only the right to dispose over his labour acquired [by the capitalist] by exchange with him, has value” (MECW 28: 218). Indeed, for industrial capital to exist at all, “[l]abour must confront capital as *pure use value*, which is offered as a commodity by its owner himself in exchange for capital, in exchange for its *exchange value* [coin], which, of course, becomes real in the hands of the worker only in its determination as general means of exchange . . .” (218–19). For it is *labor capacity* or *labor power* that is valued by the wage contract, not labor: “[the worker] sells . . . the temporary right to dispose over his labour capacity, hence can always begin the exchange anew as soon as he has absorbed the required amount of substances to be able to reproduce his life-activity” (220). In this context Marx touches on the source of surplus-value, called here the “wealth-augmenting activity” or “creative power” of labor (232–3). Here Marx emphasizes the “alienation” entailed for labor by the wage contract:

<sup>2</sup> Marx’s first letter to Engels regarding his researches at this time reads: “I am working like mad all night and every night collating my economic studies so that I at least get the outlines [Grundrisse] clear before the *déluge*,” referring to the consequences of the 1857 trade crisis (8 December 1857; MECW 40: 217).

<sup>3</sup> Marx also wrote to Lassalle at this time of his engagement in “a polemic against Ricardo in as much as even he, *qua* bourgeois, cannot but commit blunders *even from a strictly economic viewpoint*” (22 February 1858; MECW 40: 270).

“[The worker] necessarily impoverishes himself . . . in that the creative power of his labour establishes itself as the power of capital, and confronts him as an *alien power*. He *divests* himself of labour as power productive of wealth; capital appropriates it as such. The separation of labour and property in the product of labour . . . is therefore posited in this very act of exchange. What appears as paradoxical *result*, is already contained in the premise itself” (233; also 381). And this perspective, Marx asserts – rather surprisingly and unfortunately without elaboration – “[t]he economists have expressed . . . more or less empirically.”

The purchase of labor power by the capitalist that Marx throughout intends – that relating to “*value creating, i.e., productive labour*” – is to be distinguished from the purchase of labor services out of revenue, including – remarkably – the services provided by the so-called “Lumpenproletariat . . . e.g. the large mob of casual day-labourers, etc., in ports, etc.” (202–3). Such wage payments are treated as mere transfers (203). As expressed elsewhere, the general rule is that in the employment of *services* – as distinct from *labor-power* – one “obtain[s] the labour in exchange as an activity which creates utility, use value, not as *labour* which *posits value*” (394).<sup>4</sup> It is, in effect, final utility that the employer acquires.

Although “the subject to be discussed is *material production*” (above, p. 236), the “use value” acquired by the capitalist employer of productive labor “is not materialised in a product, it does not exist in any way external to [the worker]. Consequently, his use value does not exist in reality but only potentially, as his capacity” (197; also 212).<sup>5</sup> Noteworthy is an allowance within labor capacity for *skill*: “. . . in addition to the labour time . . . necessary to pay for the products required for the maintenance of his vitality – more labour is objectified in his immediate being, namely the values he has consumed in order to produce a specific *labour capacity*, a particular *skill*, the value of which is given by the costs of production of a similar specific skill” (249; see also 211). For all that, Marx frequently abstracts from “skill” to render the pure doctrine. For example: “as use value *as such* confronting money posited as capital, it is not this or that labour, but *labour pure and simple*, abstract labour; absolutely indifferent to its particular *determinateness*, but capable of assuming any *determinateness*” (222).

<sup>4</sup> Marx also recognizes labor that is “necessary without being productive” alluding to *State* employees: “All *general, social* conditions of production – as long as they cannot as yet be produced by capital as such and under its conditions – are consequently paid for out of a part of the revenue of the country, by the government’s treasury, and the workers do not appear as productive workers even though they increase the productive power of capital” (MECW 28: 457).

<sup>5</sup> On the term *labor capacity* (“Arbeitsvermögen”), see editorial note: “In his manuscripts of 1857–58 [Marx] as a rule uses this term in place of labor power (“Arbeitskraft”), which occurs once in his earlier work, *Wage Labour and Capital* (see MECW 9: 214) and several times in his manuscripts of 1861–63” (MECW 28: 554 n 85). In *Capital 1* the two terms are treated as identical, and understood as “the aggregate of those mental and physical capabilities existing in a human being, which he exercises whenever he produces a use-value of any description” (MECW 35: 177).

By the contract involving surrender of the “right of disposition over his labour,” the laborer “gets in exchange . . . not exchange value, not wealth, but means of subsistence . . . measured by the production costs of his labour” (214). The point here is that the worker receives “*a particular use value*,” a claim restricted in effect to wage goods rather than to *wealth in general*, unlike – strange to say – unproductive labor which is said to acquire “the general form of wealth” (203). In principle, by practicing “self-denial” – by “*saving*, cutting down his consumption” or by increased exertion – a worker can acquire general wealth and “convert his coin into money” (215).<sup>6</sup> But any such attempt on the part of a majority of workers would be self-defeating as capitalist employers are signalled thereby that “wages were in general too high, that [workers] were receiving more than the equivalent for their commodity, the right to dispose over their labour” (216).

Marx saw in contemporary savings-bank proposals an abandonment “by all serious modern economists” of the doctrine of *abstinence by capitalists* (214–15). Even so, no such device could actually allow workers to engage in net wealth accumulation; and indeed the true object of the proposal was to assure *lower* labor cost of production for the employer: “. . . even the economists concede that their real purpose is not wealth, but only a more appropriate distribution of expenditure, so that in old age, or in sickness, crises, etc., the workers do not become a burden on the poorhouses, on the State, or go begging . . . so that they become a burden on the working class itself and not by any means on the capitalists . . . ; i.e. so that they save for the capitalists and reduce the costs of production for them” (215). The impossibility of workers accumulating net wealth for themselves is said to apply on average: “An individual worker can be *industrious* above the necessary level, more industrious than is necessary to live as a worker, only because another is below the level, is lazier. He can save only because and if another squanders” (216). And even then, “[t]he most he can attain on average with his frugality is to be better able to endure the adjustment of prices – high and low, their circuit; that is only to distribute his enjoyments more appropriately, not to acquire wealth. And that is actually what the capitalists demand. The workers should save enough in times of good business to be able to more or less live in bad times, to endure short time or the reduction of wages, etc.”<sup>7</sup>

All in all, it was “essential for capital . . . to limit the consumption of the worker to what is necessary for the reproduction of his labour capacity, i.e. to make the *value* which expresses *necessary labour* the limit of the utilization of the worker’s labour capacity and hence of his *capacity to exchange*, and to try to reduce to a minimum the ratio of this necessary labour to surplus labour” (350). This perspective suggests that the real wage is determined by a sort of one-sided *diktat* on the part

<sup>6</sup> On money as the “general form of wealth” see also Chapter 9, p. 287.

<sup>7</sup> A discussion of the general consequence of the “sheer brutalisation to which this would lead” provides a fascinating perspective of Marx’s vision at this time of the importance of workers’ cultural development, very much in line with J. S. Mill or W. S. Jevons.



of employers, at an amount sufficient for “the reproduction of . . . labour capacity,” implying thereby a “subsistence” wage in the classical sense. (The presumption must, one supposes, be *provisional* since in a growing economy wages necessarily exceed subsistence to assure net population growth, a matter we shall take up in Section D.)

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The preceding formulation refers to the notion of surplus value as *surplus labor*. And in fact, by this stage in his manuscript, Marx had already elaborated in some detail the source of surplus value in these terms, as we shall now see. In the course of this elaboration he posits *capital* “as self-preserving exchange value” (238); that the elements comprising capital take different *physical* forms during the production process is irrelevant to their *values*. Accordingly: “The value of the [final] product can therefore only = the sum of values which were materialised in the particular physical elements of the process, as raw material, instrument of labour . . . and as labour itself. The raw material has been entirely consumed, as has the labour; the instrument only partly so. . . .” At this point, be it noted, Marx does not distinguish between *value* and *price*: “The value of the product = the value of the raw material + the value of the destroyed part of the instrument of labour . . . + the value of labour. Or the price of the product is equal to its costs of production, i.e. = the sum of the prices of the commodities which have been consumed in the process of production” (239). *The problem to be resolved relates to the source of the profit yielded by the production process if in fact prices equal costs including only the elements just listed.*

The greater *use* value that emerges from the production process is irrelevant: “Whether . . . use value is higher or lower does not as such determine exchange value. Commodities often fall below their price of production, though they doubtless have obtained a higher use value than they had in the period *before* production” (241).<sup>8</sup> Citing Ramsay 1836 favorably, the source of profits in the *circulation* process is also rejected: “Profit is not made by exchanging. Had it not existed before, neither could it after that transaction.” Marx elaborates: “That amounts to trying to explain from simple circulation the augmentation of value, whereas, on the contrary, circulation *expressly* posits value only as an equivalent. It is also clear empirically that if everyone sells 10% too dear, this is the same if they all sold for the production costs.”<sup>9</sup> Surplus value would thereby be purely nominal, fictitious,

<sup>8</sup> See editorial note: “Price of production (Produktionspreis) means here . . . ‘production costs’ or ‘the necessary price of the commodity’ . . . In his manuscript of 1857–58 Marx did not yet make a clear distinction between value and the price of production” (MECW 28: 555–94). This is far from the case (see below, Section F).

<sup>9</sup> A cautionary editorial note points out that Marx sometimes used “the term ‘production costs’ (Produktionskosten) . . . in the sense of ‘the immanent production costs of the commodity, which are equal to its value,’ i.e., ‘the real production costs of the commodity itself,’ not the costs defrayed by the capitalist, who pays only part of the labour time contained in the commodity” (MECW 28: 547–29).

conventional, a mere phrase” (241).<sup>10</sup> Ricardo too is paraphrased to the same effect that “trade in general . . . can never raise *exchange values*, can never produce *exchange value*” (242).<sup>11</sup> Allowance for *superintendence* as a form of special labour posed no problem; and Marx allowed readily compensation for *risk* – that “[c]apital must preserve itself in the fluctuations of prices” – and for *depreciation*, with specific mention made of technological obsolescence (243).

But none of this touches on the source of the return to *capital* strictly defined: “It is easy to understand how labour can augment use value; the difficulty lies in understanding how it can create higher exchange values than those with which it began.” In phrasing the matter in this fashion Marx is evidently *presupposing* that it is labor which creates surplus value – and this is scarcely surprising since the entire discussion is founded on the *definition* of “exchange value” as labor embodied: “Suppose the exchange value which capital pays to the worker were an exact equivalent for the value which labour produces in the process of production. In this case, an increase in the exchange value of the product would be impossible. What labour as such would have brought into the process of production over and above the original value of the raw material and instrument of labour would be paid to the worker” (244). Or again: “If the capitalist has paid the worker a price = one day’s labour and the day’s labour of the worker adds only one day’s labour to the raw material and instrument, the capitalist would simply have exchanged exchange value in one form for exchange value in another. He would not have acted as capital” (247). The solution, of course, is that profit amounts to *unpaid labor time*: “*The surplus value of capital at the end of the production process . . . signifies . . . that the labour time objectified in the product . . . is greater than that present in the original components of capital. Now this is possible only if the labour objectified in the price of labour is less than the living labour time which has been bought with it*” (246). This is the only conceivable source of surplus value since “the labour time objectified in the raw material . . . [and] in the instrument . . . remain unchanged as components of capital; even if they alter their form in the process, their physical modes of being, they remain unchanged as values” (246–7).

That Marx refers to the “price of labour” rather than “labour power” is not technically significant, for the latter notion had been already introduced (see above,

<sup>10</sup> “This is the first time Marx uses the term ‘surplus value’ (*Mehrwert*) to denote that surplus over and above the advanced value which is appropriated by the capitalist without compensation. Further in the text he frequently uses the combination ‘Surplus-wert’ for surplus value” (editorial note, MECW 28: 555 n 95). The editors also cite use of the term “surplus value” by Thompson 1824: 167, 169, but add that he meant “the extra profit obtained by the capitalist employing machinery over and above the profit of the manual artisan.” Also noted is Marx’s own use, in an article written in October 1842, of the term “Mehrwert” “for the extra value received by forest owners in the form of fines imposed for the theft of wood” (MECW 1: 250–5), with no relation to his later usage.

<sup>11</sup> See however MECW 28: 252, 275, for remarks opposed to Ricardo on trade.

pp. 236–7), and was evidently intended.<sup>12</sup> The significance for Marx of the *labor power* concept emerges very clearly in the present context: “What the worker exchanges for capital is his labour itself (in the exchange, the right of disposing over it); he *alienates* it. What he receives as price is the *value* of this alienation. He exchanges the value-positing activity for a predetermined value, regardless of the result of his activity” (248). And at this point the solution to the problem of surplus value is formulated in terms of *the working day and its breakdown*, so familiar to readers of *Capital*:

If a whole working day were required in order to keep a worker alive for a working day, capital would not exist, because one working day would exchange for its own product. . . . If, on the contrary, e.g. only half a working day is needed to keep a worker alive for a whole working day, a surplus value of the product is the automatic result, because the capitalist has paid in the price [of labour] only half a working day and he has received a whole working day objectified in the product; therefore has exchanged *nothing* for the second half of the working day. It is not exchange but a process in which he obtains without exchange *objectified labour time*, i.e. *value* which alone can make him into a capitalist. Half the working day costs capital *nothing*; it therefore receives a value for which it has given no equivalent. And the augmentation of values can occur only because a value over and above the equivalent is obtained, hence *created* (249–50).

A later passage reverts to the matter of “alienation” and turns on the proposition that “[t]he exchange of equivalents, which appears to imply property in the product of one’s own labour . . . manifests itself by a necessary dialectic as the absolute separation of labour and property and the appropriation of alien labour without exchange, without equivalent” (438). Only “on the surface” does production based on exchange entail a “free and equal exchange of equivalents. . . .” The delusion that “[a]n exchange of equivalents occurs . . . is merely the surface layer of a [system of] production which rests on the appropriation of alien labour *without exchange*, but under the *guise of exchange* . . .,” referring to wage-rate determination via the market (433).<sup>13</sup>

There is a further, rather mystical, detail to note. The capitalist “by actually paying the worker an equivalent for the production costs contained in his labour capacity, i.e. by giving him the means to preserve his labour capacity but appropriating living labour for himself – obtains two things free of charge: firstly, the

<sup>12</sup> See also Oakley: “Marx’s failure to use the term labour power in the ‘price of labour’ is not important” (1979: 294).

<sup>13</sup> See on this Dobb’s helpful summary: “In the process of circulation everything had the semblance of an exchange of *equivalents*; buyers and sellers freely contracting to barter what they had available to exchange for what they sought to acquire. . . . If, accordingly, profit or surplus were to be made out of such trade, this, it seemed, could only be due to the absence of competition or to some limit on free trading. Thus the so-called ‘Ricardian Socialists’ such as Hodgskin and William Thompson attributed profit on capital to ‘unequal exchanges’ or superior bargaining power of those possessing capital” (Dobb 1982: 80).

surplus labour which increases the value of his capital, but at the same time, secondly, the quality of living labour which preserves the previous labour materialised in the component parts of capital and thus preserves the previously existing value of the capital” (289–90). An empirical observation suggests that the second advantage is something of a formality: “If, e.g. in time of stagnation of trade, etc., the mills are shut down, then it can indeed be seen that the machinery rusts and the yarn is useless ballast, and rots, as soon as their relation to living labour ceases. . . . [A]s soon as he ceases to order work, his already existing capital, too, is depreciated; i.e. . . . living labour not merely adds new value, but by the very act of adding a new value to the old one, maintains, eternalises it” (290). Certainly Marx is not implying the costlessness to the capitalist of maintaining capital intact.<sup>14</sup>

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Within the framework laid out above, increased productivity does not play on profits directly by increasing “the quantity of products or use values produced with a given amount of labour”; rather, “it reduces *necessary* labour and thus in the same proportion creates *surplus labour*, or, what amounts to the same thing, surplus value; because the surplus value of capital, which it obtains by means of the process of production, consists solely in the excess of surplus labour over *necessary labour*” (264).<sup>15</sup> This addition to the surplus Marx designates as “new” or “independent” value, that is as “objectified labour, which has become free, relieved of the necessity merely to serve for the exchange of the previous labour power [Arbeitskraft]” (270). As the matter is phrased at the close of the discussion: “Growing productivity increases *surplus value*, though it does not increase the absolute sum of exchange values. It increases values because it produces a new *value as value*, i.e. a value which is not intended simply to be exchanged as an equivalent but to maintain itself; in a word, more money” (313). The increase in exchange values is also identified as

<sup>14</sup> On the perceived “eternalisation” of capital by current labor, see a summary statement confirming that Marx does not intend to deny that “existing capital” requires costly maintenance: “The preservation of the existing capital by the labour which valorises it, thus costs capital nothing, and therefore does not belong to the production costs, although the existing values are preserved in the product, and in exchange, therefore, *equivalents must be given for them*” (MECW 28: 290; emphasis added).

Marx applies the principle to defend Ricardo against “the accusation . . . that he conceives *only* of profit and wages as necessary components of production costs, and not also of the part of capital contained in the raw material and instrument.”

<sup>15</sup> A doubling of productivity with necessary labor initially at (say) 1/4 working day, raises surplus value from 3/4 to 7/8, or by 1/8. This piece of arithmetic leads on to an interesting comment pointing to *uniformity of  $v/(s+v)$*  – implying a uniform rate of surplus value, on which see below Section F – assuming competition and undifferentiated labor: “A general increase in productivity in the same proportion may increase the value of capital differently in different branches of industry, and will do so according to the different ratios of *necessary labour* to the living working day in these branches. This ratio would of course be the same in all branches of business in a system of free competition, if labour were in all cases simple labour, and hence *necessary labour* were the same” (MECW 28: 265).

an increase in “wealth” because “there has been an increase in that part of its total sum which is not merely means of circulation but money, or which is not merely an equivalent but *exchange value* existing *for itself*” (271).<sup>16</sup>

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A criticism of Proudhon illuminates Marx’s perception of the source of profit and also touches on the value-price relation. The context relates to the problem of overproduction which we shall consider in Chapter 9, but the implications are more general: “Proudhon, who certainly hears the bells ringing, but never knows where, derives overproduction from the fact that ‘the worker cannot buy back his product’ [Proudhon 1841: 202; also in Bastiat 1850: 207–8]. By this he means that interest and profit are charged on it, or that the price charged for the product is in excess of its actual value” (MECW 28: 352). “This proves *d’abord* that he understands nothing of value determination, which generally speaking, cannot possibly include an item like overcharge.” Though individual capitalists might “cheat” each other – “[i]n actual commerce, capitalist A can cheat capitalist B. One profits by the amount the other loses. . . .” – in the *aggregate* only the sum of surplus value is available for distribution between them: “From the entire profits that capital, i.e. the total number of capitalists, makes, there are deducted (1) the constant part of capital; (2) the wages, or the objectified labour time necessary to reproduce the living labour capacity. They can therefore divide among themselves only surplus value. The proportions. . . in which they share out this surplus value among themselves, make absolutely no difference to the exchange and to the relation of exchange between capital and labour” (352–3). “Cheating” by the capitalist in his relation with labor, is similarly set aside: “The fact that in practice, capital both in its general tendency and directly via the *price*, as e.g. in the truck-system, tries to cheat *necessary* labour and to depress it below the standard set by nature as well as by a particular state of society, is irrelevant here. Here we must assume throughout that the wages being paid are *economically* just, i.e. determined by the general laws of political economy” (354).

What though of the argument that the *wage* itself, since determined by the prices of wage goods, “already include profit”? “It might be said that *necessary labour time* (i.e. wages), which therefore does not include profit but is rather to be subtracted from it, is itself in turn determined by the *prices* of the products, which already include profit” (353). This sort of case is rejected on the grounds that

<sup>16</sup> Formally: “*Money* for itself should be designated neither as use value nor as exchange value, but as *value*” (MECW 28: 274 n). On this and similar usages in the *Grundrisse*, see Arnon 1984; Nelson 1999, Chapter 4.

In the first instance, either the “new value” is “accumulated as money i.e., added to the existing exchange values in the abstract form of exchange value” or it “pass[es] immediately into circulation,” but this second case in fact reduces to the former, for if “they all pass into circulation. . . then the prices of the commodities purchased with them rise. They all represent more gold, and, since the cost of production of gold has not fallen. . . more objectified labour” (MECW 28: 271).

“(1) *price* and *value* are confused; (2) relations are brought in which are irrelevant to the determination of value as such.” And this was the source of Proudhon’s error.

Marx set out by asserting generally “that the wages paid by the spinner to his workmen must be sufficient to buy the necessary bushels of corn, whatever the farmer’s profit entering into the *price* of the bushel of corn, but that equally, on the other side, the wages paid by the farmer to his labourers must be sufficient to enable them to obtain the necessary quantity of clothing, whatever may be the profit of the spinner and weaver entering into the *price* of this clothing.” Now in making his case Marx simplified – it is the sort of simplification he condemned when used by others including Proudhon (see Chapter 7, p. 228) – by assuming a capitalist who “himself produces all the means of subsistence which the worker requires. . . . The worker would therefore have to buy back from the capitalist, with the money he received from him . . . that fractional part of the product which represents his necessary labour.” Proudhon had erroneously *supposed* that “in the price of the fractional parts of the commodity which he buys there is included the profit in which the surplus value falling to the capitalist appears. If, therefore, his necessary labour time represents 20 thaler = a particular fractional part of the product, and if profit is 10%, the capitalist sells him the commodity for 22 thaler” (354). Accordingly, Proudhon had concluded, “the worker cannot buy back his product, i.e. the fractional part of the total product which objectifies his *necessary labour*” (in Bastiat 1850: 191–208).

There follows a series of arithmetical examples purporting to demonstrate that the worker in fact *can* buy back his necessary wage although the capitalist makes a profit on all units sold. Unfortunately, Marx *takes for granted* what requires demonstration; for he sets out by simply restating his main case whereby “exchange value” is *defined* as the labor embodied in “capital laid out in seed, machinery, etc.,” necessary labor time and surplus labor time – or  $c + v + s$  in later terminology – the latter component *costing the capitalist nothing* and constituting a “surplus above his expenses” (MECW 28: 355). Here lay the source of profits, not in any overcharge. Again: “The profit of the capitalist does not arise from selling the pound of twist too dearly – he sells it for its *exact value* – but from selling it for more than its *production costs him* . . .” (359). Marx readily conceded – as elsewhere in his text (above, p. 241) – that *appearances do mislead*, for “it seems as if there were an overcharge above the *real value* of each individual pound, and the creation of surplus value in the individual pound has disappeared from sight.”

### C. Surplus Value and the Transition to Growth

We return to the proposition that productivity improvement generates an increase in surplus value in the sense of “a value which is not intended simply to be exchanged as an equivalent but to maintain itself; in a word, more money” (above, p. 242). Now

Marx spells out the conditions for transition to an expanding economy entailing effective accumulation – in his terms the transition of the “money” entity from its “abstract form of general wealth” pertaining immediately after the rise in productivity, to its function as (we shall see) “a draft on future labor” or “labor capacity coming into being.” *Accumulation, in brief, requires the availability of an adequate labor supply.* We note here that Marx had Proudhon in mind in making his case, for Proudhon had taken a wholly *static* view by his proposal “that capital should not be loaned and bear interest, but should be sold as a commodity for its equivalent, like every other commodity [see Bastiat 1850: 65–74]” ; for this was “nothing but the demand that exchange value should never become capital but remain mere exchange value, i.e. that *capital should not exist as capital*” (MECW 28: 244). Bastiat, in opposing Proudhon, had “unconsciously, re-emphasise[d] the moments in simple circulation which tend to give rise to capital” (245).

The notion of money as draft on *future* or *new* labor, taking the form of accelerated population growth or a reserve of unemployed, is spelled out in passages describing the transition from an economy “in a state of rest” to one “in motion”:

In a state of rest, this released exchange value, by which society has enriched itself, can only be money; and then only the abstract form of wealth is increased; when in motion, it can only realise itself in *new* living labour (it may be that previously unemployed labour is set in motion or that *new workers* are created (population [growth] is accelerated) . . . (273–4).<sup>17</sup>

The surplus value, the increase of *objectified labour*, so far as it exists for itself, is *money*; but money is now *in itself* already capital, and as such a *draft on new labour*. . . . [N]o longer as money which is merely the abstract form of general wealth, but as money which is a draft on the real possibility of general wealth – on labour capacity, and, more precisely, on *labour capacity coming into being* (292).

From this perspective “[t]he accumulation of capital in the form of money is . . . in no way a material accumulation of the material conditions of labour, but the accumulation of property titles to labour. It posits future labour as *wage labour*, as use value of capital. No *equivalent* exists for the newly created value; its possibility [exists] only in new labour.”

All this proceeds at rather too abstract a level, merely setting the stage for an appreciation of the transition to growth. Our next section brings the discussion down to earth.

<sup>17</sup> Marx proceeds as if there are *alternatives* to population increase or an available pool of unemployed: “or again . . . a new circle of exchange values is created, . . . the circle of exchange values in circulation is enlarged, which can occur on the production side, if the released exchange value opens up a *new branch of production*, therefore [creates] a new object of exchange, objectified labour in the form of a new use value; or finally . . . the same is achieved by the introduction of objectified labour into the sphere of circulation in a new country by means of the expansion of trade” (MECW 28: 274). But it seems more satisfactory to regard these options as *complementing* the initially stated conditions rather than as *alternatives*.

#### D. Elements of a Growth Model: Productivity Increase, Population Growth, and the Reserve of Unemployed

Our Section B refers to “necessary labour” in terms of the “reproduction of . . . labour capacity,” a sort of subsistence wage determined (so it there appeared) by one-sided *diktat* on the part of employers, which – though not necessarily a physiological minimum – allowed no element of surplus to the worker (above, pp. 238–9). Now a real wage sufficient to assure only “the *reproduction*” of labor power pertains specifically to a stationary economy; for the “necessary” wage *necessarily* exceeds that minimum in a system with scope for population growth. The problem can be overcome by retaining the *long-run* real wage unchanged at subsistence, but allowing for population expansion by way of reactions to *short-run* deviations of the market wage from subsistence: “With the accumulation of capitals, wages rise, unless population grows simultaneously; the worker marries, stimulus is given to propagation or his children live better, do not die prematurely, etc. In short the population grows” (MECW 28: 277). But to this Marx adds: “its growth leads to competition among the workers, and thus compels the worker once again to sell his labour capacity to the capitalist at, or even for a time below, its *value*.” Why in the case supposed there should occur a reversal of the wage is unclear. Moreover, the qualification “unless population grows simultaneously” is also problematic, for why should there be ongoing population growth with the long-run wage at “subsistence”? Yet the putative expansion of population with wages at subsistence is spelled out thus:

Wages include not only the worker, but also his reproduction – so that when this specimen of the working class dies, another replaces him; when the 50 workers are dead, there are 50 new ones to replace them. The 50 workers themselves – as living labour capacities – represent not only the costs of their own production, but the costs that had to be paid to their parents over and above their own wages as individuals in order to replace themselves in 50 new individuals. Therefore the population grows even without a rise in wages (278).

The conclusion does not follow since Marx has just described a *constant* population.

Fortunately, this is not the end of the matter. For Marx qualifies his proposition that population growth proceeds even with wages at subsistence, observing that any such population growth is *inadequate* – that “it does not grow quickly enough,” and requires a “special stimulus” – which effectively concedes the unsatisfactory nature of the initial proposition. That population increase requires further stimulus is explained by the circumstance that “it is of no use to capital merely to obtain more ‘wealth’ in Ricardo’s sense” – he intends increase in physical output; rather, capital “wants to command more *value*, more objectified labour,” that is a larger aggregate work force. The proper approach is thus one that has population expanding *along with capital* – with the real wage at a level high enough to generate such expansion.

Marx’s fuller analysis of population expansion takes account of *ongoing technical progress*, and several of the problems mentioned above fall away. The account



accords strategic significance to “the variable proportion (the day itself is a constant magnitude) of the *fraction of the necessary hours of labour* to that of the *hours of surplus labour*,” identifying – as far as concerns the “living working day” – the case of an individual working (say) a total of 50 days of 12 hours with that of 50 workers each engaged for a 12-hour day (278). This transition from the *individual* to the *aggregate* “workday” proves to be more than a mere formality. Consider the two means of increasing surplus that Marx intended – reductions in “necessary labor time” and expansion of “simultaneous working days” or in later terminology increase in *relative* and in *absolute* surplus value: “*Surplus time* exists [firstly] as the excess of the working day over and above that part of it which we call *necessary labour time*. It exists secondly as the multiplication of *simultaneous working days*, i.e. of the *working population*.” (325).<sup>18</sup> “The first ratio of the surplus time to the necessary time in the working day” – *s/v* in later terminology – “can be and is modified by development of the production forces, so that necessary labour is restricted to an ever smaller fractional part. The same is then true relative to the population. A working population of say, 6 million can be considered as the working day of  $6 \times 12$ , i.e., 72 million hours; so that the same laws are applicable here” (325–6). The second means of producing surplus labor – expansion of the number of workdays – Marx treats as a “tendency” on a par with the first: “It is the law of capital . . . to produce surplus labour, disposable time. It can do this only by setting in motion *necessary labour*, i.e. by entering into exchange with the worker. It is therefore the tendency of capital to produce as much labour as possible, just as it is its tendency to reduce necessary labour to a minimum. It is therefore as much the tendency of capital to enlarge the working population, as well as constantly to make a part of that population surplus – that is useless, until such time as capital can utilise it” (326). This, he adds, showed “the correctness of the theory of surplus population and surplus capital. . . .”<sup>19</sup> Capital must therefore constantly posit necessary labour in order to posit surplus labour; it must increase . . . the *simultaneous* working days, in order to increase the surplus; but, equally, it must transcend it as necessary labour in order to posit it as surplus labour.”

The allusion above to rendering “useless” part of the working population “until such time as capital can utilise it” implies the notion of a Reserve Army of Unemployed. We shall turn shortly to this matter, noting first Marx’s important elaboration of the two means of expanding surplus wherein *reductions in necessary labor (a fall in v in effect) itself encourages enlargement of the working population* “by rendering the production of workers . . . cheaper”: “. . . capital solicits the increase

<sup>18</sup> Marx adds: “It can also be produced – but this to be mentioned here only allusively, as this point belongs to the chapter on wage labour – by a feasible extension of the working day beyond its natural limits; or by the addition of wives and children to the working population” (MECW 28: 325).

<sup>19</sup> The “correctness of the theory of surplus population and surplus capital” – evidently referring to Malthusian doctrine – may be less a positive commendation than the positing of a sort of analogy, not to be pushed too far, between that doctrine and his own.

of population, and the very process by which necessary labour is reduced, makes it possible to set to work new necessary labour (and hence surplus labour). That is to say, the *production of workers* becomes cheaper, more workers can be produced in the same time . . .” (327). The mechanism whereby reduction in the cost of a *given* wage basket brings about population expansion is not fully elaborated; but it is likely that Marx here applied to *labor power* the analysis of improved technology in the case of *any* commodity produced under “constant cost” conditions, with aggregate demand for labor higher at the new, lower, cost level: “capital . . . set[s] to work new necessary labour.”

One might, of course, fill in the transition between equilibria in terms of the demographic response to a *temporary* real-wage increase that immediately follows a reduction in the cost of producing wage goods. But this is to proceed in comparative-static terms. If technical change is an *ongoing* process one arrives at *on-going* population growth, such growth satisfying the condition that the real (commodity) wage is *continuously above the “subsistence” level* which allows only for the “reproduction” or *maintenance* of population not its *expansion*.

That this perspective is an accurate representation is supported by the emphasis Marx placed on the mutually reinforcing forces at play. Thus not only does technical change, by reducing the cost of  $v$ , encourage population growth; but conversely “increase of population increases the productive power of labour, by making greater division and greater combination of labour, etc.,” which amounts to *endogenous* organizational change. The significance of absolute population size for technology *including science* – and a further allusion to surplus labor – is also found in a later passage of the highest interest:

Generally speaking, when we look at production based on capital, an essential condition appears to be the combination of the greatest absolute quantity of necessary labour with the greatest relative quantity of surplus labour. Hence as basic condition the greatest possible growth of population – of living labour capacities. If we further look at the conditions for the development of both productive power and exchange, we find that they are the division of labour, cooperation, observation in all directions, which can only be the work of many heads, science, as many centres of exchange as possible – and all these are identical with the growth of population (527).

\* \* \*

We turn now to the pool of unemployed. The argument turns on the *aggregate* rather than the *individual* workday, reductions in hours of “necessary labour” pertinent to the individual manifesting itself in the aggregate as the “elimination” of workers from the production process and their relocation to a “reserve.” This process is said to turn *primarily* on net population expansion – “the increase of population is itself the chief means for a reduction of the necessary part” (327). The process involves the effect of a large population on organizational and technological progress, described above, and thereby on the demand for labor – an implicit illusion to increasing organic composition with its labor-displacing effects: “it is the

tendency of capital . . . to reduce to a minimum the many simultaneous necessary working days (which, so far as value alone is concerned, may be considered as *one* working day), i.e. to posit as many of them as possible as *not necessary*. As previously in the case of the single working day, it was the tendency of capital to reduce the hours of necessary labour, so now it tends to reduce the necessary working days in relation to the total of objectified labour time. . . .” However, there is the countervailing fact that “the newly created surplus capital can be valorised as such only by being exchanged for living labour. Hence the tendency of capital just as much to increase the *working population* as constantly to diminish the *necessary* part of it (constantly to reallocate a part of it as a reserve).” Marx does not here comment on the balance of the *labor-displacing* and *labor-attracting* forces, that is whether or not aggregate labor demand tends to expand on balance.

Marx explains that by his reference to the “idle surplus population” he intends a reserve of *productive* labor: “it is inherent in the condition for the appropriation of alien surplus labour that necessary population – i.e. the population representing necessary labour, labour necessary for production – is matched by a *surplus population*, which does not work. . . . The expression ‘surplus population’ refers exclusively to labour capacities, i.e. to the *necessary population*; surplus *labour capacities*. This arises simply from the nature of capital. Labour capacity can only perform its necessary labour if its surplus labour has value for capital, if it can be valorised by capital . . .” (527–8).<sup>20</sup>

The reserve of unemployed “is maintained, not out of the wages fund, but out of the income of all classes. . . . society [as a whole] in various proportions takes on for Mr. Capitalist the job of maintaining his virtual instrument of labour – defraying its wear and tear – keeping it in reserve for later use by him. . . .” (528), or as expressed earlier “until such time as capital can utilise it” (above, p. 247).<sup>21</sup> Here Marx reverts to the two-fold requirement for successful capital accumulation: “(1) It needs a growing population in order to be set in motion. . . . (2) It needs an unemployed (relatively, at least) part of the population, i.e. a relative surplus

<sup>20</sup> The significance of the “non-productive” sector, living on revenue, is recognized but not entered into in detail: “It does not belong here yet, but can already be mentioned here, that the creation of surplus labour on the one side corresponds to a creation of minus-labour, relative idleness (or at best *non-productive* labour) on the other. This goes without saying, to start with, as regards capital itself; but it applies equally to the classes with which it shares, i.e. to the paupers living on the surplus product, flunkeys, Jenkinsons, etc., in short the whole train of retainers; the part of the *servant* class which does not live on capital but on revenue” (MECW 28: 328). Scientific and artistic labor is mentioned apart: “In relation to the whole of society, the production of *disposable time* [can] also [be considered] as the creation of time for the production of science, art, etc.” A question Marx neglects to address is *why* capitalists would follow a path that generates reductions in necessary labor in order to increase their surplus, only to finance therewith – or allow society as a whole to finance – such unproductive forms of labor rather than productive workers who would generate further surplus value for them.

<sup>21</sup> There is the qualification: “In all this discussion, we have purposely abstracted entirely from the vicissitudes of the market, its contraction, etc., in short from everything which presupposes the *process of many capitals*” (MECW 28: 529).

population, in order to have the population necessary for its growth immediately available” (529).

Let us focus on the function of the Reserve. Two revealing expressions in the preceding paragraphs suggest that Marx may not have intended a source of labor for *secular* expansion. I refer to the availability of labor “for later use” by the capitalist, or “until such time as capital can utilise it.” Considered by themselves it would be unsafe to read too much into these expressions, but in the light of the explicit attribution elsewhere to the reserve of accommodating capitalists’ requirements at or near the peak of the *cycle* (see Chapter 7, pp. 222, 230), they are highly suggestive.

For all that, there is no hard and sharp division between the active and the reserve labor force. For a second function is specified, in effect that of increasing *mobility*: “The speed with which a particular capital can reconvert itself from its form as money into the conditions of production . . . depends both on the speed and continuity of the production sustained by the other capitals which supply this particular capital with its raw material and instrument, as well as on the availability of workers. With regard to the latter, a relative surplus population is the most favourable condition for capital” (443).<sup>22</sup>

To recapitulate the main theme: population growth is accorded a central role in the growth process in that effective accumulation is dependent thereupon. It is in fact a “tendency of capital” itself to stimulate such growth by lowering the cost of labor power, while the *magnitude* of population reinforces the impetus to further *growth* of population by way of organizational change and scientific advance relating to scale. At the same time, population increase is represented as mainly responsible for the generation of a Reserve Army – “the chief means” (above, p. 248)– again by way of its effect on organization, the function of which is to assure a labor supply “immediately available” for capital’s needs, which we suggest refers to cyclical needs.

The foregoing analysis with its emphasis on the role of *absolute* population size – that it is chiefly responsible for (labor-displacing) technological and organizational change – seems to pose a problem in the light of other passages in the *Grundrisse* focusing on *relative* rather than *absolute* population size. Thus in specifying the so-called “moments” in the entire production-circulation process we read: “The exchange of a part of capital for the living labour capacity can and must be considered a special moment of the process, since the labour market is regulated by other laws than the produce market, etc. In the labour market, population is the main factor, *not absolute but relative population*” (444; emphasis added). A partial resolution emerges when we take account of Marx’s objections to Malthus, specifically

<sup>22</sup> It is interesting to see the same point made (using the same military analogy) from a modern “bourgeois” perspective: “It is impossible to achieve mobility with an army, almost every able-bodied member of which is already committed to action. So the necessity of adaptation to changing circumstances must involve, for those who are changing jobs, a brief period in which in the statistical sense they are not employed; and experience seems to show that this degree of adaptability is not to be secured with a use of the labour force much over 97.7 per cent or 97.8 per cent” (Robbins 1979: 14).

to an alleged concern with population size relative to “means of subsistence”: “[Malthus] foolishly relates a certain number of men to a certain quantity of means of subsistence. Ricardo straight away countered this by correctly pointing out that the quantity of available grain is quite immaterial for the worker if he is without *employment*; that it is therefore the means of employment and not of subsistence which determine whether or not he belongs in the category of surplus population . . .” (526).<sup>23</sup> Now the denial that surplus population had meaning *relative* to “subsistence” is extended “more widely” to all social structures – slavery, feudalism, and tribal arrangement: “Nowhere [overpopulation] relative to a *non-existent* absolute quantity of means of subsistence, only relative to the conditions of reproduction, of the production of these means. But this includes the *condition of the reproduction of human beings*, of the total population, of relative surplus population. This surplus purely relative: in no way related to the *means of subsistence* as such, but only to the mode of their production. Hence also a *surplus* only given this state of development” (527). It is not then that absolute population size – and with it *excess* population size – is irrelevant, but that it only had meaning in relation to the particular “mode of production” of the means of subsistence – the state of agricultural organization and productivity – under investigation.<sup>24</sup>

\* \* \*

We close this section by pointing out that Marx’s insistence on a growth process entailing ongoing population growth has much in common with Ricardo’s analysis. For Ricardo’s view of population increase occurring in response to a wage raised above subsistence by increased accumulation constitutes no more than a pedagogical simplification often set aside in favor of a view of *continuous* population growth: “Notwithstanding the tendency of wages to conform to their natural rate, their market rate may, in an improving society, for an indefinite period, be constantly above it; for no sooner may the impulse, which an increased capital gives to a new demand for labour be obeyed, than another increase of capital may produce the same effect; and thus, if the increase of capital be gradual and constant, the demand for labour may give a continued stimulus to an increase of people” (Ricardo 1951–73 1: 94–5). Marx unfortunately failed to do justice to the full-fledged “canonical” classical model, and focused rather on the simplifying assumption whereby “[t]he dividend of the worker = the price of the necessary means of subsistence,” implying that “the rate of profit is at its maximum and that of wages at its minimum” (MECW 28: 478). And there is this significant difference between Ricardo and Marx, that the former treats productivity improvement as a *discrete or random disturbance* whereas Marx envisages ongoing productivity increase as a function of scale, very much a Smithian orientation.

<sup>23</sup> The reference may be to Ricardo’s complaint that Malthus was “too much inclined to think that population is only increased by the previous provision of food . . .” (1951–73 1: 406).

<sup>24</sup> That Marx was justified in ascribing to Malthus a sort of universalist problem of excess population relative to food supply is doubtful.

### E. The Falling Rate of Profit

A major concern of Marx was to obviate an *impression* that surplus (profit) is yielded by *each* value component of capital – specifically each *value* component – since “from the standpoint of capital . . . the profit of 10% on a capital of 100 looks like a flat increase of 10% on each of the value components of the capital – material, instrument, wages,” whereas in fact surplus is generated solely by current labor so that what might be called the “real” profit rate is – using the later terminology –  $s/v$  rather than  $s/(c + v)$ : “The new value produced in production is indeed only 10 thaler, but according to the real rate these 10 thaler are to be taken as a percentage of the 40  $[v]$ , not of the 100  $[c + v]$ . The 60 thaler value has created no new value, only the working day has. . . . The rate of profit of capital therefore by no means expresses the rate at which living labour increases objectified labour; for this increase is simply = to the surplus with which the worker reproduces his wages, i.e. = the time which he works over and above that which he would have to work to produce his wages” (MECW 28: 296–7). It also followed that the profit rate  $s/(c + v)$  is no index of *the profit share in new value added*: “If it is said: a capital of 100 yields 10% in a certain period, 5% in another, nothing could be more mistaken than to conclude, as do Carey [1837, I: 338–9] and his associates, that in the first case the share of capital in the output was 1/10, therefore that of labour only 9/10; and that in the second case the share of capital was only 1/20, therefore that of labour was 19/20; to conclude, in other words, that because the rate of profit falls, the share of labour rises” (296).

On this matter not only Carey, but also Bastiat and Proudhon *and Ricardo* had fallen into error “since otherwise he would not have explained the periodical decline of profit itself only by the rise of wages caused by the price of grain (and thus of rent)” (311). The error reflected the fact that “surplus value – in so far as it is indeed the basis of profit but at the same time distinct from profit commonly so-called – has never been analysed.”

Here then we have the charge that Ricardo confused  $s/v$  with  $s/(c + v)$ . We find it again in the course of a commendation of Carey for his insistence against Ricardo that “the rate of profit falls not because of the decrease, but because of the increase in productive power” (478, referring to Carey 1837, I: 73–101). But Carey’s objection was based on “incorrect analysis,” and the correct analysis is briefly outlined: “The solution of the whole problem is simply that the rate of profit does not orientate itself by absolute surplus value, but by surplus value in relation to the capital employed; and that the growth of productive power is accompanied by a reduction in the part of capital representing *approvisionnement* relative to the part representing invariable capital. Hence, when the ratio of total labour to the capital which employes it declines, then the part of labour which appears as surplus labour or surplus value necessarily declines [relatively], too” (478–9). “This inability to explain one of the most striking phenomena of modern production” – the falling profit rate – was “the source of Ricardo’s failure to understand his own principle” (479).

Now – again we use later terminology – should the organic composition  $c/v$  rise, the profit rate calculated on total capital falls *and this even if  $s/v$  rises*.<sup>25</sup> This outcome is formulated with a little hesitation suggesting its novelty: “Does not the absolute new value [ $s$ ] diminish, although the relative new value grows [ $s/v$ ], when more material and instrument, relative to labour, enters into the elements of capital? Relative to a given capital, less living labour is employed. Therefore, even if the excess of [the product of] this living labour over its cost [ $s/v$ ] is greater . . . does not the absolute new value necessarily become relatively smaller [ $s/(c+v)$ ] than in the case of the capital which employs less material and instrument of labour . . . and more living labour, for the very reason that relatively more living labour is employed?” (305–6). Though Marx here talks loosely of the components of capital in physical terms, he clearly intended *value* composition as in what follows immediately regarding the rise in  $c/v$  as a reflection of productivity increase: “The increase in productive power which must manifest itself in an increase in the value of the instrument, in the relative share it accounts for in the expenses of capital . . .”<sup>26</sup>

As to *why* the ratio  $s/v$  cannot rise sufficiently to outweigh the depressing effect on the profit rate, Marx merely asserts at this point that it is “improbable” (307). But an earlier observation specifies *limits* to the rise in  $s/v$  with new technology depending on the level of technology already achieved: “The smaller the fractional part already which represents *necessary* labour, the greater the *surplus labour*, the less can any increase in productivity perceptibly diminish necessary labour. . . . If necessary labour were 1/1,000 and productivity tripled, necessary labour would fall only to 1/3,000 or surplus labour would have grown by only 2/3,000” (265–6). Similarly: “relative *surplus value* grows much less relative to the productive power and indeed the proportion [between the increase in surplus value and that in productive power] declines the higher the level of productivity already attained” (351).<sup>27</sup>

A helpful summary distinguishes between the profit rate “in one or another branch of business,” that can fall “because competition, etc., forces the capitalist

<sup>25</sup> Orzech and Groll find it “surprising that so basic a concept as the composition of capital does not explicitly appear” in *Grundrisse* (1989: 59). I find it inconsequential in the light of the substantive argument itself which they themselves go on to recognize. See also Oakley 1979: 297.

<sup>26</sup> More generally, Marx refers to “the unchanging value part of capital and the variable part (exchanged for labour)” (MECW 28: 322).

It has been said that Marx in the *Grundrisse* “was still locked into the classical capital dichotomy rather than developing the one he thought more appropriate in *Capital*” (Tribe 1974: 191). This is certainly not the case in the analysis of surplus value as such. But it is true that the distinction *fixed – circulating capital* is conspicuous in the context of the “circulation process of capital” (see below, Chapter 9.C).

<sup>27</sup> In terms of our Chapter 4, p. 121, this statement is acceptable if it is intended to convey that any given increase in productivity cutting costs by  $\beta$  percent annually, will *ultimately* exceed the percentage impact on surplus per working day since the latter is continuously declining towards (though never reaching) zero.

to sell below *value*, i.e. to realise a part of surplus labour not for himself but for the buyers of his product,” and the *general* rate that “cannot fall in this way; it can fall only because of a *relative* fall in the ratio of surplus labour to necessary labour [and constant capital]. And this, as we have seen earlier, occurs if the ratio [of constant to variable capital] is already very large or, otherwise expressed, the proportion of living labour set in motion by capital is very small – if the part of capital exchanged for living labour is very small relative to that which is exchanged for machinery and raw materials. In that case the general rate of profit may fall, even though absolute surplus labour rises” (363). The *Grundrisse* also contains references to “checks” to the falling profit rate tendency – “countervailing forces” as they are called (MECW 29: 135).

### F. The “Transformation”

We come now to the dilemma created by a uniform rate of surplus value across all sectors but differential organic compositions – the Transformation problem of *Capital*.<sup>28</sup> All the relevant elements are to be found in the *Grundrisse*: initial uniformity of rates of surplus value between sectors based on the fundamental theory of the source of surplus; the consequential non-uniformity between rates of profit assuming differential organic compositions or the ratios “between raw materials, machinery and wages;” and the *solution* involving the redistribution of the *aggregate* surplus between sectors by way of “competition” – entailing appropriate output variation – to yield a uniform general profit rate satisfying equality of demand and supply and systematic deviation of *prices* from *values*. The passage deserves to be spelled out in full considering the fact that it renders irrelevant the endless discussions regarding Marx’s comprehension of the “solution” to the value-price conundrum when he composed *Capital 1*:

A *general rate of profit* becomes possible only . . . if a part of surplus value – which corresponds to surplus labour – is transferred from one capitalist to another. If, for example, in 5 branches of business, the rate of profit is respectively

| a   | b   | c   | d  | e  |
|-----|-----|-----|----|----|
| 15% | 12% | 10% | 8% | 5% |

the average rate of profit is 10%. But for this rate to exist in reality, capitalists A and B must give up 7% to D and E, i.e., 2% to D and 5% to E, while in the case of C things remain as they are.

Equality of the rate of profit on the same capital of 100 [in the cases considered] is impossible, since the proportions of surplus labour [to the outlays of capital] are completely different [in them], depending on the productivity of labour and the proportions

<sup>28</sup> See note 15 on the conditions for a uniform rate of surplus value.



between raw materials, machinery and wages, and the scale on which the profit must generally be produced. But assume that branch e is necessary, e.g. that of bakers, then the average 10% must be paid to it. But this can only happen, if a and b transfer part of their surplus labour to the credit of e. The capitalist class to a certain extent distributes total surplus value among its member in such a way that, to a certain degree, the capitalists [share in it] in proportion to the *size* of their capital, instead of to the surplus values actually created by the capitals in the particular branches. The larger profit which arises from actual surplus labour within one branch, from surplus value really created in that branch, is forced down to the general level by competition, and the minus of surplus value in the other branch is forced up to the general level by withdrawal of capital from that branch and the resulting favourable relationship between demand and supply. Competition cannot depress the general level itself, but only tends to create such a level (MECW 28: 363–4).<sup>29</sup>

Here Marx conceded only that “appearance” pointed away from the surplus-value doctrine by suggesting that equal surpluses are yielded by equal *capitals*: “The general level is realised by the relationship of prices in the different branches, which in the one branch fall *below value*, in the other *rise* above it. This creates the appearance that an equal sum of capital in different branches creates *equal surplus labour or surplus value*” (364).

Oakley hesitates to weigh this formulation heavily: “what Marx was not clear about was the *mechanism* through which this redistribution [of total surplus value] would take place” (Oakley 1985 I: 185).<sup>30</sup> Howard and King are only willing to allow that “Marx had posed the problem of the general rate of profit in the *Grundrisse* in 1857–58, and had identified the need for a transfer of surplus value from one capitalist to another in accordance with the size of their capitals”; and – citing Oakley as reference – they assert that “the first comprehensive exposition of his solution, invoking the concept of ‘price of production’ and its deviation from labour values, came in 1862 in correspondence with Engels and in the manuscript . . . *Theories of Surplus Value*” (Howard and King 1989: 23).<sup>31</sup>

I do not appreciate the particular standards of exposition to which appeal is made that would justify a minimization of the clarity of the 1857–58 formulation. Only with respect to the designation of branch e as “necessary” (see note 29) is the analysis wanting. But Marx is perfectly clear regarding the *competitive mechanism* of redistribution involving expansion of sectors yielding above average rates of return and contraction of sectors yielding below average rates of return, such that

<sup>29</sup> The reference to “branch e” as “necessary” can be understood by reference to the following: “Let us suppose a *large number* of capitals employed in particular branches of industry, which are all *necessary* (in the sense that if there were a massive flight of capital from one branch, the supply of products in this branch would fall below the demand, hence market price would rise above the natural price)” (MECW 28: 470).

<sup>30</sup> Similarly: “No attempt was made in the *Grundrisse* to formalize ‘prices of production,’ and without this category, Marx’s analysis could go no further” (Oakley 1979: 300).

<sup>31</sup> For the correspondence in question, see Chapter 10, pp. 300–1.

a uniform rate is “realized” across all sectors with *prices* emerging below *values* in the first category and above values in the second.

### G. A Marxian “Reply” to Böhm-Bawerk

The theory of surplus value is also applied in the *Grundrisse* to analyze “the compensation for the longer fallow period of the capital” (MECW 28: 445). When first mentioned this issue is set aside because it “presupposes the secondary and derived forms of surplus value, i.e. interest”; again: “we are here completely abstracting from the difference in the time during which capital must remain in the phase of production – in the process of productive valorization” (443). But, subsequently, Marx devotes a lengthy passage to the problem of “capital lying fallow, or labour [being] at a standstill,” illustrated *inter alia* by the case of maturing wine – which is the example later used by Böhm-Bawerk to criticize Marx’s value analysis (Böhm-Bawerk 1890: 390).<sup>32</sup> As in the Transformation Marx defends the labor theory from an *aggregative* perspective.

As for its substance, Marx takes for granted the validity of the surplus value-doctrine whereby labor is the source of surplus, and proceeds accordingly:

*The difference in the return* [of different capitals], so far as it is dependent upon the phase of the circulation process which coincides with the immediate production process, depends not only on the *longer or shorter labour time which is necessary* for the completion of the object (e.g. canal construction, etc.), but in certain branches of industry – agriculture – also on the interruptions in labour which are inherent in the nature of the work itself, when either capital lies fallow, or labour is at a standstill. . . . Here the constancy of the production process does not coincide with the continuity of the labour process. This is one moment of the difference [in the return]. *Secondly*: [In some branches] the product altogether requires a longer time to be *completed*, to be put into its finished state [than in others]. This is the total duration of the process of production, quite apart from whether or not there are interruptions in the operations of labour; the different duration of the phase of production in general. *Thirdly*: After the product is finished, it may have to lie fallow for quite a long time, during which it requires relatively little labour, in order to let natural processes work upon it, e.g. wine. (Conceptually, this is approximately the same case as I.) *Fourthly*: It may take a longer time to bring the product to market, because it is destined for a more distant market. (This coincides conceptually with case II.) *Fifthly*: The shorter or longer time involved in the total return of capital (its total reproduction), so far as it is determined by the ratio of fixed to circulating capital, evidently does not relate to the duration of the *immediate process of production*, but is determined by circulation. The time for the reproduction of the total capital is determined by the total process, including circulation (521–2).

<sup>32</sup> See also Sowell: “The classic ‘refutation’ of *Capital* was made by a leading figure in the new economics, Eugen von Böhm-Bawerk. His refutation repeatedly misunderstood what it was refuting, and unknowingly repeated criticisms that Marx had already made of Ricardo’s labor theory of value in manuscripts still unpublished at that time” (2006: 183).

Now Marx did not perceive “fallow” capital, illustrated by the test case of maturing wine – the third case above, to be an exception to the general rule of “exchange value.” Differences in the return on capital would indeed compensate for *differential* time periods from product to product – relative prices would adjust appropriately to accommodate the differential – but interest is a “secondary” or “derived” form of surplus value, *and – taking an aggregative view – surplus value itself is solely generated by labor.*

This perspective is confirmed by a criticism of Ramsay (1836: 55) for suggesting that capital “can constitute an *original* source of *value creation* apart from labour, from its exploitation” (MECW 28: 470). The point is that though a *particular* capital “remain[ing] longer in devalued form” would indeed be compensated by “a higher exchange value for its products than the other capitals,” thus assuring profit-rate uniformity across sectors, there is no such escape considering capital *in the aggregate*; as in the more “formal” Transformation discussion, Marx recognizes explicitly price deviations from labor values and the circumstance that “the *individual capital* can . . . be credited with more value creation than is directly explicable by its *particular* exploitation of labour power”:

For the distribution of surplus labour among the individual capitals takes place not in proportion to the surplus labour time achieved by the individual capital, but in proportion to the *total surplus labour* achieved by the totality of capitals. The *individual capital* can therefore be credited with more value creation than is directly explicable by its *particular* exploitation of labour power. But this “*more*” on the one side must be compensated for by a “*less*” on the other. Otherwise, *average* means nothing at all. The question how the relation of capital to alien capital, i.e. the competition of capitals, distributes surplus value among them, obviously has nothing to do with the absolute amount of this surplus value. Nothing therefore more absurd than to conclude that, because a particular capital is compensated for its *exceptional* circulation time . . . all the *capitals* taken together, *capital*, can make something out of nothing, turn a minus into a plus, minus-surplus labour time or minus-surplus value into plus-surplus value; to conclude, in other words, that it has a *mystical* source of value creation independent of the appropriation of alien labour (470–1).

It was, in brief, Marx’s contention that “[t]he method of calculating the capitals’ respective shares in *surplus value* – not only on the basis of the surplus labour time which they have achieved, but also in accordance with the *length of time during which their capital has been working as such*, i.e. has lain fallow, gone through the phase of devaluation – does not of course in the least affect the total amount of surplus value which they have to distribute among themselves” (471). And the presumption throughout that “only labour itself is productive” is central to the conclusion of Marx’s argument, that any extension of individual capital *a*’s production period (its “lying fallow” for a longer period) must be seen as a “larger advance” of necessary labor in the aggregate and thus a deduction from aggregate surplus value. The central doctrine itself was, from this perspective, unassailable.

## H. Surplus Value: Matters of Timing and Indebtedness

An editorial comment to the *Grundrisse* finds the discovery of the theory of surplus value in that work: “The Manuscript of 1857–58 constitutes a landmark in the history of Marxism. In it Marx for the first time elaborated his theory of value and, on that basis, the theory of surplus value” (MECW 28: xvi). Dobb, for his part, apparently finds this breakthrough only in 1859: Marx’s “more detailed analysis of exploitation and production of surplus value, with its accent on the distinction between labour and labour power and on capitalism as being characteristically a *form* of commodity production in which ‘labour-power itself becomes a commodity,’” is fully apparent by the time of the *Critique* in 1859 (Dobb 1970: 8–9). And this impression is confirmed when he later maintained that the *Grundrisse* itself is “concerned in the main with the sphere of circulation and exchange. Value, for example, is dealt with explicitly only in a fragmentary paragraph which breaks off in the middle of a sentence” (Dobb 1982: 79).

In my view, the embryonic formulations already present in *Poverty of Philosophy* (1847) and *Wage Labour and Capital* (1849) must be allowed for, particularly the references in the latter to “the creative power whereby the worker not only replaces what he consumes but gives to the accumulated labour [capital] a greater value than it previously possessed”; and to the capitalist’s purchase of “just that . . . power of the labourer which produces agricultural products of double value and makes ten silver groschen out of five,” which five “have . . . been consumed . . . *reproductively* for capital, for they have been exchanged for labour power which produced ten silver groschen” (Chapter 7, p. 211). In *Capital* itself, as we there noted (p. 194), Marx cites that 1849 paper to the effect that the worker “produces values that give fresh command over his labour, and that, by means of such command, creates fresh values.” At the same time, though there is some continuity between the 1840s and 1850s, we should also note that during the four years 1853–57 Marx did little work on his various notebooks on economics which date to the early 1850s (McLellan 1970: 37–8); and though in those years he set out twice to develop further his economic theory, it was only in Autumn 1857 that he began a systematic exposition based on his researches, which endeavor appears as the *Grundrisse* manuscript (editorial comment, MECW 28: xiii).

Where then did the matter stand in the early 1850s? In July 1851, Marx made rough abstracts from the anonymous *The Source and Remedy of the National Difficulties* 1821, upon which he drew in the *Grundrisse* (see MECW 28: 324–5), including the following remarkable selection regarding surplus labor time as source of the capitalist’s income: “*Wealth . . . is disposable time and nothing more*” (1821: 6; Marx’s italics). “Suppose the whole labour of a country to raise just sufficient for the support of the whole population; it is evident there is *no surplus labour*, consequently nothing that can be allowed to accumulate as capital” (4; Marx’s italics). “[W]here men heretofore laboured twelve hours they would now labour six, and *this is national wealth, this is national prosperity*” (6), or in Marx’s paraphrase

“A nation is truly rich if *no interest* exists or if the working day is 6 hours rather than twelve.” “[W]hatever may be *due* to the capitalist, he can *only receive* the *surplus labour* of the labourer; for the labourer *must live*” (23). And much the same notion of surplus labor time is cited in the *Grundrisse* from Ravenstone (1824) using notes taken in 1851: “Property grows from the improvement in the means of production. . . . When each man’s labour is barely sufficient for his own subsistence, as there can be no property, there will be no idle men. When one man’s labour can maintain five, there will be four idle men for one employed in production . . .” (1824: 11). “[This] growth of property, this greater ability to maintain idle men, and unproductive industry . . . in political economy is called capital” (13).

Apart from the explicitly recognized obligation to the author of 1821 and to Ravenstone, to whom else might Marx have been indebted regarding the source of surplus value?<sup>33</sup> One obvious candidate one might think is J. S. Mill. But in fact the famous passage relating to surplus labor time as source of profit, independent of exchange, did not appear until the 1857 edition of the *Principles*:

[T]he reason why capital yields a profit, is because food, clothing, materials and tools, last longer than the time which was required to produce them; so that if a capitalist supplies a party of labourers with these things, on condition of receiving all they produce, they will, in addition to reproducing their own necessaries and instruments, have a portion of their time remaining, to work for the capitalist. We thus see that profit arises, not from the incident of exchange, but from the productive power of labour; and the general profit of the country is always what the productive power of labour makes it, whether any exchange takes place or not. If there were no division of employments, there would be no buying or selling, but there would still be profit. If the labourers of the country collectively produce twenty per cent more than their wages, profits will be twenty per cent, whatever prices may or may not be. The accidents of price may for a time make one set of producers get more than the twenty per cent, and another less, the one commodity being rated above the natural value in relation to other commodities, and the other below, until prices have again adjusted themselves; but there will always be just twenty per cent divided among them all (Mill 1963–91, 2: 411).

In terms of timing, the passage may have come to Marx’s attention whilst he was working on the *Grundrisse*, but that it did so cannot simply be taken for granted – a conclusion that would be more difficult to justify had the passage appeared in earlier editions of the *Principles*.<sup>34</sup>

Another candidate is Karl Rodbertus who in 1875 charged that Marx in *Capital* had plagiarized from two of his earlier works, that his *Zur Erkenntniss unsrer*

<sup>33</sup> Marx in *The Economic Manuscripts* credits Necker 1789 [1775], 1789 [1784] with “show[ing] how the development of the productive powers of labour merely results in the worker requiring *less time* for the reproduction of his own wage, and therefore working *more time* for his employer *unpaid*. In dealing with this, he rightly starts from the basis of the *average wage*, the minimum of wages” (MECW 31: 200). The whole matter of indebtedness as a serious issue seems in that case to fall away.

<sup>34</sup> The hostile treatment accorded the passage in *Capital* will be discussed in our concluding chapter.

*staatswirtschaftlichen Zustände* (1842) “has been very nicely used . . . by Marx, without, however giving me credit for it” (cited by Engels, MECW 36: 10); and more specifically – writing to R. Meyer – that he had shown in the *Sociale Briefe an von Kirchmann. Dritter Brief* (1851), “virtually in the same way as Marx, only more briefly and clearly, whence the *surplus value* of the capitalist *originates*.”

Attention is entirely focused by Rodbertus himself and others on Marx’s formulation in *Capital* whereas what would have to be shown to justify the complaint is familiarity with Rodbertus predating 1857–58 considering the maturity of the formulations found in the *Grundrisse*. Until such evidence is forthcoming, there is sufficient reason to accept Engels’s assurance in his 1884 Preface to the first German edition of the *Poverty of Philosophy*, that Marx was wholly unaware of *Zur Erkenntniss*, and that “all he knew of Rodbertus was the three *Sociale Briefe* and even these certainly not before 1858 or 1859” (MECW 26: 279); and in his 1885 Preface to *Capital 3* that “[i]t was only around 1859, through Lassalle, that Marx learned of the existence of an economist named Rodbertus and thereupon Marx looked up the ‘third social letter’ in the British Museum,” though by then he already knew “not only whence but also *how* ‘the surplus value of the capitalist’ originated”; indeed, by then “his own critique of political economy had been completed, not only in its fundamental outlines, but also in its more important details” (MECW 36: 11).<sup>35</sup> But Marx himself apparently did not object to Rodbertus’s claim. At least Engels reported his reaction to be that he “had no objection, and . . . could well afford to let Rodbertus enjoy the pleasure of considering his own presentation the briefer and clearer one.”

### I. On Ricardo and Surplus Value: An Excursus

My concern now is not to provide a comprehensive study of Marx as historian of economics with respect to Ricardo on surplus value and the related issues discussed in this chapter. I focus rather on salient features of his critique in order to sharpen comprehension of his own *positive* position in the *Grundrisse*.<sup>36</sup>

We commence with what amounts to a *defense* of Ricardo against the charge by Malthus that he had failed to understand surplus value – the excess of value over production costs – when in reality “of all economists, [he] alone had grasped it, as his polemic against A. Smith’s confusion of the determination of value by wages and by the labour time objectified in the commodity shows” (MECW 28: 252). For to treat the two notions of value as equivalent implied that if “a man’s labour had become doubly efficient, and he could therefore produce twice the quantity of a

<sup>35</sup> Although Engels had not seen the *Grundrisse* document, he must have had some intimations of its contents from Marx. For example, we know that Marx had written briefly to him of having “demolished” the Ricardian theory of profit (above, pp. 235–6). But he may in fact have intended the documents of the late 1840s (see Chapter 7, p. 194).

<sup>36</sup> The charge that Ricardo had confused  $s/v$  with  $s/c+v$  has been noted above, p. 252.

commodity, he would necessarily receive twice the former quantity in exchange for it . . . the reward of the labourer [being] always in proportion to what he produced” (Ricardo 1951–73 I: 14); and that the wage is *not* “in proportion” to labor’s output is, of course, an essential feature of the Marxian perception of surplus value. In fact, in this context Marx explicitly allowed that Ricardo “understands the emergency of surplus value as the prerequisite of capital.”

There are other concessions. Thus Ricardo was “too classical to commit the absurdities of those who claim to improve him, who ascribe the increase in value resulting from the growth of productivity to the fact that one party sells more dearly in circulation” (275). Ricardo himself, when treating productivity improvement by way of new technology and foreign trade (1951–73 I: 279, 128f), is said to have appreciated surplus-value as surplus labour *time*; and though this was in an aggregative sense, rather than with respect to the working-day, the difference is said to be inconsequential:

Ricardo does not speak . . . about the working day; that, if the capitalist previously exchanged half a day’s objectified labour for the entire living working day of the worker, he gained, *au fond*, only half a living working day, since he gives the other half to the worker in objectified form and gets it back from him in the form of living labour, i.e. pays the worker half a working day; [he presents it] rather in the form of simultaneous working days, i.e. of the working days of different workers. This changes nothing in the substance of the matter, only in its expression. [As a result of the increase in productive power] each of these working days provides so much more surplus time. If formerly the capitalist’s limit was *the* working day, he now has 50 days, etc. (276).

Again: “According to Ricardo himself [1951–73 I: 95], the element of the accumulation of capitals is posited just as completely by relative surplus labour – and indeed it cannot be otherwise – as it is by absolute surplus labour” (271).

But such commendations, it emerges, were only relative to Ricardo’s contemporaries – “the new economists [who] are nothing but shallow simpletons” (252). Consider Marx’s objections to Ricardo arising during a discussion of Sir George Ramsay. Ramsay (Marx argued) had based a set of conclusions (Ramsay 1836: 49–55) on the implicit assumption that “the quantity of labour bestowed upon . . . capital *had been fully paid for*,” whereas in fact the capitalist “appropriate[s] a part of labour *without equivalent*” (474). Ramsay’s error was “rooted in a fundamental defect of [Ricardo’s] . . . analysis,” reflecting “the fact that Ricardo himself was not clear about the nature of the process [of capitalist production], nor, as a bourgeois, could he be” (473–4). And at this point Marx refers to what he now represents as Ricardo’s abortive or incomplete criticism of Smith’s confusion between value determination by labor commanded and labor embodied.

To understand the capitalist production process was “not merely as A. Smith thinks, to see capital as “command over alien labour” for “every exchange value is that,” but to see it as the “power of approaching alien labour *without exchange, without equivalent*, but under guise of exchange”(474). But if Smith failed to see

surplus value as *unpaid labour*, Ricardo did not provide the proper correction. For in approaching the confusion between value as determined by labor embodied and commanded, he focused on the variability of the commodity wage, failing to explain “how it comes about that the worker suddenly represents only *use value* in exchange, or that he extracts only use value from the exchange. . . .”<sup>37</sup> Had he done so, he might have hit upon the *true* nature of the labor-capital exchange relation – the sale and purchase of *labor power* – and thus of surplus value: “How, then, does it come about that the share of the workers in the value of the production is not determined by its value but by its use value, hence not by the labour time bestowed upon it but by its quality of maintaining living labour capacity?” (474–5). What needed to be properly understood was “the original relation between capital and labour. . . the full reality and realisation of the bourgeois relations of production. . . .” (475). Even Ricardo’s concern with “the cost of producing the values necessary to reproduce [labor]” Marx found unsatisfactory, again because of failure to appreciate the capital-labor relation: “He does not concern himself at all with the historical process by means of which the product and living labour enter into this relation to one another.” All in all, “[t]he difference between *profit* and *surplus value* does not exist for him; proof that he is not clear about the nature of either.”

A discussion of Thomas De Quincey’s interpretation of Ricardian economics is also relevant. De Quincey understood Ricardo as concerned solely with *distribution*, referring to the notion that price, “governed by proportional quantity of the producing labour. . . settles the fund out of which both wages and profits must draw their separate dividends” (De Quincey 1970 [1844]: 258), in place of the “old superannuated doctrine” that the sum of profits and wages determine price – the “adding-up theory” as it has come to be called in our day. Ricardian political economy was, in Marx’s paraphrase, “concerned with the dividends, while the total product is regarded as fixed, determined by the quantity of labour bestowed upon it – its value is estimated in accordance with that” (MECW 28: 476). Marx concludes from this – De Quincey himself did not manage to reach the conclusion – that Ricardo may be “justifiably reproached for a lack of understanding of [the nature of] *surplus value*, although his opponents understand it even less. . . . The creation of [surplus value] coincides with the appropriation of alien labour *without exchange*, and it must therefore never be clearly understood by the bourgeois economists.”

Marx further elaborates his position. He cites Ramsay’s objection that Ricardo had neglected the replacement of fixed capital by treating the national dividend as composed entirely of wages and profits (citing Ramsay 1836: 174n); and represents this impression – Marx did not accept the charge (see note 14) – as the consequence of a failure to appreciate the capital-labor relation and origin of surplus: “since

<sup>37</sup> Marx presumably refers to his earlier point that the worker receives “a *particular use value*” or claim to wage goods (MECW 28: 214; see above, p. 238).



Ricardo does not conceive the relation between objectified and living labour – the capital-labor relation – “which cannot be deduced from the dividends of a given amount of labour, but *presupposes the positing of surplus labour* . . . he appears to be arguing that the total product is divided into wages and profits, so that the reproduction of capital itself is counted as part of profit” (MECW 28: 476–7; emphasis added). Here Marx again cites De Quincey on the “new political economy,” and observes that from this perspective, “[c]apital appears . . . not as the positing of surplus value, i.e. surplus labour, but merely as making deductions from a given amount of labour” (477). Now, this seemed to go counter to common sense, “since the capitalist knows very well that he counts wages and profits as part of the production costs and regulates the *necessary price* accordingly.” But this was only an *apparent* contradiction, easily explicable in terms of Marx’s own perspective: “This contradiction between the determination of [the value of] the product by relative labour time and the limitation of the sum of profit and wages by the sum of this labour time, and the *real determination of price* in practice, derives simply from the failure to conceive of profit itself as a derivative, secondary form of *surplus value*; and the same applies to what the capitalist correctly regards as his *production costs*. His profit arises simply from the fact that a part of the production costs does not cost him anything, and so does not enter into *his* outlays, *his* production costs.”

Subsequently, the same point is reiterated that “[p]rofit is merely a *secondary*, derived and transformed form of surplus value, the bourgeois form in which the traces of its origin” – in unpaid labor, of course – “are wiped out” (515).<sup>38</sup> And here Marx specifies very clearly his perspective on Ricardo’s inverse wage-profit relation: “he always speaks merely of the division of a *finished* quantity, never of the original positing of this distinction [between profit and wages],” whereas “an understanding of this distinction would have forced him to realise that the relation established between capital and labour differs entirely from that of exchange, and *he dared not realise that the bourgeois system of equivalents turns into and is based on appropriation without an equivalent*” (emphasis added). In fact, the doctrine of proportionate profits and wages merely expresses the fact that “if a certain total value is divided into two parts, or if *any* quantity is divided into two parts, the size of the two parts is necessarily inversely related. And indeed his school subsequently reduced the matter to this commonplace.” As for Ricardo’s own purpose in forwarding the inverse wage-profit doctrine, that “was not to discover the basis of the creation of surplus value.” Rather he “starts from the assumption that a given value must be divided between wages and profit . . . *firstly*, to assert the correct method of price determination, which he bases on value, as against the current one by showing that the limit of value itself is

<sup>38</sup> Cf. the clarification that “profit and wages, though determined by the relation of necessary to surplus labour, are not coincident with them, but merely secondary forms of the same” (MECW 28: 478).

not affected by its distribution in various proportions between profits and wages” (515–16); and beyond this, he sought to account for “the continuous fall in the rate of profit . . . by the rise of wages [and] this rise itself by a rise in the *value* of agricultural products, i.e. by the increasing difficulty of producing them, and thus at the same time to explain *ground rent* as not at variance with his value principle” (516). Marx notes also that the “contradictory nature of profit, labour and capital” – essentially the antagonism between labor and capital – emerges from the “simple logic” of the case, though the model “also provided a polemical weapon for industrial capital against landed property which was exploiting the progress made by industry.” Marx adds that Ricardo himself denied any such antagonism, and “exerted himself subsequently to prove to the worker that the contradiction between profit and wages did not affect his real income, that, on the contrary, a *proportional* (not absolute) rise of wages is *undesirable*, because it impedes accumulation, and because the development of industry then benefits only the idle landowner.” But the damage had been done: “the contradiction was proclaimed, and Carey, who does not understand Ricardo, could therefore denounce him as the father of the communists, etc., and in a sense he is right, though he does not himself understand in what sense.”<sup>39</sup>

\* \* \*

We return to our main conclusion, that Marx’s various concessions regarding Ricardo’s comprehension of the surplus-value dimension (above, pp. 260–1) did not weaken his conviction that Ricardo had failed to convey its character as *unpaid* labor emerging within a fully competitive framework. In his own terminology, Ricardo had not concerned himself with “how we get from value as equivalent, determined by labour, to the non-equivalent, or to the value which posits surplus value in exchange, i.e. from value to capital, from one determination to the apparently antithetical one” (481). The *problem* was not even posed by Ricardo: “. . . since all *division* here takes place on the basis of exchange, it seems in fact utterly inexplicable why one exchange value – living labour – exchanges according to the labour time realized in it, while the other exchange value – accumulated labour, capital – does not exchange according to the same standard.” Apparently, “the owner of the *accumulated labour* could not be exchanging as a capitalist.” Here lay a mystery, which some had sought to resolve by proposing that wages must equal product value – as with Bray’s “equal exchange between living and dead labour” (Bray 1839). Ricardo, of course, in rejecting Smith’s identity of labor commanded and labor embodied, had closed off this line; but if in fact “the exchange of values is determined by the labour time realized in them,” then “equivalents

<sup>39</sup> Here we recall an earlier designation of Ricardo as “the most classic representative of the bourgeoisie and the most stoical opponent of the proletariat,” though attacked by Carey “as a man whose works are an arsenal for anarchists and socialists, for all enemies of the bourgeois order” (5 March 1852; MECW 39: 62).

are exchanged. Hence a particular amount of labour time in living form would have to exchange for the same amount of labour time in the form of past labour” (482). The problem is to explain how in fact “the law of exchange” turned into its opposite and Ricardo had “[n]ot even the faintest suspicion,” that this *was* the case despite his warning against the confusion of labor embodied and labor commanded.

Marx’s solution involves, of course, the purchase by capital of *labor power* – called “labour capacity” in this context. Even so, he finds that Ricardo’s wage-scale differentials [1951–73 1: 20–2] approached the solution: “If Ricardo had applied his own principle, the amounts of (simple) labour to which different *labour capacities* are reducible, the matter would have been simple.”<sup>40</sup> Unfortunately, he had the capitalist exchanging not with “labour capacity” but with “living labour” thereby unwittingly creating “an insoluble antinomy in his system, that a certain amount of living labour is not = to the commodity which it produces, in which it objectifies itself, even though the value of the commodity equals the amount of labour contained in it” (483).

## J. Summary and Conclusion

The present chapter has shown how much of Marx’s economics, as it has come down to us via the three volumes of *Capital*, had been formulated by 1858. We had already established in Chapter 7 that Marx’s economics in 1849 included references to “labor power” as source of surplus; but the *Grundrisse* certainly sharpens the surplus-value notion by elaborating further the labor-power concept and making explicit the contrast between paid and unpaid hours and also that between absolute and relative surplus value. Here the discussion of Ricardo is highly revealing of Marx’s position, particularly his contention that despite the advance over Smith – the labor theory, the inverse profit-wage relation, the caution to avoid confusing labor embodied and labor commanded – Ricardo had fallen short and failed to identify the purchase and sale of *labor power* which alone resolved the “mystery” of surplus as *unpaid labor* notwithstanding a fully competitive environment. Needless to say, the issue is complicated if one takes the view (as we do) that Marxian doctrine can be understood even without the formal labor-power concept, for Marx himself was later to emphasize that the concept was operationally irrelevant in the world of market illusion (see Chapter 9.E on working-class consumption). The concept also loses its sharpness once above-subsistence wages are allowed.

<sup>40</sup> What Marx intended is clear from a reference elsewhere to “the values [the skilled laborer] has consumed in order to produce a specific *labour capacity*, a particular *skill*, the value of which is given by the costs of production of a similar specific skill” (MECW 28: 249; see above, p. 237).

We have also encountered an eminently clear analysis of the systematic deviation of prices from labor values, prices including a uniform profit rate, with applications of the basic theory of surplus value to the falling general profit rate, the Transformation problem, and the “Böhm-Bawerkian” case of maturing wine. As for the falling profit rate, whereas in 1849 Marx was still reasoning in terms of “competition of capitals,” his analysis in the *Grundrisse* turns on the rate of exploitation in relation to the organic composition of capital exactly as published by Engels in *Capital* 3.

The editors of the MECW version of the *Grundrisse* opine that “[h]aving revealed the true nature of surplus value, Marx proceeded on this basis to investigate its converted forms – profit, interest, rent – which appear on the surface of bourgeois society” (MECW 28: xx). This is a slight exaggeration. We certainly find numerous allusions to the interest rate and its derivative nature, but only to postpone full discussion. The notion of absolute rent, and *a fortiori* its relationship with the profit-rate uniformity principle, is absent. For all intents and purposes, surplus value is provisionally identified with capitalists’ profit.

There is little emphasis in the *Grundrisse* upon increasing immizeration, though this tendency had been elaborated in the 1849 materials where the falling real-wage trend is accounted for in terms of lagging demand for labor behind the growth of total capital – in consequence of rising organic composition – in the face of net population expansion and various other inflows into the labor force endogenous to the accumulation process. In the *Grundrisse* Marx in fact sometimes reasons on the assumption that the *long-run* real wage is at “subsistence,” reflecting the value of labor power defined in terms of its *reproduction*, with population growth occurring by way of short-term deviations of the market from the long-run wage (p. 246). There are though suggestions of ongoing population growth in response to a long-run real-wage exceeding “subsistence” (p. 246); and here we recall elements of a growth model which involve a linkage between organizational and technical change acting to reduce wage-goods costs and thereby stimulate population growth; while conversely, such growth is said to have a positive effect on science and knowledge creation (p. 248).

The Reserve Army of Unemployed makes an appearance as source of labor supply though apparently for capitalists’ *exceptional cyclical requirements* rather than *secular* or to meet ongoing expansion of demand for labor. Here we may note an anomaly. To identify conceptually the workday and its breakdown with the aggregative dimension and its breakdown – as Marx frequently does – is troublesome on Marx’s own terms. For reduction in necessary labor time via new technology, in the sense of the “necessary” fraction of the *individual workday*, is said to provide a *population stimulus*; whereas precisely the *same* process operating at the aggregate level is said to be responsible for the creation of a *reserve of unemployed*. Both issues, we shall find, are better treated in the documents of 1861–63 which allow an element *within* “labor power” for population expansion and which introduce the notion of

the *remplaçants* or substitutes of those displaced by technical change in the new generation of workers, those actually displaced remaining in the pool of unemployed. This perspective implies a *dual* labor market entailing fully-employed labor in one market and excess labor supply in the other, that occasionally (at cyclical peaks of activity) may coalesce.

## NINE

### 1857–1858 II: Value “Realization”

#### A. Introduction

The methodological “introduction” to the *Grundrisse* perceives the production process as providing the basis for surplus value interpreted as unpaid labor time, thus according production priority over distribution and exchange (see Chapter 8, p. 236). That the worker “exchanges the value-positing activity for a predetermined value, *regardless of the result of his activity*” (MECW 28: 248, emphasis added, cited Chapter 8, p. 241) captures the perspective in question. We have traced through the major ramifications of the doctrine both for the understanding of profit and the value-price relation (the Transformation). We must now face the problem of interpreting the priority accorded production as “starting point” of the economic system. For it is also readily allowed that an “organic entity” with numerous “interactions” is involved, and in particular that “production is determined by the needs of consumption. There is an interaction between the different moments. This is the case with any organic entity” (37). This same perspective is repeatedly encountered in the body of the *Grundrisse*.

This matter seems to have troubled Dobb who attempted to solve it by attributing to Marx an emphasis on circulation or Exchange that reflects less his *own* position than that of those with whom he took issue (Dobb 1982: 80). The problem is that by placing such great weight on problems relating to “realization” as endemic in the capitalist-exchange system Marx seems to undermine the priority he himself *at this time* accorded production in accounting for surplus value. Indeed, as we shall see, he even talks of products being “*devalued*” until the point of final sale.

#### B. Capital Turnover: A Circular-Flow Process

In a discussion of capital “turnover,” Marx raises a troublesome question relating to the basic doctrine: “does not a moment of value determination come in here which is independent of labour, a moment which does not directly take its origin from labour but from circulation itself?” (MECW 28: 443). He proceeds by working

at a broad level of aggregation avoiding inter-capital complexities: “The discussion . . . must not be diverted by the introduction of *many capitals*” (440). On this basis he reduces the economic structure to one of four “moments”: “The moments are: (I) The real process of production and its duration. (II) Conversion of the product into money. Duration of this operation. (III) Conversion of the money into the appropriate proportions of raw material, means of labour and labour, in short into the elements of capital as productive capital. (IV) The exchange of a part of capital for the living labour capacity . . .” (444).<sup>1</sup> His concern in the present context was moment II, in effect, the final-sale stage: “The difference in capital turnover, as it is posited in II, since it depends neither on greater difficulty in the exchange with labour, nor on delays resulting from the non-simultaneous presence of raw material and means of labour in circulation, nor on the different duration of the production process, could only be due to greater difficulties in valorisation” (445).<sup>2</sup> Marx points out that this stage “coincides here, where we are considering capital in general, with what we have said about devaluation as a concomitant of valorisation,” by which he refers to the period between the embodiment of labor – its creation of “exchange value” – and *final sale* (see 329–30).

Marx illustrates the problem at hand by reference to an apparently mundane issue, the treatment of *transport labor* in an international-trade context and its ability to generate surplus, which has broad implications: “The first question which now arises is this: according to the principles we have so far established, can a surplus value be extracted from the transport costs . . . is it possible that surplus labour is embodied in the transport costs, and that capital can extract surplus value from them? The question may be simply answered by another question: what is the necessary labour or the value in which it is objectified?” (445–6). Marx proceeds by treating transport labor in all respects in the same manner as direct or “immediate” labor, applying notably the principle of *surplus as unpaid labor hours* – where the realization of surplus value thus perceived “depends on the wealth of the country to which he exports the product and on the need for it, i.e. on the use value which the product has in that country. . . . It is the same as in direct production, and the original surplus value on the transported product can only derive from the fact that a part of the transport time worked by the workers *is not paid for*, because it is surplus time, time *over and above* that which is necessary for them to live”

<sup>1</sup> On “moment” IV, see Chapter 8, p. 250. As for moment I, that “coincide[d] with the conditions of valorisation in general,” i.e., the general issue of value creation; whereas III “can only be considered when we are dealing not with capital in general but with many capitals. Moment IV belongs to the section on wages, etc.” (MECW 28: 444).

<sup>2</sup> One notes the exclusion of the “different duration of the production process,” a matter involving capital “lying fallow” as in wine maturation, discussed in Chapter 8, p. 256. The excluded obstacles Marx refers to are also alluded to thus: “The reconversion of money into . . . conditions of production presupposes their *availability*. It constitutes the various *markets* in which the producer encounters them as commodities – in the hands of the merchant – markets (alongside the labour market) which are essentially different from the markets for direct individual, final consumption” (MECW 28: 459).

(446).<sup>3</sup> That Marx made much of the contrast between direct production and transportation evidently reflected a concern that “spatial movement”<sup>4</sup> seemed to undermine his perspective on the generation of surplus value. Yet *in the end he insisted that the same principles applied*.

Now Marx included within “productive labor” – in his technical sense of the term – not only transport workers, but “[a]ll the labour which is required to put the finished product into circulation. . . . Likewise all labour required as *condition* for the process of production (such as e.g. costs incurred to ensure the security of the exchange, etc.)” (448).<sup>5</sup> Other instances include costs relating to *contracting* and the holding of inventory (458). In sum, “The spatial condition, the conveyance of the product to the market, belongs, economically considered, to the process of production itself. The product is not really finished until it is on the market. The movement by which it gets there, represents a part of its costs of production. . . . [C]irculation appears as a moment not merely of the production process in general, but of the direct production process as well.”<sup>6</sup>

In the last resort, Marx reduces all circulation-related costs to a *time* dimension: “. . . it depends on the speed of circulation, on the *time* taken by it, how many products can be produced in a given period of time, how often capital can valorise itself in a given period of time, how often it can *reproduce* and *multiply* its value in that time” (461). And he is eloquent indeed regarding the high significance of means to “annihilate space by time” in *capitalist* systems, in contrast with “the case of production directed towards immediate use, and exchanging only the surplus, [where] the costs of circulation are incurred only in relation to that surplus, not to the main product” (448). For “[t]he more production comes to be based on exchange value, and thus on exchange, the more important for production do the physical conditions of exchange become – the means of communication and transport. By its very nature, capital strives to go beyond every spatial limitation. Hence the creation of the physical conditions of exchange – of the means of communication and transport – becomes a necessity for it to an incomparably greater degree: space must be annihilated by time.” Again: “. . . while capital must strive on the one hand to tear down every local barrier to traffic, i.e. to exchange, and to conquer

<sup>3</sup> Marx takes the opportunity to preclude inefficiency; thus the employer “cannot stretch the time used for transporting [the product] beyond the time actually required. If he did so, he would throw labour time away, not valorise it, i.e. he would not objectify it in a use value” (MECW 28: 446).

<sup>4</sup> The issue actually extends to mining: “Whether I extract metals from the mines or take commodities to the places where they are consumed, both equally represent a spatial movement” (MECW 28: 446–7).

<sup>5</sup> On the general issue of “productive” labor, see Chapter 8, p. 237 and note 20.

<sup>6</sup> Technically speaking – Marx points out – a “product” only becomes a “commodity” when it is put on the market – an *uncertain* market be it noted; accordingly: “*working to order*, i.e. supply which corresponds to a previously stated demand, is not a *general or dominant* situation, does not correspond to large-scale industry, and in no way arises as a condition [of the production process] from the nature of capital” (MECW 28: 458).



the whole world as its market, it strives on the other hand to annihilate space by means of time, i.e. to reduce to a minimum the time required for the movement [of products] from one place to another” (463). And “[t]he more capital has been developed, and the greater therefore the expansion of the market in which it circulates, which constitutes the spatial path of its circulation, the more it goes on to strive for an even greater spatial expansion of the market and for a more complete annihilation of space by means of time.”

Marx in fact represents circulation “as an essential process of capital. The process of production cannot be recommenced until the commodity has been transformed into money. The *uninterrupted continuity* of that process, the unhindered and fluent transition of value from one form into the other, or from one phase of the process into the other, appears as a basic condition for production based on capital to a much greater degree than for all earlier forms of production” (459). Marx’s goes yet further by representing the interconnected “production” and “circulation” processes in terms of *circular flow* where consumption is not “a final act” but “a moment of production, i.e., of the process of *positing value*” – alluding to realization of value – and where capital is best conceived as “*capital circulant*” in the sense of “value-in-process”: “The transition from one moment to the other appears as a particular process, but each of these processes is the transition into the other. In this way capital is posited as value-in-process, which is capital in every one of the moments. It is therefore posited as *capital circulant*; in each of the moments it is capital and circulating from one determination to the other. The point of return is simultaneously the point of departure and vice versa – i.e. the *capitalist*. All capital is originally *capital circulant*, both produced by and producing circulation, tracing its orbit as its own” (460).<sup>7</sup>

We now come to a radical allowance arising from the discussion of the speed of circulation – radical in the light of the *formal* theory of surplus value. For immediately after concluding that “it depends on the speed of circulation, on the *time* taken by it, how many products can be produced in a given period of time, how often capital can valorise itself in a given period of time, how often it can *reproduce* and *multiply* its value in that time” (above, p. 270), Marx adds: “Thus there really does enter here a moment of *value determination* which does not arise from the direct relation of labour to capital” (461–2). He then recoils from this extraordinarily “non-Marxian” conclusion by restating the matter such that circulation “while not creating *values*” – “for this lies exclusively in the sphere of labour” – “does to a certain degree, determine the mass of values which can be created”: “Though circulation does not give rise to a moment of *value determination*

<sup>7</sup> This perspective touches on the “permanence” of capital perceived as a *value*, Marx citing Sismondi: “Capital permanent *value multiplying itself*, which no longer becomes extinct. This value detaches itself from the commodity which has produced it; equivalent to a *metaphysical, insubstantial quality* always in the possession of the same cultivator” (e.g.) “for whom it assumes various forms” [Sismondi 1827 I: 88–9; 1951 I:92] (MECW 28: 461).

itself, for this lies exclusively in the sphere of labour, the speed of circulation does determine the rate at which the process of production can be repeated, and therefore the speed with which values are created. In other words, while not creating *values*, circulation does, to a certain degree, determine the mass of values which can be created” (462).<sup>8</sup> This mass will be “the values and surplus values posited by the process of production  $\times$  the number of times the production process can be repeated in a given period of time.”

How seriously are we to take the insistence that, after all is said and done, circulation does not “create values” but only “the mass of values which can be created” in a given time? We must not allow ourselves to be caught up in the *definition* of value as labor embodied; we must rather focus on the substantive question whether or not Marx properly justified his position, *on his own terms*, that though the “speed of circulation” dictates “the rate at which the process of production can be repeated” – and thus new value created – it cannot strictly be said to “create value” *even at one remove*. Here we shall set aside (following Marx) “non-realization” of exchange value due to overproduction and crisis; our concern is the speed of circulation taking final sale for granted: “When we speak of the speed of the turnover of capital, we presume that only *external barriers* obstruct the transition from one phase [of circulation] to another, not ones arising from the production process and from circulation itself (as in crises, overproduction, etc.)” (462). Finally, it is presumably understood, in line with what had been previously established, that “the product is not really finished until it is on the market” (above, p. 270), that *all* labor inputs including those relating to transportation and so forth are counted as part of the production process.

In justifying his position Marx takes refuge in the formal argument that circulation time cannot possibly be “a positive value-creating element,” since by *reducing* circulating time – i.e., increasing the number of circuits made by capital in a year – surplus value is *increased*:

If labour time appears as the activity which posits value, the circulation time of capital appears as the *time of devaluation*. . . . [T]he *circulation time* is therefore not a positive value-creating element. If it were equal to 0, value creation would be at its highest level. If either surplus or necessary labour time = 0, i.e. if necessary labour time absorbed all time, or if production could be carried on *without* any labour, there would be neither value nor capital, nor value creation. Hence the *circulation time* determines value only in so far as it appears as a *natural barrier* for the valorisation of labour time. Thus it is in fact a deduction from surplus labour time, i.e. an increase in *necessary labour time* (462–3).

<sup>8</sup> Storch is cited to similar effect: “The entrepreneur can only recommence production after he has sold the finished product and has used the price in purchasing new *matières* and new *salaires*. Hence, the more promptly circulation brings about these two effects, the more quickly is he in a position to recommence his production, and the greater the quantity of products capital produces in a given period of time” [Storch 1823 I: 411–12] (MECW 28: 467).

To argue in this manner is, however, to accept that though “the *circulation time* determines value only in so far as it appears as a *natural barrier* for the valorisation of labour time,” changes in circulating time *do* affect value or at least surplus value. And indeed this formulation seems to have troubled Marx since he sought further to avoid any impression that the capital-circulation process can be said to “produce” value. For “[i]t is a deduction from surplus labour time or an increase of the *necessary labour time* in relation to *surplus labour time*. The circulation of capital *realises value*, as living labour *produces value*. Circulation time is a barrier only to the realisation of value and to that extent to value creation.” (467). But though this barrier did “not arise from production in general,” it was “specific to production based on capital. Its transcendence – or the struggle against it – therefore belongs to the specific economic development of capital and provides the impulse for the development of its forms in credit, etc.”

For all that, Marx seems to have allowed the essential point by accepting that circulation time as a barrier to value *realization* is “to that extent,” a barrier to “*value creation*.” There are further frank affirmations: “It follows from the relationship of circulation time to the production process that the sum of values which is produced, or the total valorisation of capital in a given period of time, is determined not only by the new value which capital creates in the production process, or by the surplus time realised in that process, but also by this surplus time (surplus value) multiplied by the factor which expresses the frequency with which the production process of capital can be repeated in that period” (468). But Marx then rephrases the matter by focusing once again on the time of circulation as a “barrier” to surplus-value creation which retains the *formal emphasis* on the *production* process as source of surplus value (468–9).

### C. Obstacles to Value Realization

The next point to note relates to the prospect of “the most extreme dissonances,” alluding in part to “crises” with reference to periods of *excess demand for money to hold*: “As the exchange value of a commodity has a dual form of existence, as a specific commodity and as money, so the act of exchange consists of two mutually independent acts: exchange of the commodity for money, exchange of the money for a commodity, buying and selling. . . . True, they will always seek to get into balance, but . . . [i]t is possible that consonance between them may now be fully attained only by passing through the most extreme dissonances “(MECW 28: 85–6). “The separation of exchange into purchase and sale makes it possible for me to buy without selling (stockpiling of commodities) or to sell without buying (accumulation of money). . . . At times in which purchase and sale assert themselves as essentially distinct acts, a general depreciation of all commodities takes place. At those in which money only functions as a means of exchange, a depreciation of money takes place. General fall or rise in prices” (134–5). The potential for “dissonance” is enhanced by the distinction between demand for

business and for final consumption purposes; and whereas “[t]he merchant in his exchange is guided merely by the difference between purchase and sale of the commodity . . . *the consumer must once and for all replace the exchange value of the commodity he buys*. Circulation, exchange within the merchant estate, and the final stage of circulation, exchange between the merchants and the consumers, however much they must ultimately condition each other, are determined by quite different laws and motives, and the greatest contradiction can develop between them. This separation alone can be the cause of trade crises” (86; emphasis added). In fact, this outcome was inevitable: “But since production is geared directly to trade and only indirectly to consumption, it must get caught up in this incongruity between trade and exchange for consumption just as much as, for its own part, it must produce it. (The relationships between demand and supply are completely reversed.)” (86–7).

Marx subsequently elaborates on market devices relating to *information* designed to mitigate the potential for trade crises due to the dissonance between production and consumption decisions: “current price lists, exchange rates, communication between commercialists by letters, telegrams, etc. (the means of communication of course develop simultaneously), by means of which each individual provides himself with information on the activities of all others and seeks to adjust his own activity accordingly. . . . [E]ach seeks to inform himself of the general state of demand and supply; and this knowledge influences their action” (98). There is brief mention of “[t]he possibility of general statistics, etc.,” and of “overcoming” the discordances deriving from independent supply and demand components by means of improved information. Such promise is particularly stressed in international trade: “In the *world market* the *connection of the individual* with all others, but at the same time also the *independence of this connection from the individuals*, has itself developed to such a point that its formation already contains the conditions for its being transcended.”

We return to the circular-flow perspective – *assuming no breakdown* – much in evidence in the Section devoted to the “Circulation Process of Capital” as one would expect: “We have now seen how, by means of the *valorisation process*, capital has (1) maintained its value by means of exchange (i.e. exchange with living labour); (2) increased, produced surplus value. There now appears, as the result of this unity of the production and valorisation process, the product of the process, i.e. capital itself, as it emerges as the product of the process whose precondition it was – as a product which is value” (329). But this is still a half-way house: “what is actually there, is a commodity of a certain (ideal) price, i.e. a commodity which exists only in idea in the form of a certain sum of money, and which can be *realised* as such only in exchange, i.e. it must first re-enter the process of simple circulation in order to be posited as *money*. Hence we arrive at *the third side of the process* in which capital is posited as such.” This “third side,” namely *final sale*, permits the “realisation of value.” But should the process “miscarry,” the products constituting capital will remain “*devalued*” notwithstanding the labor embodied therein and the “surplus value” generated, for “the money of the capitalist has been

transformed into a worthless product; not only has it not gained any new value, it has lost its original value” (330). And since the value of capital “consists precisely in the process of valorisation . . . this loss [of value of capital] only means that time passes for it unutilised, time in which it could appropriate *surplus labour time*, alien labour, by exchange with living labour, if the deadlock had not occurred” (470; also 445, 462).

Marx represents the various “processes” entailed as “exist[ing] *independently* alongside one another, despite their *inner unity*, and each . . . as the precondition of the other” (330). To attend to the production stage alone neglected those “barriers” to realization of “exchange value” and “surplus value” which “lie *outside* the process [of production]”: “In the production process itself – where capital always remained presupposed as value – its *valorisation* appeared to be entirely dependent upon its relationship as objectified labour to living labour, i.e. upon the relationship of capital to wage labour. But now as product, as commodity, it appears dependent on circulation, which lies outside the production process . . .” (331).

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As the problem is phrased, more is involved than the prospect of “dissonance” alluded to earlier (above, p. 273), namely of a final-demand failure reflecting excess demand for money to hold. Rather Marx touches on a *theoretical dilemma* as he saw it: whence the source of adequate purchasing power to “realize” the *surplus* value “created” in the production process? The dilemma is broken down into its elements, the first of which entails apparently the assumption of totally inelastic market demand: “. . . when capital emerges from the production process and returns into circulation, it appears . . . that as *production* it has come up against the barrier of the given volume of *consumption*, or of the *consumption capacity*. . . [whereby] it is required only in a specific quantity, i.e. in a certain measure” (332). How far we are to generalize this problem is unclear, since Marx refers only to “[c]ertain objects” such as corn characterized by totally inelastic demand.

The second element is more substantive, touching less on an apparent empirical assumption but rather on a matter of principle: “. . . an equivalent for the commodity must be available, and since circulation was originally presupposed as a fixed magnitude, as having a given volume, while capital has produced a new value in the production process, it appears that there can in fact be no equivalent available for it . . .”; for “[a]s *new value* and *value* as such, capital appears to come up against the barrier of the volume of *available equivalents*, in the first place of money – money not as means of circulation but as money. Surplus value (the surplus over and above the original value) requires a surplus equivalent.” In short, the specifically *capitalist* production process seemed to be *necessarily* thwarted: “This specific form of production presupposes the specific form of exchange which finds its expression in money circulation. If the process is to be renewed, the whole product must be converted into money; not as in earlier stages of production, where exchange embraces only superfluous production and superfluous products, but not production

in its totality” (333).<sup>9</sup> Needless to say, there had to be a solution to the apparent dilemma, since the process played itself out in practice – albeit not smoothly: “These are the contradictions which cannot escape a simple, objective, impartial examination. How they are constantly transcended in production based on capital, yet constantly reproduced, and only forcibly transcended . . . is another question.”

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The “circulation” problem applies *a fortiori* to the case of the growing economy entailing either expansion of the labor force and corresponding creation of additional “absolute” surplus value, or productivity increase which generates increased “relative” surplus value, both forms of expansion requiring expanded circulation. And here Marx is rather more forthcoming regarding the solution to his dilemma; which is fortunate insofar as his primary concern is after all with growth.

As for the first form: “Capital’s creation of *absolute surplus value* – more objectified labour – is conditional upon the expansion, indeed the constant expansion, of the periphery of circulation. The *surplus value* produced at one point requires the production of surplus value at *another* point, for which it may be exchanged. . . . A condition of production based on capital is therefore *the production of a constantly expanding periphery of circulation*, whether the sphere is directly expanded, *or whether* more points within it *become points of production*” (334–5). As for the solution: “If circulation initially appeared as a given magnitude, it appears here as a moving one, expanding through production itself. In the light of this, it already appears itself as a moment of production. Hence, just as capital has the tendency to produce more surplus labour, it has the complementary tendency to produce more points of exchange” (335). Here the *international-trade* dimension in a developmental context – the modern term “globalization” seems appropriate – takes center stage:

With respect to *absolute* surplus value or surplus labour, this means that capital tends to generate more surplus labour as complement to itself; *au fond*, that it tends to propagate production based on capital or the mode of production corresponding to it. The tendency to create the *world market* is inherent directly in the concept of capital itself. Every limit appears as a barrier to be overcome. At first [capital strives] to subject each moment of production itself to exchange, and to transcend the production of immediate use values which do not enter into exchange, i.e. to replace the earlier and from its standpoint naturally evolved modes of production by production based on capital. *Trade* appears no longer as an activity carried on between independent productions for the exchange of their surplus product, but as the essential, all-embracing prerequisite for and moment of production itself.

There was then a *two-fold* “tendency of capital . . . to continually enlarge the periphery of circulation; [and] to transform it at all points into production carried on by capital.”

<sup>9</sup> The “earlier stages . . .” relate to pre-capitalist societies where exchange does occur but only at the margin of activity as in intercommunity exchange.

As for the increased flow of output reflecting *productivity increase* – “the production of *relative surplus value*, i.e. the production of surplus value based upon the increase and development of the productive forces” – that too “requires production of new consumption, so that the sphere of consumption within circulation is enlarged, as that of production [of absolute surplus value] was enlarged before.” This expansion entailed – apart from “quantitative increase in existing consumption” – “the creation of new needs by the propagation of existing ones over a wider area . . . and discovery and creation of new use values. . . . [I]f because of a doubling of productivity, a capital of only 50 needs to be invested where 100 was needed before, and a capital of 50 and the necessary labour corresponding to it are released, a new, qualitatively different branch of production satisfying and generating a new need, must be created for the released capital and labour. . . .” (335–6). In this context is found some of Marx’s most brilliantly evocative writing touching on the societal transformation involved in expanding the sphere of circulation on a global scale:

Hence the exploration of the whole of nature in order to discover new useful properties of things; the universal exchange of the products coming from the most diverse climates and lands; new (artificial) modes of processing natural objects to give them new use values. . . . The all-round exploration of the earth to discover both new useful objects and new uses for old objects, such as their use as raw materials, etc.; hence the development of the natural sciences to their highest point; the discovery, creation and satisfaction of new needs arising from society itself; cultivating all the qualities of social man and producing him in a form as rich as possible in needs because rich in qualities and relations – producing man as the most total and universal social product possible (for in order to enjoy many different kinds of things he must be capable of enjoyment, that is he must be cultivated to a high degree) – all these are also conditions of production based on capital. This creation of new branches of production, i.e. qualitatively new surplus time, is not only the division of labour, but also the separation of a definite kind of production from itself as labour of a new use value; the development of a constantly expanding comprehensive system of different kinds of labour, different kinds of production, with a corresponding system of ever more extended and ever more varied needs (336).

It cannot be emphasized enough that when Marx writes of “the great civilising influence of capital” it is not technical change in a narrow sense that he intends, but transformations of the most profound order extending to consumption patterns:

Thus, just as production based on capital produces universal industry, i.e. surplus labour, value-creating labour, on the one hand, so does it on the other produce a system of universal exploitation of natural and human qualities, a system of universal utility, whose bearer is science itself as much as all the physical and spiritual qualities, and under these conditions nothing appears as something *higher-in-itself*, as an end in itself, outside this circle of social production and exchange. Thus it is only capital which creates bourgeois society and the universal appropriation of nature and of the social nexus itself by the members of society. Hence the great civilising influence of capital; hence its production of a stage of society compared to which all previous stages seem merely *local developments* of humanity and *idolatry of nature*. For the first time,

nature becomes purely an object for men, nothing more than a matter of utility. It ceases to be acknowledged as a power for itself, and even the theoretical cognition of its autonomous laws appears merely as a stratagem for its subjection to human needs, whether as object of consumption or as means of production (336–7).

In concluding, the “Schumpeterian” notion of capitalistic *creative destruction* is much in evidence as is the emphasis (once again) on a form of *globalization*: “It is this same tendency which makes capital drive beyond national boundaries and prejudices and, equally, beyond nature worship, as well as beyond the traditional satisfaction of existing needs and the reproduction of old ways of life confined within long-established and complacently accepted limits. Capital is destructive towards, and constantly revolutionises, all this, tearing down all barriers which impede the development of the productive forces, the extension of the range of needs, the differentiation of production, and the exploitation and exchange of all natural and spiritual powers” (337).

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Despite his remarkable descriptive accounts of the “tendency of capital . . . to continually enlarge the periphery of circulation,” Marx insists that appropriate enlargement cannot be taken for granted. In fact, he went so far as to suggest that whether the production process is completed successfully by final sale was a matter of *chance*: “As *commodity* in general, capital now shares the fate of commodities in general; it becomes a matter of chance, whether or not it is exchanged for money, whether or not its *price* is realised” (331). And most significant, the national and international credit system itself is interpreted within this framework – again demonstrating an aspect of the *global economy*: “The whole *credit system*, and the over-trading, over-speculation, etc., connected with it, rest upon the necessity to extend the range of, and to overcome the barrier to, circulation and exchange. This appears more colossal, more classical, in the relationship between peoples than in the relationship between individuals. Thus e.g. Englishmen compelled to *lend* to foreign nations to have them as their customers” (343).<sup>10</sup>

The problem is described in terms of pressures to “overproduction” emanating within *competitive* capitalism.<sup>11</sup> Thus, “if it is the tendency of capital to distribute itself in the correct proportions” – the orthodox view – “it is just as

<sup>10</sup> See also MECW 28: 459. The continuity of the various processes, which appears as chance, is “transcended” by *credit*, envisaged as “arising directly from the nature of the process of [capitalist] production.” For “borrowing and lending” – such as existed in pre-capitalist organization – “no more constitute *credit* than working constitutes *industrial labour* or *free wage labour*. As an essential, developed relation of production, credit appears *historically* only in circulation based on capital or wage labour.”

<sup>11</sup> Marx paid his respects to Wakefield, who “correctly sniffs out in his commentary on Smith [1835–39: 244–6], [that] free competition has *never* been analysed *at all* by political economists, however much they may chatter about it, even though it is the basis of the entire bourgeois production based on capital. It has only been understood negatively, i.e. as the negation of monopolies, corporations, legal regulations, etc., and as the negation of feudal production” (MECW 28: 340–1).



much its necessary tendency to drive beyond the correct proportion, because it strives boundlessly for surplus labour, surplus productivity, surplus consumption, etc.” (340); and this tendency towards general excess supply is represented as a “compulsion” *inherent* in the capitalist competitive structure: “In *competition*, this immanent tendency of capital appears as a compulsion imposed upon it by *other* capital and driving it beyond the correct proportion with a constant *March, march!*. . . . Conceptually, *competition* is nothing but the *inner nature of capital*, its essential character, manifested and realised as the reciprocal action of many capitals upon each other. . . . Capital exists and can only exist as many capitals; hence its own character appears as their reciprocal action on each other” (340–1).<sup>12</sup> In this process it was inconceivable that production *could* proceed smoothly: “Capital is just as much the constant positing of, as it is the constant transcendence of *proportionate production*. The existing proportions must constantly be transcended through the creation of surplus values and the increase of productive forces. But to demand that production should be expanded *instantaneously, simultaneously*, and in *the same proportions*, is to impose external demands on capital, which in no way correspond to anything arising from capital itself” (341). The problem was that “the departure from the given proportion in one branch of production drives all the other branches out of that proportion, and at unequal rates.”<sup>13</sup> It was not only a matter of *general overproduction* but *disproportionate overproduction*.

Marx may have sensed that he had left the matter too much in the air, for he steps back a little: “So far, we have in the valorisation process only the indifference of the individual moments to each other, that they determine each other internally and search for each other externally, but that they may or may not find each other, balance each other, correspond to each other.” But it was not good enough to leave an impression of a “mutually indifferent and apparently independent appearance of the individual moments of the process or, rather, of the totality of processes” (342). For various *constraints on production* inherent within capitalism, imposed a tighter linkage between the production process narrowly defined and “realization” of value in circulation, and these “necessary limits” counteracted to a degree the tendency towards overproduction due to “competition” between individual capitals.<sup>14</sup> In fact, while capital had released the “fetters” on production imposed by earlier forms

<sup>12</sup> The same notion of competition between capitals – “their indifference to and independence of one another” – is applied in the analysis of working-class consumption, see below, pp. 288–9.

<sup>13</sup> The reference in this passage to “proportionate production” provides a foretaste of the formal analysis of structural or sectoral proportions in Marx’s later writings.

<sup>14</sup> The “necessary limits” refer broadly to

(1) *necessary labour* as the limit on the exchange value of living labour capacity or on the wages of the industrial population; (2) *surplus value* as the limit on surplus labour time; and, with respect to relative surplus labour time, as the limit on the development of the productive forces; (3) what is the same, *transformation into money*, exchange value in general as the limit on production; or exchange based on value, or value based on exchange, as the limit on production. It is: (4) again identical as the *restriction of the production of use values* by exchange value; or that real wealth has to assume a *specific* form distinct from itself, i.e. a form not absolutely identical with itself, if it is to become an object of production at all (MECW 28: 342).

of organization, it now acted as a constraint relative at least to a *post-capitalist universe*: “Here it is sufficient to demonstrate that capital contains a *particular* restriction on production – which contradicts its general tendency to drive beyond every barrier to production . . . ; or, to put it more generally, to have uncovered that capital is not, as the economists believe, the *absolute* form for the development of the productive forces. . . .” Thus, whereas pre-capitalist organization acted “as just so many fetters upon the productive forces,” so capital itself “appears as the condition for the development of the productive forces, only so long as they require an external spur, a spur which at the same time appears as their bridle. It is a discipline over them, which at a certain level of their development becomes quite as superfluous and burdensome as [previously] the corporations, etc.”

Overproduction crises are represented as the clash of the two conflicting tendencies – the drive to overproduction and the restraints – for the general tendency of capital was to “forget and abstract from” the limits (343). Thus “overproduction, i.e. a sudden *reminder* of all these necessary moments of production based on capital; hence general devaluation in consequence of forgetting them. This immediately faces capital with the task of trying again from a higher level of development of the productive forces, etc., resulting in an ever greater collapse *as capital*. Therefore clear that the higher the level to which capital has developed, the more it appears as a barrier to production – hence also to consumption – quite apart from the other contradictions which make it appear as a burdensome barrier on production and commerce.” At one point we find a reference to ultimate collapse of the system: “Moreover, the universality for which capital ceaselessly strives, comes up against barriers in capital’s own nature, barriers which at a certain stage of its development will allow it to be recognised as being itself the greatest barrier in the way of this tendency, and will therefore drive towards its transcendence through itself” (337).

#### D. On the Law of Markets and Overproduction Literature

Marx reviewed the economic literature on the Law of Markets and in the course of his account further clarified his own position regarding “overproduction.” His attitude towards Ricardo was mixed. Ricardo had allowed only capital mobility between sectors in response to relative profitability: “[For Ricardo] since production is itself regulated by the costs of production, it regulates itself. And if a particular branch of production does not valorise itself, capital withdraws from it to a certain degree and moves into other branches in which it is necessary” (MECW 28: 340). But he failed to recognize general overproduction due to – or perhaps only with a counterpart in, for the text is unclear – *excess demand for money to hold*; for “the disharmony and hence the contradiction, in a general crisis of overproduction the contradiction is not between different types of productive capital, but between industrial and loan capital, between capital as it is directly involved in the production process and capital as it appears as money independently (*relativement*) outside that process.”

For all that, Ricardo is said to have appreciated the *essentials* of capital better than Sismondi despite the latter's recognition of impediments to its smooth operation reflecting consumption inadequacies:

The economists who, like Ricardo, conceive production as directly identical with the self-valorisation of capital, who therefore ignore the barriers of consumption or the existing barriers of circulation itself, so far as circulation must represent counter-values at all points, and who are only concerned with the development of the productive forces and the growth of the industrial population – i.e. *with supply, regardless of demand* – have therefore grasped the positive essence of capital more correctly and profoundly than those who, like Sismondi, emphasise the barriers of consumption and of the existing circle of counter-values, although the latter has better grasped the limitations of production based on capital, its negative one-sidedness. Ricardo has better grasped its universal tendency, Sismondi its particular restrictedness (337; emphasis added).

In an important elaboration Marx allows that Ricardo *suspected* “that exchange value” (Marx's *labor embodied* of course) “proves itself as value only through exchange” – alluding here to the demand requirement – but finds Ricardo's presumptiveness regarding its satisfaction (presumably at the aggregate level) “often absurd,” veiling the phenomenon of “real modern crises”:

The whole controversy as to whether *overproduction* is possible and necessary in production based on capital, is about whether the valorisation of capital in production directly posits its valorisation in circulation; whether its valorisation posited in the *production process* is its *real* valorisation. Ricardo of course also has a suspicion that *exchange value* is not value outside exchange, and that it proves itself as value only through exchange. But he considers the barriers which production encounters in this direction as accidental, as barriers which are simply overcome. He therefore conceives the overcoming of such barriers as implied in the very essence of capital, although his exposition of this is often absurd. . . . Ricardo and his entire school have never comprehended the real *modern crises* in which this contradiction of capital discharges itself in violent thunderstorms, which more and more threaten capital itself as the basis of society and production (337–8).

This instability Sismondi well understood – he even glimpsed the *breakdown* of capitalism – but sought (in vain) to impose artificial restraints on production: “*Sismondi*, by contrast, emphasises not only the encountering of the barrier but its creation by capital itself, which thus gets itself into contradictions, contradictions in which he glimpses the impending breakdown of capital. He, therefore, wants to impose barriers on production from outside, by means of custom, laws, etc., which, as merely external and artificial constraints, would necessarily be demolished by capital” (338).

With respect to the orthodox denial of general overproduction, Marx is particularly harsh towards McCulloch; James Mill emerges only a little better; while Say is nothing more than the “insipid imitator” of Mill: “To rescue production *based on capital*, the orthodox economists (see e.g., MacCulloch [1825: 90]) either ignore all its specific characteristics, all its conceptual definitions, and rather conceive of

it as simple production for *immediate use value*. [They] entirely abstract from its essential relations. In fact, to purify it of contradictions, they simply drop it and negate it. Or, like, e.g., Mill [1823: 250–60], they adopt a more perceptive procedure (insipidly imitated by Say): *supply* and *demand* are identical, hence they must correspond to each other. For supply is really a demand, measured by its [supply’s] own amount.”<sup>15</sup> Here we again encounter Marx’s insistence not only on independently determined demand conditions based on “use value” reflecting “the mass of existing needs” for a commodity – wholly on a par with supply – but also on the *monetary* intermediary in the “realization” of “exchange value”:

Here a great confusion: (1) the identity of supply, i.e. being a demand which is measured by its [supply’s] own amount, is true only to the extent that it is *exchange value* = a certain amount of objectified labour. To that extent, supply is the measure of its own demand as far as *value* is concerned. But as such a value, it is realised only through exchange for *money*; and as an object of exchange for money it depends upon (2) its *use value*; and as use value, in turn, it depends upon the mass of existing needs for it, the demand for it. However, as use value it is absolutely not measured by the labour time objectified in it, but by a standard quite unconnected with its nature as exchange value (338–9).

These charges against the orthodox reduce to their viewing the capitalist system in terms of “simple exchange,” or barter, rather than as a monetary system wherein realization of “exchange value” (labor time) requires monetary expenditure reflecting demand requirements. Thus James Mill’s “ingenious” formula “supply = its own demand, hence demand and supply are identical . . . means only that value is determined by labour time, and consequently *exchange adds nothing to value*. The only thing which is forgotten here is that exchange must take place, and whether it does or does not depends upon *use value* (in the final analysis) . . .” (352); Say – who expresses this proposition in stultified form: “products are exchanged only for products [*Traité* 1817 2: 441]” so that “all that can happen is that too much is produced of one product and too little of another” – “adopts the standpoint of *simple exchange*, in which indeed no overproduction is possible because it really is concerned with use value, not with exchange value.” And the source of this misconception was a failure to recognize “that producing capital demands not a particular use value but *value* for itself, i.e. money – money not in its role as means of circulation but as the general form of wealth . . .” (339).<sup>16</sup>

The emphasis on the possibility of general commodity excess and the requirement of a monetary form of “realization” of exchange values did not, Marx insisted,

<sup>15</sup> Marx cites the French translation (1823) of Mill 1821: 186–95. He was unaware of Say’s sophisticated approach to the Law of Markets and his temporal priority over James Mill, on which matter see Hollander 2005: 219–22.

<sup>16</sup> See also: “. . . it is value as such, i.e., *money*, which both maintains itself in circulation and grows through the exchange with living labour; that therefore the purpose of productive capital is *never use value*, but the general form of wealth as wealth” (MECW 28: 519). One authority Marx cites favorably in this regard is Chalmers 1832: 164–6.

place him with the inflationists. For the source of the overproduction problem was *not* monetary but rather one of “production which cannot be converted into money, hence into *value*, production which does not pass the test of circulation. Hence the illusion of the money-conjurers (also Proudhon, etc.) that there is a shortage of *means of circulation* because of the dearness of money, and that more money has to be created artificially. (See also the Birmingham School, e.g., the *Gemini*.)”<sup>17</sup> This is in line with a general opposition to monetary panaceas. And the perspective on capital turnover (above, Section B) also points away from the inflationists or “circulation manipulators who imagine that credit banks and new credit devices which transcend the duration of circulation time can not only remove the delays, the interruption of production, required for the conversion of the finished product into capital, but make the capital for which the producing capital exchanges, itself superfluous, i.e. they want to continue to produce on the basis of exchange value, but at the same time to remove by some magical formula the conditions necessary for production on this basis” (469). In short, the inflationists went too far, and “[t]he most that credit can do in this respect, where it is a matter of *mere* circulation, is to maintain the continuity of the production process if all other conditions for this continuity are present, i.e. if the capital to be exchanged with actually exists, etc.”

The case against the inflationists is further clarified in terms of the “dual appearance” of money which generates a *misconception* that all crises reflect an inadequate money supply – implicitly an excess demand for money to hold – when in fact the problem may run deeper, entailing that of “realizing capital.” As for the dual perspective, there is firstly the function of money in “[t]he transformation of the product into money [or] reconversion of capital into *value* as such, value existing independently; capital as money or money as realised capital”; and secondly, there is money “as mere means of circulation . . . only serv[ing] to reconvert capital into the conditions of production. In this second moment, in the form of wages, a certain volume of money must be simultaneously present as means of circulation, means of payment” (503). Increased monetary injections would be to no avail in the former case; for while “it appear[s] in all crises that there is a lack of money as means of circulation,” the problem is that “capital is lacking in value, and thus cannot *monétiser* itself. In such a crisis the volume of money in circulation may in fact increase,” without resolving the problem. Again, money’s dual character implied that “[i]n crises, capital (as commodity) cannot be exchanged, not because there are *too few* means of circulation; it does not circulate because it is *not exchangeable*” (520). In fact, “the significance which cash acquires in times of crisis arises only from the fact that, while capital is not exchangeable for its value – and only for that reason does its value appear to confront it fixed in the form of money – it

<sup>17</sup> The reference is to the anonymously written *The Currency Question: The Gemini Letters* (1844) – by Thomas Wright and J. Harlow – addressed to Sir Robert Peel and arguing for the issue of inconvertible paper sufficient to assure full employment (see Fetter 1965: 179–80; also editorial note editorial note MECW 28: 558).

still has obligations to pay. Alongside the interrupted circulation, a *forced circulation* takes place.” The policy implication here is that easier credit conditions might be of avail only in relieving what is a secondary problem.<sup>18</sup> And yet we have also seen that credit is elsewhere accorded the role of “extend[ing] the range of, and . . . overcom[ing] the barrier to, circulation and exchange” (above, p. 278).

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It is instructive to compare Marx’s position with that of J. S. Mill. In his essay “Of the Influence of Consumption on Production” (composed in 1830) Mill had “inquire[d] into the nature of the appearances, which give rise to the belief that a great demand, a brisk circulation, a rapid consumption (three equivalent expressions), are a cause of national prosperity,” and allowed that if the turnover period were reduced by a more “brisk circulation” hitherto idle capital might be actively utilized in the expansion of physical plant, materials and wage goods (though he also warned that in a world of imperfect knowledge inventories could never be entirely dispensed with) (Mill 1963–91 [1844]: 264, 268–9).<sup>19</sup> Expansion of aggregate expenditure – partly due to *credit* – might also act as a stimulus to real output in periods of business depression (276f). We have seen that this is also Marx’s position regarding the role of credit at least in cases where excess demand for money is the issue.

Beyond his two allowances Mill refused to go. Certainly there were no constraints on *secular* expansion reflecting lack of purchasing power. It has already become clear, and it will be confirmed in Section E, that in this regard Marx is closer to Malthus (and Sismondi), though for Marx as well as Mill monetary means would be inappropriate as secular stimulus and entail nothing but an invitation to inflation.<sup>20</sup>

Marx was aware of Mill’s position,<sup>21</sup> and cited the *Unsettled Questions* as containing the “few original ideas of Mill junior” on precisely the matter at hand, namely capital “locked up” or “lying idle” in inventory, such being “the price we pay for division of labour,” with some allowance made for “contrivances of banking” to improve circulation time with positive effects on real output (MECW 28: 535–6). That he derived intellectual stimulus from Mill is thus very likely. And Marx’s

<sup>18</sup> Unfortunately, we are given little guidance as to how the two categories are to be distinguished in practice, since this matter is postponed: “The new determinations of money; how it is posited as a moment of the circulation of capital, partly as its means of circulation and partly as the *realised value of capital*, as itself *capital*, will require a section of its own when we discuss interest, etc.” (MECW 28: 503).

<sup>19</sup> See also Mill, *Principles of Political Economy* 1848, Book III, Chapters xii, xiv.

<sup>20</sup> Malthus too – no less forcefully than Mill – rejected such devices (Hollander 1997: 674–6, 1003–4).

<sup>21</sup> Marx became familiar with the *Unsettled Questions* soon after its appearance, copying out passages in his Manchester Notebook for 1845 (editorial note, MECW 36: 533n). There are also statements by Samuel Bailey (1837) regarding “accelerated circulation” as means of activating “dormant capital” which Marx cites favorably in the *Grundrisse* (MECW 28: 502–4). (Bailey’s position is very close to Mill’s but less well known; Mill himself inexplicably neglected this remarkable precursor.)

(qualified) admiration for Tooke and Fullarton and the Banking School perspective opposed to Peel's Act of 1844 has been convincingly demonstrated (Arnon 1984; Nelson 1999: 34–5, 144).

### E. On Working-Class Consumption

Marx clarifies that he was engaged in only a limited range of issues concerning overproduction. His object was to provide a preliminary account of “the predisposition to [overproduction] as it is posited in primitive form in the relation of capital itself,” rather than an analysis of overproduction “in all its specific characteristics” (MECW 28: 345). Thus he omitted “the other possessing and consuming classes, etc., which do not produce but live from their revenue, and therefore exchange with capital” – “better dealt with in connection with *accumulation*” – and focused on consumption by wage workers. Nevertheless, we may note here that whereas Mill rejected out of hand the Malthus-Sismondi position regarding *secular* demand constraints, Marx commended Malthus for his appreciation of the “contradictions between capital as instrument of production in general” – the physical dimension of wealth – and capital as “instrument of production of value,” entailing the necessity to create new markets (344). Regarding *unproductive consumption* he commented: “Malthus [1836: 314–30] was quite consistent when, along with surplus labour and surplus capital, he demands surplus idlers, consuming without producing, postulating the necessity of waste, luxury, extravagant spending, etc.” (328). And he did not deny that “[i]n the further development of capital, we find that alongside the industrial part of this surplus population – the industrial capitalists – a purely consuming part branches off. Idlers whose business it is to consume alien products, and [who,] since crude consumption has its limits, have to have a part of these products forwarded to them in refined form, as luxury products” (527).<sup>22</sup>

But the focus was on working-class consumption, Marx taking as starting point Malthus's position that “[t]he consumption and demand occasioned by the workmen employed in productive labour can never *alone* furnish a motive to the accumulation and employment of capital . . .” (Malthus 1836: 315).<sup>23</sup> That “the

<sup>22</sup> The extended citations from Malthus's posthumously published *Principles* include the following: “. . . [p]rofits are invariably measured by value and never by quantity” (Malthus 1836: 266). “[T]he wealth of a country depends partly upon the quantity of produce obtained by its labour, and partly upon such an adaptation of this quantity to the wants and powers of the existing population as is calculated to give it value” (301). “[T]he powers of production, to whatever extent they may exist, are not alone sufficient to secure the creation of a proportionate degree of wealth. Something else seems to be necessary in order to call these powers fully into action. This is an effectual and unchecked demand for all that is produced. And what appears to contribute most to the attainment of this object, is such a distribution of produce, and such an adaptation of this produce to the wants of those who are to consume it, as constantly to increase the exchangeable value of the whole mass” (361).

<sup>23</sup> Marx cites a summary formulation by Malthus's editor [Malthus 1836: 405n]: “The demand created by the productive labourer himself can never be an *adequate* demand, because it does

consumption of the workers is by no means by itself a *sufficient* consumption for the capitalist” is also attributed to Sismondi (1837–38 I: 61) (MECW 28: 339–40).

First to be noted is that consumption by *wage* workers is conceived not as entailing the direct advance of wage-goods – as in earlier institutional arrangement based on slavery, or patriarchal rural-industrial production – but as part of the general circulation or exchange process: “[I]n production based on capital, consumption is at all points mediated by exchange, and labour never has direct use value for those who perform it. Its whole basis is labour as exchange value and as producer of exchange value” (345). Thus “[t]hrough the exchange between the part of capital which is determined as wages and his living labour capacity, the *exchange value* of this part of capital is directly posited before capital again steps out of the production process to enter into circulation; or this may itself be conceived of as an act of circulation” (346).

We should also note Marx’s treatment earlier in the *Grundrisse* of laborers’ consumption on a par with that of all others from the perspective of circulation. The point reflects the more general proposition that “[s]ince exchange value is only realised in money, and the system of exchange value has only been realised with the rise of a developed money system or conversely, the money system can in fact only be the realisation of this system of freedom and equality” (177). That “equality is established quite objectively in money when in circulation, appearing now in the hands of one person, now in the hands of another, and quite indifferent to where it appears,” is illustrated specifically by reference to a “worker who buys a commodity for 3s. appear[ing] to the seller in the same function, in the same equality, in the form of 3s., as the king who buys this commodity. All difference between them is extinguished. The seller qua seller appears only as the possessor of a commodity priced at 3s., so that both [buyer and seller] are perfectly equal, except that the 3s. exist once in the form of silver, the other time in the form of sugar, etc.” (177–8).<sup>24</sup>

Although all this points distinctly away from strict wage-fund reasoning involving the direct advance of wage goods, Marx did sometimes make use of the advances concept in his model building; even the orthodox term “destined” is to be found in specific analytical exercises. For example:

not go to the full extent of what he produces. If it did, there would be no profit, consequently no motive to employ him. The very existence of a profit upon any commodity presupposes a demand *exterior* to that of the labour which has produced it” (MECW 28: 345); see also below, p. 288.)

<sup>24</sup> Cf: The worker “confronts the capitalist in circulation simply as M [money], and the capitalist confronts him as C [commodity]; he confronts the capitalist as realiser of the *price* of C, which is therefore presupposed for him just as it is for every other representative of M, i.e. for every other buyer” (MECW 28: 354). Also: “the relative limitation of the range of the workers’ consumption, which is only quantitative, not qualitative, or rather qualitative only as posited by quantity, gives them as consumers (in the course of the further analysis of capital, the relationship of consumption and production must, in general, be considered more closely) a quite different importance as agents of production from that which they possess and possessed in e.g. ancient world, in the Middle Ages or in Asia” (213).



In so far as the surplus product is valorised anew as surplus capital, enters anew the production process and the process of self-valorisation, it divides itself into (1) means of subsistence for the workers to be exchanged for living labour capacity. Let us define this part of *capital* as the *wages fund*. This wages fund, the part destined for the maintenance of labour capacity – and for its progressive maintenance, since surplus capital grows continuously – now appears as the product of *alien* labour, of labour alien to *capital*, just as much as do (2) the other components of [surplus] capital – the physical conditions for the reproduction of a value = these means of subsistence + a surplus value (383).

The dual approach to wages – reflecting, on the one hand, a vision of actual economic organization and, on the other, specific analytical exercises – has much in common with that of J. S. Mill (see Hollander 1985: 387–400).

What happens though to the central notion that capitalists purchase *labor power* in the representation of economic organization elaborated above in Chapter 8? That dimension is certainly retained but is treated as *operationally* irrelevant. For the circumstance that a worker's consumption “renew[s] his own use value for a certain time” (213), does not affect his activity in the market *as consumer* which is “not restricted to particular objects, nor to a particular kind of satisfaction”:

As in the case of every individual standing in circulation as subject, the worker is the owner of a use value; he disposes of it for money, the general form of wealth, but only in order to dispose of this money in turn for commodities as objects of his immediate consumption, as the means for the satisfaction of his needs. Since he exchanges his use value for the general form of wealth, he shares in the enjoyment of general wealth up to the limit of his equivalent. . . . But he is not restricted to particular objects, nor to a particular kind of satisfaction. The range of his enjoyments is not limited qualitatively, but only quantitatively. This distinguishes him from the slave, serf, etc.

On the other hand, Marx emphasises that the world of markets is “illusory,” hiding the truth of what is at play even from the worker himself *whose freedom of choice is far more restricted than might appear*: “while the worker receives his equivalent in the form of money, in the form of general wealth, he figures in this exchange as the equal of the capitalist, like every other exchanger; at least, *in appearance*. . . . This appearance, however, exists as an illusion on his part and to a certain extent on the other side. . . .”<sup>25</sup> For in the final resort – as we mentioned in Chapter 8, p. 238 – what the worker gets is “not exchange value, not wealth, but means of subsistence, objects to sustain his life, satisfaction of his needs in general, of his physical, social, etc., needs. It is a specific equivalent in means of subsistence, objectified labour, measured by the production costs of his labour” (214); only to the extent that workers engage in *saving* could it be said that “in the exchange of the worker with capital, his object – and therefore also the product of the exchange for him – is not means of subsistence but wealth, not a particular use value, but exchange value as such,” the latter referring to the accumulation of *money*.

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<sup>25</sup> The illusory world of markets masks the entire concept of surplus value of which the purchase of labor power is but one facet (see MECW 28: 383–5).

We return now to the “illusory” world of markets and Malthus’s problem of the significance of labor’s consumption from the perspective of stimulus to production (above, p. 285). Working-class accumulation, we have seen, was for Marx the exception not the rule, considering the subsistence-wage presumed to apply; but Marx did consider the exception and allowed that saving by workers – were they to respond positively to contemporary efforts to encourage Savings Banks – would have serious consequences: “the damage they would do to general consumption – the loss would be enormous – therefore also to production – therefore also to the number and volume of exchangers that they could make with capital, therefore to themselves as workers” (215). This capitalist employers well understood, for though each wished to reduce his *own* workers’ consumption he does not wish to see *general* consumption fall: “each capitalist certainly demands that his workers should save, but only *his* own, because they confront him as workers; but by no means the remaining *world of workers*, because they confront him as consumers. In spite of all ‘pious’ phrases, he therefore tries to find all kinds of means to spur them on to consumption, to endow his commodities with new attractions, to talk the workers into feeling new needs, etc.” (217).<sup>26</sup> Similarly, “[i]n relation to each capitalist the total mass of all workers except his own appears not as workers but as consumers, possessors of exchange values (wages), of money, which they exchange for his commodities. They are so many centres of circulation, from which the act of exchange begins and by means of which the exchange value of capital is preserved. . . .” (346).<sup>27</sup> Again we note the operational irrelevance of “labor power.”

Now although the “essential relationship” for Marx was that of “*each* capitalist to *his* workers,” the counterpart so to speak of the “*general relationship of capital and labour*” wherein aggregate wages constitute a cost item, nevertheless, the relationship of one capitalist with the employees of *other* capitalists – an aspect of *inter-capital competition* with which Marx was not yet fully preoccupied – had profound implications. Specifically, each capitalist perceived “that *apart from his own* workers, the rest of the working class confronts him not as workers, but as *consumers* and *exchangers* – as moneyspenders [forgetting] that, as *Malthus* says, “the very existence of a profit upon any commodity presupposes a *demand exterior to that of the labourer who has produced it*,” and hence the “*demand of the labourer himself can never be an adequate demand*” (see note 23).<sup>28</sup> In short, “the

<sup>26</sup> Marx adds that “[t]his relationship between production and consumption is only to be developed later, under capital and profit, etc., or also under accumulation and competition of capitals” (MECW 28: 217).

<sup>27</sup> Marx adds: “The greater their number – the greater the size of the industrial population – and the greater the amount of money over which they dispose, the greater the sphere of exchange for capital. We have seen that it is the tendency of capital to increase the industrial population as much as possible” (MECW 28: 346). On this tendency, see Chapter 8, p. 247.

<sup>28</sup> Marx’s attitude towards Proudhon in this context is mixed: “Proudhon . . . derives overproduction from the fact that ‘the worker cannot buy back his product,’” but failed to understand the source of profit, and the relation of between price and value (MECW 28: 352). On this issue, see also Chapter 8, p. 243.

demand of the working class posited by production itself *appears* to each individual capital as an ‘adequate demand,’” thereby “driv[ing] on production beyond the *proportion* in which it would have to produce with regard to the [effective demand of] workers . . .” (349). Alternatively expressed, “*it is owing to the competition of capitals*, their indifference to and independence of one another, that the individual capital does *not* relate to the workers of the entire remaining capital *as workers: hinc* is driven beyond the right proportion.” It is an illusion exploded with the cyclical downturn: “On the other hand, the demand *exterior to the demand of the labourer himself* disappears or shrinks, hence the collapse occurs. Capital itself then regards the *demand of the labourer*, i.e. the payment of wages upon which this demand is based, not as gain but as loss, i.e. the *immanent relationship of capital and labour* asserts itself.”

Marx carries his analysis much further, the *illusion of adequate demand* also emerging with respect to *all* intermediate or productive exchanges; “Exactly the same is true of the demand created by production itself for the raw materials, semi-furnished products, machinery, means of communication, and for the accessory materials used in production, such as dyes, coal, tallow, soap, etc. This demand, being effective and positing exchange value, is adequate and sufficient as long as the producers exchange among themselves. Its inadequacy becomes evident as soon as the final product encounters its limit in immediate and final consumption.”<sup>29</sup>

## F. Summary and Conclusion

The provisional character of the *Grundrisse* is clear from the numerous instances noted in this and the previous chapter where Marx points to the need for elaboration of specific issues by further analyses, for example of wages, inter-capital competition, and credit and interest. All the more impressive then are the positive achievements of 1857–58. Moreover, while there is no concerted discussion of the business cycle or of the structural relations that must be satisfied to allow the system to reproduce itself or to expand successfully, these issues were already on the agenda. Beyond this there is much of high technical interest supplementing – and to a high degree *undermining* – the basic surplus-value doctrine elaborated in Chapter 8. Thus the well-expounded circular-flow mechanism, discussed above in Section B, raises serious questions – spelled out by Marx himself – regarding surplus value as generated in the “production” sphere; in fact, it becomes clear that the sphere

<sup>29</sup> Marx adds that “[t]his *semblance* [of adequate demand], which drives [production] beyond the right proportion, also arises from the essence of capital, which, as will have to be shown in more detail in the analysis of competition, *is* that of a number of capitals entirely indifferent to one another, repelling one another. In so far as one capitalist *buys* from others, buys or sells commodities, they stand in the relationship of simple exchange and do not relate to one another as capital. The *correct* (imaginary) proportion in which they must exchange with one another in order to be able to valorise themselves at the end as capital, lies *outside* their relation to one another” (MECW 28: 349).

of “circulation” entails activities that logically fall within the “productive” labor category (see for example pp. 269–70) wholly unrelated to material production, leading to the conclusion that “a moment of *value determination* [enters] which does not arise from the direct relation of labour to capital” (p. 271). Marx engaged in rather forced efforts to work around this non-Marxian conclusion (pp. 272–3).

Similar issues arise in a related form in Section C concerning Marx’s rejection of the Law of Markets, namely his preoccupation with “overproduction” turning on the fact of “mutually independent acts” of purchase and sale (p. 273). We have encountered powerful accounts of the indispensable role of final-demand extending to entrepreneurial concerns with “information” to reduce the “dissonance” between “purchase and sale” and between production and consumption decisions (pp. 273–4) and, particularly in the context of the growing economy, to entrepreneurial efforts to “create” markets much of it evocative of recent “globalization” concerns (pp. 276–8; also 270–1) – accounts which are all the more impressive because they entail so remarkably perceptive a reading of mid-nineteenth century capitalism. Striking indeed is the full account of the “civilising influence of capital” extending to the development of the *natural sciences* in the effort “to discover both new useful objects and new uses for old objects . . .” (p. 277), and the “compulsion” to foreign lending also to the end of expanding markets (p. 278).

In Section D, we have touched on Marx’s reading of the Ricardian literature regarding the Law of Markets, particularly his objections to its alleged denial of the phenomenon of excess commodity supply in the aggregate. Here we encountered his rejection of the monetary recommendations offered by the Birmingham inflationists (pp. 282–3), and this despite his own concern not only with *cyclical* but also with *secular* demand constraints. Marx emerges with respect to this latter feature as closer to Malthus than to J. S. Mill who saw no secular problem.

The particular problem raised by Malthus relating to the role of working-class consumption, is taken up by Marx as we have seen in Section E. Here the striking feature is Marx’s treatment of labor’s consumption as part of the circular-flow process on an exact par with that of all other consumers in the system, rendering operationally irrelevant the entire notion of *labor power* (pp. 287, 288). Also of high technical interest are observations regarding the implications for the *aggregative* level of activity of decisions taken by capitalists acting from the *individual* perspective with respect to their own employees (p. 289), an aspect of the “illusory” world of markets.

PART FOUR

A “THIRD DRAFT” OF *CAPITAL*:  
THE *ECONOMIC MANUSCRIPTS* 1861–1863



## TEN

### 1861–1863 I: Surplus Value – Profit, Rent, and Interest

#### A. Introduction

In this chapter we rehearse the principle of profit-rate equalization as a tendency turning upon capitalists' responses to profit-rate differentials and responsible for an equilibrium price structure assuring prices of production deviating systematically from labor "values." We raise the apparent property that in this context the relevant entity is surplus value *net* of rent and interest – these latter comprising contractual obligations on the part of employers – contrasting with the position in the analysis of the falling profit-rate. This contrast can better be appreciated after we have taken up the analysis of Absolute Rent, a major addition to the arsenal first introduced in correspondence with Engels in the early 1860s. Marx here sets aside the full Transformation, based on the assumption of profit-rate uniformity, by supposing capital immobility between industry and agriculture. The profoundly significant technical point emerges that in the presence of privately owned scarce land, the general profit rate is determined specifically in the *industrial* sector (including luxury goods industries) and it is this rate that "regulates" the return in agriculture – the precise reverse of the position often ascribed to the early Ricardo. And there is the problem of what definition of "profit" is intended – inclusive or exclusive of rent.

The rate of interest – its relationship to Surplus Value and to the profit rate – will preoccupy us. Marx's disdain for socialist interpretations of, and proposals relating to, interest – particularly the position of Proudhon – turns out to be as strong as that for capitalist apologists. Problems for the basic theory of Surplus Value created by commercial or mercantile profit will also be elaborated. All the dilemmas encountered in the *Grundrisse* make an appearance.

#### B. Profit-Rate Equalization and the Transformation

The *Grundrisse*, we found, emphasizes capital flows between industries to assure uniform profit rates – an aspect of the process of "competition" – as in the reference

to the “withdrawal of capital” from a particular branch of industry and “the resulting favourable relationship between demand and supply” (MECW 28: 364; cited Chapter 8, p. 255). In the correspondence with Engels of August 1862, “competition between capitals” is indeed *defined* as “transfer of capital or withdrawal of capital from one trade to the other” (MECW 41: 396). This notion of competition is true also of the *Economic Manuscripts* as is clear from Marx’s answer to the query, why “must the *price* be so high that it = the cost price, advances [plus] average profit? Because of the competition of capitals in the different trades and the transfer of capital from one trade to another. That is, as the result of the action of capital upon capital” (MECW 31: 542). The following passage expresses the output adjustments with splendid clarity: “A rate of profit . . . above or below the average . . . will be forced down or raised up by competition to the general level, through the entry of outside capitals into the privileged branch, or in the opposite case the exit of local capitals – capitals which are settled in that branch – out of the latter. The level of the rate of profit thereby falls in the first case, and rises in the second” (MECW 33: 94–5).<sup>1</sup>

Of particular importance is the criticism of Rodbertus 1851 for maintaining that “competition” between sectors generates money prices proportionate to *labor values*: “Rodbertus seems to think that competition brings about a normal profit or average profit or general rate of profit by reducing the commodities to their *real value*; i.e., that it regulates their price relationships in such a manner that the correlative quantities of labour time realised in the various commodities are expressed in money or whatever else happens to be the measure of value” (MECW 31: 260). Precisely the same objection is directed against Ricardo:

What competition within *the same* sphere of production brings about, is the determination of the *value of the commodity in a given sphere* by the average labour time required in it, i.e., the creation of the *market value*. What competition between the *different* spheres of production brings about, is the *creation of the same general rate of profit* in the *different* spheres through the levelling out of the different market values into market prices, which are *cost prices* that are different from the actual market values. Competition in this 2nd instance by no means tends to assimilate the prices of the commodities to their values, but on the contrary, to reduce their values to cost prices that differ from these values, to abolish the differences between their values and cost prices.

It is only this latter process which Ricardo considers in [his] Chapter IV and, oddly enough, he regards it as the reduction of the prices of commodities – through competition – to their values, the reduction of the market price (a price which is different from value) to the natural price (the value expressed in terms of money). This blunder,

<sup>1</sup> Marx specifies that his concern is with the *industry* not the individual capitalist: “The surplus profit, or the short-fall of profit, an individual capitalist encounters in a particular branch (district) of capital investment, does not belong to this discussion at all. What is involved here is rather the profit of capital in all the particular branches of production, or in every particular sphere of capital investment conditioned by the social division of labour – for every capital placed in average or normal conditions” (MECW 33: 95). Elsewhere Marx refers to “the special advantages which individual capitalists in the same sphere of production may enjoy” (MECW 32: 460), and this is what he may have in mind by the exclusion.



however, arises from the error he committed already in Chapter 1 “*On Value*,” where he identified cost price and value, this in turn was due to the fact that at a point where as yet he was only concerned with explaining “value,” where he, therefore, as yet, only had to deal with “*commodity*,” he plunged in with the *general rate of profit* and all the conditions arising from the more developed capitalist relations of production. (432)

The opening proposition has been dealt with in some detail in Chapter 1.F.

The 1861–63 documents provide impressive accounts of the “tendency” towards a uniform profit rate in terms of the demand–supply mechanism involving not only redistributions of resources, with corresponding output changes, but also – in fact to a greater extent – the allocation of *net* investment between industries. They immediately bring to mind the corresponding analyses by Walras (1954 [1874]: 225, 276, 305, 308) and by Marshall (1920: 592–3, 411–12, 418–19, 533). The complexities of the process, which Marx highlighted rather than played down, involve requisite knowledge of going rates which allow comparisons to be made of relative profitability; and the length of time particularly “high” returns must rule before responses to them occur:

The difference in the *rates of profit* in the *various* spheres can only be discerned by comparison of the market prices in the different spheres, that is, the market prices of the *different* commodities, with the cost prices of these different commodities. A decline in the rate of profit below the ideal average in any particular sphere, if prolonged, suffices to bring about a withdrawal of capital from this sphere, or to prevent the entry of the *average* amount of new capital into it. For it is the inflow of new, additional capital, even more than the redistribution of capital already invested, that equalises the distribution of capital in the different spheres. . . . Apart from the fact that this act of equalisation requires time, the average profit in each sphere becomes evident only in the average profit rates obtained, for example, over a cycle of 7 years, etc., according to the nature of the capital. Mere fluctuations – *below* and *above* – if they do not exceed the average extent and do not assume extraordinary forms, are therefore not sufficient to bring about a transfer of capital, and in addition the transfer of fixed capital presents certain difficulties. Momentary booms can only have a limited effect, and are more likely to attract or repel additional capital than to bring about a redistribution of the capital invested in the different spheres. (MECW 32: 460)

There are further mobility problems peculiar both to supply and demand conditions: “in addition, the speed of the equalisation process, whether it is quicker or slower, depends on the particular organic composition of the different capitals (more fixed or circulating capital, for example) and on the particular nature of their commodities, that is, whether their nature as use values facilitates rapid withdrawal from the market and the diminution or increase of supply, in accordance with the level of the market prices” (460–1).

There remains to note the central role accorded *credit* in the adjustment of values to cost price, terms which are understood as in the *Grundrisse*:<sup>2</sup> “The equalisation

<sup>2</sup> “*Production costs* can be defined as prices determined by the average profit – that is, the price of the capital advanced + the average profit – since this profit is the condition for reproduction, a condition which regulates the supply and the distribution of capital amongst the various

of values to cost prices occurs only because the individual capital functions as an aliquot part of the total capital of the whole class and, on the other hand, because the total capital of the whole class is distributed amongst the various individual spheres according to the needs of production [sic]. This is brought about by means of credit. Credit . . . makes this equalisation possible and facilitates it . . .” (518; also 31: 434–5). Marx cites the famous accounts by Ricardo relating to the role of bankers and others in the discount business (1951–73 I: 88–90), passages that happen to play down the obstacles in the way of capital movement between industries, to which Marx himself paid particular attention. And Ricardo’s advance beyond Smith in “his more precise exposition of the migration of capital from one sphere to the other,” is attributed to the fact that “the credit system was more highly developed in his time . . .” (MECW 31: 434).

\* \* \*

So much for the mechanism of adjustment.<sup>3</sup> The character of *the* profit rate as a sort of statistical average considering the actual deviations that exist at any time contrasts with the interest rate that can be taken as a known price:

The real profit deviates from the ideal average level, which is established only by a continuous process, a reaction, and this only takes place during long periods of circulation of capital. The rate of profit is in certain spheres higher for some years, while it is lower in succeeding years. Taking the years together, or taking a series of such evolutions, one will *in general* obtain the average profit. Thus it never appears as something directly given, but only as the average result of contradictory oscillations. It is different with the rate of interest. In its *generality*, it is a fact which is established daily, a fact which the industrial capitalist even regards as a precondition and an item of calculation in his operations (MECW 32: 459).<sup>4</sup>

Now it emerges that the profit-rate uniformity principle – based squarely on appropriate capital movements between industries and allocations of net investment – does not extend to the *entire* surplus value but only to the excess over the contractual “advance” of interest (and rent): “That surplus labour, *unpaid* labour, constitutes just as essential an element of the capitalist production process as *paid* labour, is expressed here by the fact that factors of production – land and capital – distinct from labour have to be paid for. . . . Parts of surplus value – interest and

spheres [of production]” (MECW 32: 513). As for *value*: “Finally, the real amount of labour (objectified and immediate labour) it costs to produce a commodity, is its *value*. It constitutes the real production cost of the commodity itself. The price which corresponds to it is simply the value expressed in money.”

<sup>3</sup> Marx pays tribute to Corbet 1841 for an appreciation of the equalization-of-profits process as a long-run tendency (MECW 33: 240).

<sup>4</sup> The average or general rate is said to exist in reality “only as the determining tendency in the movement of equalisation of the real different rates of profit, whether of individual capitals in the same sphere or of different capitals in the different spheres of production” (MECW 32: 459). But the inclusive reference to “individual capitals” conflicts with the position described in note 1.

rent – appear here as costs, as advances made by the exploiting capitalist” (512). The contrast with profit proper is then outlined:

[A]verage *profit*, like the *production price* itself, acts rather as a determining ideal and at the same time appears as *surplus* over and above the advances made and as a price which is different from the cost price properly speaking. Whether or not [average profit is obtained] . . . determines whether more or less of the capital existing in this or that sphere [of production] is withdrawn or invested; it also determines the ratio in which newly accumulated capitals flow into these particular spheres, and finally, to what extent these particular spheres act as buyers in the money market. On the other hand, as *interest* and *rent*, the separate portions of surplus value in a quite definite form become preconditions for the individual production prices and are anticipated in the form of advances (512–13).

The narrow version of “profit” in the analysis of *profit-rate uniformity* contrasts with the broad version – inclusive of rent and interest – in the analysis of the *falling profit rate* (see Section D).

The principle at hand is confirmed in the remark that “[e]ach component of the price of a commodity, in so far as it appears as an advance . . .” – as do rent and interest – “ceases to represent surplus value *as far as the industrial capitalist is concerned*” (509; emphasis added), whereas it is precisely the industrial capitalist who determines the allocation of capital between sectors. Again, it is “average profit” *net of rent and interest advances* that is said to constitute “a condition of supply, of the very creation of the commodity” (478), and of this profit element Marx writes further that: “. . . the industrial capitalist rightly regards this surplus, this part of surplus value – although it constitutes an element of production – as a surplus over *his* costs; he does not regard it as belonging to *his* advances in the same way as interest and rent. In critical moments, profit too confronts the capitalist in fact as a condition of production, since he curtails or stops production when profit disappears or is reduced to a marked degree as a result of a fall in prices.” Without specifying the culprits – conceivably J. S. Mill is intended – he rejects “the nonsensical pronouncements of those who consider the different forms of surplus value to be merely forms of distribution; they are just as much forms of production.”

### C. The Transformation Aborted: Absolute Rent and the Priority of the Industrial Sector

We now turn to Absolute Rent. What is involved is allowance for immobility between industry and agriculture due to private-property in land, and a presumption of a relatively low organic capital composition in agriculture, together implying a “permanent” *differential* surplus value between sectors taking the form of *rent*.

The matter is first expounded in letters to Engels. The first of which, dated 2 August 1862, establishes the necessary framework by rehearsing the Transformation: “I now propose after all to include in this volume [the projected *Capital*] an extra chapter on the theory of rent, i.e., by way of ‘illustration’ to an

earlier thesis of mine” (MECW 41: 394). Marx initially sets aside the complexity created by capital immobility between sectors and establishes the deviation of equilibrium cost prices from values – the outcome of the Transformation in the case of non-uniform organic composition but a uniform rate of exploitation: “. . . given *equal* exploitation of the worker in *different* trades, different capitals in different spheres of production will, given *equal size*, yield very *different* amounts of surplus value and hence very *different rates of profit*, since profit is nothing but the proportion of the surplus value to the total capital advanced. This will depend on the *organic composition* of the capital, i.e., on its division into constant and variable capital” (395).<sup>5</sup> The solution – in his example – is to take the sum of four capitals (each of 100 with differing *c/v* ratios) and the sum of the individual “profit rates” (10%, 25%, 15%, 5%), based on a uniform rate of surplus value, to obtain an *average* profit rate of  $13\frac{3}{4}\%$ ; this requires that capital be “transferred” by “competition” between trades – involving appropriate industry expansionism or contraction to assure the appropriate redistribution of the total profit, with the result that equilibrium “prices” deviate from “values” (396). So far little has been added to the analysis appearing in the *Grundrisse* – including its representation of the organic composition as value components – unless it is greater attention now afforded *money units*.<sup>6</sup> But now Marx introduces his new notion of Absolute Rent, an application based on the assumed backwardness of agriculture as reflected in a relatively low organic composition and on immobility of capital movement into agriculture:

If we assume that the *average* composition of all *not* agricultural capital is C 80, V 20, then the product (assuming that the rate of surplus value is 50 per cent) = 110 and the profit rate = 10 percent.

If we further assume that the average composition of *agricultural* capital is C 60, V 40 (in England, this figure is statistically fairly correct . . . ), then the product, given equal exploitation of labour as above = 120 and profit rate = 20 per cent. Hence, if the farmer sells his agricultural produce for what it is *worth*, he is selling it at 120 and not at 110, its *cost price*. But *landed property* prevents the farmer, like his brother capitalists, from equalising the *value* of the product to the *cost price*. Competition between capitals cannot enforce this. The landowner intervenes and pockets the *difference between value and cost price* (396–7).

<sup>5</sup> To allow for “the further distinction between *fixed and circulating capital*, which arises out of the *circulation process* of capital,” would render “the formula . . . too involved” (MECW 41: 397).

<sup>6</sup> Marx works throughout in terms of a money medium:

Let us assume . . . that the surplus labour = 50 p.c. If, therefore, e.g. £1 = 1 working day (no matter whether you think in terms of a day or a week, etc.), the working day = 12 hours, and the necessary labour (i.e. reproductive of the pay) = 8 hours, then the wage of 30 workers (or working days) = £20 and the value of their labour = £30, the variable capital *per worker* (daily or weekly) = £2/3 and the value he creates = £1. The amount of surplus value produced by a capital of £100 in different trades will vary greatly according to the proportion in which the capital of £100 is divided into constant and variable capital (MECW 41: 395)

The differential organic composition between sectors is said to be “easily explicable since . . . a prerequisite for industry is the older science of mechanics, while the prerequisites for agriculture are the completely new sciences of chemistry, geology and physiology” (397). By implication, the differential was likely to narrow in the future.

Of this analysis, represented as an advance over Ricardo, Marx was proud: “There you have . . . the critique of Ricardo. This much you will admit – that by taking into account the *organic composition of capital*, one disposes of a mass of what has so far seemed to be contradictions and problems.” For Ricardo had, so Marx mistakenly asserted, maintained a *strict* Labor Theory of Exchange Value – and thus “confused” *value* and *cost price* leading him to insist on *differential* rent better to defend that strict version: “Ricardo confuses *value* and *cost price*. He therefore believes that if there were such a thing as *absolute rent* (i.e., rent *independent* of variations in the fertility of the soil), agricultural produce, etc., would be constantly sold for *more than its value*, because at *more than* cost price (the advanced capital + the average profit). That would demolish the fundamental law. Hence he denies absolute rent and assumes only differential rent” (396). And in answer to Engels – who had responded that he was “by no means clear about the existence of ‘absolute’ rent – for, after all, you have to prove it first” (8 August 1862; 402) – Marx pointed out that his own position could allow for absolute rent because it did not entail the “law of value” in the strict sense he attributed to Ricardo, but allowed for deviations of relative equilibrium exchange values from relative labor inputs generated by the Transformation: “All I have to prove *theoretically* is the *possibility* of absolute rent, without infringing the law of value. This is the point round which the *theoretical* controversy has revolved from the time of the physiocrats until the present day. Ricardo denies that possibility; I maintain it. I likewise maintain that his denial rests on a theoretically false dogma deriving from A. Smith – the supposed identity of *cost prices* and *values of commodities*” (9 August 1862; 403).

It should be emphasized that Marx did not *reject* the differential-rent principle.<sup>7</sup> On the contrary, he extended its applicability beyond agriculture: “*Differential rent as such* . . . presents no difficulty in theory. It is nothing other than surplus profit which also exists in every sphere of industrial production wherever capital operates under better than average conditions. It is firmly ensconced in agriculture only because founded on a basis as solid and (relatively) stable as the different degrees of natural fertility of various types of soil” (398). Furthermore, he allowed that *absolute* rent would not emerge when entry of capital into agriculture is unimpeded so that farm prices fall below values as in all similar cases: “Assuming the correctness

<sup>7</sup> Even so, Marx did not intend to give Ricardo an easy time in his projected *Capital*, apparently having in mind neglect of new technology: “If the proportion in agriculture becomes C 80, V 20 (in the above premise), then *absolute rent* disappears. All that remains is *differential rent*, which I shall also expound in such a way as to make Ricardo’s assumption of the constant deterioration of agriculture appear most ridiculous and arbitrary” (MECW 41: 397).

of the above view, it is *by no means essential* for *absolute rent* to be paid under all circumstances. . . . It is not paid when *landed property* does *not* exist, either factually or legally. In such a case, agriculture offers no peculiar resistance to the application of capital, which then moves as easily in this element as in the other. The agricultural produce is then sold, as masses of industrial products always are, at *cost price* for *less* than its value.” The implication drawn above for communal arrangement – absence of private property in land – is again repeated to Engels thus: “It will be evident to you that, given my view of ‘absolute rent,’ *landed property* (under certain historical circumstances) does indeed *put up* the prices of raw materials. Very important, communistically speaking.”

We note finally a methodological implication of the analysis. In his criticism of Ricardo, Marx complained of his excessive *abstraction*: “where Ricardo illustrates the thing with *examples*, he invariably presupposes conditions in which there is either no capitalist production or (factually or legally) *no landed property*. But the whole point is to examine the law precisely when such things do exist” (403). This complaint is in line with an insistence on the empirical relevance of the Absolute Rent doctrine (an issue raised by Engels): “As regards the *existence* of absolute rent, this would be a question that would require *statistical* solution in any country. But the importance of a purely theoretical solution may be gauged from the fact that for 35 years statisticians and practical men generally have been maintaining the existence of absolute rent, while the (Ricardian) theoreticians have been seeking to explain it away by dint of very forced and theoretically feeble abstractions. Hitherto, I have invariably found that, in all such quarrels, the theoreticians have always been in the wrong.” The praise accorded “statisticians and practical men” comes as a surprise considering the danger of taking surface views of economic phenomena so often insisted on by Marx.

\* \* \*

In what follows we focus on further elaborations of the themes of the 1862 letters given in the *Economic Manuscripts* of 1861–63. An exposition of the standard Transformation appears in the course of a critique of Rodbertus and involves the example given in Table 10.1. With prices proportionate to values and a rate of surplus value of 50%, profit rates differ between “spheres of production” but the sum of the profits calculated on the sum of the capitals 1000/5000 amounts to 20% which must be yielded in each sphere, and this requires deviation of prices from values and appropriate redistribution of the total surplus:

However, so that in fact each of the capitals advanced, i.e., I, II, III, etc. – or what comes to the same thing, that *capitals of equal size* – should receive a part of the surplus value yielded by the aggregate capital *only in proportion to their magnitude*, i.e., *only in proportion to the share they represent in the aggregate capital advanced*, each of them should get only 20% profit and each must get this amount. But to make this possible, the products of the various spheres must in some cases be sold *above* their value and in other cases more or less *below* their value. In other words, the total surplus value must be distributed among them not in the proportion in which it is made in the *particular*

Table 10.1. *The Transformation Illustrated*

|  | I    | II   | III  | IV   | V    |
|--|------|------|------|------|------|
| Constant Capital: Machinery            | 100  | 500  | 50   | 700  | None |
| Constant Capital: Raw Materials        | 700  | 100  | 350  | None | 500  |
| Variable Capital (wages)               | 200  | 400  | 600  | 300  | 500  |
| Surplus Value                          | 100  | 200  | 300  | 150  | 250  |
| Rate of Surplus Value                  | 50%  | 50%  | 50%  | 50%  | 50%  |
| Profit                                 | 100  | 200  | 300  | 150  | 250  |
| Rate of Profit                         | 10%  | 20%  | 30%  | 15%  | 25%  |
| Value of Product                       | 1100 | 1200 | 1300 | 1150 | 1250 |
| Normal Average Profit                  | 200  | 200  | 200  | 200  | 200  |
| Average Price                          | 1200 | 1200 | 1200 | 1200 | 1200 |
| Deviations of Average Price from Value | +100 | 0    | -100 | +50  | -50  |

Source: MECW 31: 301

sphere of production, but in proportion to the *magnitude* of the capitals advanced. All must sell their product at £1,200, so that the excess of the value of the product over the capital advanced = 1/5 of the latter = 20% (MECW 31: 302).<sup>8</sup>

In sum, in his example: “only in one instance (II) [does] the average price = the value of the commodity, because by coincidence, the *surplus value* equals the *normal average profit* of 200. In all other instances a greater or lesser amount of surplus value is taken away from one sphere and given to another, etc.” (303).

As we have shown, the role of output adjustment is central to Marx’s vision, and presumably it is taken for granted even if – as in the account of the redistribution of surplus just given – Marx does not always spell it out. This is true also of an important general paragraph touching on the significance of the Transformation in destroying the “*illusion*” – Malthus is a culprit – that “capital is a source of income *independent* of labour . . .”:

The individual capitalist, according to Mr. Malthus [1836: 268], expects an equal profit from every part of *his* capital – which, in other words, means only that he regards each part of his capital (apart from its organic function) as an independent source of profit, that is how it *seems* to him. . . . This *illusion* confirms for the capitalist . . . that capital is a source of income *independent* of labour, since in fact the profit on capital in each particular sphere of production is by no means solely determined by the quantity of unpaid labour which it itself “*produces*”; it is thrown into the pot of aggregate profits, from which the individual capitalists draw their quota in proportion to their shares in the total capital.

<sup>8</sup> The data selected yield a *common* “average price” of 1,200 which is more restrictive than *Capital* 3 where the “price of production” varies from sector to sector (Chapter 1, p. 20). But elsewhere the emphasis is on equality of “the sum of the production prices of the commodities [and] the sum of their values,” as in *Capital* MECW 33: 67; see below, pp. 320–1.

The emergence of Absolute Rent<sup>9</sup> entails a breakdown of the standard Transformation process. Marx – who directs his argument against Rodbertus (see Howard and King 1992a; Dussel 2001; 83–7, 90–1) – sets out to explain the phenomenon by asking why, in agriculture, “the total surplus value (or at least to a larger extent than in the other branches of industry, a *surplus* above the average rate of profit) *remains* in the price of the product of this particular branch of production and *does not participate in the formation of the general rate of profit*” (MECW 31: 301; emphasis added). This conclusion surely constitutes the most conspicuous feature of the analysis.

Marx goes on to argue that the *fact* of a permanent surplus (rent) implied – presuming the validity of the theory – that the organic composition *must be* lower in agriculture than in industry: “When the raw products are sold at their *values*, their value stands above the *average prices* of the other commodities or above their *own average price*, this means their value is greater than the production costs + average profit, thus leaving an *excess profit* which constitutes *rent*. Furthermore, assuming the same *rate* of surplus value, this means that the ratio of variable capital to constant capital is greater in primary production than it is, on an average, in those spheres of production which belong to industry . . .” (325). For all that, it was still necessary to justify empirically the particular axiom implied, as it were, by the theory: “One has to prove that agriculture belongs to those particular spheres of production whose *commodity values* are above their *average prices*, whose profit, so long as they appropriate it themselves and do not hand it over for the equalisation of the general rate of profit, thus stands above the *average profit*, yielding them, therefore, in addition to this, an *excess profit*. This point . . . appears certain to apply to agriculture on an average, because manual labour is still relatively dominant in it and it is characteristic of the bourgeois mode of production to develop manufacture more rapidly than agriculture” (326). And though this was “a *historical* difference which can disappear,” it implied “that, on the whole, the means of production supplied by industry to agriculture fall in value, while the raw material which agriculture supplies to industry generally rises in value, the constant capital in a large part of manufacture has consequently a proportionately greater value than in agriculture.” But since absolute rent pertained specifically to a *certain* stage of development, it also followed that should the level of agricultural development rise so that the composition of capital came to equal the average in the industrial sector, “the value of the agricultural produce [would] = its cost price. Only differential rent could be paid then. The land which yields no differential rent but *only* an agricultural rent, could then pay no rent. For if the farmer sells the agricultural

<sup>9</sup> Marx refers to and stands by several passages regarding rent given in his *Poverty of Philosophy* 1847, including allusions to the error of “universalising” and “eternalising” “the difference between manufacture and agriculture” (MECW 31: 384–5) regarding MECW 6: 199, 202, 205. (See also MECW 31: 253.) For our discussion of the differential-rent principle based explicitly on land scarcity allowing for endogenous (extensive and intensive) margins with reference to demand, see Chapter 7, p. 229.



produce at its value, it only covers its cost price. *He* therefore pays no rent” (MECW 32: 31).<sup>10</sup>

A surprising qualification should be noted. Marx’s concern throughout is with *average* differentials between agriculture and industry, “the ratio of variable capital to constant capital . . . being higher in some branches of industry than it is in agriculture” (MECW 31: 325);<sup>11</sup> whereas “in some branches of agriculture – in stock-raising – the variable capital, i.e., that which is laid out in wages, is extraordinarily small compared with the constant part of capital” (303–4). However, he does *not* stand by the standard notion of “average” in the case of agriculture, and in his formal investigation of rent maintained that all that matters is the organic composition in *wheat* production, other branches playing no strategic role: “Rent is . . . not determined by this branch [stock-raising], but by agriculture proper, and, furthermore, by that part of it which produces the principal *means of subsistence*, such as wheat, etc. The rent in the other branches is not determined by the composition of the capital invested in these branches themselves, but by the composition of the capital which is used in the production of the principal means of subsistence” (512).

All of this has a distinct Smithian flavor, for (in some contexts) Smith has it that non-corn agricultural products have to meet the competition for land use exerted by corn production, rather than the reverse (Hollander 1992: 83).<sup>12</sup> Now Marx cautioned that “[t]he interrelationship of the rents in the various branches is a secondary question that does not interest us here . . .” (MECW 31: 512). But when he does engage in a sort of applied economics where “one comes still closer to the surface of the phenomenon . . .” (MECW 32: 514), he provides a micro-economic analysis of land use where the strategic role of corn is apparent just as Smith had it:

Rent . . . determines the market prices of individual commodities not directly, but only indirectly, by influencing the proportions in which the various types of commodities are produced in such a way that demand and supply will secure the best price for each so that rent can be paid. Even though rent does not directly determine the market price of corn, for example, it determines directly the market price of cattle, etc., in short, of commodities produced in the spheres where rent is not regulated by the market prices of their products but where the market prices of products are regulated by the rate of

<sup>10</sup> Of course, absolute rent would also disappear with the abolition of private property in land for that is “the precondition on which the existence of rent is based” (MECW 31: 515).

<sup>11</sup> See also the reference to “the higher proportion of variable to constant capital compared with that existing, not in *particular spheres* of industrial production, but *on an average* in industry as a whole” (MECW 31: 332).

<sup>12</sup> Marx applied the absolute-rent principle also to *mining* (MECW 32: 485). However, he distinguished agriculture (corn) from mining in one respect: “only in agriculture does . . . industrial reproduction coincide with natural reproduction. It does not do so in *extractive industry*. . . [where] the product does not in its natural form become an element in its own reproduction . . .” (MECW 31: 296). The corn output-input feature did not however lead Marx to assert a priority of the agricultural profit rate, as we shall see.

rent borne by the grain-producing land. . . . For the price must cover not only the cost of production, but also the rent which the land would carry if corn were grown on it (515).

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The differential “average” organic composition between agriculture and industry is, of course, not enough to explain a *permanent* rent payment. That is accounted for by the “landed property” institution, creating a sort of monopoly of landownership which precluded appropriate capital movement to eradicate the excess of market price (reflecting *value*) over “*cost price*” including the going profit rate (MECW 31: 541). To elucidate, Marx explains why – given the pattern of final demand – capitalists are unable to assure that the value of agricultural produce falls to cost price: “Withdrawal of capital from agriculture cannot have this effect, unless it is accompanied by a fall of the demand for agricultural produce. It would achieve the reverse, and cause the market price of agricultural produce to rise above its value. Transfer of new capital to land can have as little effect. For it is precisely the competition of capitals amongst themselves which enables the landlord to demand from the individual capitalist that he should . . . pay over to him the overplus of the value over the price affording [an average] profit” (542). The role here accorded the final-demand pattern is again encountered in answer to the question why land “monopoly” cannot bring about a market price which *exceeds* value. Marx relies on the notion of a price ceiling assured by the possibility of foreign corn imports: “On a small island, where there is no foreign trade in corn, the corn, food, like every other product, could unquestionably be sold at a monopoly price, that is, at a price only limited by the state of demand, i.e., of *demand backed by ability to pay*, and according to the price level of the product supplied the magnitude and extent of this effective demand can vary greatly”; but this was not the case in the main European countries, where “*originally*” (and on an average) exchange rates reflect *values* and the problem is to explain why food prices do not fall *below* value (542–3).<sup>13</sup> Similarly, in a case addressed against Rodbertus: “it must be shown why in primary production – *by way of exception* and *in contrast* to the *class of industrial products whose value similarly* stands above *their* average price – the values are *not* reduced to the average prices and therefore yield an excess profit, *alias* rent. This is to be explained simply by *property in land*” (326).<sup>14</sup> On these grounds, Marx found acceptable Adam Smith’s propositions that the landlord “sometimes demands a rent for what is altogether incapable of human improvement,” and that land rent “considered as the price paid for the use of land, is naturally a monopoly price” (Smith 1937 [1776]: 144–5). “Smith stresses very strongly that it is *landed property*, the *landlord*, who as *landlord* ‘demands the rent.’ [Regarded] as a mere effluence

<sup>13</sup> Nonetheless, Marx notes that “even in England a large part of the fertile land is *artificially* withdrawn from agriculture and from the market in general, in order to raise the value of the other part” (MECW 31: 542).

<sup>14</sup> Marx’s objection to Rodbertus appears to be purely formal: “It is wrong to say, as Rodbertus does: If – according to the general law – the agricultural product is sold on an average at its *value* then it must yield an excess profit, *alias* rent; as though this selling of the commodity at its *value*, *above* its average price, were the general law of capitalist production” (MECW 31: 326).

of landed property, rent is *monopoly price*, this is perfectly correct, since it is only the intervention of landed property which enables the product to be sold for more than the cost price, to be sold at its value” (552).

\* \* \*

Let us review the analysis of Absolute Rent until this point. Two formulations with respect to this excess stand out in particular – that “total surplus value . . . *remains* in the price of the [agricultural] product . . . and *does not participate in the formation of the general rate of profit*” (above, p. 302); and, similarly, that the excess of value over price is not “hand[ed] . . . over for the equalisation of the general rate of profit” (above, p. 302). Focusing on the Transformation as such – and Marx we have seen set out with this analysis in the background – the reader might be inclined to believe that the agricultural sector *does* contribute to the determination of the general rate within the initial value scheme, the abortion of the full Transformation merely preventing a full-fledged tendency towards prices of production. This reading, however, is unacceptable since a constraint on capital inflow into agriculture (because of the land-ownership institution) necessarily entails an excess of investment elsewhere in the system – in brief a breakdown of the capital-reallocation process assuring the tendency towards a uniformity of profit rates. Marx misleads by setting out from the value scheme, for on his own terms – as the two citations given above indicate – *agriculture is in fact entirely excluded from the determination of the average profit rate in the initial (or value) scheme*, the process of reallocation assuring profit-rate uniformity applying solely to the *non-agricultural* sectors.

Marx’s intentions emerge very clearly in his analysis of agricultural improvements. Here he explicitly accords priority to the non-agricultural sector in profit-rate determination, with *the general profit rate thus determined taken as a datum by agriculture*. Specifically, agricultural improvements should they reduce wage-goods costs and thus increase the  $s/v$  ratio – an application of the inverse wage-profit relation – will raise the industrial profit rate and “*hence*” or “*consequently*” the agricultural profit rate; but since an increase in the latter implies an increase in the “*cost price*” of corn (costs inclusive of profits) and, moreover, since the initial disturbance entails a reduced *value* (and market price) of corn, absolute rent (the difference between value and cost) is reduced (MECW 32: 23).

The priority accorded the (average) *industrial* profit rate is further confirmed by Marx’s strong rejection of James Mill’s proposition – which Mill misleadingly attributed to Ricardo, as Marx very correctly insists – that “the rate of agricultural profits determines the rate of all other profits” (288).<sup>15</sup> “Rent . . . cannot possibly be explained,” Marx insisted “if industrial profit does *not* regulate agricultural profit,” since it constitutes the *residual* difference between the presumably known value of corn and the known costs of corn inclusive of a profit rate determined externally (289).

<sup>15</sup> And this despite Marx’s own allusion elsewhere to a correspondence between “industrial” and “natural” reproduction in the case of corn alone (see note 12).

The principle of industrial priority only applies in the presence of (scarce) landed property; in its absence the general profit rate is determined by the standard Transformation as an average of all industrial and the agricultural sectors, there being nothing to distinguish the two (MECW 31: 528–9). Thus the full Transformation comes into play should “landed property” become free with an adequate increase in the “relative abundance of land.”

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Whereas the presence of landed property *excluded* the agricultural sector from the process of general profit-rate formation, we still find Marx frequently *including* rent in the general return: “The *surplus value* produced within a given period of circulation . . . when measured against the *total capital* which has been advanced, is called – *profit* . . . includ[ing] not only interest – known to be a mere portion of the total profit – but also the *rent of land*, which is nothing but *a part* of the capital employed in agriculture. . . . [P]rofit is not to be understood exclusively as what is called industrial or commercial profit” (MECW 33: 69).

Now for some purposes this may not entail inconsistency. But a problem arises where it is implied that the agricultural sector *does* enter into the determination of the general profit rate. This is the case in a discussion of the *general* profit rate where Marx refers to “the *total surplus value* produced by the total capital, hence the whole class of capitalists, the absolute *measure of the total profit of the total capital*, whereby profit should be understood to include all forms of surplus value, such as rent, interest, etc.” (99). A corresponding dilemma is created by the all-inclusive definition of “profit” insisted on in the discussion of the falling profit rate (see below, p. 307).

The source of the apparent conflict can perhaps be traced to Marx’s habit of short-circuiting the process by which the *average* profit rate is arrived at. For he sometimes neglected that process of “competition of capitals” required to bring about uniformity of return on capital, simply taking the sum of the surplus values in each sector as a ratio of the sum of the capitals: For example, considering “the *total capital of the capitalist class*, the average rate of profit is nothing other than the total surplus value related to and calculated on this total capital. . . . Here, therefore, we once again stand on firm ground, where, without entering into the competition of the many capitals, we can derive the general law” – the context is the falling profit rate – “directly from the general nature of capital as so far developed” (MECW 33: 104). But it is only when one does “enter into the competition of the many capitals” that the exclusion of agriculture from the determination of the average rate – assuming land “monopoly” and the emergence of *absolute rent* – becomes apparent.

#### D. The Falling Rate of Profit and Its Significance

Marx represented as “the most important law of political economy . . . that the *rate of profit has a tendency to fall with the progress of capitalist production*” (MECW

33: 104). But – unlike Ricardo – he did not dismiss out of hand the Smithian principle of “competition of capitals” generating a falling profit rate, but rather accepted it as explaining certain “temporary phenomena”: “it appears that Adam Smith’s view is correct in one aspect, overlooked by his opponents, that it explains certain temporary phenomena of modern industry, but does not explain the general phenomenon which is involved in the normal decline of the rate of profit; all it does is to explain merely temporary *general fluctuations*, which are later again balanced out” (93). (We shall elaborate the *temporary* fall in the rate of profit in our discussion of crises in Chapter 11, pp. 341, 348–9, 351). It emerges that by “profit” in that context Marx intended specifically *industrial* profit to exclude other categories of surplus value; thus his allowance “does not in fact imply that the *rate of profit* in general sinks, but rather the rate of profit which appears directly as *industrial* profit. It implies that there merely takes place a different distribution, since in fact a considerable part of the surplus value is pocketed by the moneyed interest and the fixed income men, instead of the industrial capitalists themselves.” But in analyzing the *secular trend* of the profit rate the term was to be understood to include *all* varieties of surplus value: “Since the general rate of profit is nothing but the ratio of the total amount of surplus value to the total amount of capital employed by the capitalist class, we are not concerned here with the different branches into which surplus value is divided, such as industrial profit, interest, rent. . . . We are concerned . . . with a fall in the rate of the total surplus value” (104). Again: “when speaking of the law of the *falling rate of profit* in the course of the development of capitalist production, we mean by profit, the total sum of surplus value which is seized in the first place by [the] industrial capitalist, [irrespective of] how he may have to share this later with the money-lending capitalist (in the form of interest) and the landlord (in the form of rent)” (MECW 32: 94). The rate of profit, in the inclusive sense of *total* surplus value relative to capital advanced, “may fall, although, for instance, the industrial profit rate rises proportionately to interest or vice versa, or although rent rises proportionately to industrial profit or vice versa.”

The “industrial” capitalist in these passages is not to be taken literally considering the references to rent which is paid solely in agriculture.<sup>16</sup> But there remains the problem that absolute rent emerges as a *differential* between the “value” and “costs” of corn, costs including the “industrial” profit rate which *excludes rent*. Marx must then be mistaken in stating that the *falling* rate of profit, is to be understood as inclusive of rent. More simply stated, if industrial profit “regulates” agricultural profit then the analysis of the falling profit rate logically applies *solely to the industrial sector*, “industrial” read literally. In order to proceed, we shall simplify matters by assuming an absence of landed property as Marx sometimes did in *Capital* itself.

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<sup>16</sup> See also: “*Rent* is . . . simply a name for a part of the surplus value which the industrialist has to pay out, in the same way as *interest* is another part of surplus value which, although it accrues to him (like rent), has to be handed over to someone else” (MECW 32: 470).

A main feature of the analysis is allowance for an increase in the rate of surplus value along with the rising organic composition of capital in the course of accumulation.<sup>17</sup> Thus: “The rate of profit falls, although the rate of surplus value remains the same *or rises*, because the proportion of variable to constant capital decreases with the development of the productive power of labour. The rate of profit . . . falls, not because labour becomes less productive” – as Ricardo had it – “but because it becomes more productive. Not because the worker is less exploited, but because he is *more exploited*. . . for capitalist production is inseparable from falling relative value of labour” (MECW 32: 73–4). Similarly, Marx describes the “double manifestation” of the “[t]he development of productive power”: “In so far as [it] lessens the necessary (paid) part of the labour employed [ $v$ ], it raises the surplus value, because it raises its rate, or it raises it when expressed as a percentage [ $s/v$ ]. However, in so far as it lessens the total amount of labour employed by a given capital [ $c/v$ ], it reduces the numerical factor by which the rate of surplus value is multiplied, hence it reduces its amount” (MECW 33: 109). On balance, however, since the increase in  $s/v$  is *limited* relative to that in  $c/v$ ; the profit-rate tends downward: “For the rate of profit to remain the same, the rate of surplus value (or the rate of exploitation of labour) would have to grow in the same ratio . . . as the magnitude of the variable capital falls relatively. . . . It is already strikingly apparent from one single circumstance that this is only possible within certain limits, and that it is rather the reverse, the tendency towards a fall in profit – or a *relative* decline in the amount of surplus value hand in hand with the growth in the rate of surplus value – which must predominate, as is also confirmed by experience” (110).

The “circumstance” intended relates to the absolute maximum to the working day: “If the normal day = 12 hours, 2 workers who perform simple labour can never add more than 24 hours . . . , of which a definite part replaces their wages. The surplus value they produce cannot, whatever the circumstances, be more than an aliquot part of 24 hours” (110–11). Accordingly, if “2 workers are necessary in the new mode of production where 24 were necessary in the old one, in proportion to a given amount of capital, then if the surplus labour in the old mode of production = 1/12 of the total working day, or = 1 hour, no increase in productive power – however much it raised the rate of surplus labour time – could have the effect that the 2 workers provided the same amount of surplus value as the 24 in the old mode of production” (111; also 32: 433).

Other limits to the fall in  $v$  (or increase in  $s/v$ ) reflect characteristics of agriculture akin to a sort of diminishing returns, at least *relative* to industry: “The development of productive power is not even. It is in the nature of capitalist production that it develops industry more rapidly than agriculture. This is not due to the nature of

<sup>17</sup> The rising organic composition ( $c/v$ ) is attributed to Cherbuliez (MECW 33: 106–7).

the land, but to the fact that, in order to be exploited really in accordance with its nature, land requires different social relations. Capitalist production turns towards the land only after its influence has exhausted it and after it has devastated its natural qualities” (MECW 32: 433).<sup>18</sup> Second, there is the circumstance that agricultural products sell at *value not cost* price – the source, of course, of Absolute Rent: “An additional factor is that, as a consequence of landownership, agricultural products are more expensive compared with other commodities, because they are sold at *their* value and are not reduced to their cost price. They form, however, the principal constituent of the necessaries.” And thirdly, “if 1/10 of the land is dearer to exploit than the other 9, these latter are hit ‘artificially’ by this relative infertility, as a result of the law of competition” (433–4), Marx silently applying the marginal-cost rule.

Marx also clarified that technical progress in the *luxury sector* contributes to general profit-rate decline. The case is prefaced by reference to the motivation behind the introduction of new techniques which applied quite generally:

No capitalist voluntarily employs a new mode of production, even though it may be much more productive, and however high the ratio in which it increases the rate of surplus value, if it reduces the rate of profit. But every new mode of production of this kind cheapens the commodity. He therefore starts by selling it *above* its costs of production, and *above* its value. He is able to do this because the average labour time *socially* required for the production of this commodity is *greater* than the labour time required under the new mode of production (the total amount of labour time contained in the constant and variable capital). His mode of production stands *above* the socially average level. Competition generalises this and subjects it to the general law (MECW 33: 147–8).

As for “the capitalists who work under the old conditions of production [they] must sell . . . *below* the value, since the labour time they need for the production of those commodities now stands *above* the labour time socially *necessary* for their production. In a word – and this appears as an effect of competition – they too must adopt the new mode of production, in which the ratio of the variable capital to the total amount of capital advanced has fallen” (149). And “[t]hen the fall in the rate of profit takes place, a law which is therefore completely independent of the will of the capitalist” (148). *In this trend the “unproductive” or luxury sectors are in no way set apart*: “there takes place a reduction in the value of the commodities, and a reduction in the number of workers exploited, without an increase of any kind in relative surplus value. This situation in the unproductive spheres of production – those not producing relative surplus value – is of substantial influence, if one considers the capital of the whole society, i.e. of the capitalist class, from the angle that the total amount of surplus value falls in proportion to the capital advanced – hence that the *rate of profit* falls” (149).

<sup>18</sup> See Chapter 4, pp. 124–5 for a more detailed account of agricultural productivity conditions.

Marx at one point raises the question why empirically the profit rate had not fallen *faster* than its actual decline, without unfortunately referring to specific data regarding the latter: “If one considers the development of productive power and the relatively not so pronounced fall in the rate of profit, the exploitation of labour must have increased very much, and what is remarkable is not the fall in the rate of profit but that it has not fallen to a greater degree” (111). This could be explained partly “by the general circumstance that so far the immense increase of productive power in some branches has been paralysed or restricted by its much slower development in other branches. . . .” More generally, Marx allowed periods of unchanged organic composition: “despite the constant daily changes in the mode of production, capital, or a large part of it, always continues to accumulate over a longer or shorter period on the basis of a definite average ratio between those organic components, so that no organic change occurs in its constituent parts as it grows” (141). And beyond this, “the fall in variable capital in comparison with total capital – and this fall accompanies every development of productive power – does not occur to the same degree as productive power develops, because an ever more considerable portion of the capital enters into the value of the commodities, into the valorization process, only in the form of annuities,” possibly alluding to used-up capital or  $c'$  in the terms of *Capital* (149–50). For all that, the “tendency” is insisted upon: “The rate of profit therefore does not diminish in the same proportion as capital grows . . . although the growth of capital – to the extent that it depends on the development of the productive forces – is continuously accompanied by a tendential fall in the rate of profit.”

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The high significance for Marx of the falling profit rate is apparent. In the first place, he relates it to increased “concentration,” both as cause and effect:

This fall in the rate of profit leads to an increase in the *minimum amount of capital* – or a rise in the level of concentration of the means of production in the hands of the capitalists – required in general to employ labour productively, both to exploit it, and to employ no more than the *labour time socially* required for the manufacture of a product. And there is a simultaneous growth in accumulation, i.e. concentration, since large capital accumulates more rapidly at a small rate of profit than does small capital at a large rate of profit. Once it has reached a certain level, this rising concentration in turn brings about a new fall in the rate of profit (112).

Similarly: “Once the new invention has been introduced generally, the rate of profit becomes too small for a small capital to be able to continue to operate in the given branch of industry. The amount of necessary conditions of production grows in general in such a way that a significant minimum level comes into existence, which excludes all the smaller capitals from this branch of production for the future. It is only at the beginning that small capitals can exploit mechanical inventions in every sphere of production” (140–1).



Increased risk tolerance on the part of small firms is a further consequence: “The mass of the lesser, fragmented capitals are therefore ready to take risks. *Hinc* crisis” (112). Marx adds that “[t]he so-called plethora of capital refers only to the plethora of capital for which the fall in the rate of profit is not counterbalanced by its size. (See Fullarton [1844: 161–6].)”

A primary concern is the potentially depressing effect on *accumulation*, for “[p]rofit . . . is the driving agency in capitalist production. . . . Hence the anxiety of the English political economists about the reduction in the rate of profit.” But the accumulation rate is only adversely affected should *total* profit fall: “As long as the rate of profit falls more slowly than capital grows, there is a rise in the amount of profit and therefore the rate of accumulation, although relative profit declines . . .” (113). Marx here commends Ricardo and others for appreciating the danger: “That this mere possibility disturbs Ricardo (Malthus and the Ricardians similarly) shows his deep understanding of the conditions of capitalist production. . . . What makes Ricardo uneasy here is that profit – the stimulus of capitalist production and the condition of accumulation, as also the driving force for accumulation – is endangered by the law of development of production itself” (114).

### E. Materials, the Luxury Sector, and the General Profit Rate

Marx in the 1861–63 documents repeatedly insists on the objection – already found in the *Grundrisse* (see Chapter 8, p. 252) – to Ricardo’s fundamental proposition (1951–73 I: 118) whereby the general profit rate varies *uniquely* with the real wage, or cost of production of the wage basket, that it holds good only “if one reads ‘rate of surplus value’ for rate of profit . . .” (MECW 32: 57).<sup>19</sup> That the general profit rate can vary even with  $s/v$  unchanged, allows for the effect of changes in  $c$ , including variations in raw materials costs. Moreover, the elaboration extends to disturbances in the *luxury* sector.

As for the impact of a change in materials costs: “. . . Ricardo imagines that an increase in the price of raw produce only affects the *rate of profit* in so far as it raises the price of the *means of subsistence* of the worker. And it is true that an increase in the price of *raw produce* can only in this way affect the *rate of surplus value* and consequently *surplus value* itself, thereby affecting the rate of profit. But assuming a given *surplus value*, an increase in the price of the ‘raw produce from the surface of the earth,’ would *raise* the value of constant capital in proportion to the variable, would increase the ratio of constant capital to variable and *therefore* reduce the

<sup>19</sup> Marx also found fault with J. S. Mill’s “On Profits and Interest” in *Some Unsettled Questions*. Although Mill did not identify  $(s/v)$  and  $(s/c + v)$  in the Ricardian fashion, he nonetheless attempted “to derive Ricardo’s law of the *rate of profit* (in inverse proportion to wages) directly from the theory of value without distinguishing between *surplus value* and *profit*” (MECW 32: 373).

*rate of profit . . .*” (15; also 19). It should, however, also be noted that Marx allowed correctly that some of Ricardo’s arguments *do* recognize effects on the profit rate reflecting “variation[s] in the value of the constant capital” – including materials – “independently of the value of labor” (66–7).

The remaining issue relates to the role of the *luxury* sector in profit-rate determination, a matter touched on earlier (above, p. 309). Thus capital-saving technical change increasing initially the profit rate in luxury production will raise the *economy-wide* profit rate: “Even in the case of luxury articles . . . improvements can raise the general rate of profit, since the rate of profit in these spheres of production, as in all others, bears a share in the levelling out of all particular rates of profit into the average rate of profit. If in such cases . . . the value of the constant capital falls proportionately to the variable, or the period of turnover is reduced (i.e. a change takes place in the circulation process), then the rate of profit rises” (57–8).<sup>20</sup> In the reverse case of an increase in the labor costs of producing materials used only in luxury products, the *general* return falls, since “the *general rate of profit* consists of the average of the particular rates of profit in all branches of business” (64). Again, should the *c/v* ratio rise in luxury production: “. . . since the rate of profit in this sphere enters into the equalisation process of the general rate of profit just as much as that in any other sphere, increased productivity in the luxury industry would . . . bring about a fall in the general rate of profit” (MECW 33: 276). And more generally: “. . . variations in the real rate of profit (that is, the ratio of the surplus-value really produced in these branches of industry to the capital expended) in these branches of industry affect the general rate of profit, which arises as a result of the levelling of profits, just as much as variations in the rate of profit in branches of industry whose products enter directly or indirectly into the consumption of the workers” (MECW 31: 60).<sup>21</sup> Only at one point does Marx hint at the possible validity of Ricardo’s case that a change in the profit rate in the case of luxuries will be only temporary as prices adjust to reequate the return to the general level (MECW 32: 64).

## F. The Rate of Interest

Interest-bearing capital is represented by Marx as “the most complete fetish” of all fetishistic forms, referring to the apologetic or naïve attributions of rent to “land,” profit to “capital,” and wages to “labour” (MECW 32: 449–50). And to the uninitiated only the “pure fetish form” was visible, for “capital appears as a mere thing; the whole result of the capitalist production and circulation process appears

<sup>20</sup> Marx adds that “the influence of foreign trade is expounded in an entirely one-sided way” by Ricardo, who neglected the market-expanding dimension: “The development of the product into a commodity is fundamental to capitalist production and this is intrinsically bound up with the expansion of the market, the creation of the world market, and therefore foreign trade” (MECW 32: 58).

<sup>21</sup> For the technical validity of Marx’s case, see Chapter 1, p. 41.

as a property inherent in a thing, and it depends on the owner of money, i.e. of the commodity in its constantly exchangeable form, whether he expends it as money or rents it out as capital” (452). It is, in brief, “*interest*, not *profit*, which appears to be the *creation of value* arising from capital as such and therefore from the mere ownership of capital; consequently it is regarded as the specific revenue created by capital” (458).<sup>22</sup> To focus on the objectionable “incomprehensible superficial” or “mystified” form was an error common to apologists and critics of the capitalist system – to “vulgar economists” and “vulgar socialists” alike (463).

We attend first to the objectionable bourgeois perspective. While money used as capital appears as an independent source of value “separated from the capitalist process” (457),<sup>23</sup> *industrial profit* is represented as a return to managerial *labor*: “[Interest seems to be] a specific kind of *surplus value* the *generation* of which is due to the mere ownership of capital and therefore to an intrinsic characteristic of capital; whereas on the contrary, *industrial profit* appears to be a mere addition which the borrower obtains by employing capital productively, that is, by exploiting the workers with the help of the capital borrowed. . . . The industrial capitalist, by really taking part in the production process, appears in fact as an active agent in production, as a worker, in contrast to the idle, inactive money-lender whose function of property owner is separate from and outside the production process” (458). If then “one part of surplus value, i.e. interest, is completely separated from the process of exploitation, then the other part, that is, industrial profit, emerges as its direct opposite, not as appropriation of other people’s labour, but as the creation of value by one’s own labour” (495).

The true “origin” of interest for Marx is, of course, *surplus value* in the sense of *unpaid labor* (469). Accordingly, for interest to exist at all *presupposed* surplus value and thus capitalist production, Marx mocking those “vulgar economists” who argued that “if the industrial capitalist did not get any profit in addition to interest, he would lend his capital out for interest and become a rentier, so that all capitalists would stop producing and all capital would cease operating as capital, but nevertheless it would still be possible to live *on the interest*” (476). But Turgot – who had “already said that if the capitalist received no interest, he would buy land (capitalised rent) and live off rent [1844: Sections 73, 85]” – he excused, for in his case “the interest would still be derived from surplus value, since for the Physiocrats rent represents the real surplus value.”

<sup>22</sup> On capital *appearing* “as a selfactor – value as possessing in itself the quality of self-increase in consequence of *qualitates occultae* of some kind,” see also MECW 33: 74.

<sup>23</sup> This formulation turns out to be too forcefully phrased since in fact the “*surplus value* due to capital as capital” – always from a bourgeois perspective – is later said to be “derived by capital from the production process,” or more specifically that though “due to capital *as such* independently of the production process . . . it is only realised *in* the production process” (MECW 32: 474).

At one point Marx asserts that “*The Economist*, like all English economists, of course [considers that] profit = the whole surplus value minus rent; interest is merely part of it” (MECW 33: 348). If this is so, his case against orthodoxy is surely much diluted.

Marx allowed that “[i]nterest-bearing capital functions as such only in so far as the money lent is really converted into capital and produces a surplus of which interest constitutes a part” (488). Money might be lent for a variety of non-productive purposes, and the existence of non-industrial loans contributed towards obscuring the source of interest on loans to the capitalist sector in surplus value. For example, interest on consumption loans was “a mere transfer” (487). Loans to accommodate “the circulation process” might or might not contribute towards the generation of surplus value depending on circumstances. Thus “a loan on temporarily not vendible commodities . . . can be associated with the circulation process of capital, the necessary conversion of commodity capital into money capital” and “[i]n so far as the acceleration of this conversion process – such acceleration is a general feature of credit – speeds up reproduction, and therefore the production of surplus value, the money lent is capital.” But “in so far as it only serves to pay *debts* without accelerating the reproduction process, perhaps even limiting it or making it impossible, it is a mere *means of payment*, only money for the borrower, and for the lender it is, in fact, *capital independent of the process of capital*.”

The fetishistic trap was particularly dangerous considering that the true source of surplus value is in any event obscure, an allusion to the Transformation: “because of the divergence of profit from surplus value and the uniform profit yielded by all capitals . . . capital becomes very much obscured, something dark and mysterious” (451). If the source of *profit* in surplus value – exploitation of labor – is obscure, this is *a fortiori* the case of interest which is one remove away from the true source (456). Also contributing to obscurity was the fact that the interest rate is quoted as a “fixed price” on an undifferentiated sum – not fixed literally but fluctuating “in the same measure for all borrowers and therefore confront[ing] them as something fixed, given” (461) – unlike the continually fluctuating profit rate in the various spheres of activity.<sup>24</sup>

An amplification of the impediments to a true understanding of the source of the global return to capital in surplus value further clarifies the issue. This account once again involves *the fluctuating rate of profit* or rather of the differential *rates of profit*, but is now coupled with various forms of “profit upon expropriation” or “alienation” – an implicit allusion to commercial capital – all contrasting with *the* standardized rate of interest quoted on the market (475). It is once again pointed out that whereas the “moneyed capitalist” appears divorced from the production or labor process, the active industrial capitalist to the contrary is perceived as an active member of the workforce, or as “better-paid wage workers.” The outcome of the misconception was a total distortion of what is at play: “The nature of surplus value (and therefore of capital) is not only obliterated in this final division of profit into *interest* and *industrial profit*, but it is definitely presented as something quite

<sup>24</sup> Cf. J. S. Mill: “That portion of profit which is properly interest . . . is strictly the same, at the same time and place whatever its employment. . . . [T]he market rate of interest is at all times a known and definite thing” (Mill 1963–91 [1848]: 406).

different" (493). What is merely a "*quantitative* division" of surplus value between industrial profit and interest "is turned into a *qualitative* division which transforms both parts in such a way that not even a trace of their original essence seems to remain."

The contractual form itself further camouflaged the reality, considering that the agreement between borrower and lender *precedes* the outcome of the production process (456). Interest should in fact be seen as a claim on *future* surplus labor: "since the profit only arises from the production process, is only its result and has first to be produced, *interest* is in fact merely a claim on part of the surplus labour which has yet to be performed, a title to future labour . . ." (508). But the circumstance that "capital is bought (that is, it is lent at interest) before it is paid for" hides the *reality* that the terms of the loan contract are in fact governed by the "production process," and conveys the contrary impression that interest does *not* emerge as part of the surplus generated in production.<sup>25</sup>

Moreover, in reality, "[e]ach component of the price of a commodity, in so far as it appears as an advance – as an already existing commodity price which enters into the production price – ceases to represent surplus value *as far as the industrial capitalist is concerned*" (509; emphasis added). Interest as *cost for the individual capitalist* is particularly emphasized: "it is part of his outlay, part of the expenses he has incurred in order to produce the commodities" (476; also 273–4).

What is true of *interest* is true also of *rent*. Both are paid from surplus value, though not appearing as such to the uninitiated but rather as the "prices" of *capital* and *land*; that they are included in cost price is, however, not open to doubt:

They seem here no longer to represent unpaid surplus labour, but paid surplus labour, that is, surplus labour for which an equivalent is paid during the production process, although not to the worker whose surplus labour it is, but to other people, i.e. the owners of capital and of land. . . . Interest and rent therefore appear not as surplus, and still less as surplus labour, but as *prices* of the commodities "capital" and "land". . . . That part of the value of the commodity which represents interest, therefore, appears as *reproduction* of the price paid for capital, and that part which represents rent appears as *reproduction* of the price paid for the land. These prices therefore become *constituent* parts of the total price (511–12).

Now it is not only in *appearance* but in *fact* that interest enters along with rent into the industrial capitalists' outlays, their magnitudes governed by *market* conditions in a *circular* fashion "disavowing" their true origin: "This does not merely *appear* to be the case to the industrial capitalist; for him interest and rent really

<sup>25</sup> The precise division between interest and industrial profit is left in abeyance: "A general *rate of interest* corresponds naturally to the *general rate of profit*. It is not our intention to discuss this further here, since the analysis of interest-bearing capital does not belong to this general section but to that dealing with *credit*" (MECW 32: 458). An inverse relation is noted but left unanalyzed: "It is not intended to investigate here how this ratio is determined. This belongs to the analysis of the real movement of capital, i.e. of capitals, while we are concerned here with the general forms of capital" (469; also 451).

constitute part of his outlay, and whereas, on the one hand, they are determined by the *market price* of his commodity . . . on the other hand, the *market price* is determined by them. . . . Since parts of surplus value, i.e. interest and rent, enter into the production process as the *prices* of commodities – of the commodity land and the commodity capital – they exist in forms which not only conceal, but which disavow their real origin” (512).

Those engaged in capitalist production “live in a bewitched world” and it was the task of the *science* of political economy “to rediscover the hidden connection,” for “[e]verything enters into competition in this last, most externalised form. The market price, for example, appears to be the dominant factor here, just as the rate of interest, rent, wages, industrial profit appear to be the constituents of value, and the price of land and the price of capital appear as given items with which one operates” (514). Again: “What *value* is for the genuine economists the *market price* is for the practical capitalist, that is, in each case the primary factor of the whole movement” (518).

A summary statement adopts the same critical perspective, in terms close to those found in *Capital* 3 under the designation “The Trinity Formula” (see Chapter 1, p. 17). Here again Marx takes for granted the validity of the circular-flow process to which is in part attributed the erroneous perspective:

Capital – as an entity – appears . . . as an independent source of value; as something which creates value in the same way as land [produces] rent, and labour wages (partly wages in the proper sense, and partly industrial profit). Although it is still the price of the commodity which has to pay for wages, interest and rent, it pays for them because the land which enters into the commodity produces the rent, the capital which enters into it produces the interest, and the labour which enters into it produces the wages, [in other words these elements] produce the portions of value which accrue to their respective owners or representatives – the landowner, the capitalist, and the worker (wage worker and industrialist). From this standpoint therefore, the fact that, on the one hand, the price of commodities determines wages, rent and interest and, on the other hand, the price of interest, rent and wages determines the price of commodities, is by no means a contradiction contained in the theory, or if it is, it is a contradiction, a *cercle vicieux*, which exists in the real movement (498).

It is of course the “industrial capitalist” who makes the calculations relating to relative profitability that govern his allocative decisions, and the foregoing formulations imply that in doing so *he excludes contractual rent and interest* although they are in fact part of surplus value. This feature has been touched on earlier (above, pp. 296–7) where we found that the profit-rate uniformity mechanism turns on the reallocation of *part only* of the surplus value between sectors. But how this is to be reconciled with the fact that the trend path of the profit rate – as we have seen (above, p. 307) – apparently entails an *inclusive* definition of “profit,” taking for granted the prior achievement of uniformity, remains troublesome.

Also troublesome is Marx’s forceful denial that industrial profit relates to some kind of labor and insistence that it reflects *exploitation* or the “appropriation of

other people's labour" (above, p. 313), when in fact he allowed *some* truth to this "apologetic" view in discussing the function of "superintendence" including that undertaken by the capitalist *qua* capitalist (496–8).<sup>26</sup>

\* \* \*

Marx's disdain for the "vulgar" socialists (above, p. 313) with respect to their perspective on interest emerges quite as strongly as that for the apologists. His objection is that "superficial criticism . . . turns its wisdom and reforming zeal against interest-bearing capital without touching upon real capitalist production, but merely attacking one of its consequences" (452–3). The socialist attack on interest, by touching only on the *division* of surplus value, was consistent with justification of "capitalist production" itself; and it could even be envisaged as a case, "disguised as socialization," for "the development of bourgeois credit" referring to proposals to force down the interest rate, proposals that "assume quite startling forms such as that of '*crédit gratuit*' for example. The same applies to Saint-Simonism with its glorification of banking" (464).

This is what Marx had in mind in describing "Proudhon's polemic against Bastiat on the question of interest" as "characteristic both of the manner in which the vulgarian defends the categories of political economy and of the way in which superficial socialism (Proudhon's polemic hardly deserves the name) attacks them" (526). Interest on loan capital – Marx obviously here sets aside consumption loans – represents *part of surplus value* paid in the course of a money transaction; but Proudhon focused on the *form* of the loan contract neglecting that "what money in the hands of the lender does not do, it does in the hands of the borrower who really employs it as capital" in the exploitation of wage labor (527). And it followed from Proudhon's misconceived focus on the money transaction that were "lending in this form abolished . . . the surplus would disappear," when in fact "only the division of the surplus between two sets of capitalists would disappear" (528).

We come now to a striking contrast drawn between rent and interest, each with its source in surplus value, leading Marx to repeat his charge against "the petty-bourgeois Utopians," doubtless with Proudhon again in mind (471). Whereas private ownership in land – and with it rent payments – might be abolished by land nationalization it is inconceivable to do the same with interest without abolishing the "capitalist production" system. The difference reflects the nature of interest-bearing capital (a matter touched on above, pp. 312–3): "There are not two different kinds of capital – interest-bearing and profit-yielding – but *the selfsame* capital which operates in the process as capital, produces a profit which is divided between two different capitalist – one standing outside the process, and, as owner, representing capital *in itself* and the other representing operating capital, capital which takes part in the process." This the "Utopians" failed to appreciate, leading them

<sup>26</sup> This issue will be elaborated in Chapter 14.C. We there also consider what other active contributions are undertaken by the capitalist for which "profit" might be considered a genuine return.

(as we have seen) to propose the abolition of interest while – an impossible feat – retaining industrial profit.

### G. Commercial Capital and the Surplus-Value Doctrine

The false impression – from Marx’s perspective – of a divorce of surplus value from its actual source in the “appropriation of labour time” was reinforced by the *unity of, or interdependency between*, the “production” and “circulation” processes: “The two constantly overlap, interpenetrate, and thereby constantly falsify each other’s characteristic distinguishing marks. . . . [C]irculation time and labour time thus . . . appear to determine surplus value equally” (MECW 33: 72–3). In fact, in these circumstances “surplus value itself no longer appears as a product of the appropriation of labour time, but as the excess of the selling price of commodities over their value, and as well, above all, as money” (73).

The return on “commercial” or “mercantile” capital illustrates the problem that merchants’ profits appear as a sort of *mark-up*, the commodity sold dearer than it is bought, so that to the “ordinary observer” the profits on merchants’ capital – unlike that on capital in the production process narrowly defined – is fallaciously explained “as a result of exchange” (MECW 32: 451).<sup>27</sup>

Marx reduces the problem created by mercantile profit by excluding “functions . . . confused with merchants’ capital . . . which *belong to the process of production itself*, although they do not proceed in the workshop of the producer” (MECW 33: 37–8). These include transportation, much of wholesaling and retailing and a variety of storage operations. This extends to “measuring, weighing” *at retail*: “The packer, warehouseman, weigher, etc., in the workshop belong to the productive workers just as much as do the spinner, dyer, etc.; the capital expended on those functions is just as much productive capital as that directly laid out for spinning, etc. In the same way, this employment of capital, even when it takes place and is repeated in capital’s sphere of circulation, belongs entirely to the *process of production* of the commodity” (38). We find significant emphasis on the efficiency advantages of specialization in a comment on “conservation, storage, presentation” of commodities undertaken by merchants or “out of doors” capitalists operating in the sphere of circulation (38–9). And this “is true for all capitals invested in *warehousing*, in so far as the commodities which are kept and preserved form the elements of a further process of production;

<sup>27</sup> In pre-capitalist organization, mercantile or trading capital was in actuality the prime or original category (MECW 34: 118). In this early stage profit *did* originate in “expropriation” – we also find the term “alienation” – or buying cheap and selling dear, in a sort of parasitic development (MECW 33: 11–14). It is “[w]here capitalist production has developed all its manifold forms and has become the dominant mode of production, [that] interest-bearing capital is dominated by industrial capital, and commercial capital becomes merely a form of industrial capital, derived from the circulation process. But both of them must first be destroyed as independent forms and subordinated to industrial capital” (MECW 32: 464–5).



their warehousing and preserving would be the responsibility of the immediate producer if it had not been made over, through the division of labour, to out of doors capitalists" (39).

The same principle applies to commodities "which enter directly into individual consumption." This was evidently true of wage goods: "... in so far as they form the workers' means of consumption – in fact variable capital which has shed its monetary form – the preservation and warehousing of these commodities *belongs among the direct conditions of the process of production.*" But even the warehousing of commodities which did not constitute elements of capital was to be considered as part of the process of production, albeit "by a roundabout route," by "enter[ing] into the *direct cost of consumption*" i.e., "anticipating" costs that the consumer would otherwise have had to undertake privately and assuring thereby that the commodity "emerges from the production process in a more advanced form, and ... enters into the process of consumption in a more finished form" (40). A striking – indeed extraordinary – definition of the production process *in terms of its relation to use value* follows:

... what all these investments of capital in transporting, dividing according to measure and weight, and warehousing of commodities have in common is that they are employed in processes which *directly alter and affect the use value of commodities*, give it another form, whether through change of place or through a real reduction of the use value into parts corresponding to its natural quantities, or through the preservation of that use value. It is precisely the direct relation of these processes to the use value of the commodity as use value which makes them into directly *productive processes* and the capital employed in them into *productive capital, employed in peculiar spheres of immediate production*, according to the general division of labour (41).

The foregoing functions of merchants' capital were thus to be treated precisely as those of any other productive capital, with *surplus value generated by the activities in question*: "As in all other spheres of capital, profit here is derived partly from the wage labour directly exploited in these spheres, and partly, when the organic composition of the capital is not average, e.g. when it contains less variable, more fixed capital, from the share, *pro rata* the magnitude of the capital, of the surplus value created in other spheres of production" (41–2). The problem created by mercantile profits only emerged when these functions had been stripped away to yield the "pure form of circulating capital" (41).

In the first place, it was an error to envisage mercantile capital in its narrow connotation in the manner of mining or agriculture: "Nothing can be more incorrect than to view *commercial capital* and *moneyed capital* (here in the sense of the money trade) as particular departments of *productive capital*, somewhat in the same way as mining, fishing, farming, manufacturing, etc., capital" (47), Marx forgetting his own exclusion of agriculture and mining from the profit-equalization process (above, p. 302); similarly, "mercantile capital is not a particular sphere of productive capital; it is a sphere of capital separated off from the spheres of productive capital. It has nothing to do with use value as such, being only concerned

with the exchange of the use values, just as it has nothing to do with exchange value, but is only concerned with changes in its form. Mercantile capital should rather be placed in the same sphere as monetary capital” (64).<sup>28</sup> And such capital – although, of course, the circulation process was “a phase of the total process of reproduction” – *produced no surplus value*: “But no value is produced in the circulation process, hence no surplus value is produced either. There occur only changes of form *in a magnitude of value which remains the same*. In fact what occurs is nothing but the metamorphosis of the commodity, which has nothing to do with value creation or value alteration as such. If surplus value is realised in the sale of the commodity, this is because the surplus value already exists in it . . .” (61–2). Rather to the contrary: “In so far as this metamorphosis costs circulation time – a time during which capital does not produce – hence does not produce surplus value either – it is a limitation on the creation of value, and the surplus value will be expressed as a rate of profit in an exactly inverse ratio to the duration of circulation time” (62).

Now – as in the *Grundrisse* – all this created a dilemma. The problem is that merchants’ profits – formally achieved by a difference between selling and buying prices – seemed to undermine the theory of value and surplus value based upon it: “Is the additional charge it makes to be regarded as a merely *nominal raising of the price over the value*, or how otherwise? If this is the case on an average – since the commercial price of the commodities enters as an element into their reproduction – then all commodities are sold *above their value*” (37). A reformulation in terms of the Transformation underscores the significance of what was at stake:

We have seen that the price of production of the individual commodity or for the whole capital of every *particular* sphere of production is different from the value of the commodity, may be equal, larger, or smaller. But the sum of the production prices of the commodities = the sum of their values. So if the average price at which every industrial capitalist sells to the merchant = the production price of his commodity, the sum of the commodity prices paid by mercantile capital = the sum of the values. And taking mercantile capital as a whole, the value of the commodities would form the *cost price* or *buying price*. And since the merchant’s profit = the difference between buying price and selling price, he would sell all commodities *above their value*. For

<sup>28</sup> Smith and Ricardo are said to have noted the problem created by merchant capital and to have gone some way in the right direction but without finding a solution: “The great political economists, like Smith, Ricardo, etc., are embarrassed by *mercantile capital* as a separate kind of capital, since they rightly examine the fundamental form of capital, productive capital, and in fact only examine circulating capital in so far as it is itself a phase of the reproduction process of capital. Propositions about profit, etc., derived directly from the examination of productive capital, cannot be applied directly to mercantile capital. They, therefore, in fact leave the latter aside entirely, mentioning it only *en passant* as a kind of productive capital” (MECW 33: 64). Marx adds: “Where they deal specifically with it, as Ricardo e.g. in connection with *foreign trade*, they endeavour to demonstrate that it creates no value, *hinc* no surplus value. But what is valid for foreign trade is also valid for internal trade. The mere [act] of exchanging commodities, buying and selling, presupposes the commodities as use values which have a certain price, and creates neither the one nor the other.”

every individual commodity the producing price would be his cost price, and he would sell it above its producing price. For all commodities together this would be identical with his selling them *above their value*. His profit – taking the whole – would therefore come from buying the commodities at their value and selling them above their value (67).

Marx's response is to assert that the "rate of surcharge" – for there *is* a mark-up – reflects the going average return on industrial capital (whether generated in the sphere of "production" or "circulation" is immaterial as already explained) *to which pure merchants' capital itself does not contribute*. Considering "merchants' capital as a whole, e.g. here the whole section of mercantile capital invested in the selling of linen . . . [t]he rate of surcharge itself . . . depends just as little on the merchant; it is determined rather by the general law of average profit, namely that he can obtain the same profit, e.g. 10%, for *capital of equal magnitude*, whatever particular sphere it may be invested in, and however much or however little labour it may set in motion" (36). In a contrast with Mercantilist doctrine, which regarded mercantile capital "as the fundamental form of capital and . . . derived from it their notions of surplus value and profit," Marx represents the merchant who "makes [his profit] in the act of circulation," as "withdraw[ing] what is already there; he merely appropriates a part of the surplus value which is already contained in the commodity . . ." (67). Only in appearance does his profit "arise from circulation in and for itself." At the same time, although pure merchants' capital does not contribute to the creation of surplus value, it was in no way different from a genuinely creative sphere as far as concerns the process of profit-rate equalization so that "[i]f mercantile capital brings in a higher average percentage of profit than industrial capital, a part of the industrial capital is converted into mercantile. If it brings in a lower average percentage of profit, the reverse process takes place. A part of mercantile capital is converted into industrial capital. There is no capital which can change its determination, the sphere of its functions, with greater ease."

Marx spells out more specifically that the *producer's* sales price to the merchant already allows for the merchant's profits, in the sense that the full surplus value *created in the production process is not yet realized*: ". . . the production price at which industrial capital sells is not = to the real production price of the commodity, but = its production price [minus] the part of the profit which falls to the merchant. In this case, the production price of the commodity = its cost price + the industrial profit (interest included) + the mercantile profit" (68). And "[j]ust as industrial capital only realises in circulation profit which is already contained in the commodities as surplus value" – subject to the qualification that "for the particular capital the quota of profit it realises is different from the quota of surplus value which this specific capital produces," an allusion to cases where organic composition diverges from the average – so "mercantile capital would only realise a profit because the whole surplus value is *not yet* realised in the price of the commodity realised by industrial capital." Accordingly, mercantile capital "does not contradict the law that the sum total of the average prices of the commodities, i.e. the sum

of their production prices, = the sum of their values, and the sum of the *profits* (interest and rent included) = the sum of the surplus value or the unpaid surplus labour. It is only that the mercantile capital shares the profit with the productive capital, while the latter directly winks it out of the worker in the form of surplus value” (155–6).<sup>29</sup>

Marx was not yet satisfied with his defense of the surplus-value doctrine. For there remained the troublesome issue whether surplus value is not, after all, generated by the *merchants’ workers*: “Since the merchant himself may employ labour, apart from his capital (to the extent that his own labour enters here, it forms a part of wages, as with industrial capital), does he create surplus value through this labour? Does it originate directly as a part of the profit he charges on account of the function of his own capital? What is his relation to *his own* wage labourers (*commis* [shop assistants], etc.)?” (156). Notwithstanding the closing sentence, the problem does not relate to those activities mentioned earlier (see above, pp. 318–19) involving “continuation of productive operations in the circulation process, such as transportation” and retailing (157). It is the *labor* costs involved in “pure” mercantile activity – that of buying and selling commodities – that was problematic: “Buying and selling requires labour and this labour gives rise to costs, circulation costs. . . . Besides the part of mercantile capital which functions as commodity or money, another part is advanced in *office costs*, and in the wages if its in and out of door functionaries” (164).

The proposed solution sets out with the *assertion* that the foregoing labor costs entail the “*realisation*” of exchange value but not its *creation*: “These costs are not incurred in the production of the commodity itself, i.e. they are not necessary in the labour process in order to produce its *use value*. They are rather incurred in or for the circulation of commodities; they are necessary in order to *realise* them as *value*. They are necessary for their reproduction process. The commodity is a unity of exchange value and use value; but it is use value whose exchange value exists only ideally as price and must first be realized” (158). The allusion here to production in terms of “use value” reaffirms the earlier contention that what makes activities “into directly productive processes” is precisely their relationship to *use value* (41, 64; above, pp. 319–20). Beyond this, “just as the function of mercantile capital creates absolutely no surplus value . . . the workers employed by it create no surplus value either”

<sup>29</sup> The precise magnitude of the mark-up of merchants’ selling prices over buying prices is determined – *given the general profit rate* – by the average turnover rate (MECW 33: 156). But a contrast between productive and mercantile capital is entailed: “The number of turnovers is . . . important with productive capital because they express the number of periods within which the *creation* of surplus value, hence of profit, is repeated. Here the turnover enters the *rate of profit* as a determining factor, because it expresses the circulation time within which capital exploits a definite quantity of labour, appropriates unpaid labour” (49). In the case of commercial capital “the number of turnovers is not a factor in determining the rate of profit . . . but rather the opposite. The (average) *rate of profit* determines the profit on each individual turnover” (50).

(165); indeed, to the contrary, “[t]he costs of circulation always increase the capital outlay, and always reduce the rate of profit. The commodities which are consumed in circulation are withdrawn as much from industrial as from individual consumption, and the labour which is performed there is always a deduction from productive labour.”

For all that, Marx evidently still remained dissatisfied; *for why should mercantile labor not generate surplus value?* In the attempt to close this loophole he asserted that “[t]he relation of *mercantile capital* to surplus value is different from the relation of *productive capital*. The former appropriates a part of the surplus value, transfers part of it to itself. The latter produces it by direct exploitation of labour, direct appropriation of alien labour.” He readily allowed that the amount of profit on mercantile capital “depends on the amount of capital it can employ in this process, and the greater the unpaid labour of the clerks, the more of this capital can it employ (the more capital can it employ in buying and selling),” but insisted that “the *unpaid* labour of these clerks does not create surplus value . . .”; rather it create[s] *for it an appropriation of surplus value*, which for the particular capital is the same thing” – an appropriation of the surplus value due to unpaid *productive* labor (166).

The foregoing “solution” is a very formal one indeed – even allowing the validity of the surplus-value doctrine itself. Consider again the principle that “the mercantile capital shares the profit with the productive capital, while the latter *directly* wrinkles it out of the worker in the form of surplus value” or that productive capital produces surplus value “by *direct* exploitation of labour, *direct* appropriation of alien labour” (above, pp. 322–3; emphasis added). Marx himself in fact proposes that matters are quite different once *indirect* effects are taken into account; for while within “the sphere of circulation” there is no creation of surplus value, mercantile capital might “indirectly *help to increase the surplus value created by productive capital* . . .” and raise the general profit rate in consequence: “*Mercantile capital* therefore creates neither value nor surplus value. That is to say, not directly. In so far as it contributes to the curtailment of circulation time, and in general mediates the metamorphosis without which capital cannot begin its process of production anew, it performs a function indispensable to the capitalist mode of production, and it may indirectly *help to increase the surplus value created by productive capital*, or at least establish it as a higher rate of profit, or both at once” (62). For example: “it helps to extend the market and mediates the division of labour between the capitals,” promoting thereby “the productivity of productive capital and the process of accumulation, the reversion of profit into productive capital. In so far as it curtails circulation time, it raises the ratio of surplus value to the capital advanced, hence the rate of profit.” Similarly, without trading capital “the part of circulating capital held *en reserve* in the form of money [by manufacturers] would always have to be greater in proportion to the part involved in the process of production, and the scale of reproduction would therefore have to be restricted. Instead of that, the manufacturer can now keep a larger part of his capital in the actual production

process, a smaller part as money reserve” (51). In this context there is an elaboration of the social advantage of merchants’ capital in increasing the rapidity of sales, by application of “the *principle of the division of labour*, since the merchant has nothing else to do but find buyers and sellers” (53).

Marx has in mind in this account not only “merchants’ capital” in general, for he extends his argument to specialist *money dealers*:

Here, as with merchants’ capital, there is division of labour in a dual sense. It becomes a particular operation, a particular business, and because it becomes a particular business, performed for the whole class, it is concentrated, carried out on a large scale, and a division of labour takes place within it, both through its splitting into different branches which are independent of each other, and through the development of the workshop within these branches. A part of the productive capital involved in this movement is separated off from productive capital, and is employed only in these operations – first the storing of the money, then its payment, collection, settlement of balances, etc. – which are separate from the acts necessitating these technical operations (168).

That we have indeed entered a grey area is most apparent from the conclusion to the foregoing passage: “This is *productive capital* which has attained an independent role in *money dealing*” (emphasis added).

The allowances for the *indirect* generation of surplus value by mercantile activity are troublesome. For one thing, they lead Marx to make the conflicting assertions that mercantile capital “always reduce[s] the rate of profit” by diverting investment from production narrowly defined, and that it “may indirectly help to increase the surplus value created by productive capital, or at least establish it at a higher rate of profit, or both at once” (above, p. 323). And what remains of the contrast between the *creation* and *realization* of surplus value (above, p. 322) is uncertain.

## H. Summary and Conclusion

The main outcomes of this chapter are as follows: First, the profit-rate equalization process as described in the *Economic Manuscripts* relates specifically to the residual element in surplus value and not the contractually paid elements, rent and interest (above, pp. 296–7). Second, the existence of landed property entails the exclusion of agriculture from the profit-rate equalization process; that the value of corn is not reduced to its “price of production” implied that agriculture “does not participate in the formation of the general rate of profit” (p. 302). The general profit rate is thus taken as a *datum* by agriculture (p. 305). The exclusion of a major sector in this manner undermines the Marxian notion of exploitation, with its emphasis on the *economy-wide* emergence of an average profit rate via a reallocation of the surpluses generated *in each sector* – including luxury industries (pp. 309, 312) – according to its *c/v* ratio. Indeed, the outcome of such exclusion is to depress the average *below* the

equilibrium level that emerges in the absence of landed property. It should also be noted that Marxian Absolute Rent, though absent from Ricardian theory, carries with it the same implication that the inverse wage-profit relation can be analyzed as if rents were zero. Third, and reflecting the objection that Ricardo confused the rates of surplus value ( $s/v$ ) and profit ( $s/(c + v)$ ), changes in the cost of raw materials – an element in  $c$  – can affect the profit rate (pp. 311–12). Fourth, Marx complicates matters by sometimes treating profit as inclusive of rent in analyzing the falling profit rate (p. 307). Notwithstanding, in this context we encounter the “limits” to rising  $s/v$  which assure a downward trend in  $s/(c+v)$  (p. 308), reminiscent of the discussion in the *Grundrisse* (Chapter 8, p. 253).

Finally, we have the complexities created for the surplus-value doctrine by *interest* – which Marx treats as a contractual “title to future [surplus] labour” (p. 315) – and by the commercial sector, raising issues already encountered in the *Grundrisse* (Chapter 9, pp. 269–73). In this last respect, it is clarified that within the “productive” or industrial sector Marx included a range of activities not undertaken within the factory, including transportation, much of wholesaling and retailing and storage operations (p. 318). And there are the same severe complications relating to the grey area between the “creation” and “realization” of surplus value (pp. 320, 322, 324).

## ELEVEN

### 1861–1863 II: Sectoral Analysis, Accumulation, and Stability

#### A. Introduction

The second of our chapters on the *Economic Manuscripts* sets out in Section B with the outlines of inter-sectoral analysis in the case of “simple reproduction,” as it is called in *Capital 2*. Here – and in a preliminary statement provided to Engels in correspondence – we find Marx’s objection to orthodox classicism that it had failed to deal properly with the presence of constant capital. Section C extends the discussion to the conditions for steady growth – or “extended reproduction” in the language of *Capital* – where again objections to the classical treatment are apparent. This is followed in Sections D and E by discussion of the impediment to steady growth imposed by “overproduction,” and of the secular-cyclical relation envisaged. A more general discussion of sources of *cyclical* instability and the recovery mechanisms envisaged are the topics of Sections F and G. Section H is devoted to the literature on overproduction with particular reference to Marx’s essentially Malthusian analysis.

#### B. Sectoral Analysis and the Constant Capital “Riddle”

A letter to Engels dated 6 July 1863 provides a convenient statement of the essentials of Marx’s sectoral analysis elaborated at various places in the *Economic Manuscripts* (in particular MECW 30: 411–51; 31: 83–94, 134–51; 32: 102–8, 114–24, 380–5; 33: 209–19; 34: 238–47). Here Marx analyzes the interrelations between the consumption- and capital-goods sectors required to assure steady “reproduction” of the national product. Inspired by Quesnay’s *Tableau Economique* for the *general* flow pattern envisaged,<sup>1</sup> he sought to avoid Smith’s perception – also sometimes

<sup>1</sup> Marx reproduced, in simplified form, Quesnay’s *Analyse du Tableau Economique* that appeared first in June 1766. See Meek 1962: 150–67 for an English translation. For accounts of the *Tableau Economique* in the *Economic Manuscripts*, see MECW 31: 204–40; 34: 288–90. Also see Marx’s contribution to Engels’s *Anti-Dühring*, MECW 25: 233–4; and *Capital 2*, MECW 36:357.



ascribed to Ricardo<sup>2</sup> – of the aggregate gross product entirely as revenue notwithstanding use of capital goods: “As you know, A. Smith sees the “*natural*” or “*necessary price*” as being composed of wages, profit (interest) and rent – i.e. as wholly resolved into *revenue*. This nonsense has been taken over by Ricardo, although he excludes rent from the catalogue as being purely fortuitous. Nearly *all* economists have taken this over from Smith, and those who contest it succumb to some other folly” (MECW 41: 485). Yet he also asserts that “Smith himself is conscious of the nonsensicality of subsuming the *gross product* of a society *simply under revenue* (which may be consumed annually), whereas in the case of *each individual* branch of production he resolves price into *capital* (raw materials, machinery, etc.) and *revenue* (wages, profit, rent). If this were so, a society would have to start each year *de novo, without capital.*”

The illustrative data in the table sent to Engels refer to *value* units. Two classes of industries are allowed: Class I producing annually “means of subsistence,” or a “consumption fund,” amounting to 700; and Class II producing “constant capital” (raw materials, machinery, and buildings) amounting to  $933\frac{1}{3}$ . Each sector is assumed to have an organic composition ( $c/v$ ) equal to 4:1<sup>3</sup> and a rate of surplus value ( $s/v$ ) equal to 2:1, the latter expressed with appropriate sarcasm thus: “In the case of [the] relationship between variable capital and surplus value it is assumed that the worker works  $\frac{1}{3}$  of the working day for himself and for his natural superiors” (486).

The condition for steady reproduction is that the net product of Class II – variable capital ( $v$ )<sub>II</sub> plus surplus value ( $s$ )<sub>II</sub> =  $133\frac{1}{3} + 266\frac{2}{3} = 400$  – exchanges precisely for the constant-capital requirements of Class I ( $c$ )<sub>I</sub>. *Intra-class* money flows entail (1) the purchase of consumer goods by consumer-goods workers and their employers amounting to 300 – the surplus value is partly distributed by immediate employers to rentiers as interest and to landlords as rent<sup>4</sup> – which added to the 400 purchased by the capital-goods class via inter-departmental trade clears the total output of 700; and (2) the purchase of capital-goods by capital-goods’ producers amounting to  $533\frac{1}{3}$  which added to the 400 purchased by the consumer-goods sector via inter-departmental trade clears the total  $933\frac{1}{3}$ . As the matter is summarized late in the *Economic Manuscripts*: “If the scale of production

<sup>2</sup> For the error as ascribed to Ricardo, see also MECW 32: 103, 123.

<sup>3</sup> Our statement requires qualification. Marx’s “constant capital” in the present context refers to *used-up* capital not the capital stock, i.e., “[w]orking materials and machinery . . . included in the annual product as depreciation; that part of the machinery, etc., which is not used up does not figure *at all* in the table” (MECW 41: 486). But the term “organic composition” as applied in the analysis of the Transformation in *Capital* refers to the total capital stock in relation to labor, while used-up capital ( $c'$ ) is arbitrary (see Chapter 1, p. 20). Even so, Marx in the *Economic Manuscripts* sometimes applies the organic composition to  $c'$  in the same context as that of the letter to Engels (e.g. MECW 30: 436; 31: 148). Of course, the problem evaporates should machines wear out entirely in a year.

<sup>4</sup> The corresponding account in *Capital* 2 does not explicitly break up surplus value in this fashion. See Chapter 2, p. 70f.

remains the same – if reproduction is repeated to the same extent – the product of the producers who produce *constant capital*, in so far as this product consists of *variable capital* (wages) and *surplus produce* – hence represents in general the *income* of this class – must be exactly = to the *constant capital* needed annually by the class which produces the *means of consumption*. If it were larger, it would have no equivalent – no counter-value corresponding to it – and would be depreciated *pro tanto*” (MECW 34: 223).

The table sent in the 1863 letter, Marx explained, “figures in one of the last chapters of my work by way of *recapitulation*” (MECW 41: 485). And this we reproduce as Table 11.1. The description of the flows given in his letter provides a crystal-clear supplement:

... 100 (variable capital), as is indicated by the dotted line, is paid out in money as wages; with this 100 (indicated by the descending line) the worker buys the *product* of this class, i.e. means of subsistence for 100. Thus, the money flows back to capitalist class I.

The surplus value of 200 in its general form = *profit*, which, however, is split up into *industrial profit* (*commercial* included), and further into *interest*, which the industrial capitalist pays in money, and *rent*, which he likewise pays in money. This money paid out for industrial profit, interest and rent, flows back (indicated by descending lines) since the product of class I is bought in return for it. Hence all the money laid out by the industrial capitalist within class I flows back to him, while 300 of the product, 700 is consumed by the workers, *entrepreneurs*, *monied men* and *landlords*. In class I this leaves a *surplus* of products (of means of subsistence) of 400, and a deficit of constant capital of 400.

*Category II. Machinery and raw materials.* Since the *gross product of this category*, not only that part of the product which replaces constant capital, but also that which represents the equivalent of wages and surplus value, consists of *raw materials* and *machinery*, the revenue of this category cannot be realised in its own product but only in the product of category I. Disregarding accumulation, as is done here, category I can, however, buy only as much from category II as it needs for the replacement of its constant capital, while category II can lay out on the product of category I only that part of its product which represents wages and surplus value (*revenue*). Hence the workers in category II lay out their money, =  $133\frac{1}{3}$ , on the product of category [I]. The same thing happens with the surplus value in category II, which, as *sub I*, is split up into industrial profit, interest, and rent. Hence 400 in money flows from category II to the industrial capitalists in category I, who, in return, transfer the remainder of their product, = 400, to the former.

With this 400 in money, class I buys what is necessary to replace its constant capital, = 400, from category II, to which the money paid out in wages and consumption (by the industrial capitalists themselves, the *monied men* and the *landlords*) thus flows back. Hence category II retains  $533\frac{1}{3}$  of its gross product, and, with this, it replaces its own constant capital, which has been used up.

The movement, partly within category I, partly between categories I and II, also shows how money flows back to the respective industrial capitalists in both categories, money which will again go to pay wages, interest and rent.

*Category III* represents reproduction as a whole. The gross product of category II is shown here as the constant capital of society as a whole, and the gross product of category

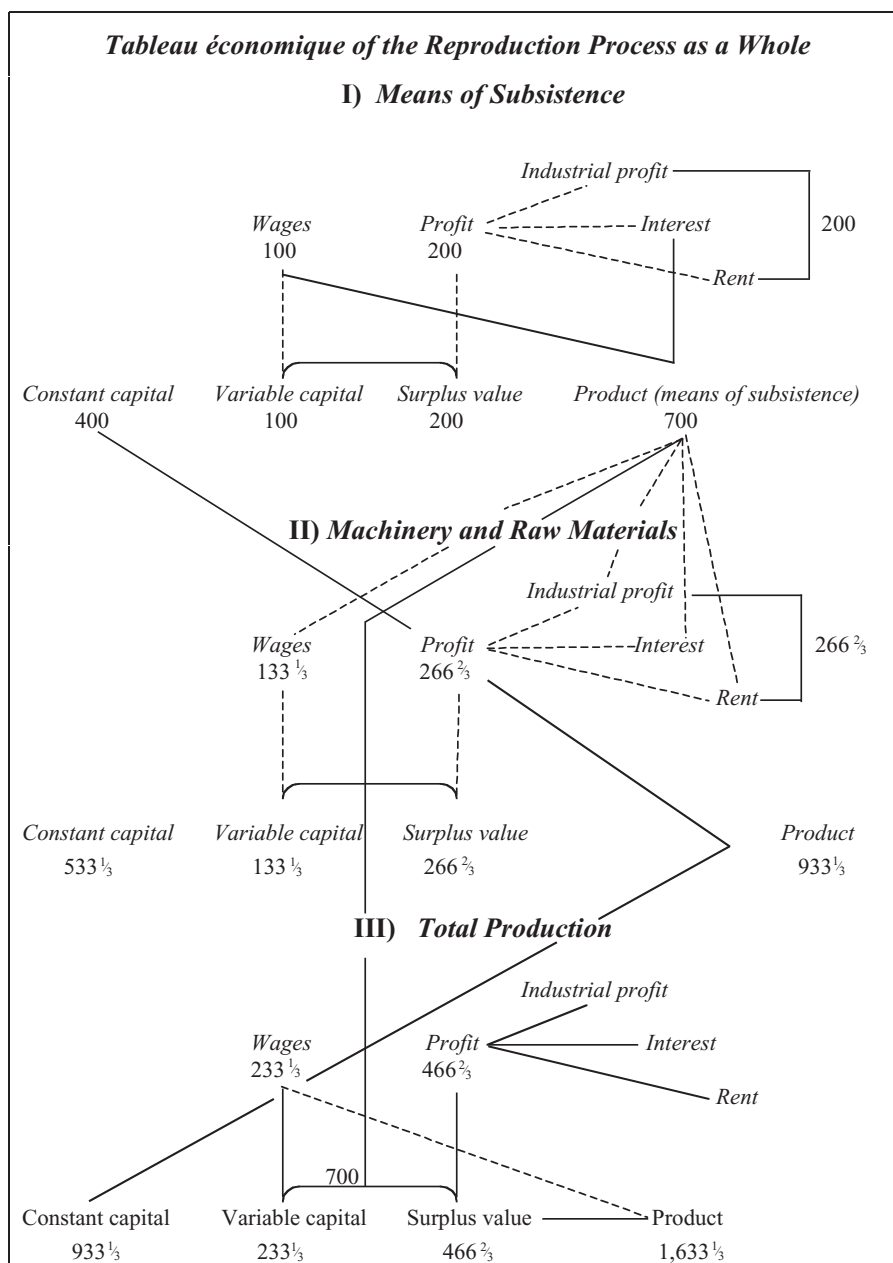


Table 11.1. Tableau économique of the Reproduction Process as a Whole  
 Source: MECW 34: 244.

I as that part of the product which replaces the variable capital (the wages fund) and the revenues of the classes which share the surplus value between them (MECW 41: 486–7).

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Whereas *intra-departmental* product flows are fully spelled out with respect to consumer goods this is not the case for capital goods, since “category II retains  $533\frac{1}{3}$  of its gross product, and, with this, it replaces its own constant capital, which has been used up.” This feature constitutes a major preoccupation of the *Economic Manuscripts*. The problem relates specifically to “simple” reproduction – as it came to be called – rather than “extended” reproduction or net accumulation: “The difficulty is the reproduction of the *existing* constant capital, not the formation of new constant capital in excess of what has to be reproduced. The new constant capital obviously originates in profit, and has existed for a moment in the form of revenue which is later transformed into capital” (MECW 30: 411–12). Again: “Here we leave entirely out of account the part of the profit which is transformed into new capital. . . . It has nothing to do with our problem, for here new variable capital as well as new constant capital are created and replaced by *new* labour (a part of the surplus labour)” (444).

The specific problem Marx set himself was to explain how profit and wages paid out of the current “working day” sufficed to purchase the annual product *which had also to replace used-up constant capital*: “Who is it that labours in order to replace the equivalent of the constant capital already expended in production? The part of the labour which the labourer performs for himself replaces his wages, or, considered in relation to the whole of production, creates his wages. On the other hand, his surplus labour which forms the profit is in part a consumption fund for the capitalist, and in part is transformed into additional capital” – this latter omitted in the present context. “But the capitalist does not replace the capital already used up in his own production out of this surplus labour or profit. But the necessary labour which forms the wages and the surplus labour which forms the profit make up the whole working day, and no other labour is performed in addition to these. . . . What then is the source, the labour, that replaces the constant capital?” (412–13).<sup>5</sup> In fact, apparently it was “impossible for the value of the [net] revenue to cover the value of the total product” (427).

Now there is no problem at all with respect to replacement of capital goods in the *consumer-goods sector*, since the entire value of consumer goods is accounted for by “*new* labour,” i.e. labour employed annually, including capital goods acquired by sectoral exchange against consumer goods:

The constant capital that is consumed during a year in those spheres of production which produce the means of subsistence [consumer goods], is *simultaneously* being produced in other spheres of production [capital goods sector], so that *during the course*

<sup>5</sup> The “labour of superintendence is included in wages. In this aspect [the capitalist] is the wage worker, even though not of another capitalist, yet of his own capital” (MECW 30: 413).

of the year or *by the end of the year* it is renewed *in natura*. Both of them, the means of subsistence as well as this part of the constant capital, are the products of new labour employed during the year. In the spheres producing the means of subsistence . . . that *portion of the value* of the product which replaces the constant capital in these spheres, forms the revenue of the *producers* of this constant capital (MECW 32: 105; also 109).

Again: “We have now disposed of the product of the entire category A [or I] and a part of category B’s [or I’s] product. A is completely consumed:  $\frac{1}{3}$  by its own producers,  $\frac{2}{3}$  by the producers of B [or II], who cannot consume their own revenue in their own product” (MECW 31: 143). The problem thus reduces to the “*residuum*” or “third part of the total product whose constituent parts, when exchanged, can represent neither the exchange of revenue against revenue nor of capital against revenue and vice versa. This is the part of product B [or II] which represents B’s constant capital. This part is not included in B’s revenue and therefore cannot be replaced by or exchanged against product A, and therefore also cannot enter as a constituent part into A’s [or I’s] constant capital.” This part “like all other parts of the total product, must be replaced *in the proportion in which it forms a component part of the total product*, and indeed it must be replaced *in natura* by *new* products of the same sort. On the other hand, it is not replaced by any new labour” (143–4; also 30: 428–9, 438–9, 446; 31: 146–7; 32: 105–6).

Adam Smith’s reduction of national income entirely to wages and profits is thus partially vindicated – *it holds good as far as concerns consumer goods* since the replacement of A’s capital goods reflects wages and profits generated in B: “Adam Smith would have been entirely correct if he had said that this part of the annual product resolves itself into mere income, which is paid by wages, profit (interest), rent. He would nevertheless have had to add here too that this total income replaces the total constant capital of class I [or A]. But Smith is wrong in asserting this of the totality of the annual product, and in having the constant capital of class II [or B] replaced by its income and that of class I” (MECW 33: 213). This is precisely Marx’s position in *Capital 2* (see Chapter 2, Appendix).

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We turn to the proposed solution to the dilemma that if labor is not engaged in producing the replacement of B’s used-up capital goods, how is B’s constant capital replaced? The answer is twofold: “Partly by his *own reproduction* (vegetative or animal), as in all agriculture and stock-raising; partly by *exchange in natura* of parts of one constant capital for parts of another constant capital, because the product of one sphere enters as raw material or means of production into the other sphere, and vice versa; that is, because the products of the various spheres of production, the various sorts of constant capital, enter reciprocally *in natura* into each other’s sphere as conditions of production” (MECW 31: 147).<sup>6</sup> Similarly,

<sup>6</sup> The first component, Marx emphasized, was not quantitatively insignificant: “Vegetative materials and animals reproduce themselves. Vegetation and generation. By seed we mean actual seed, and in addition fodder which reverts to the land as dung, pedigree cattle, etc. This large

replacement of “the part of the value which represents the depreciation of the fixed capital and *matière instrumentale* and *matière brute* s’il y en a,” entails in part replacement “*in natura* in its own sphere of production” – “as corn enters as seed, breeding cattle, etc.”; and in part replacement “through exchange with products between different spheres of this same class,” in which case “the product of sphere A e.g. enters into the product of sphere B as condition of production, and the product of sphere B enters into the product of sphere A, as iron into machine production or machines into iron production” amounting in effect, to “exchange of constant capital for constant capital” (MECW 33: 217–18; also 30: 431–2, 439–40, 447–51). Marx emphasizes here that “since . . . the products merely change their place in the production process reciprocally, the money constantly flows back to the person who expends it. E.g. when the machine manufacturer buys iron in order to replace his machine-building machine, there enters into this: 1) the depreciation of the machine-building machine itself; he advances this himself; 2) iron, etc. He buys this from the iron manufacturer; the iron manufacturer buys machines from him in order to replace the depreciation of his own machinery and thus the money flows back to the machine-builder” (218).

Marx’s solution itself is not plain sailing. How can replacements of constant capital *in natura* account for a *value* component (amounting in the basic illustration of Table 11.1 to  $533\frac{1}{3}$ )? Marx was troubled by the implications of the notion that the replacement of capital goods in the capital-goods sector “resolves neither in profit nor in wages. It contains no newly added labour. It is not exchanged against revenue. It is neither directly nor indirectly paid for by consumers” (MECW 31: 149). After all, “since these products are new (machinery, iron, coal, timber, etc., which reciprocally replace each other) . . . [and] the wheat which serves as seed is just as much a product of new labour as the wheat which passes into consumption, etc. – how can it be said that no newly added labour is contained in these products? And moreover isn’t their form striking evidence to the contrary? Even if not in the case of wheat or cattle, surely in the case of a machine, its form bears witness to the labour which has transformed it from iron, etc., into a machine, and so forth.” His response is laconic: “This problem has been resolved earlier. It is not necessary to go into it again.” We must refer then to that “resolution.”

The essential point is that the capital goods *currently* produced for replacement purposes in the capital-goods sector albeit the product of *labor*, are not – so runs the assertion – the product of *current* labor but of “pre-existing” labor:

part of the annual product – or of the constant part of the annual product – itself serves directly as material for regeneration, it reproduces itself” (MECW 31: 144–5; also 30: 431–2).

The principle applied to mining: “Apart from agriculture . . . in mining there is the partial replacement of constant capital *in natura* out of the product, so that the part which enters into circulation does not have to replace this part of the constant capital. For example, in coal production some of the coal is used to work the steam-engine which pumps out water or raises coal” (MECW 30: 447).

The whole quantity of coal, iron, timber and machinery which are reciprocally replaced . . . by the exchange of constant capital for constant capital, of constant capital in one natural form for constant capital in another natural form, has absolutely nothing to do either with the exchange of revenue for constant capital or with the exchange of revenue for revenue. It plays exactly the same role as seed in agriculture or the capital stock of cattle in cattle-rearing. *It is a part of the yearly product of labour, but it is not a part of the product of the year's labour (on the contrary it is the product of the year's labour + the pre-existing labour),* which (conditions of production remaining the same) replaces itself annually as means of production, as constant capital, without entering into any circulation other than that between dealers and dealers and without affecting the *value* of the part of the product which enters into the circulation between dealers and consumers (87; emphasis added).

Assuming then an annual output of 30,000 hundredweight of coal two-thirds of which are consumed and one-third used as means of production: “It comes to the same thing . . . as if the 20,000 hundredweight represented only labour newly added (during the year, for example) and no pre-existing labour.” For while the final consumer “pays the whole value of each hundredweight, pre-existing labour + newly added labour . . . yet he pays only for the newly added labour, and that is because the quantity he buys is only 20,000 hundredweight, only that quantity of the total product which is equal to the value of all the newly added labour. Just as little does he pay for the farmer's seed in paying for the wheat which [the farmer] eats” (87–8). We also have a clarification with respect to “the value of the seed sown [which] determined the portion of the value of the harvest (and thus the quantity of corn) which must be returned to the land, to production, as constant capital,” that “[t]his portion would not be reproduced without the labour newly added during the course of the year; but it is in fact *produced* by the labour of the year before, or past labour and – in so far as the productivity of labour remains unchanged – the *value* which it adds to the annual product is not the result of this year's labour, but of that of the previous year” (MECW 32: 105–6).<sup>7</sup> The conflation of the “*natural*” form of constant capital and its *value*, identified with past labor, requires that we take too much on trust (see also below p. 351.)

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Apart from replacement of *used-up* capital goods there is “[a] large part of the constant capital – the *fixed capital* – [which] enters into the annual process of labour without entering into the annual valorisation process. It is not consumed and, therefore, does not need to be reproduced” (MECW 32: 103). And “[t]he greater this part of capital is in a particular country in one year, the greater, relatively, will

<sup>7</sup> For a discussion of the effects on value of technical change in the capital-goods' sector, see MECW 31: 88–94, 106–7. The effects of productivity change are then summarized: “If it grows more productive, it replaces the product, but not its value, reducing this value *post festum*. If it grows less productive, it raises its value. In the first case the aliquot part drawn by past labour from the total product falls; in the second case it rises. In the first case the living labour becomes more productive, in the second, less productive” (MECW 31: 114).

be its purely formal reproduction (preservation) in the following year, providing that the production process is renewed, continued and kept flowing, even if only on the same scale” (104). We have here the background to an objection raised against Ricardo’s proposition that “[t]he labour of a million of men in manufactures, will always produce the same value, but will not always produce the same riches” (Ricardo 1951–73 I: 273). The objection is that Ricardo’s formulation neglected the circumstance that the greater the stock of constant capital – and *ceteris paribus* this implies greater output or “riches” – the greater will be the used-up component which *does* contribute to value: “This *value*. . . is the result not only of the current year’s labour, but equally the result of the labour of the previous year, of past labour, although *without* the immediate annual labour it would not reappear, any more than would the product of which it forms a part. If this portion [of constant capital] grows, not only does the annual mass of products grow, but also their *value*, even” – *pace* Ricardo – “if the annual labour remains the same” (MECW 32: 106; also 167). And “[t]his growth,” Marx continues, “is one form of the *accumulation of capital*, which it is essential to understand.” “What then,” he asks, “is the position with regard to the *increase* of capital, its *accumulation* as distinct from reproduction, the transformation of *revenue* into capital?” (109). To this extension of the analysis we now turn.

### C. Conditions for “Continuous” Accumulation

We shall have in mind throughout the following discussion of “extended reproduction” (as it came to be called) a brief aside that net accumulation constituted “a fund for development, which *the very increase of population makes necessary*” (MECW 30: 412; emphasis added). This assumption of ongoing population expansion – and a wage rate exceeding subsistence – in Marx’s perception of the growing economy is confirmed in our present context: “If accumulation is to be a steady, continuous process, then this absolute growth in population – although it may be decreasing in relation to the capital employed – is a necessary condition. An *increasing population* appears to be the basis of accumulation as a continuous process. But this presupposes an average wage which permits not only reproduction of the labouring population but also its constant growth” (MECW 32: 110; also 166). Again: “the whole process of accumulation . . . resolves itself into *surplus production*, which . . . corresponds to the natural growth of the population . . .” (123).<sup>8</sup>

In addition to the acquisition of additional “variable capital” or means of subsistence for labor, part of surplus value must be “converted” into constant capital. Marx considers the conditions for *hitchless* accumulation. Taking a linen weaver as representative, “what are the *conditions* in which he can uninterruptedly recon-vert the £5,000 surplus value into capital and steadily continue the process of accumulation year in, year out?” (115). The provisional response is that “[t]he

<sup>8</sup> See more on natural population growth, Chapter 12, p. 370.



accumulation of the £5,000 means nothing but the transformation of this money, this amount of value, into capital,” so that “[t]he conditions for the accumulation of capital are . . . the very same as those for its original production or for reproduction in general.” Specifically:

Just as the production and reproduction of existing capital in one *sphere* presupposes *parallel* production and reproduction in other spheres, so accumulation or the formation of additional capital in one trade presupposes *simultaneous or parallel* creation of additional production in other trades. Thus the scale of production in all spheres which supply constant capital must grow simultaneously (in accordance with the average participation – determined by the demand – of each particular sphere in the general growth of production) and all spheres which do not produce finished produce for individual consumption, supply constant capital. Of the greatest importance, is the increase in machinery (tools), *raw material*, and *matières instrumentales*, for, if these preconditions are present, all other industries into which they enter, whether they produce semifinished or finished goods, only need to set in motion more labour (117).

Marx adds that *scale* of activity favors satisfaction of the conditions for simple reproduction: “The greater the capital, the more developed the productivity of labour and the scale of capitalist production in general, *the greater is also the volume of commodities found on the market, in circulation, in transition between production and consumption* (individual and industrial), and the greater the certainty that each particular capital will find its conditions for reproduction readily available on the market” (115–6). On the other hand, it was “in the nature of capitalist production that . . . each particular capital operates on a scale which is not determined by individual demand (orders, etc., private needs), but by the endeavour to realise as much labour and therefore as much surplus labour as possible and to produce the largest possible quantity of commodities with a given capital”; and that “each individual capital strives to capture the largest possible share of the market and to supplant its competitors and exclude them from the market – *competition of capitals*” (116). Aggregate demand problems are, however, set aside. Since “[t]he accumulation of new capital can . . . proceed only under the same conditions as the reproduction of already existing capital,” analysis of *steady* growth implied that one provisionally “disregard the case in which more capital is accumulated than can be invested in production, and for example lies fallow in the form of money at the bank. . . . Nor do we consider the case in which it is impossible to sell the mass of commodities produced, crises, etc. This belongs into the section on competition. Here we examine only the forms of capital in the various phases of its process, *assuming throughout, that the commodities are sold at their value*” (emphasis added; see also 124).

The procedure affirms the importance of “*use value*” in the sense of the physical properties of capital goods: “Whether . . . the surplus produce, consists of factory buildings which are built for a third party and are sold to them, or of factory buildings which the producer builds for himself – sells to himself – clearly makes no difference. The only thing that matters here is whether the *kind of use value* in which the surplus labour is expressed, can re-enter as condition of production into

the sphere of production of the capitalist to whom the surplus produce belongs” (120). Here was “yet another example of how important is the analysis of *use value for the determination of economic phenomena*.” But this is qualified shortly afterwards – the context relates to obstacles to steady accumulation: “it is not only a question of replacing *the same* quantity of use values of which capital consists, on the former scale or on an enlarged scale (in the case of accumulation), but of replacing the *value* of the capital advanced along with the usual rate of profit (surplus value)” (125). More generally: “It must never be forgotten, that in capitalist production what matters is not the immediate use value but the exchange value and, in particular, the expansion of surplus value. This is the driving motive of capitalist production, and it is a pretty conception that – in order to reason away the contradictions of capitalists production – abstracts from its very basis and depicts it as a production aiming at the direct satisfaction of the consumption of the producers” (126).

In discussing flawless accumulation from this perspective, under conditions of rising or unchanged organic composition, Marx again takes account of *increasing labor supply*:

If the productive power of labour has been increased through greater production of fixed capital in proportion to variable capital, then not only the amount, but also the *value* of reproduction will rise, since a part of the value of the fixed capital enters into the annual reproduction. This can occur simultaneously with the growth of the population and with an increase in the number of workers employed, although the number of workers steadily declines *relatively*, in proportion to the constant capital which they set in motion. There is therefore a growth, not only of wealth, but of value, and a larger quantity of living labour is set in motion, although the labour has become more productive and the quantity of labour in proportion to the quantity of commodities produced, has decreased. Finally, variable and constant capital can grow in equal degree with the natural, annual increase in population while the productivity of labour remains the same. In this case, too, capital will accumulate in volume and in value (166).

“These last points,” Marx complained, had been “disregarded” by Ricardo. And in this context too we find Marx again alluding to the increased “*diversification of production*” in the course of expansion, “the fact” – also disregarded by Ricardo – “that with the development of the productive forces, the number of spheres of production is also steadily increasing, thus creating possibilities for capital investment which previously did not exist at all. Production not only becomes cheaper in the course of the development, but it is also *diversified*” (168).

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The foregoing constitutes only an introduction to the more formal account of the inter-departmental relations required to satisfy the conditions for continuous growth. (The “extended reproduction” schemes of *Capital 2* were composed at about the same time; see Chapter 2.F.) For all that, the account is important if only because it clarifies so well one of Marx’s primary concerns, which was to correct what he saw as a failure by both Smith and Ricardo to take proper account

of constant capital in their representation of accumulation: “The conception that accumulation of capital = conversion of revenue into wages, in other words, that it = accumulation of variable capital – is one-sided, that is, incorrect. This leads to a wrong approach to the whole question of accumulation” (103).<sup>9</sup> And he alludes to Ricardo’s “antithetical proposition” regarding accumulation, according to which “capital is accumulated in amount and value, if a larger part of the revenue is withdrawn from individual consumption and directed to industrial consumption, if more productive labour is set in motion with the portion of revenue thus saved. In this case accumulation is brought about by *parsimony*” (166).

That at least part of surplus value could be transformed into capital without in any way entailing expenditure on labor demonstrated the invalidity of the orthodox perspective. This applied to the use of corn to produce corn: “This part of the surplus produce which falls to the share of the farmer as surplus value, as profit, can be at once transformed by him into a condition of production within his own branch of production, it is thus *directly* converted into capital. This part is not expended on wages; it is not transformed into variable capital. It is withdrawn from individual consumption without being consumed *productively* in the sense used by Smith and Ricardo. It is consumed *industrially*, but as raw material, not as means of subsistence either of productive or of unproductive workers” (118). Constant capital in the machine-producing industry constituted – on the basis of the discussion given above in Section B – a “second category of surplus produce which enters directly (or through exchange within the same sphere of production) as constant capital into the new production (accumulation), without having gone through the process of first being transformed into variable capital” (119). The main conclusion is that “a considerable portion of the surplus produce, and *hinc* of the surplus value . . . can and must be transformed directly into constant capital, in order to be *accumulated* as *capital* and without which no accumulation of capital can take place at all” (120). And, as explained, it undermined the Smith-Ricardo perception of accumulation as increasing the demand for productive labor: “a part of the existing surplus produce, that is, of the labour which has been newly added during the year, is transformed directly into constant capital, without first having been converted into variable capital. This demonstrates again that the industrial consumption of the surplus produce – or accumulation – is by no means identical with the conversion of the entire surplus produce into wages paid to productive workers” (122).<sup>10</sup> The demonstration touched on the fundamental weakness attributed to

<sup>9</sup> For all that, Marx benefited from McCulloch’s discussion (McCulloch 1825: 181–2) of a sinking fund as a means of accumulation (MECW 32: 112; see also 121). (See editorial note 29, MECW 32: 552).

<sup>10</sup> Allowance for foreign trade reinforced the case against the orthodox view: “If a country cannot itself produce the amount of machinery required for the accumulation of capital, then it buys it from abroad. Ditto, if it cannot itself produce a sufficient quantity of means of subsistence (for wages) and the raw material. As soon as international trade intervenes, it becomes quite obvious that a part of the surplus produce of a country – in so far as it is intended for

Smith-Ricardo national-income accounting: “The idea that, because the surplus produce is solely the product of the labour newly added during the year, it can therefore only be converted into variable capital, i.e. only be laid out in wages, corresponds altogether to the false conception that because the product is only the result, or the materialisation, of labour, its value is resolved only into revenue – wages, profit, and rent – the false conception of Smith and Ricardo” (123).

#### D. Aggregate Demand Constraints

Capitalist organization, “the most productive of all modes of production so far . . . includes – owing to its *contradictory character* – barriers to production, which it constantly endeavours to transcend, hence crises, overproduction, etc.” (MECW 34: 109). Proximately, these phenomena are traced to uncoordinated decision making, the Ricardians allegedly denying the possibility of “general gluts” – apparently even in the *short-run* – by reasoning in terms either of barter “in which no distinction exists between purchase and sale” or (in effect) of “*social* production, implying that society, as if according to a plan, distributes its means of production and productive forces in the degree and measure which is required for the fulfillment of the various social needs, so that each sphere of production receives the *quota* of social capital required to satisfy the corresponding need” (MECW 32: 158). Marx reserved some of his choicest epithets for Say:

The conception (which really belongs to [James] Mill), adopted by Ricardo from the tedious Say (and to which we shall return when we discuss that miserable individual), that *overproduction* is not possible or at least that *no general glut of the market* is possible, is based on the proposition that *products* are exchanged *against products*, [Say 1814 2: 382], or as Mill put it, on the “metaphysical equilibrium of sellers and buyers” [Mill 1821: 186–95], and this led to [the conclusion] that demand is determined only by production, or also that demand and offer are identical. The same proposition exists also in the form, which Ricardo liked particularly, that any amount of capital can be employed productively in any country [Ricardo 1951–73 1: 290, 296] (124–5).

But to preclude “overproduction” was in fact, Marx pointed out, implicitly to adopt the “absurd” view of a capitalist system organized on *socialist* lines: “On this assumption – if capitalist production were entirely socialist production – a *contradictio in adjecto* – no overproduction could, in fact, occur” (306). This critical perspective appears to attribute to orthodoxy a Law of Markets operating even in the short run.<sup>11</sup>

accumulation – is not transformed into wages, but directly into constant capital” (MECW 32: 122–3).

<sup>11</sup> Marx (MECW 32: 125) cites Ricardo’s valid charge that Say fell into contradiction by ascribing to the proposition – it is Adam Smith’s position of course – that “[t]he more disposable capitals are abundant in proportion to the extent of employment for them, the more will the rate of interest on loans of capital fall” (Say 1814 2: 108).

We return to the conditions for a *hitchless* or “continuous” accumulation process (see Section C), and the valorization problems precluding steady growth. The main constraint reflects the fact that “the more capitalistic production develops, the more it is forced to produce on a scale which has nothing to do with the immediate demand but *depends on the constant expansion of the world market*” (101; emphasis added). Again, in commenting on a concession in the orthodox literature that “the credit system may be a cause of crisis,” Marx responds that the system itself arose “out of the difficulty of employing capital . . . profitably,” the English (for example) “forced to lend their capital to other countries in order to create a market for their commodities” (309). This sort of perspective implies not merely problems relating to short-term crisis, but to downward *secular* pressure on the profit rate *in a closed economy* emanating from a failure of expenditure (“valorization”) quite apart from any pressures due to rising organic composition. And this is confirmed by the affirmation that foreign trade is “necessary for capitalist production, which works according to the *measure of its means of production without regard to the satisfaction of a definite given need*” (MECW 34: 221).<sup>12</sup> Again, the key to the problem of overproduction was to be found in “the nature of capitalist production to produce without regard to the limits of the market” (MECW 32: 151).<sup>13</sup>

Yet more specifically, the problem reflects capitalists’ “unlimited” drive for profit (or more accurately for surplus value) by expanding output and sales under conditions of “inhibited” consumption on the part of *the working class*. Thus a *smoothly operating* accumulation process implies “greater production than is required for the replacement of the former [constant] capital and therefore also for the production of the former quantity of means of subsistence . . .” (123); and “[i]f sufficient surplus labour is available, they [the manufacturers] will find on the market all the means for the formation of new capital, for the transformation of their surplus money into new capital.” The impediment to hitchless accumulation arose from expansion of “the scale on which the conditions of production are available and the unlimited desire of the capitalists to enrich themselves and to enlarge their capital, but by no means *consumption*, which from the outset is inhibited, since the majority of the population, the working people, can only expand their consumption within very narrow limits, whereas the demand for labour, although it grows *absolutely*, decreases *relatively* to the same extent as capitalism develops” (123–4).

Marx adds a further source of discord – and here he is not apparently focusing specifically on secular trends: “Moreover, all equalisations are *accidental* and although the proportion of capital employed in individual spheres is equalised by

<sup>12</sup> “This provides,” Marx adds, “an *increased* possibility of non-correspondence, hence a possibility of crises” (MECW 34: 221).

<sup>13</sup> Because of ongoing technical progress “the volume of products increases not only in simple proportion to the growth of capital in expanded reproduction – accumulation” (MECW 32: 151–2).

a continuous process, the continuity of this process itself equally presupposes the constant disproportion which it has continuously, often violently, to even out” (124). But the *central* problem reflects the circumstance that capitalist production “takes place without regard to the limits of consumption,” contrasting with the orthodox view that production “is limited only by capital itself (150).

The constraint on mass consumption turns out to be more than an empirical matter reflecting the lagged growth of aggregate demand for labor relative to population. Downward pressure on the wage and thus on expenditure is only part of the problem which reflects the nature of *surplus value* itself: “[Ricardo] has recourse to Say’s absurd assumption that the capitalist produces not for the sake of profit, for exchange value, but directly for consumption, for use value – for his own consumption. He overlooks the fact that the commodity has to be converted into money. The demand of the workers does not suffice, since profit arises precisely from the fact that the demand of the workers is smaller than the value of their product, and that it [profit] is all the greater the smaller, relatively, is this demand” (101). Elsewhere, this limitation is phrased thus: “The mere relationship of wage labourer and capitalist implies . . . that the majority of the producers, the workers, can consume an equivalent for their product only so long as they produce more than this equivalent, that is, so long as they produce surplus value or surplus produce. They must always be *overproducers*, produce over and above their needs, in order to be able to be consumers or buyers within the limits of their needs” (149).<sup>14</sup>

Marx also adds – without elaboration – that “[t]he demand of the capitalists among themselves is equally insufficient” (101–2), though he returns to the theme that “[o]verproduction arises precisely from the fact that the mass of the people can never consume more than the average quantity of necessities, that their consumption therefore does not grow correspondingly with the productivity of labour.”<sup>15</sup> The supplementary feature is reiterated thus: “It is the unconditional development of the productive forces and therefore mass production on the basis of a mass of producers who are confined within the bounds of the necessities on the one hand and, on the other, the barrier set up by the capitalists’ profit, which [forms] the basis of modern overproduction” (157–8). What is intended by the “insufficiency” of capitalists’ demands or the “barrier set up by the capitalists’ profit” is the circumstance that capitalists’ consumption demands have been deliberately constrained to the end of increasing production and sale: “Defined more closely, this means nothing more than that too much has been produced for the purpose of *enrichment*, or that too great a part of the product is intended not for consumption as revenue, but *for making more money* (for accumulation); not to satisfy the personal

<sup>14</sup> This is spelled out in order to counter the so-called “unity between production and consumption” ascribed to Ricardo, by showing that it clearly does not apply in the case of the laboring class.

<sup>15</sup> Marx adds that “[t]he whole of this section belongs to the *competition of capitals*” (MECW 32: 102).

needs of its owner, but to give him money, abstract social riches and capital, more power over the labour of others, i.e. to increase this power” (162–3). Similarly:

*Overproduction* is specifically conditioned by the general law of the production of capital: to produce to the limit set by the productive forces (that is to say, to exploit the maximum amount of labour with the given amount of capital), without any consideration for the actual limits of the market or the needs backed by the ability to pay; and this is carried out through continuous expansion of reproduction and accumulation, and therefore constant reconversion of revenue into capital, while on the other hand, the mass of the producers remain tied to the average level of needs, and must remain tied to it according to the nature of capitalist production (163–4).

We must now raise a difficulty peculiar to Marx’s analysis. Marx’s “mass production” reflects, at least partly, the outcome of *investment embodying new technology*. Thus the whole aim of capitalist production “is appropriation of the greatest possible amount of surplus labour, in other words, the realisation of the greatest possible amount of immediate labour time with the given capital, be it through the prolongation of the labour day or the reduction of the necessary labour time, through the development of the productive power of labour by means of cooperation, division of labour, machinery, etc., in short, large-scale production, i.e., mass production” (MECW 32: 151). In fact, to assume accumulation proceeding with unchanged “mode of production” could only be a first approximation, for “the mere quantitative increase in capital at the same time implies that its productive power grows.” Here, incidentally, Marx reveals an impressive appreciation of the cumulative effects of “small improvements”: “production . . . expands annually for two reasons; firstly because the capital invested in production is continually growing; secondly because the capital is constantly used more productively; in the course of reproduction and accumulation, small improvements are continuously building up, which eventually alter the whole level of production. There is a piling up of improvements, a cumulative development of productive powers” (153). Marx unfortunately does not address the issue that “mass production” proceeding at *falling* real cost (value) should, in principle, at least mitigate the consequences created by the constraints on consumption characterizing Marx’s analysis of overproduction.

### E. The Secular-Cyclical Nexus

To focus on the capitalists’ drive to produce in the face of an *inherent* restriction on consumption by labor coupled with non-compensation by other forms of expenditure certainly seems to imply that accumulation is *necessarily* accompanied by downward pressure on prices and the profit rate. But Marx in fact firmly rejected this position: “Overproduction does not call forth a *lasting* fall in profit, but it is *lastingly periodic*. It is followed by periods of underproduction etc.” (MECW 32: 102). And this perspective will be further confirmed in relation to Marx’s observations on Smithian “competition of capitals” (below, pp. 348–9).

The cyclical dimension also emerges in a quest to explain the “reality” of overproduction *and crisis* – and not merely their “possibility.” Marx here selected as case study an assumed excess production of cotton, a major *consumption* good, which is no accident, first, since it is precisely in the consumption sector where the limited purchasing power of labor manifests itself, and second, because of its cyclical character.<sup>16</sup>

The analysis starts out by assuming the cotton industry to be in excess supply. The first consequence is reduced consumption expenditures by the workers immediately affected by the resultant slowdown in activity: “Neither Ricardo’s advice ‘to increase their production,’ nor his alternative ‘to produce something else’ [1951–73 I: Chapters 19, 21] can help them. They now form a part of the temporary surplus population, of the surplus production of labourers, in this case of cotton producers, because there is a surplus production of cottons upon the market” (152).<sup>17</sup> Beyond this, the cotton contraction affects a variety of complementary sectors, especially those producing capital goods for the cotton industry, even if they themselves have not engaged in positive overproduction: “All these industries have this in common, that their revenue (wages and profit, in so far as the latter is consumed as revenue and not accumulated) is not consumed by them in their own product but in the product of other spheres, which produce articles of consumption, calico among others.” Accordingly, consumption expenditures – including expenditure on cottons – fall further: “Thus the consumption of and the demand for calico fall just because there is too much of it on the market. But this also applies to all other commodities on which, as articles of consumption, the revenue of these *indirect* producers of cotton is spent. . . . They are now, all of a sudden, *relatively* overproduced, because the means with which to buy them and therefore the demand for them, have contracted. Even if there has been no overproduction in these spheres, now they are overproducing” (152–3).<sup>18</sup> A broadly based overproduction is thus set in motion by the assumed overproduction of cotton cloth.<sup>19</sup> These effects would

<sup>16</sup> Considerable instability was revealed by available data, with contrasts in the pattern discerned around 1815 and 1846: “Between 1770 and 1815, cotton trade depressed or stagnant 5 years, and revived and prosperous 40 years. Between 1815 and 1863 depressed or stagnant 28 years, prosperous 20 years. After 1846, since the repeal of the corn laws, cotton trade stagnant or depressed 9 years revived 8” (MECW 34: 47).

<sup>17</sup> Marx is unconcerned here with the technical value-price issue of the Transformation, so that he can express the assumed glut in terms of unsold accumulated inventories or sales at below “value”: “Thus according to the assumption, the market is glutted, for instance with cottons, so that part of it remains unsold or all of it, or it can only be sold well below its price. (For the time being, we shall call it *value*, because while we are considering circulation or the reproduction process, we are still concerned with value and not yet with cost price, even less with market price.)” (MECW 32: 150). See also note 21.

<sup>18</sup> See also MECW 32: 159 on those “articles whose overproduction is implied because they enter as an element, raw material, *matière instrumentale* or means of production, into those articles . . . whose positive overproduction is precisely the fact to be explained.”

<sup>19</sup> The phenomenon of “relative” overproduction leads Marx to qualify the term “general glut”: “The possibility of overproduction in any particular sphere of production is . . . not denied



be *a fortiori* generated should the initial disturbance affect a variety of leading consumption industries: “On the one hand there is a superabundance of all the means of reproduction and a superabundance of all kinds of unsold commodities on the market. On the other hand bankrupt capitalists and destitute, starving workers” (153).

All of this points to features of *depression*. But an aspect of the secular-cyclical relation now appears. For in elaborating the initial assumption of an overproduction of cotton goods, Marx reiterates the secular feature involving “reproduc[tion] on an extended scale” with “[t]he market “expand[ing] more slowly than production,” and emphasizes that such overproduction “manifests” itself only periodically:

The market expands more slowly than production; or in the cycle through which capital passes during its reproduction – a cycle in which it is not simply reproduced but reproduced on an extended scale, in which it describes not a circle but a spiral – there comes a moment at which the market manifests itself as too narrow for production. This occurs at the end of the cycle. But it merely means: the market is glutted. Overproduction is manifest. If the expansion of the market had kept pace with the expansion of production there would be no glut in the market, no overproduction (153–4).

By alluding to the secular dimension, Marx confirms that the initial disturbance – the cotton industry assumed to be in excess – must be traced to the character of the capitalist *growth* process. Yet for all that – in the terms noted above – “[o]verproduction does not call forth a *lasting* fall in profit, but is *lastingly* periodic.” It is then no accident that the discussion of the *secularly* falling profit rate (above Chapter 10.D) should turn primarily on the rising organic composition feature. And that overproduction is at most a *cyclical* problem is further confirmed by the corrective functions attributed to the crisis, its reestablishment of the unity of purchase and sale: “the contradictions existing in bourgeois production . . . are reconciled by a process of adjustment which . . . manifest itself as a crisis” (308). Again, the crisis is “nothing but the forcible assertion of the unity of phases of the production process which have become independent of each other” (140; also 144); it is the means of achieving a “forcible adjustment” of purchase and sale (142). If this is so, the conditions for hitchless accumulation become of practical relevance since they are satisfied over the entire cycle.

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A convincing attribution of crises to overproduction reflecting underconsumption on the part both of labor and capitalists requires a clear demonstration of the linkages entailed. This Marx does not provide and, to the contrary, asserts that

[by Ricardo]. It is the *simultaneity* of this phenomenon for *all* spheres of production which is said to be impossible and therefore makes impossible [general] overproduction and thus a general glut in the market (this expression must always be taken *cum grano salis*, since in times of general overproduction, the overproduction in some spheres is always only the *result*, the *consequence*, of overproduction in the leading articles of commerce; [it is] always only *relative*, i.e. overproduction because overproduction exists in other spheres)” (MECW 32: 158).

“[c]rises are usually preceded by a general inflation in prices of all articles of capitalist production” (136), which certainly does not imply underconsumption pressures. This problem rises also in *Capital* (Chapter 5, p. 145).

### F. Sources of Cyclical Instability

A variety of disturbances are at play in a closed economy, in addition to “overproduction,” which end in crisis. It is convenient to have before us a statement pertinent to a broad range of cases, involving stationary as well as growing systems, which generate excess demand for money to hold:

In reproduction, just as in the accumulation of capital, it is not only a question of replacing *the same* quantity of use values of which capital consists, on the former scale or on an enlarged scale (in the case of accumulation) but of replacing the *value* of the capital advanced along with the usual rate of profit (surplus value). If, therefore, through any circumstance or combination of circumstances, the market prices of the commodities (of all or most of them, it makes no difference) fall far below their cost prices, then reproduction of capital is curtailed as far as possible. Accumulation, however, stagnates even more. Surplus value amassed in the form of money (gold or notes) could only be transformed into capital at a loss. It therefore lies idle as a hoard in the banks or in the form of credit money which in essence makes no difference at all (MECW 32: 125).

This leads to an extension relating to capital shortage of various kinds generating crisis with its various characteristics including the accumulation of idle money hoards: “The same hold up could occur for the opposite reasons if the *real prerequisites* of reproduction were missing (for instance if grain became more expensive or because not enough constant capital had been accumulated *in natura*). There occurs a stoppage in reproduction and thus in the flow of circulation. Purchase and sale get bogged down and unemployed capital appears in the form of idle money” (125–6).<sup>20</sup> Seasonal reductions in raw material supplies and the increase in material prices (reflecting higher value) provides a prime example of a disturbance which, by upsetting the regular “reconversion of money into capital,” generates excess capacity, unemployment, low profit rate, and inability to meet fixed interest and rent charges:

... a greater *portion of the value of the product* has to be converted into raw material, thus leaving less for conversion into variable capital. ... The *rate of profit* falls because the value of constant capital has risen as against that of variable capital and less variable capital is employed. The fixed charges – interest, rent – which were based on the anticipation of a *constant* rate of profit and exploitation of labour, remain the same and in part *cannot be paid*. Hence *crisis*. Crisis of labour and crisis of capital. This is therefore

<sup>20</sup> See also: “There are, however, also cases where the overproduction of non-leading articles is not the result of overproduction, but where, on the contrary, *underproduction* is the cause of overproduction, as for instance when there has been a failure in the grain crop or the cotton crop, etc.” (MECW 32: 160).

a *disturbance in the reproduction process* due to the increase in the value of that part of constant capital which has to be replaced out of the value of the product (146).<sup>21</sup>

And beyond the direct consequences enumerated above, there are further effects flowing from the increased price of a raw material, including a negative income effect: “in so far as it enters into *general consumption*, it *may* result (if its consumption is not reduced) in a diminished *demand* for other products and consequently *prevent their reconversion* into money at their value, thus disturbing the *other aspect* of their reproduction – not the *reconversion of money* into productive capital but the *reconversion* of commodities into money.” In brief, “[t]he *volume of profits* and the *volume of wages* is reduced in this branch of production thereby reducing a *part of the necessary returns* from the sale of commodities from other branches of production.” (It would seem that prices of the commodity fall below their values though Marx does not say so explicitly.)

Marx also allows for overproduction in the *capital-goods sector independently* of the “relative” overproduction created by the failure of sales in the consumer-goods sector. Such excessive production was “very probable, [f]or the *production of coal and yarn* and of all other spheres of production which produce only the conditions or earlier phases of a product to be completed in another sphere, is governed not by the immediate demand, by the immediate production or reproduction, but by the *degree, measure, proportion* in which these are expanding. And it is self-evident that in this calculation, the target may well be overshot” (160).

Specific mention is made of “excessive” investment in machinery – formally a category of “overproduction” – and here are spelled out similar consequences to those resulting from seasonal raw material *shortage*:

... a *shortage of raw material* may, however, occur not only because of the *influence of seasons* or of the *natural productivity* of the labour which supplies the raw material. For if an *excessive portion of the surplus value, of the surplus capital*, is laid out in machinery, etc. in a particular branch of production, then, although the [raw] material would have been sufficient for the *old level of production*, it will be insufficient for the *new*. This therefore arises from the *disproportionate* conversion of surplus capital into its various elements. It is a case of *surplus production of fixed capital* and gives rise to exactly the same phenomena as occur in the first case (146).<sup>22</sup>

<sup>21</sup> See also: “A *crisis* can arise: 1) in the course of the *reconversion* [of money] *into productive capital*, 2) through *changes in the value* of the elements of productive capital, particularly of *raw material*, for example when there is a decrease in the quantity of cotton harvested. Its *value* will thus rise. We are not as yet concerned with prices here but with *values*” (MECW 32: 147). See also note 17.

<sup>22</sup> See also: “A very significant part of [the] elements of reproduction, which consists of raw materials, can however rise in price for two reasons: *Firstly*, if the instruments of production increase more rapidly than the amount of raw materials that can be provided at the given time. *Secondly*, as a result of the variable character of the seasons. That is why weather conditions, as Tooke [1848: 3–35] rightly observes, play such an important part in modern industry” (MECW 32: 162).

But whereas raw-material shortage does not involve “overproduction,” the case just mentioned does – for capital goods are “commodities” – so that “it is quite ridiculous that the same economists who admit the *overproduction of fixed capital*, deny the *overproduction of commodities*” (147).<sup>23</sup>

We return to “the stoppage in reproduction and thus in the flow of circulation,” due perhaps to material shortage, leading to accumulation of “idle money” (above, p. 344). Marx goes on to spell out the transition from the cyclical peak to crisis, taking for granted an initially *high* profit rate but sharp fall in the interest rate generating risky speculation – a concept, incidentally, dear to Torrens and J. S. Mill (see Hollander 1985: 497–8) – and ultimately crisis characterized by low wages and unemployment, with resultant depressing effects on expenditure:

The same phenomenon (and this usually precedes crises) can appear when surplus capital is produced at a very rapid rate and its reconversion into productive capital increases the demand for all the elements of the latter to such an extent, that actual production cannot keep pace with it; this brings about a rise in the prices of all commodities, which enter into the formation of capital. In this case the rate of interest falls sharply, however much the profit may rise and this fall in the rate of interest then leads to the most risky speculative ventures. The interruption of the reproduction process leads to the decrease in variable capital, to a fall in wages and in the quantity of labour employed. This in turn reacts anew on prices and leads to their further fall (126).<sup>24</sup>

Elsewhere “crises of speculation” are described as of an *international* nature, a theme introduced by the important generalization regarding the relation between the *production* and *valorization* processes – so central to the *Grundrisse* as we have seen in Chapter 9 – that “[w]ithin capitalist production, the relationship between the labour process and the valorization process is that the latter appears as the purpose, the former only as the means. The former is therefore stopped when the latter is no longer possible or not yet possible” (MECW 30: 96). By contrast,

it is revealed in times of so-called speculative fashions, of crises of speculation (shares and so forth), that the labour process (actual material production) is only a burdensome requirement, and the capitalist nations are seized by a universal mania for attaining the goal (the valorisation process) without using the means (the labour process). The labour process as such could only provide its own purpose if the capitalist were concerned with the use value of the product. He is, however, *only* concerned with alienating it by sale as a commodity, converting it back into money and, since it was money originally, with the increase in this sum of money (96–7).<sup>25</sup>

At one point changing productivity is represented as a source of crisis: “. . . uniformity or similarity of reproduction – the repetition of production under

<sup>23</sup> See also MECW 33: 114. The argument is referred to in *Capital 3* (MECW 37: 255).

<sup>24</sup> We recall also that “[c]rises are usually preceded by a general inflation in prices of all articles of capitalist production” (MECW 32: 136; cited above, p. 344).

<sup>25</sup> See also the brief remark “In world market crises, all the contradictions of bourgeois production erupt collectively; in particular crises (*particular* in their content and in extent) the eruptions are only sporadic, isolated and one-sided” (MECW 32: 163).

the same conditions – does not exist. Productivity itself changes and changes the conditions. The conditions, on their part, change productivity. But the divergences are reflected partly in superficial oscillations which even themselves out in a short time, partly in a gradual accumulation of divergences which either lead to a crisis, to a violent, seeming restoration of the old relationships, or very gradually assert themselves and are recognised as a change in the conditions” (MECW 32: 517). Indeed, the *time* required to complete the “circulation process” made inevitable such changes in productivity and in real value (126). Yet despite all this, strange to relate, Marx maintained with respect to his primary analysis of “overproduction” that “[w]e are entirely leaving out of account here that element of crises which arises from the fact that commodities are reproduced more cheaply than they were produced. Hence, the depreciation of the commodities on the market” (163). Certainly there may be features of crisis peculiar to changing productivity that might legitimately be excluded, but we still remain with the problem noted above (p. 341).

We must also caution that a entire range of issues relating to “over-credit” is set aside by Marx when dealing with his main “overproduction” case. That analysis was partial only (145).<sup>26</sup> Marx goes on to explain that “[i]n so far as crises arise from *changes in prices* and *revolutions in prices*, which do not coincide with *changes in the values* of commodities, they naturally cannot be investigated during the examination of capital in general, in which the prices of commodities are assumed to be *identical* with the *values* of commodities.” But we have seen that the main case for overproduction – and other instances of discordance – *do* entail divergence of market prices from values. In all likelihood the caution is intended to exclude specifically *monetary* causes of price fluctuations.<sup>27</sup> And in fact Marx goes on to say that “[t]he *general conditions* of crises, in so far as they are independent of *price fluctuations* (whether these are linked with the credit system or not) as distinct from fluctuations in value, must be explicable from the general conditions of capitalist production.”

## G. The Recovery Process: Corrective Mechanisms

That “business livens up again” is taken for granted (MECW 32: 127). The corrective mechanisms assuring recovery turn partly on the low market prices relative to costs

<sup>26</sup> See also: “*Credit*, which does not concern us further here, is the means whereby accumulated capital is not just used in that sphere in which it is created, but wherever it has the best chance of being turned to good account. Every capitalist will however prefer to invest his accumulation as far as possible in his own trade. If he invests it in another, then he becomes a moneyed capitalist and instead of profit he draws only interest – unless he goes in for speculative transactions” (MECW 32: 114).

<sup>27</sup> See also the reminder that “the examination of money – both in so far as it represents a form altogether different from the natural form of commodities, and also in its form as means of payment – has shown that it contained the possibility of crises . . .” (MECW 32: 124).

characterizing crisis – or more accurately *depression* – reflected in a depreciation of capital values: “. . . the *destruction of capital* through crises means the depreciation of *values* which prevents them from later renewing their reproduction process as capital on the same scale. This is the ruinous effect of the fall in the prices of commodities. It does not cause the destruction of any use values. What one loses, the other gains. Values used as capital are prevented from acting again as *capital* in the hands of the same person. The old capitalists go bankrupt.” But the buyer of these commodities who has acquired them at “half their cost price, can go ahead very well once business livens up again, and may even have made a profit. A large part of the nominal capital of the society, i.e., of the *exchange value* of the existing capital, is once for all destroyed, although this very destruction, since it does not affect the use value, may very much expedite the new reproduction.” The phenomenon is illustrated by transfers from the “industrial” to the “more enterprising” “monied” interest:

This is also the period during which monied interest enriches itself at the cost of industrial interest. As regards the fall in the purely nominal capital, state bonds, shares, etc. – in so far as it does not lead to the bankruptcy of the state or of the share company, or to the complete stoppage of reproduction through undermining the credit of the industrial capitalist who hold such securities – it amounts only to the transfer of wealth from one hand to another and will, on the whole, act favourably upon reproduction, since the parvenus into whose hands these stocks or shares fall cheaply, are mostly more enterprising than their former owners (127–8).

We shall return to the “more enterprising” monied interest in Chapter 14.

Marx’s elaboration of “competition of capitals” (above, Chapter 10, p. 307.) is relevant to this issue. Here Marx envisages “the gradual compression of prices below their value” albeit above capitalists’ outlays (here called “costs”) with the differential (profit) continually reduced: “competition could force down the rate of profit everywhere, not only in one branch, but in many, indeed in all branches of production, through a gradual compression of prices below their value” (MECW 33:91). But the fall in the rate of profit would be only temporary since each industrial capitalist would also obtain his inputs cheaper “as a result both of the devaluation of the total capital advanced and of the diminution in the production costs of labour capacity, hence the rise of surplus value relatively to variable capital” (92). Account must also be taken of the fixed-income recipients and “moneyed class”: “But society includes classes with fixed incomes, the moneyed class, etc., creditors and so on, hence there are fixed deductions from surplus value or profit which do not fall with the reduction in the rate of profit or the fall of the prices of commodities beneath their value.” And with the constant nominal income the moneyed classes “would be able to buy more. . . [They] would in fact pocket the considerable part of the surplus value lost by industrial capital itself.” Marx, referring to Blake 1823, adds that “something of the kind took place in England between 1815 and 1830.” And in this empirical context the recovery process is ascribed largely to increased

expenditures by the fixed-income and moneyed classes: “. . . a [depressed] state of affairs could only be temporary, since it would call forth bankruptcies among the industrialists (as among the English farmers between 1815 and 1830) and hold up the accumulation of capital. A reaction would necessarily occur. Therefore, although competition may reduce the *rate of profit* not only in a particular branch of industry, as long as it is higher than the average rate, but also, as Adam Smith says, in all branches, the latter effect can only be temporary.” This latter observation is of the highest importance in defining the scope of Marx’s observations of the “overproduction” problem (above, Section E).

Should increased expenditures on the part of the fixed income and moneyed classes be devoted to *consumption*, “the price of the commodity would again move closer to its value, hence the rate of profit would again rise.” But matters are more complex if it is “loaned out again as capital,” for there would then be “a yet further increase in competition, hence the rate of profit, which had already fallen a long way, would sink still further owing to a further reduction of the prices of the commodities beneath their values, thereby bringing about a crisis, an explosion and a reaction. . . .” Even so, “the new placements of funds, whether as interest or as rent, would be made at a lower rate, in line with the fall in prices” stimulating the return on industrial capital.

We return to the *real* dimension, or the “destruction of capital through crisis” in the sense of excess capacity and unemployment: “Machinery which is not used is not capital. Labour which is not exploited is equivalent to lost production. Raw material which lies unused is no capital. Buildings (also newly built machinery) which are either unused or remain unfinished, commodities which rot in warehouses – all this is destruction of capital” (MECW 32: 127). Unfortunately, Marx does not clarify whether the destruction of “real” capital also plays a *corrective* role – as it certainly does with J. S. Mill (Hollander 1985: 463–4).

## H. On the “Overproduction” Literature

We return to the main discussion of “overproduction” in Section D. Marx paraphrased the issue by reference to Sismondi: “the statement that there is *too much capital*, after all means merely that too little is consumed as *revenue*, and that more cannot be consumed in the given conditions” (MECW 32: 163; see Sismondi 1827: 371). Later remarks on Sismondi emphasize one of the main features we alluded to – expansion of the output of commodities in the face of restricted consumption by “the mass of producers,” namely the workers, generating an inbuilt tendency to *systemic* or “essential” overproduction: Sismondi “is particularly aware of the fundamental contradiction: on the one hand, unrestricted development of the productive power and increase of wealth which, at the same time, consists of commodities and must be turned into cash; on the other hand, the system is based on the fact that the mass of producers is restricted to the necessaries. Hence, according to Sismondi, crises are not accidental, as Ricardo maintains, but essential

outbreaks – occurring on a large scale and at definite periods – of the immanent contradictions” (247–8).

Unfortunately in this context nothing is said explicitly of the related problem that in order to expand production, capitalists positively reduce *their* consumption outlays. The main features in Marx’s analysis as outlined in Section D – non-sustainability of a growth program *financed by reduced consumption on the part of capitalists (or landlords)* considering the constraints on laborers’ consumption – had, however, been expounded by Malthus:

It is undoubtedly possible by parsimony to devote at once a much larger share than usual of the produce of any country to the maintenance of productive labour; and suppose this to be done, it is quite true that the labourers so employed are consumers as well as those engaged in personal services, and as far as the labourers are concerned, there would be no diminution of consumption or demand. But . . . the consumption and demand occasioned by the workmen employed in productive labour can never *alone* furnish a motive to the accumulation and employment of capital; and with regard to the capitalists themselves, together with the landlords and other rich persons, they have, by the supposition, agreed to be parsimonious, and by depriving themselves of their usual conveniences and luxuries to save from their revenue and add to their capital. Under these circumstances, it is impossible that the increased quantity of commodities, obtained by the increased number of productive labourers, should find purchasers, without such a fall of price as would probably sink their value below that of the outlay, or, at least, so reduce profits as very greatly to diminish both the power and the will to save (Malthus 1836: 314–315).<sup>28</sup>

Now while Marx charged Malthus with “appropriat[ing]” Sismondi and with “nauseating” apologetics (MECW 32: 248),<sup>29</sup> he readily accepted Malthus’s proposition regarding the constrained consumption by labor: “Malthus rightly says of this

<sup>28</sup> Accumulation entails reduced expenditures on “luxury” goods and increased expenditures on capital goods; and a corresponding switch of activity by part of the *luxury* workforce presumably still supported by the capital hitherto at its disposal. The outcome of this transition is an increased stock of capital goods that can be set in motion to raise the flow of final output – material output – only if appropriately provided by a complement of labor. Population growth would be a possible source; but an alternative source – one which Malthus apparently here had in mind – is the service sector. The end result of the savings process is thus not only increased capacity, but also an expanded *productive* labor force at the expense of service labor. In this fashion we satisfy the notion of a “conversion,” by accumulation, of unproductive into productive labourers, that is of a higher share of “national produce” devoted to maintaining productive rather than unproductive labor.

<sup>29</sup> On Malthus’s alleged “plagiarism” see also: “Who at first glance would believe that Malthus’ *Principles of Political Economy* is simply the Malthusianised translation of Sismondi’s *Nouveaux principes d’économie politique*? . . . Once again, with Sismondi, as previously with Townsend and Anderson, he found a theoretical basis for one of his stout economic pamphlets, in the production of which, incidentally, he also turned to advantage the new theories learned from Ricardo’s *Principles*” (MECW 32: 245). For “[w]hile Malthus assailed in Ricardo that tendency of capitalist production which is revolutionary in relation to the old society, he took, with unerring parsonical instinct, only that out of Sismondi which is reactionary in relation to capitalist production and modern bourgeois society.”



demand that it can never be adequate to the supply of the capitalist. *Alias* the worker would be able to buy back the whole of his product with his wages” (252; also 308).<sup>30</sup> Marx made no explicit mention of Malthus’s concern with an investment program financed by reduced consumption on the part of capitalists, but he himself certainly adopted this feature of the analysis as we have seen.<sup>31</sup>

There is one final point. Malthus himself in discussing the secular trend subject to a falling profit rate had touched on periodic correction taking the form of a contraction (see Hollander 1997: 518). Marx too linked the secular pattern to the cycle, overproduction ending in crises that contained corrective mechanisms, such that “[o]verproduction . . . is followed by periods of underproduction” (above, p. 341). J. S. Mill went yet further with respect to the relation between trend and cycle though, of course, he accounted for the falling profit rate on Ricardian *land-scarcity* not Malthusian *underconsumption* lines (Hollander 1985: 461–7).

## I. Summary and Conclusion

The interdepartmental flows described in Section B descend directly from Quesnay’s *tableau* of 1766 relating to a closed, stationary, economy, while at the same time introduce a range of new strategic categories. It may be recalled that Quesnay assumed in the background that agriculture utilized fixed capital (his “*avances foncières*” and “*avances primitives*”) which is not incorporated into the *tableau* (see Hollander 1992: 46); Marx on the other hand has it that the replacement of used-up capital goods in the consumer-goods sector is accomplished by exchange of consumer for capital goods, whereas the replacement process in the capital-goods sector entails a sort of “self-reproduction” – effectively excluded from *inter*-departmental exchanges – either literally in the sense of material regeneration or by way of *intra*-departmental exchanges as, for example, “iron into machine production or machines into iron production” (above, p. 332). The transition from the *physical* to the *value* dimension entailed by the proposition that replacement in *natura* reflects pre-existing labor requires something of an act of faith. But the issue should be considered more broadly in the light of our discussion in Chapters 2 and 11 of the

<sup>30</sup> Other passages from the 1836 edition of the *Principles* are cited to similar effect: “There must be something in the previous state of the demand and supply of the commodity in question, or in its price, antecedent to and independent of the demand occasioned by the new labourers, in order to warrant the employment of an additional number of people in its production” (1836: 312). “The demand created by the productive labourer himself can never be an *adequate* demand, because it does not go to the full extent of what he produces. If it did, there would be no profit, consequently no motive to employ him. The very existence of a profit upon any commodity presupposes a demand *exterior* to that of the labour which has produced it” (405, note by John Cazenove).

<sup>31</sup> But insofar as accumulation is motivated by the profit rate – as Malthus believed to be the case – the problem of “excessive” accumulation financed by absolute reduction in capitalists’ consumption would be avoided (see Hollander 1997: 531, 1003). In the cyclical context of *Capital* 3 Marx too takes the same position (see Chapter 5, pp. 141–2).

“riddle” and the implications for the critique of Adam Smith’s national income accounting (pp. 74, 326–34).

A characteristic of the Marxian flow-of-funds table and accompanying texts is the treatment of wages on an exact par with other incomes, specifically the absence of any notion of “advances.” This is a theme that will be elaborated in Chapter 12 devoted to the labor market; the evidence there brought for “synchronized activity” reinforces the circular-flow process described above.

We have also described above, in very general terms, the conditions for steady growth. The outstanding feature to note – also to be further elaborated in Chapter 12 – is that net accumulation comprises “a fund for development, which the very increase of population makes necessary,” or that an increasing population is “the basis of accumulation as a continuous process,” implying a real wage exceeding the subsistence level (p. 334).

The similarity between Marx’s perspective on “overproduction” and that of Malthus and also the linkage of trend and cycle have been documented in Section H. Nonetheless, Marx seems to rely for his falling profit rate largely on increasing organic composition – elaborated in Chapter 10 – insofar as “[o]verproduction does not call forth a lasting fall in profit, but is lastingly periodic. It is followed by periods of underproduction etc.” (pp. 341, 351). And this is confirmed by representation of Smith’s falling profit rate due to increased “competition of capitals” as “temporary” only (p. 349). And yet, there are statements which *do* suggest that an economy that cannot rely on “the constant expansion of the world market,” experiences a downward profit-rate trend reflecting “realization” problems (p. 339). This same complexity reappears in *Capital* (Chapter 4, p. 132; Chapter 5, pp. 149, 160–1).

## TWELVE

### 1861–1863 III: The Labor Market

#### A. Introduction

In this chapter I draw freely on the *Economic Manuscripts* to ascertain Marx's position in the early 1860s on labor-market trends. Our first substantive section establishes Marx's rejection, following Thomas Hodgskin, of the "advances" conception of wages in favor of "synchronized" activity involving circular flow. This must be kept in mind throughout since the analysis of aggregate labor demand may give an initial impression of an "advances" orientation. Section C concerns *labor demand*, allowance made for ongoing technical change. Our texts point to a growth process entailing net expansion of *aggregate labor demand* account taken of the longer term effects of technical change and not merely the initial displacement effect. Here the sources of increased *labor supply* emerge tangentially, particularly the role of population growth. This issue is dealt with more closely in Section D. The main outcome is that the so-called Reserve Army of Unemployed serves as a source of labor supply for exceptional contingencies of a *cyclical* order; the secular path is one requiring expanded population. Section E considers the mechanics of population growth; and problems relating to the posited downward trend in the real wage.

#### B. The "Wages Fund" Doctrine Rejected: Synchronized Activity vs. Advances

Thomas Hodgskin rejected the notion of wage "*advances*" on the grounds that the adoption of time-consuming processes does not require the actual provision of stocks of accumulated wage goods; he emphasized rather *synchronized activity* involving circular flow: "It is this *assurance*, this *knowledge*, this *confidence* of obtaining subsistence and reward, which enables and induces men to undertake long and complicated operations. . . . [T]he success and productive power of every different species of labour is at all times more dependent on the co-existing productive labour of other men than on any accumulation of circulating capital" (Hodgskin

1922 [1825]: 37, 51). As Marx phrased it: “Hodgskin is concerned . . . with demonstrating the dependence of the worker on the co-existing labour of other workers as against his dependence on previous labour,” in the sense of capital, “an *alienated* and independent form of labour which is hostile to labour itself” (MECW 32: 426–7). In elaborating this line of thought Marx considered the role of inventories taking a position similar to J. S. Mill’s, namely (in Hicks’s terms) that though “lapses from Full Performance are associated with accumulation of stocks . . . the carrying of normal stocks is no sign of a lapse” (Hicks 1973: 59; see Hollander 1985: 498f). This context confirms *final consumption* as king-pin of the entire production process – in the sense of its “justification” or *raison d’être*.

Inventories at the *retail* stage are thus represented evocatively in terms of a “reservoir” rather than a “hoard”: “. . . shopkeepers who sell means of subsistence . . . must naturally always have a full stock in trade. Their stores, shops, etc., are simply reservoirs in which the various commodities are stored once they are ready for circulation. This kind of storing is merely an *interim period* in which the commodity remains until it leaves the sphere of circulation and enters that of consumption” (MECW 32: 414). (This kind of “storing” was to be contrasted with “treasure-hoarding, the aim of which is to retain commodities permanently in the form in which they are capable of entering into circulation, and it achieves this only by withdrawing commodities in the form of money from circulation”; 415.) More generally, “storing on a large scale . . . means nothing more than production and consumption on a large scale. . . . The same commodities (commodities of the same kind) are constantly produced anew in the sphere of production, available on the market and absorbed in consumption. Not the identical commodities, but commodities of the same type, can always be found in these three stages *simultaneously*.”

By contrast, periods of “overproduction” entail *unintended* accumulations or “storing up,” the “interval” between production and final purchase extended beyond that technically required: “If the interval is prolonged so that the commodities which emerge anew from the sphere of production find the market still occupied by the old ones, then it becomes overcrowded, a stoppage occurs, the market is surcharged, the commodities decline in value, there is *overproduction*. Where, therefore, the existence of the commodities in the circulation phase appears as *storing up*, then this is not brought about by a free act on the part of the producer, it is not an aim or an immanent aspect of production, any more than the flow of blood to the head leading to apoplexy is an immanent aspect of the circulation of the blood.” This Adam Smith had glimpsed when he represented “wealth” as “‘*annual*’ reproduction. It is not, that is to say, something out of the dim past. It is always something which emerges from yesterday” (416).<sup>1</sup>

<sup>1</sup> Marx adds that an extended stoppage of production would “soon” lead to an exhaustion of stocks: “If, on the other hand, reproduction were to stagnate due to some disturbances or others, then the stores, etc., would soon empty, there would be shortages and it would soon be evident that the permanency which the existing wealth appears to possess, is only the

The principles apply to accumulations at all stages of activity, production proper included. But it is specifically at the retail stage – the shopkeeper “represent[ing] the consumer in his dealings with the producer and the producer in his dealings with the consumer” – where the character of consumption as “a condition of the reproduction process,” in the sense that the commodity “must reach the sphere of consumption in order that it can be reproduced,” is manifest; in fact “[t]he reproduction process, since it is a unity of circulation and production, includes consumption, which is itself an aspect of circulation. Consumption is itself both an aspect and a condition of the reproduction process” (416). Again, we encounter yet another physical analogy with respect to “the *constant* passing over of commodities into consumption, for the vacuum left by the commodity reaching the sphere of consumption must be filled by the commodity emerging from the production process and now entering this stage” (417). It is when we find Marx treating laborers’ consumption on a par with consumption by any other class that the full import of this perspective becomes apparent (see below, p. 358).

The significance for *normal* inventory holdings of the production period strictly defined is further explored, Marx drawing on the annual “reproduction time” characterizing corn: “The corn harvested in the autumn, for example, of 1862 (in so far as it is not used again for seed) must suffice for the whole coming year – until autumn 1863. It is thrown all at once into circulation (it is already in circulation when it is placed in the farmers’ granaries) and absorbed in the various reservoirs of circulation storehouse, corn merchants, millers, etc.” But commodities are withdrawn only piecemeal, in small quantities, by the annual consumption. The replacement, the stream of new commodities which are to displace them, arrives only in the following year.” It is the function of the *price mechanism* to adjust consumption to rates of production which exceed or fall short of the “average.” In the first case, “a stoppage takes place. The space which these particular commodities were to have occupied in the market is overstocked. In order to permit the whole quantity to find a place on the market, the price of the commodities is reduced, and this causes them to move again. . . . If the quantity is too small, it is expanded by an increase of their *prices*” (417–18). An interesting supplementary consideration involves the character of the commodity as *use value*: “On the other hand, commodities which quickly deteriorate as use values remain only for a very short time in the reservoirs of circulation. The period of time during which they have to be converted into money and reproduced, is prescribed by the nature of their use value which, if it is not consumed daily or almost daily, is spoilt and consequently ceases to be a commodity” (418). Here Marx emphasizes that “exchange value along with its basis, use value, disappears provided the disappearance of use value is not itself an act of production,” referring to intermediate products.

permanency of its being replaced, of its reproduction, that it is a continuous objectification of social labour” (MECW 32: 416). Marx does not say whether this plays a role in recovery from depression, but it may be implied.

Industrial development tends to reduce the *relative* size of normal inventory holdings: “In general, it is clear that although in *absolute* terms the *quantity* of the commodities which have been stored up in the reservoirs of circulation increases as a result of the development of industry, because production and consumption increase, this same quantity represents a decrease in comparison with the total annual production and consumption. The *transition* of commodities from circulation to consumption takes place more rapidly.” The phenomenon – Marx again extends his vision to inventory holdings at all stages, not only retail – reflects partly the shortening of the various phases of the production process resulting from technical and organizational progress, namely increase in the “speed of reproduction” resulting from “the fact that the labour time necessary to produce the commodity in each one of its forms is reduced,” due in turn to “the development of the division of labour, use of machinery, application of chemical processes, etc.”<sup>2</sup> Similar effects result from reductions in the transition periods *between* “phases” of production: “Partly as a result of the combination of various branches of industry, that is, the establishment of centres of production for particular industrial branches, [partly] through the *development of means of communication*, the commodity proceeds rapidly from one phase to another.” Thus “the interim period, the interval during which the commodity remains in the intermediate station between one production phase and another is reduced. . . .”

Now both developments – shortening of production phases and the intervals between them – presuppose the *continuous* production on a mass scale, “with no *deliberate* breaks,” required by technology entailing heavy use of fixed capital (419).<sup>3</sup> This continuity of output flow at a rapid rate and on a mass scale enhances the risk of overproduction, while it *reduces the requirement for inventories*: “Thus if the commodities remain in the circulation reservoirs for a long time – if they accumulate there—then they will soon glut them as a result of the speed with which the waves of production follow one another and the huge amount of goods which they deposit continuously in the reservoirs,” a phenomenon recognized by Corbet (1841: 115–17); but “the same circumstances which produce this speed and

<sup>2</sup> Advances in chemistry illustrate the phenomenon: “The development of chemistry makes it possible to artificially speed up the transition of commodities from one state of aggregation to another, their combination with other material which, for instance, occurs in dyeing, their separation from [other] substances as in bleaching; in short, both [modifications in] the form of the same substance (its state of aggregation) as well as changes to be brought about in the substance, are artificially accelerated . . .” (MECW 32: 418). Moreover, “vegetative and organic reproduction, plants, animals, etc., are supplied with cheaper substances, that is, substances which cost less labour time.”

<sup>3</sup> Marx distinguished the continuous flow he had in mind *by the absence of “deliberate breaks”* from a related feature, namely “the closing and overlapping of the separate production phases” or “the close succession of the production phases” (MECW 32: 419). Deliberate breaks “occur as long as work is done to order, as in the handicrafts, and continue even in manufacture properly so called (in so far as this has not been reshaped by large-scale industry).”

mass scale of reproduction likewise reduce the necessity for the accumulation of commodities in these reservoirs.”

As mentioned, these implications extend to inventory holdings at all stages of the production process *including retail*: “the shopkeeper likewise enjoys the benefits of the speed of communications first of all, and secondly, the certainty of a continuous and rapid renewal and delivery. Although his stock of commodities may grow in size, each element of it will remain in his reservoir, in a state of transition, for a shorter period of time. In relation to the total amount of commodities which he sells, that is, in relation to the scale of both production and consumption, the stock of commodities which he *accumulates* and *keeps* in store, will be small” (420). Marx again points to the greater threat of “overstocking”; and he adds a remark on speculative periods: “Special filling of the reservoirs – in so far as this is not due to the overstocking of the market, which can happen much more easily in these circumstances than under archaically slow conditions – occurs only for speculative reasons and merely in exceptional cases because of a real or suspected fall or rise of prices.” He refers *inter alia* to Lalor (1852: 42–4) on the general phenomenon – the “*relative decline* in stock, that is, the commodities which are in circulation, compared with the amount of production and consumption” – and takes Sismondi (1837–38 I: 49f) to task for representing it as “something lamentable” (420–1).<sup>4</sup>

\* \* \*

We have referred to Marx’s observation that the nature of its particular “use value,” with reference to a product’s durability, partly dictates the period a commodity remains “in the reservoirs of circulation” (above, p. 355). This matter is treated more broadly in terms involving a general principle of relevance to the issue of *synchronized activity* contrasting with *advances*. In particular, the use of capital-intensive processes – their effect in increasing the flow of production on a continuous, rapid, and mass scale – has its counterpart on the side of *consumption* which proceeds “almost simultaneously” with production: “To an increasing extent consumption – even of articles where this is not demanded by the nature of their use value – takes place almost simultaneously with production and becomes therefore more and more dependent on the present, co-existing labour (since it is, in fact, exchange of co-existing labour). This takes place in the same degree in which past labour becomes an ever more important factor of production, even though this past itself” – referring to capital goods – “is after all a very recent and only relative one” (421). This simultaneity, which applies even to durable consumer goods, reflects the dependence of current consumption on a flow of output

<sup>4</sup> An additional effect of the increased “speed of reproduction” is *geographical*: “there is . . . a continuous *extension of the market* and in the degree that the *interval of time* decreases in which the commodity remains on the market, its *flow in space* increases, that is, the market expands spatially, and the periphery in relation to the centre, the production sphere of the commodity, is circumscribed by a constantly extending radius” (MECW 32: 421).

proceeding from *current* labor (working with “recently produced” capital goods) not labor undertaken in a past period.

As mentioned, in all of this Marx was following Hodgskin whose perspective undermined the wages-fund notion in any of its primitive versions. There is no *advance* to labor involving the “*storing up*” of means of subsistence “for the workers by the capitalists”; for “[t]his would mean that the products circulate for the benefit of the worker and become *commodities* for his sake; and that in general, the production of products as commodities is undertaken for his sake” (423).<sup>5</sup> Rather, consumption by workers derives from the current flow of output in exactly the same fashion as consumption by any other category: “The worker shares with every other [commodity owner] the need to transform the commodity he sells – which in actual fact, though not in form, is his labour – at first into money in order to convert the money back again into commodities which he can consume.”<sup>6</sup> And like all other consumers he buys his commodities at retail from the “circulation agent,” the capital-labor relation *as such* losing its direct relevance: “The worker, moreover, does not confront the shopkeeper as a worker confronts a capitalist, but as money confronts the commodity, as a buyer faces the seller. There is no relationship of wage labour to capital here. . . .”<sup>7</sup> That the laborer purchases only “part of his own product” – the sense of exploitation – does not affect the actual process at play: “Thus the ‘accumulation’ of means of subsistence by the capitalist for the worker means merely that he must possess enough money in order to pay wages with which the worker withdraws the articles of consumption he needs from the circulation reservoirs (and, if we consider the class as a whole, with which he buys back part of his own product). This money, however, is simply the transformed form of the commodity which the worker has sold and handed over” (424). Thus “the means of subsistence are ‘stored up’ for him in the same way as they are stored up for his capitalist, who likewise buys consumption goods, etc., with money (the transformed form of the same commodity).”

Marx makes much of Hodgskin’s notion that laborers’ current consumption is largely satisfied by the current flow of production – that is by current (or contemporaneous) labor rather than past labor: “A great part, [or] the greatest part of the products consumed daily by the worker – which he must consume whether his own product is finished or not – represents . . . to a great degree products of labour performed the same day or during the same week in which the worker produces his own commodity. For example, bread, meat, beer, milk, newspapers, etc.” (425). But Hodgskin had not seen that “they are partly the products of *future*

<sup>5</sup> Formally, the “commodity” is the form that products or “use values” takes when production is organized through capitalist exchange rather than for personal use (MECW 30: 38–9).

<sup>6</sup> The “commodity” which the worker sells is, of course, his *labor power*.

<sup>7</sup> Marx adds: “except, of course, where the shopkeeper is dealing with his *own* workers. But even they, in so far as they buy things from him, do not confront him as workers. They confront him as workers only in so far as he buys from them” (MECW 32: 423), alluding here to his purchase of labor power.



labour, for the worker who buys an overcoat with what he has saved out of six months’ wages buys one which has only been made at the end of the six months, etc.” And more generally “we have seen that . . . *consumption* becomes more and more contemporaneous with *production*, and therefore, if one considers society as a whole, consumption depends more and more on *simultaneous* production, or rather on the products of *simultaneous* production” (425–6). And “when operations extend over several years, the worker must ‘depend’ on the simultaneous and future producers of other commodities” (426).

Marx’s refutation of a “dependency” by labor on “stored-up capital,” does not imply rejection of *all* notion of storage. He allows – with Hodgskin – that the worker “cannot work without finding [wage goods] ready for consumption” (414). But what is envisaged here are precisely the “circulation reservoirs” from which laborers’ consumption goods (like all others) are drawn and which must be appropriately filled: “no capitalist production can take place without *commodities* – whether they be means of consumption or means of production – being available on the market . . . [without] the commodities spending a period of time in the circulation reservoirs. For the product is a commodity [by that fact] only within the framework of circulation. It is as true for the worker as for anybody else that he must find his means of subsistence in the form of *commodities*” (423). Again: “The worker always has to find his means of subsistence in the form of *commodities* on the market”; and they are “the produce of antecedent labour, that is of labour which is antecedent to their existence as produce but which is by no means antecedent to his own labour with whose price he buys this produce. They can be contemporaneous products, and are so most of all for those who live from hand to mouth” (426). Indeed, “[t]he majority of the commodities consumed by the worker in the final form in which they confront him as commodities, are in fact products of *simultaneous* labour (they are therefore by no means stored up by the capitalist).”<sup>8</sup>

Marx also spells out the essentials of the *money* relationship in his discussion of labor’s consumption. We recall that “the means of subsistence are ‘stored up’ for [the worker] in the same way as they are stored up for his capitalist, who likewise buys consumption goods, etc., with money (the transformed form of the same commodity)” (above, p. 358). Now the category “circulating capital” could be interpreted in a manner recognizing the essentials of the *money* dimension to the labor-capital relationship; thus, the worker, instead of “*buying* [means of subsistence] direct or *paying* for them with the value either of his past or of his

<sup>8</sup> As for the availability on the market of *durable* consumer goods – “use values which, by their nature, only wear out slowly” – it was not “due to any action specially devised for the benefit of the workers that these products of previous labour are available on the ‘market.’ The worker also used to have a ‘dwelling’ before the capitalist ‘piled up’ deadly stinkholes for him” (see *Laing* on this [1844: 149–54]) (MECW 32: 425).

The industrial capitalist’s stocks of capital goods proper also had to be taken into account. Here too we find the broader Marxian concern to deny that the laborer is in any way *indebted* to the capitalist (424).

future product, must first of all receive a *draft* (money) on it; a draft moreover which the capitalist is entitled to issue only thanks to the worker's past, present or future product."

Despite his admiration for Hodgskin, particularly for recognizing that what is *truly* "stored up" or advanced period by period is "the *skill* of the worker, the level of development of labour," Marx found that he had not sufficiently taken account of capital-goods proper (427). For "the stage of the development of the productive power of labour which exist at any particular time and serves as the starting-point, comprises not only the skill and capacity of the worker, but likewise the material means which this labour has created for itself and which it daily renews. . . . *Accumulation* in this context means *assimilation*, continual preservation and at the same time transformation of what has already been handed over and realised" (427–8). Nor for that matter had Hodgskin properly recognized the significance of the *money* form for the capital-labor relation (428–9).<sup>9</sup>

There remains to note the heavy weight placed on the final demand dimension in discussing inventory *expansion*: "The capitalist may consider it necessary to produce an increasing reserve fund of commodities to cover increasing demand (this can naturally only happen with commodities which can be preserved for some time, such as clothing materials and the raw material for them, etc., cattle, machines, etc., metals, etc.), and so far (this may also be case for the shopkeeper) all accumulation amounts to annual overproduction, an overproduction which is the law of expanding production, not stagnant production" (MECW 33: 178). And it is primarily expansion of *working-class* consumption that provides the key to successful accumulation at the retail stages (179–80).

### C. Labor Demand and Technical Change

In the following account Marx spells out the implications of rising organic composition reflecting the adoption of machinery: "Machinery lessens the number of workers employed by a given capital. Hence, if on the one hand it raises the rate of surplus value" – by reducing the value of labor power – "on the other hand it reduces its amount, because it reduces the number of workers employed simultaneously by a given capital" (MECW 34: 8). While employment falls relative to a given *total* capital ( $c + v$ ), "the development of productive power increases the number of workers who can be employed simultaneously by a *variable capital* of

<sup>9</sup> Marx proceeds to a forced criticism of Hodgskin regarding the *capitalist* in his relation with capital. Thus bourgeois economists treat "[t]he *capitalist*, as capitalist, [as] simply the personification of capital, that creation of labour endowed with its own will and personality which stands in opposition to labour" (MECW 32: 429). Hodgskin "regards this as a pure subjective illusion which conceals the deceit and the interests of the exploiting classes. He does not see that the way of looking at things arises out of the actual relationship itself; the latter is not an expression of the former, but vice versa. In the same way, English socialists say: 'We need capital, but not the capitalist.' But if one eliminates the capitalist, the means of production cease to be *capital*."

a given magnitude” considering the fall in the “value of . . . labour capacities” (9). There has, in brief, been “a *relative* increase in *the number of workers set in motion by variable capital*, even though there has been a fall in this variable capital and thereby in the absolute number of workers employed” (10). That employment increases relative to *given v* is, however, a formality since *v* in fact declines, having been partly converted into constant capital. Nonetheless, total wage payments *are* reduced – and not only in the sector immediately affected – and these released funds would be “freed” (11). Such freed-up capital “can be invested in *the same* branches of production, to extend them, or in new branches. And since machinery takes hold, now of one branch, now of another . . . capital is in this manner continuously set free.”<sup>10</sup>

Allowing *solely* for reemployment due to freed-up wage capital Marx estimates that the *displacement* effect will predominate on balance, and this even taking account of the increased machine-making contingent. For the latter “is naturally slower to take effect than the displacement of the workers by machinery,” whereas the pressures reducing labor demand are more profound. There is in the first place lower expenditure on final goods by “those thrown out of work,” and resultant “depreciation” of the capitals “which in part derived their return from the consumption of these workers . . . if they cannot find a foreign market for the part of their product which has been set free in this way.” To this must be added the fact that “the variable capital which has now been converted into constant capital, ceases to constitute a demand for labour. Even the labour it originally set in motion (machine workers, etc.) is never as much as the labour it releases, for this part of the capital, e.g. 1,000 laid out in machines, now represents not only the wages of the mechanics, but at the same time the profit of these capitalists, whereas previously it only represented wages (Ricardo).”<sup>11</sup>

However, this is still a partial picture. Marx refers to conflicting forces at play: “If on the one hand machinery has the tendency *constantly to throw workers out* . . . on the other hand it has the tendency constantly to *attract* them, since once a particular stage of development of productive power is given, *surplus value* can only be increased by increasing the number of workers employed at the same time” (29).<sup>12</sup> Which force is likely to predominate on balance? At one point Marx found “laughable” the “peculiar obsession of the political economists with demonstrating that *in the long run* large-scale industry based on the employment of machinery always re-absorbs the redundant population”; for “they want to prove that machinery is good because it saves labour, and then it is once again good because

<sup>10</sup> Marx “disregard[s] here the fact that the use value of the income is increased, hence a greater part of it can be converted back into capital” (MECW 34: 11). This is a major Ricardian theme (see Ricardo 1951–73 I: 8, 131–3, 166–7, 390), and will be explored presently (below, pp. 363, 364–5).

<sup>11</sup> The reference is to Section v of Ricardo’s Chapter 1, especially 1951–73 I: 40–1. See further MECW 32: 177–8.

<sup>12</sup> This perspective derives from the *Grundrisse*, on which see Chapter 8.D.

it doesn't save any labour, compensating for its replacement of manual labour at one point by making necessary labour at another point," referring to "subsidiary labour . . . made necessary as a result of machinery" (30). This is an unconvincing objection, and in fact Marx himself recognizes new employment opportunities created by the *output expansion* made possible by machinery: "One might ask how it is possible at all for the application of machinery . . . directly to make possible new and increased labour, since all labour, from start to finish, whether directly performed by machinery or presupposed by it, must be less than the amount of labour previously contained in the commodity produced without machinery" (31).<sup>13</sup> The answer, of course, is that though "the quantity of labour contained in a yard of machine-made linen is less than that in a yard made without machinery, it by no means follows from this that if now 1,000 yards are produced with machinery where previously one yard was produced, there is not a great increase in labour – the labour of flax cultivation, transport and all kinds of intermediary labour."

Marx focuses elsewhere in his manuscript on reabsorption in the *machine-building sector* of labor displaced by machinery. Full absorption could be ruled out, though he cautions that to phrase the matter thus was misleading since the issue is not the reabsorption of those actually displaced, but the absorption of *new entrants* into the work force: "The number of machine-building labourers is smaller than the number of labourers discharged; nor are they the same individuals as those discharged. The greater demand for labourers in machine building can at most effect the future distribution of the number of labourers, so that a larger part of the generation entering the labour market – a larger part than before – turns to that branch of industry" (MECW 31: 111). In any event, the *permanent* increase in demand for machine-building labor could not be identified with the total expenditures on machinery: "the increase in the annual demand . . . is not equal to the new capital expended in machinery. The machine lasts for example for 10 years. The constant demand [for labor] which it creates is therefore equal annually to 1/10 of the wages contained in it," plus "labour for repairs during the 10 years, and the daily consumption for coal, oil and other *matériaux instrumentaux* in general; which in all amounts perhaps to another 2/10."

That the positive effect on the "generation entering the labour market" refers not to *net additions* to the work force but rather to the *replacements* of the original force, is confirmed in a brief elaboration (applying beyond the specific issue of reemployment in the capital-goods sector): "The shifting of labour and capital which increased productive power in a particular branch of industry brings about by means of machinery, etc., is always only prospective. That is to say, the *increase, the number of new labourers flowing into industry* is distributed in a different way; perhaps the children of those who have been thrown out, but not these themselves"

<sup>13</sup> Marx here "leave[s] aside a setting free of capital and labor," concerned as he is at this point with reabsorption *given* capital (MECW 34: 31).

(112), As for the latter, “[t]hey themselves vegetate for a long time in their old trade, which they carry on under the most unfavourable conditions, in as much as their necessary labour time is greater than the socially necessary labour time; they become paupers or find employment in branches of industry where a lower grade of labour is employed.”

In a further account, turning on Ricardo’s position regarding the positive long-run employment effects of machinery, Marx accepts that with the initial introduction of machines and the displacement of labor *two* capital “funds” are released or, more accurately, are now available for accumulation. One relates to the savings made in wages; and another to the increase in purchasing power of net revenue due to reduced commodity prices (MECW 32: 179–80). As for the former, these savings – Marx agrees with Ricardo – are indeed “not impaired.” However, he once more cautions against the naïve notion that it is the displaced individuals themselves who are available for reabsorption. Rather: “They may become paupers, starve, etc. One thing only is certain, that 10 men of the new generation who should take the place of these 10 men in order to turn the mill” – their *remplaçants* had there been no change in technology – “must now be absorbed in other employment” (180). (Here Marx takes for granted *population increase* though that is not his concern in the present context: “and so the relative population has increased independently of the average increase of population.”) Marx thus *apparently* accepts that the newly created increase in the available work force *will* be absorbed “in other employment” in the light of the freed-up capital available: “The invention of machinery and the employment of natural agents thus set free capital and men (workers) and create together with freed capital freed hands (free hands, as Steuart calls them), whether [for] newly created spheres of production or [for] the old ones which are expanded and operated on a larger scale” (180; see MECW 29: 164). On the other hand, we encounter a further caution, and this against the “absurd” version of the wage-fund notion according to which the freed-up capital “must necessarily be laid out as variable capital (as if there was no possibility of exporting means of subsistence, or spending them on unproductive workers, or [as if] wages in certain spheres could not rise, etc.) and must even be paid out to the displaced labourers” (180). “Machinery,” Marx concludes, “always creates a relative surplus population, a reserve army of workers, which greatly increases the power of capital.” It seems fair then to understand Marx as recognizing only the *potential* to reabsorb displaced workers – always in the sense of their *remplaçants* – considering that available funds might be lost to employment in various outlets, including maintenance of the displaced workers.

Considerable weight is placed on leakages from the so-called “wage fund,” leakages which reduce the potential for reabsorption and generate *in the first instance* net excess labor supply: “So far as the capitalist who introduces the machinery is concerned, it is wrong and absurd to say that he can lay out the same amount of capital in wages as before. (Even if he borrows, it is still equally wrong, not for him, but for society.) One part of his capital he will convert into machinery and other

forms of fixed capital; another part into *matières instrumentales* which he did not need before, and a larger part into raw materials, if we assume that he produces more commodities with fewer workers, thus requiring more raw material” (183). The “immediate result,” Marx concludes, “will be that a section of the workers is thrown on to the street.” Again, after denying that labor demand will remain unchanged once allowance is made for the capital-goods sector – “Ricardo himself has already shown that machinery never costs as much labour as the labour which it displaces” (on which see note 11) – and adding further that reabsorption in agriculture in the production of additional raw materials could also not be counted on,<sup>14</sup> Marx rules out full reabsorption *at least as an “immediate result”*: “*Prima facie* it is not likely that the introduction of machinery will set free any of the capital of the manufacturer when he makes his first investment. It merely provides a new type of investment for his capital, its immediate result . . . is the dismissal of workers and the conversion of part of the variable capital into constant capital” (184). Again – and opposed to the “absurd fundamental notion . . . which underlies Ricardo’s view”: “The capital of the manufacturer who introduces machinery is not set free. It is merely utilised in a *different* manner, namely, in such a manner that it is not, as before, transformed into wages for the discharged working men. A part of the variable capital is converted into constant capital. Even if some of it were set free, it would be absorbed in spheres in which the discharged labourers could not *work* and where, at the most, their *remplaçants* could find refuge” (185). (Though it is allowed at this point that “*in the long run* the labour that has been released together with the portion of revenue or capital that has been released, will find its vent in a new trade or by the expansion of the old one . . . this is of more benefit to the *remplaçants of the displaced men* than to the displaced men themselves”; 186; emphasis added.) Some potential for net accumulation created by productivity increase related to the adaption of machinery, is also allowed, but that “only gives the necessary vent (if it does so!) for that part of the *annual population increase* that is for the time being debarred from the old trade into which the machinery has been introduced” (185; emphasis added). Thus it remains only an outside possibility which is scarcely countenanced that the (annual) demand for labour – “the necessary vent” – remains unchanged as a consequence of capital conversion or adoption of “machinery.”

All this relates to the “immediate” outcome of capital conversion – the altered pattern of allocating a *given* capital. But there is also the matter of *net* capital accumulation financed by increased purchasing power – the Ricardian theme

<sup>14</sup> There will be no effect on demand for agricultural labor if the required expansion of raw materials is satisfied by imports: “it makes no difference whatsoever to the Englishmen who have been thrown out of work, whether the demand for niggers or coolies grows” (MECW 32:184). “[E]ven assuming that the raw materials are supplied within the country, more women and children will be employed in agriculture, more horses, etc. . . . But there will be no demand for the dismissed workers, for in agriculture, too, the same process which creates a constant relative surplus population is taking place.”

(see note 10) – such increase itself due to machinery: “So far as the general public is concerned . . . revenue is set free as a result of the lowering in price of the commodity produced by means of the machine” (184).<sup>15</sup> But here Marx is pessimistic even with respect to the *remplaçants* of those displaced: “For whatever purpose the revenue thus set free and reconverted into capital is used, it will in the first place hardly be sufficient to absorb that part of *the increased population* which each year streams into each trade, and which is now debarred from entering the old trade” (emphasis added). And matters would be worse still if some of the “freed revenue” were “exchanged against foreign products or . . . consumed by unproductive workers.”

The outcome of capital conversion is therefore excess labor supply taking account of the initial displacement of labor and any reabsorption due to the investment of “freed up” capital, combined with any additional reabsorption due to such net accumulation which itself results from the increased productivity supposed. The *initial outcome of machinery thus entails a reduction in labor demand*, and creation of excess labor supply even assuming a *constant work force* – allowing only for new entrants into the work force who comprise the *replacement* contingent – whereas in fact there is throughout a presumption of *on-going population growth*, part of which had under the original conditions found employment in “the old trade” but is now to a large extent excluded.

This rather “pessimistic” evaluation, it must be understood, is still only provisional. The final picture is in fact close to Ricardo’s Chapter 31. For *Marx goes on to allow further compensatory expansions in labor demand of a secular order*, some of which traced to the effect of new technology in increasing real purchasing power: “New ramifications of more or less unproductive branches of labour are continually being formed and in these revenue is directly expended. Then there is the formation of fixed capital (railways, etc.) and the labour of superintendence which this opens up; the manufacture of luxuries, etc.; foreign trade, which increasingly diversifies the articles on which revenue is spent” (186–7). Or again, Ricardo’s optimism, Marx conceded, was partly justified having in mind (apart from consideration of the “unproductive” service sector) the “spur given to accumulation”: “. . . because of the spur given to accumulation, on the new basis requiring less living labour in proportion to past labour, the workers who were dismissed and pauperised, or at

<sup>15</sup> See also: “The rising productivity of capital is directly expressed in the rising quantity of surplus labour appropriated by capital, and the rising amount of profit, which is an amount of value. Not only is this amount of value growing, the same magnitude of value is represented in an incomparably greater amount of use values . . .” (MECW 30: 303). More specifically, freed revenue can be used for consumption as well as investment purposes: “A part of the revenue thus set free, will be consumed in the same article, either because the reduction in price makes it accessible to new classes of consumers . . . or because the old consumers consume more of the cheaper article. . . . Another part of the revenue thus set free may serve to expand the trade into which the machinery has been introduced, or it may be used in the formation of a new trade producing a different commodity, or it may serve to expand a trade which already existed before” (MECW 32: 184).

least that part of the population increase which replaces them, are either absorbed in the expanded engineering-works themselves, or in supplementary trades which machinery has made necessary and brought into being, or in new fields of employment opened by the new capital, and satisfying new wants” (196). In fact, once net capital accumulation is fully brought into the picture, one encounters a presumption of *expanding demand for labor* notwithstanding – even in consequence of – ongoing capital conversion with its concomitant labor displacement; also of high importance is the standard presumption of ongoing population growth: “If the productive power of labour has been increased through greater production of fixed capital in proportion to variable capital, then not only the amount, but also the *value* of reproduction will rise, since a part of the value of the fixed capital enters into the annual reproduction. This can occur simultaneously with the growth of the population and with an increase in the number of workers employed, although the number of workers steadily declines *relatively*, in proportion to the constant capital which they set in motion” (166). In conclusion: “There is therefore a growth, not only of wealth, but of value, and a *larger quantity of living labour is set in motion*, although the labour has become more productive and the quantity of labour in proportion to the quantity of commodities produced, has decreased.”

In some formulations there is particular emphasis on productivity increase due to new technology embodied in *net* investment, which happens to be Ricardo’s presumption (Ricardo 1951–73 I: 395). In these contexts too there is no question of *absolute* decline of aggregate labor demand: “The *growing productivity of labour* . . . [is] expressed in the fact that the part of the total capital which is converted into variable capital constantly declines in proportion to the part which is converted into constant capital. The quantity of labour employed grows with the growth of the total capital, but in an ever-declining proportion to the growth of total capital” (MECW 34: 205). Marx even allows that “[t]he variable part of the *surplus capital* could continuously absorb the whole *surplus population*, and yet the *relative magnitude of the additional variable capital* might still fall constantly, in relation to the total capital.” This conclusion holds good even when account is taken of conversion affecting the *entire* capital stock (206).

So significant is the phenomenon of net expansion of aggregate labor demand that it is even represented as a *necessary* characteristic of advanced capitalism: “An increase in the amount of labour on the new production basis is in part necessary in order to compensate for the lessened rate of profit by means of the amount of profit; in part in order to compensate for the fall in the magnitude of surplus value which accompanies the rising rate of surplus value on account of the absolute reduction in the number of workers exploited by means of an increase in the number of workers on the new scale” (MECW 33: 141). And this is followed by the extraordinary statement – also found in *Capital* (MECW 37: 262; see Chapter 3, p. 97) – that an absolute reduction in labor demand “would cause a revolution”: “. . . it is only a need of the bourgeois economy that the number of people living from their labour alone should increase absolutely, even if it declines relatively. . . . A development



of productive power which reduced the absolute number of workers, i.e. in fact enabled the whole nation to execute its total production in a smaller period of time, would bring about revolution, because it would demonetize the majority of the population” (142).

\* \* \*

There are exceptions to the rule of net expansion in aggregate demand for labor: “Increase in workers, etc., despite the relative decline in variable capital or capital laid out in wages. However, this does not take place in all spheres of production. E.g. not in agriculture. Here the decline in the element of living labour is absolute” (MECW 33: 141; see also MECW 34: 31).<sup>16</sup> And, secondly, specific industrial sectors may experience absolute reductions in employment. The cotton industry provides a conspicuous instance, as we shall now see.

Marx cites Ure 1836 favorably on the tendency of the automatic workshop “to drive out labour, to subject the worker to the ‘automaton-autocrat,’ to reduce the price of labour by substituting the labour of women and children for that of adults, and unskilled for skilled labour . . .” (MECW 33: 499). But there is also the reabsorption of labor to consider: “Let us now see Ure’s further apologies for the *displacement of labour*, the throwing out of labour by machinery and the *devaluation of labour associated with this*” – via entry of female and child labor and deskilling – “and on the other hand his presentation of the *drawing back* of labour. For this repulsion and attraction is what is peculiar to the system” (MECW 34: 38). Marx commends Ure for describing the process correctly: “machinery *continually casts out* adult workers, and in order merely to ‘re-absorb’ them, to draw them back in, it needs to *expand continuously*” (39). What though of the balance of forces *actually at play*? Account is taken of the fact – in Marx’s paraphrase – that “[i]mprovements in machinery are gradual, or only come into general use gradually,” while “[a]t the same time there is a continuous gradual extension . . .” in the demand for adult labor reflecting extensions of the market for final goods as their prices decline with productivity increase. Ure is cited to the effect that “*no diminution of earnings for adults ha[d] thus far arisen.*”<sup>17</sup> But this is far from the full picture. Marx also cites Ure regarding the *threat* of wage reductions in cotton spinning inducing the operatives to “combine to pay the expenses of sending their unemployed comrades away to America. . . . The *trade-unions* are, in fact, bound by their articles to pay certain sums to their idle members . . . to prevent them volunteering to work at under-wages from necessity.” Moreover, the apparent maintenance of the wage in

<sup>16</sup> As for agricultural earnings: “It is demonstrated most strikingly in *agriculture* (in England) that with an increase in the productive power of labour the average wage not only does not rise, but falls. On the average, the condition of the agricultural labourers in England has deteriorated in the same ratio as agriculture has been improved” (MECW 34: 45). Marx also refers to the constant transfer to the towns of “the surplus population of the countryside” (101; also 69).

<sup>17</sup> Marx does not question Ure’s observation that wages in the mechanical factory were *high* because “they form a *small part of the value of the manufactured article*” (MECW 34: 39).

fact reflected increased intensity of work (each man now made responsible for a larger mule-jenny with an increased number of spindles). As Ure points out, it was quite consistent that “those employed would prosper, but the combined body would be impoverished.” Moreover, while the operative did tend to gain somewhat from productivity increase (40),<sup>18</sup> there is a further qualification: “Mr. Ure himself indicates that the increase in the productivity of the mule is accompanied by an increase in the number of children employed, children the spinner has to pay, and thus *the apparent increase in his wage, which may be shown by comparative tables, is reduced to nothing, and probably turns into a negative quantity*” (emphasis added).<sup>19</sup>

On balance then, as far as concerns the cotton industry, the “probable” downward trend in the real wage – notwithstanding data suggesting an increase – is attributed by Marx to increasing organic composition *not adequately compensated for by the reabsorption effects of capital accumulation*.<sup>20</sup> But, as we have shown in this section, the experience of the cotton industry is unrepresentative, for here there occurs an *absolute* reduction in the demand for adult labor, and therefore cannot be used to prove a *general* decline in real wages. Unfortunately, this is precisely what Marx does in *Capital* (see Chapter 3, pp. 89–90).

#### D. Labor Supply: Population Growth and the “Reserve Army”

Our primary concern here is population growth and the so-called “Reserve Army” as sources of increased labor supply to satisfy the expanding demand for labor characterizing capitalist development as a whole – if not in particular sectors – outlined in Section C. Before proceeding to substance we note that various supplementary sources are also allowed for. Consider a comment on the Ricardian analysis according to which “machinery does not deprive the labourers of bread,” as shown by the fact that after a shock . . . machinery once again employs more people than were employed before it was introduced – and therefore once again increases the number of ‘productive labourers’” (MECW 31: 128). Now Marx accepts all this: “This is in fact what happens.” But, in elaborating his position, the net increase in the labor force is said to derive from transfers from the unproductive sector into

<sup>18</sup> Marx cites Ure to the effect that the rate of pay decreases per unit of output generated by the spinning machine, but not in proportion to the higher productive power (MECW 34: 40). He himself adds that “[i]t is possible for wages to stand, e.g. higher in England than on the Continent, and yet be lower *relatively*, in proportion to the productivity of labour.”

<sup>19</sup> See also the further citation from Ure on the spinner’s obligation to pay something out of higher earnings for “*additional juvenile aid*” (MECW 34: 41).

<sup>20</sup> Marx objected to Ure’s allegedly apologetic attempt – despite all his concessions – to “prove that the system is favourable to the working class”: “Ure’s grounds for consoling the factory workers are in fact that the agricultural workers of *large-scale agriculture*, which originates from the same system, are still worse off; that the children who work in the mines and in industries which have not yet developed to the stage of the mechanical workshop are still worse off; and particularly that workers in branches which have been *ruined by machinery* or have to compete with it, or into which machinery throws its displaced surplus workers, are still worse off than the workers employed *directly* in the mechanical workshop” (MECW 34: 41).

the proletariat rather than from population increase as such: “And so in spite of the growing productivity of labour the labouring population could constantly grow not in proportion to the product, which grows with it and faster than it, but proportionately [to the total population], if, for example, capital simultaneously becomes concentrated, and therefore former components of the unproductive classes fall into the ranks of the proletariat.”<sup>21</sup> This passage is consistent with an unchanged total population. There is too increase in the participation rate, but this issue we postpone for the moment (see below, p. 378).

The significance of the absolute magnitude of the working population emerges very clearly in the discussion of surplus value: “The *amount of surplus value* evidently depends not only on the surplus value performed by an individual worker above and beyond the necessary labour time; it depends just as much on the number of workers employed simultaneously by capital, or the number of simultaneous working days it makes use of, each of these = necessary labour time + surplus labour time” (MECW 30: 185).<sup>22</sup> One source of increase in the workforce is *natural population growth*: “the amount of surplus value – its total amount – will depend on the number of labour capacities available and present in the market, hence on the magnitude of the working population and the proportion in which this population grows. Hence, the natural growth of population, and, therefore, the increase of the number of labour capacities present in the market, is a *productive power of capital*, since it provides the basis for the growth in the absolute amount of surplus value (i.e. of surplus labour)” (187–8). In some contexts, we encounter “natural” rate of population growth quite generally, independently that is of socio-economic organization, as in the reference to that part of “surplus labour time, which even without the existence of capital, must constantly be performed by society, in order to have at its disposal, so to speak, a fund for development, which the very increase of population makes necessary” (412).<sup>23</sup> Marx notes the possibility that “variable and constant capital can grow in equal degree with the natural, annual increase in population while the productivity of labour remains the same. In this case . . . capital

<sup>21</sup> Marx goes on to allow that a “small part of the latter rises into the middle class.”

<sup>22</sup> As far as concerns the reductions in “necessary labour time” due to machinery, Marx identified the work day and total working population: “The ratio of the part of the individual working day . . . which constitutes *surplus labour* to the part which consists of necessary labour time is modified by the development of the productive forces, so that the necessary labour is restricted to an ever smaller fractional part. But the same is then true for the population. A working population of, say, 6 millions can be considered as one working day of  $6 \times 12$ , i.e. 72 million hours of labour; so that *the same laws* are applicable here” (MECW 34: 16). On this identification, see Chapter 8, p. 247.

<sup>23</sup> For references to the “rapid development of population” 1797–1815, and also to the period 1780–1815 “when the population suddenly grows significantly . . .,” see MECW 31: 362, 367. No explanation is here offered, but see below, p. 381. At one place Marx does, however, assert as a general proposition that a “high level of productive power of labour, of natural origin” – referring to “the natural fertility of the soil, the waters, etc.” – “is connected with a rapid increase in the population – in labour capacities – and therefore in the material out of which the surplus value is cut” (MECW 34: 94).

will accumulate in volume and in value” (MECW 32: 166). The notion is implicit in statements to the effect that population growth is a free good from the perspective of the capitalist: “The natural growth of population is one of the results of reproduction; it is firstly itself accumulation (of human beings) and secondly the prerequisite of the process of accumulation (within certain limits). It costs the capitalist nothing” (MECW 34: 323).<sup>24</sup>

Now we must be cautious since our concern is with advanced capitalism characterised by adoption of “machinery” – capital conversion – and not the manufacturing system where demand for labor rises proportionately with accumulation and productivity increase reflects organizational change rather than labor-displacing technical change proper. Certain of Marx’s comments on population increase apply to some extent to the simpler system. Thus, he was troubled by the cause-effect direction in this context, the fact that while “the population must grow, to allow the amount of surplus value, hence the total capital, to grow under *the given conditions* . . . it is presupposed that capital has already grown so that population may grow” (MECW 30: 189; emphasis added). This apparent *vicious circle* he adds “should be left open at such at this point and not explained.” Yet we do have an elaboration, and it is one that follows the orthodox canonical practice of assuming *a commodity wage exceeding the subsistence rate* in the standard sense of this term. The analysis of capitalist production, is indeed said to *require* this assumption of above-subsistence wages: “If one assumes that the average wage is sufficient not only for the preservation of the working population but for its constant growth, in whatever proportion, an increasing working population is given in advance for growing capital, while a growth of surplus labour, hence also an increase of capital through the growth of population, is simultaneously given. In analysing capitalist production one must actually proceed from this assumption; for it implies constant increase in surplus value, i.e., in capital.”

Marx attributed this perspective to Adam Smith: “Of course it would be of no use to have the fund ‘*to purchase or command*’ a ‘much greater quantity of labour’ than in the previous year unless a greater quantity of labour was on the market. . . . Adam Smith knows, however, that an increasing quantity of labour will be available” (MECW 31: 155). He was right to do so (see Hollander 1973: 156–63), but he also might have appealed to Ricardo or Malthus. The passage conveniently lists various other sources of increased labor supply to accommodate accumulation: “Partly [due to] the annual increase of the population (though this is supposed to be provided for in the old wages), partly unemployed paupers, or half-employed labourers, etc. Then the huge numbers of unproductive labourers, part of whom can be transformed into *productive* labourers by a different way of using the surplus produce. Finally the same number of labourers can perform a *greater quantity of labour*” (155–6).

<sup>24</sup> Similarly, population increase is, like “scientific power . . . a further productive force which costs [the capitalist] nothing” (MECW 34: 18).

Another formulation of the process of capital accumulation sets out by assuming, "to simplify the question," *unchanged* labor productivity, that is to say a "given organic composition of capital, since the mode of production remains unaltered and also the proportional value of both parts [constant and variable capital]" (MECW 32: 109). Here Marx lists various sources of increased labor supply including *population growth stimulated by sufficiently high real wages*; and again here too such growth is said to be "a necessary condition" for accumulation, in contrast to extension of the workday: "... a portion of the surplus value (and the corresponding surplus produce in the form of means of subsistence) has to be transformed into variable capital, that is to say, new labour has to be bought with it. This is only possible if the number of labourers grows or if the labour time during which they work, is prolonged... [which] cannot be regarded as a method of accumulation which can be continuously used... If accumulation is to be a steady, continuous process, then [the] absolute growth in population – although it may be decreasing in relation to the capital employed – is a necessary condition" (109–10). It is also allowed that "[t]he labouring population can increase, when previously unproductive labourers are turned into productive ones, or sections of the population who did not work previously, such as women and children, or paupers, are drawn into the production process" (110). But these supplements did not alter the conclusion that an "increasing population appears to be the basis of accumulation as a continuous process," and this, he spells out, "presupposes an average wage which permits not only reproduction of the labouring population but also its constant growth" (emphasis added), in short a wage exceeding the subsistence level.

But what if allowance is made for machinery? Some passages may suggest that net population growth is then no longer a *necessary* feature of capitalist expansion: "As a result of the introduction of machinery, a mass of workers is constantly being thrown out of employment, [a section of] the population is thus made redundant; the surplus produce therefore finds fresh labour for which it can be exchanged without any increase in population, and without any need to extend the absolute labour time" (377). Similarly, the following passage which concerns rising  $c/v$  refers to increasing labor redundancy – and also emphasizes expansion of the workday as source of increasing labour supply – possibly playing down increase in "the number of workers": "The more developed capitalist production is, the *smaller is the part of the surplus produce* which is reconverted into variable capital, and the greater is the part of the population which is constantly made redundant by the production process. The greater too is the *quantity of labour* which is consumed without increasing the *number of workers*. The supply of labour, be it noted, depends... not only on the *number of workers* but on the *length of the working day*" (MECW 34: 324).<sup>25</sup> (Marx added that "large-scale industry, while

<sup>25</sup> Marx here refers to evidence given by Lauderdale before the House of Lords as reported in Torrens 1815, to the effect that "the *supply of labour* can rise without any *increase* in the number of workers" (MECW 34: 317).

on the one hand it constantly creates an artificial redundancy of population, on the other hand creates a situation of the working class in which it reproduces itself on a mass scale as a *tas de misérables*,” a reference to immiseration that is not explicitly related to absolute population growth.) But since in all this Marx was focusing on sources of an expanding labor force other than population growth, it is not clear that the latter was dismissed as an *unnecessary* condition.<sup>26</sup> In any event, *we have also found in section C the presumption that secularly expanding labor demand – incorporating the full effects on employment of labor-saving technical change – is satisfied in part by population growth.* We shall review that evidence.

We recall in particular that where reemployment falls short of displacement – a temporary situation considering the likelihood of *expansion* in labor demand in the longer run – the pool of unemployed will be fed not only by the displaced workers themselves but by a fraction of the “new entrants” into the work force whose entry is now “debarred”; and that where full reabsorption is countenanced it is not the displaced individuals who benefit but their *remplaçants* or young entrants into the work force (above, pp. 362–3, 364–5). And that net population growth is taken for granted is apparent, for reabsorption due to capital accumulation affects “the workers who were dismissed and pauperised, or at least *that part of the population increase which replaces them . . .*” (above, pp. 365–6; emphasis added).

It is also conspicuous that even where labor demand remains steady or increases, *there yet occurs an inflow into a pool of unemployed* – those individuals who have been displaced “become paupers” or at best “find employment in branches of industry where a lower grade of labour is employed” (cited above, p. 363). That there is a “mass of semi-employed or completely unemployed . . . *for ever crawling around at the bottom of [capitalist] society*” (MECW 32: 186; emphasis added) should therefore be understood as holding good despite long-run expansion of employment opportunities.

Implied by all this is a *bifurcated or dual work force* – “while one section of the workers starves, another section may be better fed and clothed” (187) – since the pool of unemployed may be added to by displacement even when the “new entrants” find no obstacles to absorption into the work force at *relatively* high wages. After all, “it is not so much the displaced labour as, rather, the new supply of labour – that part of the *growing* population which was to replace it – which, by the new accumulations, gets for itself new fields of employment opened” (199; emphasis added.) Similarly: “It is in the nature of capital to overwork one section of the working population while it turns another into paupers” (438); “[c]apitalist production provides for unexpected contingencies by overworking one section of the labouring population and keeping the other *in petto*, as a reserve army consisting of partially or entirely pauperised people” (110); and capitalist development “results in *one part* of the population being made redundant . . .” (439; emphasis added).

<sup>26</sup> After all, extensions of “absolute labour time” are also said to be *unnecessary* in our earlier passage (MECW 32: 377; above, p. 371), and yet such extensions are emphasized.

This bifurcation, however, should not be understood as watertight. For example, we read regarding overtime and overwork: “In this way an artificial supply of labour is created, with the result that the supply of those rendered unemployed by this overworking forces down wages altogether (and also those of the employed)” (MECW 33: 386; see also 34: 23). This corresponds to the “general law” of 1847 according to which the wage is “determined” not by those who are employed but by those unemployed (Chapter 7, p. 218).

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The function accorded the “reserve army” we have just noted, is to allow capitalists to meet “unexpected contingencies.” Capitalist requirements for labor at *cyclical peaks* provides the prime instance – indeed, the pool may then be entirely emptied: “The constant artificial production of a surplus population, which disappears only in times of feverish prosperity, is one of the necessary conditions of production of modern industry” (MECW 32: 186). But we must be cautious. The *secular* expansion in labor demand upon which Marx also insisted, is not met by that pool but rather by the *continuous* inflow into the active work force of the *replacements* of those displaced and by *net* population growth. It is easy enough to fall into error on this point as we shall now see.

Consider one of the discussions of *net expansion of employment* occurring in the course of capital accumulation. “[T]he *accumulation of capital*, is a condition for the development of the capitalist mode of production, of the scale of production, of the growing amount of labour which is exploited, and of the *material conditions* for the development of the productive powers of social labour” (MECW 34: 186). Now the requisite labor supply is said to be drawn *both* from labor displaced by technical progress and net population growth: “. . . the capitalist mode of production continuously produces a *relative surplus population*, i.e. it *sets free, renders disposable* a definite number of labour capacities, ejects them from the different spheres of production as superfluous labour power. Capitalist accumulation, therefore is not conditioned by the purely natural progress of population; it produces a larger or smaller *quantity of disposable* labour capacities for the already *available new capital* and the capital which is constantly *being formed*.” Similarly, there is reference to “a continuous expulsion of workers, a releasing of workers, a rendering of them available, with the result that the increasing number of workers attracted by capital is created by an increasing mass of expelled, released workers; a circumstance through which accumulation itself *holds in reserve* and continuously produces an available surplus population – living material for a still greater accumulation of capital – over and above the natural increase of population” (206; emphasis added).<sup>27</sup> Now it is easy enough to think of labor requirements as deriving from the *pool of unemployed* (in addition to population growth). But that this is not what Marx

<sup>27</sup> Similarly, we have encountered Marx’s insistence that “[m]achinery always creates a relative surplus population, a reserve army of workers, which greatly increases the power of capital” (MECW 32: 180; above, p. 363).

had in mind is suggested by his repeated insistence on continuous reabsorption as applying specifically to the *replacements* in the new generation of those actually dismissed and rendered unemployed, and not to the latter who remain in the pool until recalled to service exceptional requirements at cyclical peaks. The concept of a “reserve” holds good only of those displaced who reemerge periodically; on Marx’s own terms it is inappropriate if applied to the secular trend where absorption into the work force relates to the new generation of laborers.

An assertion that “the mass of the *population made redundant* or the *surplus population* constantly created by the capitalist mode of production itself increases with the development of the productive forces associated with accumulation” (230), renders it all the more important to keep in mind Marx’s own insistence on net population growth both in the passages just given and elsewhere. In fact, all major accumulation programs – financed from the higher purchasing power generated by productivity increase – depend on *net* population growth: “the increased population – *apart from the artificially created surplus population* – is already there to absorb that part of the revenue which is transformed into variable capital” (MECW 32: 189; emphasis added).<sup>28</sup> Or again: “wage labour . . . will be reproduced on an ever growing scale, growing absolutely, even though decreasing relatively to the growing total capital which employs it” (197). Those passages which seemed to play down population growth (above, pp. 371–2) must be appropriately qualified by recalling their specific context and purpose.

Noteworthy then, in summary, are the following features of Marx’s analysis: First, a more or less *permanent* pool of unemployed – added to by labor-displacing technical change – a category entailing what today would be termed long-term or structural unemployment, that may be *temporarily* exhausted at cyclical peaks. Second, secular “reabsorption” of labor entailing the *remplaçants* or substitutes of the individuals displaced by technical change out of the *new generation* of

<sup>28</sup> One formulation relating to population growth – it occurs in an account of Barton 1817 – is particularly difficult to grasp.

The accumulation of capital by itself raises the demand for labour only slowly, because each increase in this demand, if [labour is] scarce, causes [the price] of labour to rise rapidly and brings about a fall of profit which is ten times greater than the rise in wages. Accumulation can have a rapid effect on the demand for labour only if *accumulation was preceded by a large increase in the labouring population*, and wages are therefore very low so that even a rise of wages still leaves them low because the demand mainly absorbs unemployed workers rather than competing for those fully employed. (MECW 32: 206)

Marx accepts this, but only “*cum grano salis*, correct as far as fully developed capitalist production is concerned.” What he intended by the qualification is unclear. But taken at face value the implication is that population increase first enters the pool of unemployed and is then absorbed into the work force. This notion can be reconciled with the notion recorded in our text that “the increased population . . . is already there. . . .” The difficulty is that it assumes the necessity for an *initial fall in the real-wage* as stimulus for increased labor demand, whereas the impression throughout had been that ongoing population growth occurs even with no such reduction provided the real wage exceeds subsistence.



wage workers – not those workers actually dismissed – coupled with net population growth as an essential source of labor supply to satisfy ongoing capital accumulation.

### E. The Mechanics of Population Growth and the Falling Wage Trend

Consider Marx's standard assumption in the discussion of surplus value that "the worker sells [the employer] labour capacity at its *value*;" that is "he receives an average daily wage which enables him to continue living in his customary manner as a worker, hence that he is in the same normal state of health the day afterwards as the day before (leaving aside the degeneration brought about naturally through age or through the kind of work he does); that his labour capacity is reproduced or preserved, hence can be valorised again in the same way as on the previous day, over a definite normal period of time, e.g. 20 years" (MECW 30: 183).<sup>29</sup> This assumption allows only for the *reproduction* of labor power, which taken literally, precludes analysis of a growing economy. But Marx intended specifically to set aside *fluctuations* around the average (see note 29), not to preclude a *systematic* excess allowing for population growth. Indeed, we have encountered the explicit acceptance of the orthodox position in this regard – that "[i]n analysing capitalist production, one must actually proceed from this assumption," referring to *above-subsistence wages* (189; above, p. 370). And although Marx disclaims any intention to elaborate – "we do not yet need to investigate how capitalist production itself contributes to the growth of population" – yet he proceeds to provide further insight into the mechanism envisaged. Apart from increase in the participation rate – the entry of previously independent craftsmen and of women and children into the labor force – "[c]apital also produces an absolute increase in the number of people, above all of the working class. The population can only grow absolutely, leaving aside the operations we have just mentioned, if not only more children are born but more children grow up, can be nourished until they are old enough to work" (302). And a *constant commodity wage* adequate to assure such provision was compatible with a reduced *value* of the wage considering the increase in productivity characterizing capitalist activity: "The development of the productive forces under the régime of capital increases the quantity of means of subsistence annually produced and cheapens them to such an extent that the *average wage* can be calculated to allow

<sup>29</sup> See also MECW 30: 194–5 on the presupposition throughout the discussion of the generation of surplus value "that the worker sells his labour capacity at its *value*, i.e. that the *price* of labour, or the wage, corresponds to the *value* of the labour capacity. As we have repeatedly stated, this assumption underlies the whole investigation. The question of how far the wage itself can rise above a fall below its value belongs in the chapter on wages. . . ."

As an aside on the workday, Marx notes that "[i]f . . . a 13-hour working day replaces one of 12 hours, this must be estimated as the average working day of a labour capacity which is used up over, e.g. 15 years, whereas in the other case the average working day is that of a labour capacity which is used up in 20 years" (194).

the reproduction of the workers on a larger scale, even though the wage itself falls in value, represents a smaller quantity of materialized labour time.”<sup>30</sup> The argument is in line with the *Grundrisse* (see Chapter 8.D).

Marx does not tell us by what mechanism the “average wage can be calculated to allow the reproduction of the workers on a larger scale.” The terminology might be said to imply a one-sided *diktat* by monoposonistic employers; but that the competitive labor market was intended cannot be ruled out. But if the real wage, however determined, suffices to encourage the appropriate growth rate of population it can surely no longer be asserted that population growth “costs the capitalist nothing” (above, p. 370). Beyond this there is the apparently severe problem that in some contexts Marx formally rejected the orthodox (Ricardo-Malthus) linkage of population growth to capital accumulation. Consider a reaction to the key passage from Ricardo on this matter: “Notwithstanding the tendency of wages to conform to their natural rate, their market rate may, in an improving society, for an indefinite period, be constantly above it; for no sooner may the impulse, which an increased capital gives to a new demand for labour be obeyed, than another increase of capital may produce the same effect; and thus, if the increase of capital be gradual and constant, the demand for labour may give a continued stimulus to an increase of people” [1951–73 I: 94–5] (cited MECW 32: 169). Marx objected: “From the capitalist standpoint, everything is seen upside down. The number of the labouring population and the degree of the productivity of labour determine both the reproduction of capital and the reproduction of the population. Here, on the contrary, it appears that *capital* determines the population.”

The solution is apparent. Marx did indeed accept that “[i]n analysing capitalist production, one must actually proceed from [the] assumption” of a commodity wage *exceeding* subsistence, and that capital “produces an absolute increase in the number of people,” but he rejected the *apologetic interpretation* of the phenomenon ascribed to orthodoxy. Essentially, while the capital growth rate determines the growth rate of population, the potential for capital accumulation lies in the magnitude of the surplus – unpaid labor time of course – which surplus depends specifically on *labor’s* productivity. He himself notes that Ricardo sometimes got this crucial detail right, as when he “admitted” that “the accumulation of capital . . . must in all cases depend on the productive powers of labour” (Ricardo 1951–73 I: 98; cited 170). The correct perspective for Marx, one that refuses to attribute productivity and the potential for accumulation – and thus growth of population – to “capital,” is elaborated further; the apologetic assertion “[t]hat labour depends on the growth of capital signifies nothing more than, on the one hand, the tautology that the increase in the means of subsistence and the means

<sup>30</sup> Marx adds: “The wage level may even sink, if only the magnitude of the wage’s level does not fall in exactly the same proportion as the productive power of labour rises” (MECW 30: 302). This assertion is unclear, but *may* refer to an allowance for a fall in the *commodity* wage, provided that its lower level still allows some scope to accommodate ongoing population increase.

of employment of the population depends on the productivity of the population's own labour and, secondly, expressed in capitalist terms, that it *depends on the fact* that the population's own product confronts them as *alien property* and that as a consequence, their own productivity confronts them as the *productivity* of the things which they create" (379–80). The bourgeois perspective in fact led to the ludicrous implication that "the worker must appropriate the smallest possible part of his product in order that the largest possible part may confront him as *capital*; he must surrender as much as possible to the capitalist *gratis*, in order that the latter's means of purchasing his labour anew – with what has been taken away from the worker without compensation – may increase as much as possible" (380; also MECW 34: 323–4).

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We have seen that absolute population growth is represented by Marx as responding to a real wage high enough to assure "not only [that] more children are born but [that] more children grow up . . ." (above, p. 375). The emphasis is on a reduced mortality rate. Marx even allows that "[i]f too small a part [of surplus labor] is embodied in luxuries then the accumulation of capital . . . will proceed more rapidly than increase in population, and the rate of profit will fall . . ." (MECW 32: 381), in which case the wage trend would be upwards. But this is certainly not the standard pattern envisaged; the trend is *downward* with labor supply growth exceeding that of labor demand. First, various social and industrial pressures encourage early marriage independently of the magnitude of the commodity wage as such (even, in principle, consistently with a *reduced* wage): ". . . the life-situation in which capital places the working class, its conglomeration, its deprivation of all the other pleasures of life, the utter impossibility of attaining a higher social standing and maintaining a certain decorum, the vacuity of their lives, the mixing of the sexes in the workshop, the isolation of the worker himself, all these things impel marriage at an early age" (MECW 30: 302).<sup>31</sup> In fact, the social conditions in question are such that "reproduction" *accelerates* as the real wage falls, *poverty breeding population*: "The wretched human being reproduces more rapidly than the *travailleur dans ses conditions naturelles* – because the conditions for his reproduction are of infinitesimal size. Poverty *pullulates*; just as in the animal kingdom, the smaller the class the more massive its reproduction" (MECW 34: 165). This is a theme repeated in *Capital*, as we have seen above (Chapter 3, p. 94).

Beyond all this, a deskilling process encourages the birth rate – again consistently with a *declining* commodity wage: "The curtailment and practically the abolition of the necessary period of apprenticeship, the early age at which children can themselves step forward as producers, the shortening therefore of the period during which they must be provided for, *increases the stimulus to a more rapid production*"

<sup>31</sup> See also a discussion of Barton on the dependency of population on employment opportunities independently of the wage (MECW 32: 205). It is unclear how far Marx himself subscribes; he appears skeptical.

of human beings. If the average age of working-class generations declines, there is always available on the market a superfluous and constantly increasing mass of short-lived generations and that is all that capitalist production needs” (MECW 30: 302; emphasis added).

Here we have allusion to features of *absolute immiseration*, with increasing population, reflecting rising marriage and birth rates, playing a central role. A summary statement – following Colins 1857 – “that a country is the richer, the more proletarians it has, and that the growth of wealth is displayed by the increase of poverty,”<sup>32</sup> might be read not as alluding to a fall in the real wage but to an increase in the numbers subject to low wages; but elsewhere there is explicit reference to the “contradiction between the growing wealth of the English ‘nation’ and the “growing misery of the worker” (MECW 32: 394).

\* \* \*

At this point we revert to the participation rate that we earlier set aside (above, p. 369). The emphasis is on the *family* wage: “The population numbers working under capital as wage labourers or the number of labour capacities available on the market can grow without absolute growth in the total population or even in the working population alone. If for example members of working-class families, such as women and children, are pressed into capital’s service, and they were not in this position before, the number of wage labourers has increased . . . without any increase in the variable part of capital, that part which is exchanged for labour” (MECW 30: 189). This trend too is equivalent to a fall in the value of labor power in the sense of the real wage: “The family might receive the same wage from which they lived previously. But they would have to provide more labour for the same wage.” Beyond this, the work force may grow with entry of “independent handicraftsmen, allotment-holding peasants, and lastly small capitalists” – a process reflecting “the centralisation brought about by capitalist production” (190).

Yet, the fact remains that population increase *was* taken for granted as a feature of capitalist development even in this context, the higher participation rate and new entry into the capitalist sector represented as encouraging the net capital accumulation required to support population expansion: “This would at the same time produce an increase in surplus labour and surplus value and therefore potentially the increase in capital necessary to support the absolute growth of the population.”<sup>33</sup>

There is much else pointing to what in effect is the *endogenization* of population growth. For Marx repeats the argument of the *Grundrisse* (see Chapter 8, p. 249) that it is “as much the tendency of capital to enlarge the working population as

<sup>32</sup> Marx adds that “[o]n the other hand, *there is a relative growth* in the number of people not dependent on manual labour, and although the mass of workers grows, the population of the social strata they have to provide for materially through their labour grows in the same proportion (Colins, Sismondi, etc.)” (MECW 30: 302–3).

<sup>33</sup> As before, detailed discussion is left for consideration “under Accumulation.”

it is to posit a part of that population as a surplus population, = a population which is initially useless, until such time as capital can utilise it. (Surplus population and surplus capital.) It is as much the tendency of capital to render human labour superfluous, as to drive it on without limit. It must increase the number of simultaneous working days in order to increase the surplus; but equally, it must transcend it as necessary labour in order to posit it as surplus labour” (MECW 34: 16, from MECW 28: 325–6). Marx adds: “All the contractions expressed, but not understood in modern population theory are, therefore, already latent here” (17). And he makes the point that “*Ricardo*, in speaking of machinery, correctly states that capital *makes a redundant population*,” but adds his own gloss: “It has the tendency both to increase the population absolutely and to posit an ever-increasing part of the latter as surplus population” (18).

Before he explains the mechanism whereby capital – more specifically “machinery” – generates population growth Marx, again drawing from the *Grundrisse*, appends a remark relating to the reverse dependency of technical progress on population size: “And indeed we see that the reduction in necessary labour presupposes cooperation, hence also the materials of labour, on a mass scale, and that the population is thus itself a means of positing surplus population, just as on the other hand – at a given rate of surplus labour – it sets a limit to the amount of labour that can be exploited simultaneously” (16; MECW 28: 326–7). Again: “the increase in population increases the productive power of labour, by making possible division of labour, cooperation, etc. Increase in population is a *natural power* of labour for which nothing is paid” (17).<sup>34</sup>

The relationship is thus a mutual one – population size encourages technical change, and technical change encourages growth of population. As for the latter relationship, *this works by way of reduction in the value of labor power*, enducing a higher demand for labor: “. . . relative surplus value directly increases the *rate of gratis labour*, and lessens the absolute wage, thus making it possible to exploit more workers at the same time with the same variable capital at the increased rate of exploitation. It makes it possible to draw in more *labour capacities* with the same wage payment (also through the introduction of female and child labour) and thus has an impact on the population absolutely . . .” (10). “The very process by which necessary labour is reduced makes it possible to set to work new necessary labour; i.e. the *production of workers* becomes cheaper, more workers can be produced in the same time in the measure to which the proportion of necessary labour time becomes smaller, or the time required for the *production of the living labour capacities* is reduced” (17).

As a final instance of endogenized population growth we refer to a striking passage which asserts not only that “machines make possible the absolute growth of population,” but that the capital-conversion process itself is encouraged by the

<sup>34</sup> The passage is preceded by the standard parallel with the division of the “single working day” which the capitalist seeks to lengthen while shortening the “necessary” segment (see note 22).

extent of mechanization already achieved. Thus in contrast with “[n]atural agents [which] add nothing to *value*. . . machines invariably add *their own value* to the already existing value,” and this in two ways: “1) in so far as their existence facilitates the further transformation of circulating into fixed capital, and makes it possible to carry on this transformation on an ever growing scale, they increase not only riches but also the *value* which is added by past labour to the product of the annual labour; 2) since machines make possible the absolute growth of population and with it the growth of the mass of the annual labour, they increase the value of the annual product in this second way” (MECW 32: 181).<sup>35</sup>

## F. Summary and Conclusion

The labor-market trends outlined in this chapter are complex, with population growth playing a central role. We are told that population increase – over and above that segment acting as *remplaçants* for those displaced by new technology – is “already there” to meet expanding labor demand (above, p. 374). Such ongoing population growth requires a real wage exceeding “subsistence” in the standard sense of the term (p. 371), a circumstance reinforcing the notion of a bifurcated work force, the active segment enjoying *relatively* “high” wages (p. 372). But growth is characterized, in fact, by a downward course of commodity wages (p. 377). Considering the expansion in labor demand, the falling wage must, one supposes, be attributed to a yet faster growth rate of labor supply. Now, strictly speaking, to look at the matter in these terms implies mutually *independent* determinants of labor demand and supply conditions. There are indeed frequent references to “natural” population growth (e.g., pp. 370, 373). But also to be taken into account is an element of *endogeneity*, population growth actually induced by the use of machinery (pp. 378–80). There are also inflows into the work force from the unproductive sector and a higher participation rate, though population growth is even here taken for granted, considering Marx’s observation that the increased employment of women and children, by raising the surplus, generates net accumulation and the wherewithal “to support the absolute growth of the population” (p. 378). We recall also the references to “the life-situation in which capital places the working class, its conglomeration . . .” and related degrading circumstances which “impel marriage at an early age” (p. 377), to which is attributed particularly rapid population growth. In brief, once downward wage pressure sets in, “the wretched human being reproduces more rapidly.”

In rejecting the apologetic notion that labor is *beholden* to capital for wages and employment (pp. 376–7), Marx allows sarcastically that “it can happen that, if the

<sup>35</sup> The ellipses contain the qualification that “[n]atural agents, indeed, add nothing to *value*, as long as there are no circumstances in which they give rise to the creation of rent” (MECW 32: 181). Presumably this refers to the case of Absolute Rent which assures that agricultural prices remain at values (see Chapter 11.C).

capitalist has made the worker work a great deal for nothing, he may then, in exchange for what he has received for nothing, allow the worker to do a little less work for nothing” (MECW 32: 380). But since a reduction in hours – in effect a real-wage increase – “prevents the achievement of what is aimed at, namely, *accumulation of capital as rapidly as possible*, the worker must live in such circumstances that this reduction in the amount of labour he performs for nothing is in turn counteracted by a growth in the working population, either relatively as a result of the use of machinery, or absolutely as a result of early marriage.”

The first possibility is apparently an implicit allusion to wage-induced substitution against labor – in effect, increasing the available labor supply – a matter which is spelled out explicitly against Malthus elsewhere in the document: “. . . the whole absurd theory of population was . . . overthrown, in particular also the claptrap of the vulgar economists, that the workers must strive to keep their multiplication below the standard of the accumulation of capital. The opposite follows from Barton’s and Ricardo’s presentation, namely that to keep down the labouring population, diminishing the supply of labour, and, consequently, raising its price, would only accelerate the application of machinery, the conversion of circulating into fixed capital, and hence, make the population artificially ‘redundant’” (MECW 32: 202). The second possibility alludes to a higher marriage rate encouraged by the posited increase in the real wage. In either event, our passage is unconvincing in asserting that a real-wage increase will be wholly undermined by higher population growth; for if the capitalists’ aim is “*accumulation of capital as rapidly as possible*” there is *a priori* no reason why the increase in wages resulting therefrom cannot be to some extent maintained. On the other hand, since the emphasis throughout is not upon *upward* pressure on the wage exerted by net accumulation but upon *downward* pressure, the matter is academic.

Late eighteenth-century British experience illustrated several of the features discussed above, in particular “amazing” population growth and an “extraordinary” rate of accumulation itself stimulated by the adoption of machinery to such an extent that aggregate labor demand increased continuously over the period. The emphasis is on the *positive* effect on employment of machinery – here expanding world trade is accorded a major role – notwithstanding the displacements generated in the first instance. Yet, despite the expansion of labor demand “wages fell continuously”:

During the second half of the 18th century . . . wages fell continuously, population grew amazingly – and [so did] machinery. But it was precisely the machinery which on the one hand made existing population redundant, thus reducing wages, and on the other hand, as a result of the rapid development of the world market, absorbed the population again, made it redundant once more and absorbed it again; while at the same time, it speeded up the accumulation of capital to an extraordinary extent, and increased the *amount* of variable capital, although variable capital fell relatively, both compared with the total value of the product and also compared with the number of workers it employed (206–7).





PART FIVE

TOPICS IN APPLICATION



## THIRTEEN

### Economic Organization and the Equality Issue

#### A. Introduction

My first concern in this chapter is Marx's treatment of distribution within the general framework of "Historical Materialism."<sup>1</sup> After a brief review of his rejection of egalitarian schemes based on "justice" or "morality" (Section B.1), I proceed to his objections on grounds of the impossibility of divorcing distribution from conditions of production and the related exchange system. I demonstrate first that growing *inequality* is accorded a strategic and essential role in the evolution of a capitalist-exchange economy (B.2). That the pattern of distribution could not be altered unilaterally without damaging consequences for production, is then shown to govern his hostility to schemes of *Communist* organization entailing wages paid according to "equal right" and "the undiminished proceeds of labour" (B.3). In brief, Marx's Communism in its first phase (sometimes referred to as the Socialist phase), when there remains a residual influence exerted by the preceding institution,<sup>2</sup> would recognize the essential *inequality* of labor on grounds of efficiency and growth; the celebrated dictum "from each according to his abilities to each according to his needs" applied only in a utopian phase.

A high degree of respect for the allocative role of markets is then brought into the picture to explain Marx's rejection of contemporary rent-confiscation and price-control schemes (C). I seek in this context to understand the championship of a full-fledged Control system – social ownership of the means of production, central planning, abolition of markets for labor and goods, and consumer rationing – notwithstanding such respect. Essentially, the system would be simplified to the point that a sophisticated allocation mechanism would not be required.

<sup>1</sup> In this chapter, I restrict the account of Engels to what is required for better comprehension of Marx. Engels's *Anti-Dühring* proves particularly important from this perspective. A full account is provided in Hollander 2004.

<sup>2</sup> The *Communist Manifesto* is shown below to apply to an earlier period involving communist *political* control but allowance for a residual private sector. The Socialist phase, by contrast, entails full-fledged public ownership and central control.

In Section D, I draw some unexpected parallels entailing common ground on the approach to distribution and market process between Marx and the modern “conservative” or “classical liberal” writers Mises and Hayek, confirming a perspective spelled out to my knowledge for the first time by Desai, particularly his position that “both Hayek and Marx had no faith in social engineering, any policy tinkering to save or improve the dynamic unintended outcome of the economic system” (1997: 3). An Appendix touches on aspects of Mises’s reading of Marx on these and related matters.

A concluding overview focuses on the cautious *evolutionary* nature of Marx’s perspective: the development *within* Capitalism of forces preparing the ground for a political take-over by the proletariat, preeminently nationalization of industry; the period of transition to full Communism with continued though diminishing reliance on a capitalist sector, to which period the *Communist Manifesto* applied; and the *two* phases of Communism the first of which entailing a measure of inequality reflected in differential wage rates.

## B. Objections to Egalitarian Reform

### 1. The Rejection of Claims Based on Justice

Marx insisted that his case for socialism did not turn on the immorality or inequity of capitalist wage-setting in particular or the pattern of distribution in general (Baumol 2001: 231).<sup>3</sup> Rather to the contrary, “we must assume throughout that the wages being paid are *economically* just, i.e. determined by the general laws of political economy” (*Grundrisse* 1857–58; MECW 28: 354). Or again: “is [present-day distribution] not, in fact, the only ‘fair’ distribution on the basis of the present-day mode of production?” (*Critique of the Gotha Programme* 1875; MECW 24: 84). In his manuscript notes (completed after January 1881) on Adolphe Wagner’s *Lehrbuch der politischen oekonomie* of 1879, Marx protests that he was falsely represented by Wagner as maintaining that profit was “a *deduction from*, or *robbery of*, the worker,” whereas his position was the precise opposite:

On the contrary, I depict the capitalist as the necessary functionary of capitalist production and demonstrate at great length that he not only “deducts” or “robs” but enforces

<sup>3</sup> John Davis has brought to my attention debate over the status of moral standards in Marx’s analysis: whether post-capitalist moral standards can be used to evaluate capitalism (represented to some extent in the actual *proletarian* form of consciousness) consistently with the perspective on morals as reflecting the ruling mode of production. (See, for example, Tucker 1969 and Wood 1972 on the position that moral standards are determined uniquely in terms of the mode of production; and Husami 1978 for the alternative position.) Even if one accepts that reference to post-capitalist standards – such as that encapsulated in the rule “from each according to his abilities, to each according to his needs” – is almost certainly in the background as an *ultimate* ideal, this was not made the basis of the public case for socialism as will now become clear.

the *production of surplus value*, thus first helping to create what is to be deducted; what is more, I demonstrate in detail that even if *only equivalents* were exchanged in the exchange of commodities, the capitalist – as soon as he pays the worker the real value of his labour-power – would have every right, i.e. such right as corresponds to this mode of production, to *surplus-value* (MECW 24: 535).

The obscure man falsely attributes to me the view that “the *surplus-value* produced by the workers *alone* remains, in an *unwarranted manner*, in the hands of the capitalist entrepreneurs.” . . . In fact I say the exact opposite: that the production of commodities must necessarily become “capitalist” production of commodities at a certain point, and that according to the *law of value* governing it, the “surplus-value” rightfully belongs to the capitalist and not the worker (558).

And in *Capital I* itself, Marx referred to “a very cheap sort of sentimentally which declares [the] method of determining the value of labour-power, a method prescribed by the very nature of the case, to be a brutal method” (MECW 35: 183).

## 2. The Economic Role of Inequality

I turn now to the strictly economic objection to egalitarian reform outlined in *Poverty of Philosophy* (1847) and touched on in Chapter 7. There we found that Marx rejected Proudhon’s egalitarianism partly because it was based on a confusion of labor embodied with labor commanded: “All the ‘equalitarian’ consequences which M. Proudhon deduces from Ricardo’s doctrine are based on a fundamental error. He confounds the value of commodities measured by the quantity of labour embodied in them with the value of commodities measured by ‘*the value of labour*’” (MECW 6: 127, cited Chapter 7, p. 199; see also p. 209). The confusion in fact implied that *labor was the sole factor* – an error compounded by the further notion that labor was of uniform quality – and could also be seen in the invalid identification of production costs with wage costs.

Beyond this there is the principle of Historical Materialism – that “the mode of production” corresponding to each particular form of class antagonism governed the mode of exchange (including products and factors) rather than the reverse. Consider from this perspective the economic role of income inequality insisted on in reaction to Proudhon’s observation in 1846 that “with the progress of collective industry, every day’s individual labour produces a greater and greater product, and whereas therefore by a necessary consequence, the worker with the same wage ought to become richer every day, there actually exists estates in society which profit and others which decay” (cited 158).<sup>4</sup> Proudhon’s question “why was not the English worker of 1840 twenty-seven times as rich as the one of 1770” – assuming a corresponding productivity increase – implied a failure to appreciate the positive necessity in a class-organized private-property society of “classes which profited

<sup>4</sup> A copy with Marx’s handwritten corrections has “with the same wage” underlined, and “Nota” in the margin (editorial note, MECW 6: 158n).

and classes which decayed” – *the economic role of income inequality* – such decay or “dépérissement” being a condition for “the development of productive forces” and the corresponding “surplus left by labour”:

In raising such a question one would naturally be supposing that the English could have produced this wealth without the historical conditions in which it was produced, such as: private accumulation of capital, modern division of labour, automatic workshops, anarchical competition, the wage system – in short, everything that is based upon class antagonism. Now, these were precisely the necessary conditions of existence for the development of productive forces and of the surplus left by labour. Therefore, to obtain this development of productive forces and this surplus left by labour there had to be classes which profited and classes which decayed (159).<sup>5</sup>

Moreover, Proudhon’s model, designed to explain the source of surplus in terms of a “person society” (see Chapter 7, p. 210) missed the point entirely (152–6). The true “Prometheus” was *class* based; and any program of redistribution in the class-based society implied the undermining of productive capacity and the ability to produce a surplus: “What then, ultimately, is this Prometheus resuscitated by M. Proudhon? It is society, social relations based on class antagonism. These relations are not relations between individual and individual but between worker and capitalist, between farmer and landlord, etc. Wipe out these relations and you annihilate all society, and your Prometheus is nothing but a ghost without arms or legs; that is, without automatic workshops, without division of labour – in a word, without everything that you gave him to start with in order to make him obtain this surplus left by labour” (159). Of this consequence, Proudhon seemed unaware: “If then, in theory, it sufficed to interpret, as M. Proudhon does, the formula of the surplus left by labour in the equalitarian sense, without taking into account the actual conditions of production, it should suffice, in practice, to share out equally among the workers all the wealth at present acquired, without changing in any way the present conditions of production” – which was inconceivable.<sup>6</sup> In any event, “[s]uch a distribution,” Marx estimated, “would [certainly not assure a high degree of comfort to the individual participants,” an estimate often made to this day by modern conservative commentators.

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Marx’s criticisms of Bray’s proposed “equality of exchange” (see Chapter 7, p. 210), parallel the objections to Proudhon, though the tone, significantly, is far more friendly.<sup>7</sup> In essence, Marx reiterated that if an exchange mechanism is

<sup>5</sup> Marx implicitly assumes differential savings propensities between classes.

<sup>6</sup> In his “Wages,” at this same period, Marx had written of the “crazy relationship” between capital and labour, in the light of which “all Fourierist and other attempts at mediation” – an obvious allusion to redistribution measures – “appear in their true absurdity” (MECW 6:429).

<sup>7</sup> That the real challenge was perceived to be from Proudhon, the *socialist*, rather than from Bray the *bourgeois reformer* is apparent: “Mr. Bray . . . without us and in spite of us has managed to supplant M. Proudhon, except that Mr. Bray, far from claiming the last word on behalf of humanity, proposes merely measures which he thinks good for a period of transition between existing society and a community regime” (MECW 6: 142).

retained as an institutional device it cannot be arbitrarily interfered with. Thus to *impose* exchange according to labor contribution is shown to imply some of the worst features of contemporary society, namely “[o]verproduction, depreciation, excess of labour followed by unemployment, in short, economic relations such as we see in present-day society, minus the competition of labour” (MECW 6: 143). These consequences could only be avoided by a wholesale retreat from individual exchange by the imposition of legal restriction on the hours provided by each individual: “Thus, if all the members of society are supposed to be immediate workers, the exchange of equal quantities of hours of labour is possible only on condition that the number of hours to be spent on material production is agreed on beforehand. But such an agreement negates individual exchange.”<sup>8</sup> Marx here points out that a similar outcome followed within large-scale industry where each worker had little choice over the number of hours he provided: “It is in the nature of large-scale industry that working hours should be equal for all. What is today the result of capital and the competition of workers among themselves will be tomorrow, if you sever the relation between labour and capital” – as Bray proposed – “an actual agreement based upon the relation between the sum of productive forces and the sum of existing needs.”<sup>9</sup> But such an agreement is a condemnation of individual exchange, and we are back again at our first conclusion!

The general moral is that Bray – like so many honest bourgeois – failed to recognize *that the mode of production governed the mode of exchange* rather than the reverse. In the present case, individual exchange resulted from class antagonism, whereas for the bourgeois observer, however honest, it was possible for individual exchange to exist after its abolition:

In principle, there is no exchange of products – but there is the exchange of the labour which co-operates in production. The mode of exchange of products depends upon the mode of exchange of the productive forces. In general, the form of exchange of products corresponds to the form of production. Change the latter, and the former will change in consequence. Thus in the history of society we see that the mode of exchanging products is regulated by the mode of producing them. Individual exchange corresponds also to a definite mode of production which itself corresponds to class antagonism. There is thus no individual exchange without the antagonism of classes.

But the honest conscience refuses to see this obvious fact. So long as one is a bourgeois, one cannot but see in this relation of antagonism a relation of harmony and eternal justice, which allows no one to gain at the expense of another. For the bourgeois, individual exchange can exist without any antagonism of classes. For him, these are two quite unconnected things (143–4).

<sup>8</sup> Rubel points out: “C’est exactement ce que Marx proposera en 1875” – in discussing the Gotha Programme – “lorsqu’il dressera le plan de la société communiste dans sa première phase” (Rubel 1963: 1551). That there would be no markets or individual exchange under communism is elaborated below.

<sup>9</sup> Rubel observes correctly that “Marx répète ice ce qu’Engels a écrit dans son *Esquisse d’une critique de l’économie politique*” (Rubel 1963: 1551).

Bray, runs the conclusion, “turns the *illusion* of the respectable bourgeois into an *ideal* he would like to attain. In a purified individual exchange, freed from all the elements of antagonism he finds in it, he sees an ‘*equalitarian*’ relation which he would like society to adopt” (144). A later note by Marx himself (see above note 4), refers to subsequent experience – and gives a “warning” to Proudhon: “Mr. Bray’s theory, like all theories, has found supporters who have allowed themselves to be deluded by appearances. *Equitable-labour-exchange bazaars* have been set up in London, Sheffield, Leeds and many other towns in England. These bazaars have all ended in scandalous failures after having absorbed considerable capital. The taste for them has gone for ever. You are warned, M. Proudhon!” (144n).<sup>10</sup>

### 3. The Case for Inequality Under Communism<sup>11</sup>

Marx’s general methodological objection to the German Workers’ Party program of 1875 is that to focus on *distribution* at all was to put the cart before the horse, since the distributional pattern in any system is a necessary outcome of “the mode of production”:

... it was in general a mistake to make a fuss about so called *distribution* and put the principal stress on it.

Any distribution whatever of the means of consumption is only a consequence of the distribution of the conditions of production themselves. The latter distribution, however, is a feature of the mode of production itself. The capitalist mode of production, for example, rests on the fact that the material conditions of production are in the hands of non-workers in the form of capital and land ownership, while the masses are only owners of the personal condition of production, of labour power. If the elements of production are so distributed, then the present-day distribution of the means of consumption results automatically. If the material conditions of production are the collective property of the workers themselves, then there likewise results a distribution of the means of consumption different from the present one. The vulgar socialists (and from them in turn a section of the Democrats) have taken over from the bourgeois economists the consideration and treatment of distribution as independent of the mode of production and hence the presentation of socialism as turning principally on distribution. After the real relation has long been made clear, why retrogress again? (*Critique of the Gotha Programme*; MECW 24:87–8).

Marx’s more specific concern was the Party’s failure to recognize that the principle applied to *any* system – including a Communist system, with particular

<sup>10</sup> The first exchange bank was founded in London in 1830 following the principles of Owen laid out in his Report to the County of Lanark in 1820. (See Rubel 1963: 1552). On the “Banque du Peuple,” founded at Saint-Denis in January 1849, see Dolléans 1948: 175f.

<sup>11</sup> The “inequality” in question refers specifically to labor’s claim to private consumption goods. Other sources of inequality would be eliminated in Communist society considering the absence of private ownership of land and capital.



reference to the “first phase” of Communist society not to the “higher phase.”<sup>12</sup> In the higher phase, the distributive rule “from each according to his abilities to each according to his needs” would apply, the division of labor would be abolished, and in general the scarcity problem would be greatly diminished:

In a higher phase of communist society, after the enslaving subordination of the individual to the division of labour, and thereby also the antithesis between mental and physical labour, has vanished; after labour has become not only a means of life but life’s prime want; after the productive forces have also increased with the all-round development of the individual, and all the springs of common wealth flow more abundantly – only then can the narrow horizon of bourgeois right be crossed in its entirety and society inscribe on its banners: From each according to his abilities, to each according to his needs! (87).

Now the Programme itself is described by Marx as “altogether deplorable as well as demoralising for the party” (letter to Wilhelm Bracke, May 5 1875; MECW 24: 78). And in the *Critique* itself he actually refers to the Programme’s references to distribution based on the “undiminished proceeds of labour” and on “equal right” and “fair distribution” as a *crime*:

I have dealt at greater length with the “undiminished proceeds of labour,” on the one hand, and with “equal right” and “fair distribution,” on the other, in order to show what a crime it is to attempt, on the one hand, to force on our Party again, as dogmas, ideas which in a certain period had some meaning but have now become obsolete verbal rubbish, while again perverting, on the other, the realistic outlook, which it cost so much effort to instill into the Party but which has now taken root in it, by means of ideological, legal and other trash so common among the Democrats and French Socialists (MECW 24: 87).

Consider then Marx’s response to Item One of the Programme: “Labour is the source of all wealth and all culture, *and since* useful labour is possible only in society and through society, the proceeds of labour belong undiminished with equal right to all members of society” (81). Marx rejected the initial declaration: “Labour is not the source of all wealth. *Nature* is just as much the source of use values (and it is surely of such that material wealth consists!) as labour, which itself is only the manifestation of a force of nature, human labour power.” As for “*an undiminished distribution,*” there is first the general objection that “[i]f useful labour is possible only in society and through society, the proceeds of labour belong to society – and only so much therefrom accrues to the individual worker as is not required to maintain the ‘condition’ of labour, society” (82). Marx adds that “the whole

<sup>12</sup> Marx specifically refers to the circumstance that “[b]etween capitalist and communist society lies the period of the revolutionary transformation of the one into the other,” corresponding to which there “is also a political transition period in which the state can be nothing but *the revolutionary dictatorship of the proletariat*” (MECW 24: 95). He points out that the Gotha Programme “deals neither with this nor with the future state of communist society.” On the “period of transition,” see Duncan 1973: 170–81. Also relevant is Elliott 1976: 155.

paragraph, bungled in style and content, is only there in order to inscribe the Lassallean catchword of the ‘undiminished proceeds of labour’ as a slogan at the top of the party banner” (83). He promises to “return later to the ‘proceeds of labour,’ ‘equal right,’ etc., since the same thing recurs in a somewhat different form further on,” alluding to the third item of the programme: “The emancipation of labour demands the raising of the means of labour to the common property of society and the collective regulation of the total labour with a fair distribution of the proceeds of labour.”

Now it is specifically to the so-called “fair distribution” that Marx objects, not to “collective regulation . . .” which implies central planning of activity. Before proceeding to his objections to the program we should confirm the support for central control since it is alluded to only in scattered remarks rather than systematically and cannot simply be taken for granted in what follows.

Central planning is apparently alluded to in *The German Ideology* (1845–46) – a joint product of Marx and Engels: “. . . with the abolition of . . . private property, with the communist regulation of production . . . the power of the relation of supply and demand is dissolved into nothing, and men once more gain control of exchange, production . . .” (MECW 5: 48). In *The Communist Manifesto*, Marx affirms that the outcome of the proposed transitional program would be that “all production [is] concentrated in the hands of a vast association of the whole nation” (MECW 6: 505). This is the formulation in the 1888 English edition, namely Samuel Moore’s translation edited by Engels. The German editions, however, have “in the hands of associated individuals,” which may suggest some form of cooperative organization. But central planning seems to be the favored solution, for we also read in the *Manifesto* of the *centralization* of “all instruments of production in the hands of the State, i.e., of the proletariat organised as the ruling class” (504). In *Capital 2*, Marx refers to “collective” as distinct from capitalist production implying central organization (MECW 36: 149, 450); and he points out that with the elimination of “money capital” – including preeminently credit – “[s]ociety distributes labour power and means of production to the different branches of production” (356; emphasis added). *Capital 3* points to the situation “where production is under the actual, predetermining control of society,” such control “establish[ing] a relation between the volume of social labour time applied in producing definite articles, and the volume of the social want to be satisfied by these articles” (MECW 37: 186). There is also reference to “socialised man, the associated producers, rationally regulating their interchange with Nature, bringing it under their common control . . .” (807). Even when explicit allowance is made for cooperation it is not J. S. Mill’s competing cooperatives that Marx had in mind, but some form of cooperation under central control: “If co-operative production is not to remain a sham and a snare; if it is to supersede the Capitalist system; if *united* co-operative societies are to regulate national production *upon a common plan*, thus taking it under their own control, and putting an end to the constant

anarchy and periodic convulsions which are the fatality of Capitalist production – what else, gentlemen, would it be but Communism . . .” (*The Civil War in France* 1871, MECW 22: 335; emphasis added).

With this frame of reference regarding desirable organization in mind, we turn to Marx’s specific objection to the distribution of an “undiminished product” proposed in the Party program of 1875. Marx insists first on the deductions that would have to be made from the social product on purely *economic* grounds – deductions for capital maintenance, net investment, and insurance before distribution for consumption purposes could be allowed:

The crucial point is this, that in this communist society every worker must receive his “undiminished” Lassallean “proceeds of labour.”

Let us take first of all the words “proceeds of labour” in the sense of the product of labour; then the collective proceeds of labour are the *total social product*. From this must now be deducted: *First*, cover for replacement of the means of production used up. *Secondly*, additional portion for expansion of production. *Thirdly*, reserve or insurance funds to provide against accidents, disturbances caused by natural factors, etc.

These deductions from the “undiminished proceeds of labour” are an economic necessity and their magnitude is to be determined according to available means and forces, and party by computation of probabilities, but they are in no way calculable by equity (MECW 24: 84).

In essence, labor must be subject to the same “deductions” to meet gross and net investment requirements as under Capitalism. The objections to Proudhon (above pp. 387–8) would thus not apply. And that is not all, for after the investment-related deductions there were further deductions – administrative, social overhead, and welfare: “*First, the general costs of administration not directly appertaining to production*. This part will, from the outset, be very considerably restricted in comparison with present-day society and it diminishes in proportion as the new society develops. *Secondly, that which is intended for the common satisfaction of needs*, such as schools, health services, etc. From the outset this part grows considerably in comparison with present-day society and it grows in proportion as the new society develops. *Thirdly, funds for those unable to work*, etc., in short for what is included under so-called official poor relief today” (85).

We come now to the matter of “fair” in the sense of “*equal*” *distribution*. It is readily allowed that “what the producer is deprived of in his capacity as a private individual benefits him directly or indirectly in his capacity as a member of society.” Nevertheless, Marx presumes that the “equal” distribution – “which the programme, under Lassallean influence, has alone in view in its narrow fashion” – applies specifically “to that part of the means of consumption which is divided among the individual producers of the collective,” or to distribution for *private* ends. What follows points to Marx’s adherence to a system involving labor-certificates and the absence of markets: “[T]he social working day consists of the sum of the individual hours of work; the individual labour time of the individual

producer is the part of the social working day contributed by him, his share in it. He receives a certificate from society that he has furnished such and such an amount of labour (after deducting his labour for the common funds), and with this certificate he draws from the social stock of means of consumption as much as the same amount of labour costs. The same amount of labour which he has given to society in one form he receives back in another” (86).<sup>13</sup> But Marx goes a step further. What matters is application of an “equal standard,” not the crude equality envisaged by the Party, and such application implies recognition of *the essential inequality of labor*:

But one man is superior to another physically or mentally and so supplies more labour in the same time, or can work for a longer time; and labour, to serve as a measure, must be defined by its duration or intensity, otherwise it ceases to be a standard of measurement. This *equal* right is an unequal right for unequal labour. It recognises no class distinctions, because everyone is only a worker like everyone else; but it tacitly recognises the unequal individual endowment and thus productive capacity of the workers as natural privileges. *It is, therefore a right of inequality, in its content, like every right.* Right by its nature can exist only as the application of an equal standard; but unequal individuals (and they would not be different individuals if they were not unequal) are measurable by an equal standard only insofar as they are made subject to an equal criterion, are taken from a *certain* side only, for instance, in the present case, are regarded *only as workers* and nothing more is seen in them, everything else being ignored (86–7).<sup>14</sup>

The concern here is entirely with *natural* differences between individuals with regard to “talent” – physical and mental. Nothing is said either of productivity differentials relating to learned skills, or of the sort of consideration taken into account by Adam Smith and J. S. Mill in their wage-structure analyses, namely the characteristics attached to various jobs and the attitudes towards them. The contrast is striking. For Smith and Mill the non-pecuniary characteristics explain how under competitive equilibrium conditions wage differentials exist despite *natural equality*. But Marx assumes *natural inequality* and would have had no reason to appeal to

<sup>13</sup> Marx’s labor-certificates would not circulate, i.e., would not constitute *money*. They would be used solely to redeem consumer goods from the relevant producing authority, a cloakroom function. On this matter see also *Capital 2*: “The producers may, for all it matters, receive paper vouchers entitling them to withdraw from the social supplies of consumer goods a quantity corresponding to their labour time. These vouchers are not money. They do not circulate” (MECW 36: 356; also 314, 468, 494). For objections to Rodbertus and Dühring in this regard, see below pp. 398–9. On Marx on labor tickets, see Arnon 1984: 556–8; Nelson 1999: 48–52.

<sup>14</sup> Marx adds: “Besides, one worker is married, another not; one has more children than another, etc., etc. Thus, given an equal amount of work done, and hence an equal share in the social consumption fund, one will in fact receive more than another, one will be richer than another, etc. To avoid all these defects, right would have to be unequal rather than equal” (MECW 24: 87).

such differentials in the analysis of competitive conditions and *a fortiori* that of collective organization.

That natural inequality of labor had to be recognized in the “first phase” of communism is represented as an inevitable “defect” in a communist society which has just emerged “after prolonged birth-pangs from capitalist society. Right can never be higher than the economic structure of society and its cultural development which this determines” (87). This stage entails *full-fledged* common ownership and an absence of markets, a stage beyond the period of transition from capitalism discussed in the *Communist Manifesto* (see note 12, and below, p. 407). Marx’s point is that in the first stage of communist society the original capitalist system nonetheless leaves its mark – in sharp contrast, it is throughout implied, to the ultimate stage:

Within the collective society based on common ownership of the means of production, the producers do not exchange their products; just as little does the labour employed on the products appear here *as the value* of these products, as a material quality possessed by them, since now, in contrast to capitalist society, individual labour no longer exists in an indirect fashion but directly as a component part of the total labour. The phrase “proceeds of labour,” objectionable even today on account of its ambiguity, thus loses all meaning.

What we are dealing with here is a communist society, not as it has *developed* on its own foundations, but on the contrary, just as it *emerges* from capitalist society, which is thus in every respect, economically, morally and intellectually, still stamped with the birth-marks of the old society from whose womb it emerges. Accordingly, the individual producer receives back from society – after the deductions have been made – exactly what he gives to it. What he has given to it is his individual quantum of labour. . . .

Here obviously the same principle prevails as that which regulates the exchange of commodities, as far as this is the exchange of equal values. Content and form are changed, because under the altered circumstances no one can give anything except his labour, and because, on the other hand, nothing can pass to the ownership of individuals except individual means of consumption. But, as far as the distribution of the latter among the individual producers is concerned, the same principle prevails as in the exchange of commodity-equivalents: a given amount of labour in one form is exchanged for an equal amount of labour in another form.

Hence, *equal right* here is still in principle – *bourgeois right*, although principle and practice are no longer at loggerheads, while the exchange of equivalents in commodity exchange only exists *on the average* and not in the individual case.

In spite of this advance, this *equal right* is still constantly encumbered by a bourgeois limitation. The right of the producers is *proportional* to the labour they supply; the equality consists in the fact that measurement is made with an *equal standard*, labour (85–6).<sup>15</sup>

<sup>15</sup> Again one notes the absence of markets and exchange, thus of money and “value” – the indirect measure of labor embodied – in Marx’s perception of the first phase of Communist society. This theme is much developed in the *Grundrisse*, MECW 28: 92–6.

It is precisely at this point that Marx insists that the principle of distribution based on *equal* labor implies *inequality*.<sup>16</sup> And here presumably lay the difference between his own recommendation and those of Proudhon and Bray.<sup>17</sup>

### C. The Allocative Role of the Free Market vs. Central Control

A keen appreciation of the allocative function of markets is apparent in a variety of contexts, one of which provides a potent example of Marx's insistence on the constraint imposed by the market system on income-redistribution proposals. Marx in *Poverty of Philosophy* (1847) rejected – it will be recalled from Chapter 7 (pp. 205–6) – on price-theoretic grounds and in terms of the dynamics of growth, various rent-confiscation proposals. Apart from the fact that “rent” often included interest on capital invested in the land, the land-valuation indexes (on which any confiscation would have to be based) would be subject to continuous disturbance: “rent could not be the invariable index of the degree of fertility of the land” – as implied by the proposals – “since every moment the modern application of chemistry is changing the nature of the soil, and geological knowledge is just now . . . beginning to revolutionise all the old estimates of relative fertility”; moreover, “[a] piece of land may be very fertile for corn growing, and yet the market price may induce the cultivators to turn it into an artificial pastureland and thus render it infertile” (MECW 6: 203–4). Marx further pointed out that “[I]and as capital is fixed capital” requiring continuous maintenance; there were “even instances when land as capital might *disappear* even though . . . improvements remain incorporated in the land,” in the event for example that “rent proper is wiped out by the competition of new and more fertile soils” or when scarce improvements lose their value on becoming “universal owing to the development of agronomy” (205; emphasis added).

A striking instance of Marx's respect for the market is provided by a leading article in the *New-York Daily Tribune* condemning Napoleon III's plan to regulate bread prices throughout France (13 December 1858; MECW 16: 110–14). The objection turns on the array of *further* interventions that would be required to enforce the controls, drawing on the experience of Paris which had instituted them locally and where – at the end of the day – “the experiment proved a complete failure, the price of bread rising above the official maximum during the bad seasons, from 1855 to 1857 . . .” (111). His forecast regarding the extension to France as a whole – as it applied in practice to “good years” and the maintenance of a price

<sup>16</sup> Marx also raises the objection to the Party programme that equal distribution “[t]o all members of society” begs the question: “To those who do not work as well? What remains then of the ‘undiminished proceeds of labour’? Only to those members of society who work? What remains then of ‘the equal right’ of all members of society?” (MECW 24: 84).

<sup>17</sup> Engels may be shown to have insisted on *equal* pay under Communism, but with respect only to skills funded socially – in contrast to training funded privately under capitalism – and, as with Marx, not with respect to *natural* differences.

floor – emphasizes the unthought-of consequences of the proposed measure including opportunities for “jobs and plunder” of all kinds:

By the artificial demand to be created through the means of three months’ reserve, Napoleon tries to enhance prices artificially, and thus stop the mouth to agricultural France. On the other hand, he proclaims himself a sort of socialist providence to the proletarians of the towns, although in a rather awkward way, since the first palpable effect of his decree must be to make them pay more for their loaf than before. The “savior of property” shows the middle class that not even the formal intervention of his own mock Legislatures, but a simple personal ukase on his part, is all that is wanted to make free with their purses, dispose of municipal property, trouble the course of trade, and subject their monetary dealings to his private crochets. Lastly, the question is still to be considered from the pure Bonapartist point of view. Immense buildings for public granaries will become necessary over the whole of France; and what a fresh field they will open for jobs and plunder. An unexpected turn is also given to the trade in breadstuffs. What profits to be pocketed by the *Crédit Mobilier* and the other gambling companions of his Imperial Majesty! At all events, we may be sure that the Imperial Socialist will prove no more successful in raising the price of bread than he has been in attempts to reduce it (114).

Over and again in his *Poverty of Philosophy* of 1847, republished by Engels in the German edition of 1885, Marx insisted on the demand component: “The exchange value of a product depends upon its abundance or its scarcity, but always in relation to demand” (MECW 6: 115); Proudhon “has simply forgotten about *demand*, and that a thing can be scarce and abundant only insofar as it is in demand”; Proudhon’s “abundance seems to be something spontaneous. He completely forgets that they are people who produce [a product], and that is in their interest never to lose sight of demand” (116). Indeed, at this early date at least, Marx even rejected on efficiency grounds the labor-based prices proposed by Proudhon for a *Communist* system:

Products will in future be exchanged in the exact ratio of the labour time they have cost. Whatever may be the proportion of supply to demand, the exchange of commodities will always be made as if they had been produced proportionately to the demand. Let M. Proudhon take it upon himself to formulate and lay down such a law, and we shall relieve him of the necessity of giving proofs. If, on the other hand, he insists on justifying his theory, not as a legislator, but as an economist, he will have to prove that the *time* needed to create a commodity indicates exactly the degree of its *utility* and marks its proportional relation to the demand, and in consequence, to the total amount of wealth. In this case, if a product is sold at a price equal to its cost of production, supply and demand will always be evenly balanced; for the cost of production is supposed to express the true relation between supply and demand (132).

In sum: “To return to M. Proudhon’s thesis; since the labour time necessary for the production of an article is not the expression of its degree of utility, the exchange value of this same article, determined beforehand by the labour time embodied in it, can never regulate the correct relation of supply to demand, that is, the

proportional relation in the sense M. Proudhon attributes to it at the moment” (134).

A further illustration of our theme is provided by the impressive account in the *Economic Manuscripts* of the operation of the price mechanism in adjusting consumption to rates of production to assure normal inventory holdings (Chapter 12, p. 355).

As for capital movement between industries, that is dictated by alterations to demand-supply conditions:

It is not the sale of a given product at the price of its cost of production that constitutes the “proportional relation” of supply to demand, or the proportional quota of this product relatively to the sum total of production; it is the *variations in demand and supply* that show the producer what amount of a given commodity he must produce in order to receive at least the cost of production in exchange. And as these variations are continually occurring, there is also a continual movement of withdrawal and application of capital in the different branches of industry.

It is historiographically significant that Marx should have chosen to cite here appreciatively passages from Ricardo on the operation of the allocation mechanism in response to deviations of market from cost price (Ricardo 1951–73 1: 88–90).

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These “neoclassical” themes are followed through by Engels. Appreciation of the allocative function of markets emerges in his Preface to his 1885 edition of *Poverty of Philosophy*, where he attacks Rodbertus’s version of labor money precisely because of *its neglect of the competitive allocation mechanism*. Thus, whereas Marx’s labor-tickets fulfilled a cloakroom function only (above, note 13), Rodbertus’s labor-tickets – according to Engels’s account – allocated to workers in the various state industries, would circulate and be used freely to buy the commodities made available by the authority on the market at *given* labor-based prices, implying a degree of genuine consumer choice. Rodbertus maintained that all markets would clear on the basis of the planners’ “calculation” relating to the number of labor tickets issued and the quantities of each type of good produced. To this scheme Engels objected on price-theoretic grounds (MECW 26: 287–8). Professor Hutchison is amazed that Engels would have condemned Rodbertus while neglecting to raise the same, or indeed any other, objection against Communist organization, feeling no “intellectual or moral obligation to give some thought to the kind of economic organization which would, or could, follow” the demise of capitalism (1981: 14).<sup>18</sup> Hutchison is too harsh. Engels’s complaint is that Rodbertus *retained* significant

<sup>18</sup> Sowell in his account sees no problem and writes simply: “Although it may be empirically true that different ideologies generally regard central planning in different ways, it is not ultimately in principle an ideological question. Marx and Engels were unsparing in their criticisms of their fellow socialists and fellow communists who wanted to replace price competition with central planning” (1980: 218). But we see a problem to be solved – that Marx and Engels appreciated the competitive pricing mechanism but nonetheless *supported* central control.



features of a market system yet rejected the competitive pricing mechanism. A similar complaint is addressed against Dühring in *Anti-Dühring* (1878) – a work approved of by Marx and to which he contributed (see editorial preface, MECW 25: xiii) – that he wished *to retain elements of the market system* yet preclude its effective operation (MECW 25: 275). This to Engels was an unacceptable half-way house. Like Marx, he perceived of a system *excluding markets*, one involving centralized decisions on investment, output, and pay and – so it seems from the contrast with Rodbertus – consumer rationing.

Also in *Anti-Dühring* it emerges that in Communist society excluding money and markets, direct procedures suffice to arrive at labor embodiments. The indirect procedures of capitalism involving reference to money prices are avoided by “[d]irect social production and direct distribution [which] preclude all exchange of commodities, therefore also the transformation of the products into commodities (at any rate within the community), and consequently also their transformation into *values*” (294). The entire notion of *value* in fact becomes irrelevant. All this is confirmed by further reference to such a society’s *direct calculation* of the labor time required in the production of, say, “a steam-engine . . . or a hundred square yards of cloth of a certain quality” without reference to any “third product” acting as some sort of measure of value: “on the assumption that we made above, society will not assign values to products. It will not express the simple fact that the hundred square yards of cloth have required for their production, say, a thousand hours of labour in the oblique and meaningless way, stating that they have the *value* of a thousand hours of labour.”

Fully to appreciate the position in *Anti-Dühring* we must keep in mind a concern that to permit money to circulate would inevitably lead to a reemergence of capitalist organization. For example, Dühring’s money did not act as “a mere labour certificate” but fulfilled a genuine “monetary” function as far as concerns private saving with potentially devastating consequences (289–90). The retention of money as means of purchase and payment in *international trade* aggravated the private motive to accumulate and, with it, the demise of the entire communal system (290).

We turn now to proposals regarding consumer demand. Direct calculation – involving mainly but not only labor inputs as we shall see – is fundamental to the planning process envisaged, *given the pattern of consumption*: “It is true that . . . it will still be necessary for society to know how much labour each article of consumption requires for its production. It will have to arrange its plan of production in accordance with its means of production, which include, in particular, its labour-powers. The useful effects of the various articles of consumption, compared with one another and with the quantities of labour required for their production, will in the end determine the plan” (294–5). But whence the assumed pattern of consumption? Since nothing more is said regarding consumer demand one is invited to conclude that it too is decided upon directly by the central planners. This in fact is my impression. It is unlikely that Engels had in mind *freedom of*

consumer choice when, earlier in the text, he compared the “social anarchy of production” as it existed, with the “social regulation of production upon a definite plan, according to the needs of the community *and of each individual*,” referring here to “direct social appropriation, as means to the maintenance and extension of production” (investment) and “*direct individual appropriation*, as means of subsistence and enjoyment” (consumption) (267; emphasis added). After all, he had been expatiating on the *anarchical* character of capitalist production due in part to ignorance of markets: “No one knows how much of his particular article is coming on the market, nor how much of it will be wanted. No one knows whether his individual product will meet an actual demand, whether he will be able to make good his costs of production or even to sell his commodity at all” (259).

As mentioned, Marx approved the position of *Anti-Dühring*. He himself in scattered comments implies communal decisions regarding the allocation of consumption goods under Communism. It is suggested by the formulation whereby the vouchers distributed to workers “entitl[ed] them to withdraw from the social supplies of consumer goods a quantity corresponding to their labour time” (above, note 13). And in *Poverty of Philosophy*, he asserted that “[i]n a future society, in which class antagonism will have ceased, in which there will no longer be any classes, use will no longer be determined by the *minimum* time of production; but the time of production devoted to an article will be determined by the degree of its *social utility*” (MECW 6: 134; emphasis added).<sup>19</sup>

If our interpretation is accurate it becomes easier to understand how, in the absence of money and markets, the actual allocation of consumer goods was to be accomplished.<sup>20</sup> What was apparently envisaged is a sort of “war economy” entailing the production of goods selected by the planners, and allocated according to workers’ claims based on their labor contributions – perhaps rights to a *bundle* of goods is what was envisaged – account taken of natural-skill differentials. The objections to Rodbertus’s labor-ticket scheme also point in this direction. All this reduces the force of Hutchison’s criticisms (above, p. 398), though there remains the naïve belief that the planners were capable of making accurate estimates of the labor inputs required, and the distribution of labor-tickets according to the pay differentials permitted and corresponding consumption quotas.<sup>21</sup> At all events,

<sup>19</sup> In corrections in Marx’s hand, “to an article” – “à un objet” – is replaced by “aux différents objets” and the qualifying “social” is inserted (editorial notes, MECW 6: 134n).

<sup>20</sup> The question of freedom of consumer choice was central to the Dobb-Lerner debate of the 1930s: Dobb 1933; Lerner 1934–35a; Dobb 1934–35; Lerner 1934–35b. See also Uebel 2005 for Otto Neurath’s case to replace the “rule of money” by “calculation in kind” in the Socialist Calculation Debate, 1919–28.

<sup>21</sup> The planning task envisaged is of course considerably more complex, for planners would have to make allowance in their cost calculations, as shadow or accounting returns, for *interest* and *rent* based on the productivity contribution of land and capital and not only for labor. Engels insisted on this as early as 1844 (MECW 3: 430). And while Marx at this period emphasized the *time* constraint under all social arrangement (1845; MECW 4: 49–50), Engels’s more general perspective was acceptable to him. We may, therefore, dispose of a standard objection as by

Marx and Engels evidently put more weight on the gains to be expected from abolition of markets – particularly with respect to macro-economic stability – than on the loss of a signalling device that would, they envisaged, be replaced by effective central direction. We also recall from Chapter 4 (p. 125) Marx’s evaluation that with respect to a “rational agriculture” and prevention of land exhaustion, the free-market system was a failure (MECW 37: 120–3, 239f).<sup>22</sup>

#### D. Some Unexpected Parallels

Marx’s position on distribution turns out in significant respects to be akin to that of the “classical liberal” economists Hayek and Mises. Of course, Marx predicted the collapse of capitalism and championed arrangements involving *inter alia* the abolition of money; I am obviously not *identifying* Marx with Mises and Hayek, only pointing to certain specific parallels reflecting the common ground that the capitalist system should not be *tampered* with, albeit for very different reasons.<sup>23</sup>

Consider Marx’s refusal to condemn capitalistic distribution on grounds of “unfairness,” or to be more precise, his insistence that such distribution was in fact perfectly “fair” presuming capitalist organization (above, pp. 386–7). Friedrich von Hayek too, in *The Road to Serfdom*, eschewed appeal to “moral standards” extraneous to the competitive system:

Most people find it difficult to admit that we do not possess moral standards which would enable us to settle these questions – if not perfectly, at least to greater general satisfaction than is done by the competitive system. Have we not all some idea of what is a “just price” or a “fair wage”? Can we not rely on the strong sense of fairness of the

Wicksell: “Even in a socialist state, rent and interest would play exactly the same role as they do now, in determining the reciprocal value of the products, the only difference being that land and capital would then have other owners. It is simply Utopian to imagine that any transformation in the conditions of ownership would give natural forces existing in limited quantities the character of free commodities . . .” (cited Gårdland 1958: 119–20).

<sup>22</sup> A word regarding co-operatives. In a later letter to August Bebel, Engels wrote of cooperative organization as only “transitionally” acceptable and subject to the same qualification regarding national control: “Nor have Marx and I ever doubted that, in the course of transition to a wholly communist economy, widespread use would have to be made of cooperative management as an intermediate stage. Only it will mean so organising things that society, i.e. initially the State, retains ownership of the means of production and thus prevents the particular interests of the cooperatives from taking precedence over those of society as a whole” (20–23 January 1886; MECW 47: 389). Since national control is insisted upon, the question of the role of cooperatives is far less significant than for J.S Mill; even cooperatives could be incorporated – at least as a temporary measure – within the “social regulation of production upon a definite plan” (above, p. 400). This too seems to have been Marx’s position (above, pp. 392–3).

<sup>23</sup> Other commentators – in addition to Desai (1997) – have hit upon “parallels” between Marx and Hayek. Thus Howard and King: “Peculiar as it may seem, Friedrich von Hayek and James Buchanan have both broken with much of traditional neoclassical theory, and in doing so have unwittingly reasserted basic themes of Marx’s economics by recognizing that capitalist systems are indeed “organic unities” (2001:795). For various “parallels” relating to business cycle theory in particular, see references in Ebenstein 2001: 378–9.

people? And even if we do not now agree fully on what is just or fair in a particular case, would popular ideas not soon consolidate into more definite standards if people were given an opportunity to see their ideals realized?

Unfortunately, there is little ground for such hopes. What standards we have are derived from the competitive regime we have known and would necessarily disappear soon after the disappearance of competition. What we mean by a just price, or a fair wage is either the customary price or wage, the return which past experience has made people expect, or the price or wage that would exist if there were no monopolistic exploitation (1944: 110–11).<sup>24</sup>

Hayek goes on to consider the claim for wage payments according to “the ‘full produce of . . . labour,’ to which so much of socialist doctrine traces back”; and he commends the general rejection by *contemporary* socialists of such a claim (111). But we have seen that this too was precisely the position adopted by Marx in his polemic against the program of the German Workers Party, and his own insistence on labor “inequality” under Communism (above, Section B.3).

There are also parallels with Ludwig von Mises. Permanent improvement in the living standards of the masses required, Mises insisted, increased accumulation per capita – the standard “classical” position of course. There were no short cuts: “The only means to raise wage rates permanently for all those seeking jobs and eager to earn wages is to raise the productivity of the industrial effort by increasing the per-head quota of capital invested” (1980 [1950]: 27–8). And to the contrary, intervention in the price system to alter distribution in labour’s favour could only harm national economic performance: “Minimum wage rates, whether decreed and enforced by the government or by labor union pressure and violence, result in mass unemployment prolonged year after year as soon as they try to raise wage rates above the height of the unhampered market” (27). On the matter of *direct* interference with the pattern of distribution he was very clear regarding the damage to productivity that would result: “The philosophy underlying the system of progressive taxation is that the income and the wealth of the well-to-do classes can be freely tapped. What the advocates of these tax rates fail to realize is that the greater part of the incomes taxed away would not have been consumed but

<sup>24</sup> The parallel would presumably be rejected by those who believe that Marx applied post-capitalist standards of morality as embedded in the experience and consciousness of the proletarian class of non-property owners (see above, note 3).

We do well to recall here our caution regarding the very different *intentions* of the parties. Baldly stated, Marx and Engels refused to analyze capitalism in ethical terms because he wished to see that system replaced, and sought to focus attention on the main issue for them, that of “exploitation,” an issue pertinent to the realm of *production* rather than *exchange* including income distribution; hence their objection to the Proudhonian anarchists, Dühring, other social democratic reformers and the earlier “Ricardian socialists” who threatened to divert attention to marginal concerns. Hayek’s refusal stemmed from his wish to see the system conserved, fearing that an approach in terms of ethics would divert attention from his main issue – that social order results from human action rather than design.

saved and invested. In fact, this fiscal policy does not only prevent the further accumulation of new capital. It brings about capital decumulation” (32).

That economic performance and distribution are intimately connected was, we have shown in Section B, insisted on by Marx; for him too distribution problems could *not* be dealt with independently of production for precisely the same reasons as those offered by Mises.<sup>25</sup> This position clashes with the *formal* contrast drawn by J. S. Mill between “immutable” Laws of Production and “malleable” Laws of Distribution; if we take this contrast seriously there is more scope for income redistribution without endangering productive capacity in the Mill scheme of things. I doubt though that we should read Mill literally (Hollander 1985: 216–22); it is certainly the case that he too opposed progressive taxation of earned income on grounds of incentive with particular reference to accumulation (859–60).

I turn now to the “binary” approach to systems that emerges both with Marx and Mises – their insistence on “pure” communism and “pure” capitalism respectively – the common position that there is no half-way house between full-fledged capitalism and central control.

As for Marx, an excellent instance of his concerns in this regard is provided by a letter of 1859 objecting to the “Proudhonist socialism now fashionable in France” – that it “wants to retain private production *while organising* the exchange of private products, to have *commodities* but not *money*. . . . Communism must above all rid itself of this ‘false brother’” (1 February 1859; MECW 40: 377). And as we know, Marx and Engels were fearful that to tolerate money and markets to any extent would inevitably undermine any Communist social structure (see above, p. 399).<sup>26</sup> The position implicitly attributes to the capitalist system a *robustness* which seems to conflict with the confident predictions regarding its more-or-less immanent collapse. As for the toleration of a capitalist sector (and also the progressive income-tax proposals) in the *Communist Manifesto* (below, p. 407), we must not forget the explicit assumption of firm communist political control – the police no less – to beat back any incipient degeneration.

My concern now is not Marxian consistency, but the parallel with Mises who in his famous 1950 address “Middle-of-the Road Policy Leads to Socialism” rejected half-way houses. Mises sets out by denying that the essential dispute between socialism and capitalism relates to the distribution of the national dividend between wage earners and capitalists (1980 [1950]: 19–20), a position also shared with

<sup>25</sup> The view has been attributed to Hayek that to redistribute wealth from those who succeed to those who fail would not only be “unjust” but would threaten wealth-creation, since there are “unified laws of production and distribution . . . one cannot modify distribution without disturbing production” (Tomass, 1998: 288). This attribution is stated rather too strongly as we shall presently see (below p. 405). David Levy has suggested to me that a necessarily deleterious effect on growth stemming from redistribution in labor’s favor characterize rather the positions of Feldstein and Lucas than that of Hayek.

<sup>26</sup> I surmise that their apparent rejection of free consumer choice under Communism might also be attributed to such a concern.

Marx who downplayed the distribution problem as we know (see e.g., p. 388). The antagonism between systems had a much deeper source:

The antagonism between capitalism and socialism is not a dispute about the distribution of booty. It is a controversy about which of two schemes for society's economic organization, capitalism or socialism, is conducive to the better attainment of those ends which all people consider as the ultimate aim of activities commonly called economic, viz., the best possible supply of useful commodities and services. Capitalism wants to attain these ends by private enterprise and initiative, subject to the supremacy of the public's buying and abstention from buying on the market. The socialists want to substitute the unique plan of a central authority for the plans of the various individuals. They want to put in place of what Marx called the "anarchy of production" the exclusive monopoly of the government. The antagonism does not refer to the mode of distributing a fixed amount of amenities. It refers to the mode of producing all those goods which people want to enjoy (20).<sup>27</sup>

For Mises, "[t]he conflict of the two principles is irreconcilable and does not allow of any compromise. Control is indivisible. Either the consumers' demand as manifested on the market decides for what purposes and how the factors of production should be employed, or the government takes care of these matters. There is nothing that could mitigate the opposition between these two contradictory principles. They preclude each other" (20–1). "Interventionism" thus could not be considered "a permanent system of society's economic organization," one which "retain[s] private ownership of the means of production, entrepreneurship and market exchange" but subjects it to government regulation (21). Again: "The middle-of-the-road policy is not an economic system that can last. It is a method for the realization of socialism by installments" (32–3). A classic instance of what Mises feared is provided by a price maximum imposed on the price of milk. To render such intervention effective would, runs the argument, ultimately require control of the prices of *all* consumers' goods and of *all* factors of production: "But when this state of all-round control of business is attained, there can no longer be any question of a market economy. No longer do the citizens by their buying and abstention from buying determine what should be produced and how. The power to decide these matters has devolved upon the government. This is no longer capitalism; it is all-round planning by the government, it is socialism" (24). The formal retention of private ownership of productive means, prices, wages, interest rates, and profits is meaningless since they are determined by authority with the government not consumers directing production. "It is the *Zwangswirtschaft* of Hitler's German Reich, and the planned economy of Great Britain" (24–5). As the matter is summarized in the 1947 formulation: "Men must choose between the market economy and socialism. The state can preserve the market economy in protecting life, health and private property against violent or fraudulent aggression;

<sup>27</sup> The closing phrase implies that for Mises the socialist position recognized consumer sovereignty; but this is less clear in what follows.

or it can itself control the conduct of all production activities. Some agency must determine what should be produced. If it is not the consumers by means of demand and supply on the market, it must be the government by compulsion” (Mises 1947: 34).

This denial of a *stable* middle solution between systems is held in common with Marx with this difference, that Mises’s concern was the *fragility of capitalism* and that of Marx the *fragility of communism*. Nonetheless, Marx’s technical analysis of the control of bread prices (above, pp. 396–7) is wholly in line with that of Mises.

Hayek too in his paper “Pricing versus Rationing” (1939) takes a similar position: “It will be sufficiently evident that rationing, if it is not to lead to grave waste, would involve little less than central planning of all production *in every detail*. Not only all the ‘scarce’ resources but their substitutes as well would have to be planned and controlled by some central authority. If one thing has been definitely established with regard to a planned or socialist system, it is that to stop halfway will only destroy the efficiency of the competitive mechanism without realizing any of the supposed advantages of a planned system” (1997 [1939]: 155). Yet there is some evidence that Hayek did not go quite as far as Mises regarding the “fragility” of the market system. All in all, he was concerned with “the process through which *certain kinds* of measures can destroy the bases of an economy based on the market and gradually smother the creative powers of a free civilization . . .” (emphasis added), but insisted that his “was not . . . an exhortation to resistance against any improvement or experimentation” (1967 [1944]: x). He here had in mind the test provided by the Rule of Law, the principle that “government in all its actions is bound by rules fixed and announced beforehand,” thus reducing to a minimum “the discretion left to the executive organs wielding coercive power,” and avoiding “stultifying individual efforts by *ad hoc* action” (72–3; see also 1960). The parallels we have encountered seem to be more marked between Marx and Mises than between Marx and Hayek.

Finally, note should be taken of an important observation by Vaughn regarding Hayek’s emphasis on the limits of human knowledge in his technical essays on socialist planning: “Hayek was challenging not only the economics of central planning, but a particular way of conceptualizing economic theory. Economic planning requires not only the centralization of knowledge, but also the ability to identify what knowledge is worth centralizing. Yet Hayek believed that most economically useful knowledge is local, detailed, implicit and changeable. What kind of political economy – indeed what kind of economic theory – is relevant when economic actors possess knowledge like that?” (Vaughn 1998: 236). It is precisely this perspective on “local, detailed, implicit and changeable” knowledge that in part determined Marx’s rejection of rent-confiscation schemes – the State did not have such knowledge (above, p. 396). Such detailed knowledge would not be required, so he believed, under the Central Control régime envisaged for the future.

### E. Summary and Conclusion: The Evolutionary Dimension

The necessitarian logic behind the concept of Historical Materialism has often been remarked on, with reference to growing immiseration, wealth and income inequality, cyclical instability, centralization, and so forth leading to revolution (see the recent account in Baumol 2001). The general evolutionary theme is nicely stated by Marx in the *Economic Manuscripts* of 1861–63: “Just as one should not think of sudden changes and sharply delineated periods in considering the succession of the different geological formations, so also in the case of the creation of the different economic formations of society” (MECW 33: 442). The principle is applied to the dissolution of capitalism: “This is an essentially different conception from that of the bourgeois political economists, themselves imprisoned in capitalist preconceptions, who are admittedly able to see how production is carried on *within* the capital-relation, but not how this *relation* is itself produced, and how at the same time the material conditions for its dissolution are produced within it, thereby removing its *historical justification as a necessary form* of economic development, of the production of social wealth” (MECW 34: 466). Equally significant is Marx’s representation of *Capital 1* as “Darwinian” in its methodology (7 December 1867; MECW 42: 494; see Introduction, p. 7). Thus “[w]hereas Mr. Lassalle hurled abuse at the capitalists and flattered the backwoods Prussian squirarchy, Mr. Marx, on the contrary, shows the *historical ‘necessity’* of capitalist production and severely criticises the landed aristocrat who does naught but consume.”<sup>28</sup>

Specific observations in *Capital 3*, composed probably in the 1860s, relate to the joint-stock company – “the ultimate development of capitalist production” (MECW 37: 434) – as a transitional form from private to social organization: “The capital, which in itself rests on a social mode of production and presupposes a social concentration of means of production and labour power, is here directly endowed with the form of social capital (capital of directly associated individuals) as distinct from private capital, and its undertakings assume the form of social undertakings as distinct from private undertakings. It is the abolition of capital as private property within the framework of the capitalist mode of production itself.”<sup>29</sup> These observations were probably composed in the 1860s. But an early comment refers to “[s]hare capital as the most perfected form (turning into communism) together with all its contradictions” (Marx to Engels, 2 April 1858; MECW 40: 298).

The part played by credit is much emphasized in this context in *Capital 3* and also with respect to the growth of cooperatives:

The cooperative factories of the labourers themselves represent within the old form the first sprouts of the new, although they naturally reproduce, and must reproduce,

<sup>28</sup> A further parallel with Hayek is discernable in regard to evolutionary processes; see Hayek 1988: 27.

<sup>29</sup> See Henderson 1986: 127 and parallels between Schumpeter and Marx on the joint-stock corporation as “creatively destructive.” On the joint-stock company as a transitional form, see also Avineri 1968: 176–7.



everywhere in their actual organization all the shortcomings of the prevailing system. But the antithesis between capital and labour is overcome within them, if at first only by way of making the associated labourers into their own capitalists, i.e., by enabling them to use the means of production for the employment of their own labour. They show how a new mode of production naturally grows out of an old one, when the development of the material forces of production and of the corresponding forms of social production have reached a particular stage. Without the factory system arising out of the capitalist mode of production there could have been no cooperative factories. Nor could these have developed without the credit system arising out of the same mode of production. The credit system is not only the principal basis for the gradual transformation of capitalist private enterprises into capitalist stock companies, but equally offers the means for the gradual extension of cooperative enterprises on a more or less national scale. The capitalist stock companies, as much as the cooperative factories, should be considered as transitional forms from the capitalist mode of production to the associated one, with the only distinction that the antagonism is resolved negatively in the one and positively in the other (MECW 37: 438).

Marx also refers in this context to the growth of monopoly which “requires state interference” (see Chapter 14, p. 438), a theme later taken up by Engels with a focus on the evolution of joint-stock organization to prospective nationalization of industry (*Anti-Dühring*; MECW 25: 264–5.)

The evolutionary dimension extends much further. The very term Communist Revolution is misleading except insofar as it relates to the acquisition and maintenance of *political* power by the proletariat.<sup>30</sup> (Even then, allowance was made for the achievement of proletarian power via the ballot box at least in the British case.) Thus we have Marx’s “political transition period in which the State can be nothing but *the revolutionary dictatorship of the proletariat*” (above, note 12). The notion of Revolution must be strictly qualified if applied to economics, for – as expressed in the *Communist Manifesto* – “the proletariat will use its political supremacy to wrest, *by degrees*, all capital from the bourgeoisie . . .” (MECW 6: 504; emphasis added). Much later, in discussing expropriation of big landed proprietors once “our Party is in possession of political power,” Engels recalled that “[w]e by no means consider compensation as impermissible in any event; Marx told me (and how many times!) that in his opinion we would get off cheapest if we could buy out the whole lot of them” (“The Peasant Question in France and Germany” (1894); MECW 27: 500).<sup>31</sup>

It would, of course, entail fine judgment to specify the rate at which the capitalist sector might be safely dismantled by the communist régime. The same applies to the

<sup>30</sup> On the role allowed coercion during the transition period to Communism, see Popper 1983 [1945]: 328n6; Duncan 1973: 180–1.

<sup>31</sup> There is a contrast between Engels and Marx on the matter of inheritance. Marx in the *Manifesto* goes so far as to call for the “abolition of all right to inheritance” (MECW 6: 505). Engels in the *Principles of Communism* did not (then at least) go so far, recommending a “high inheritance tax, abolition of inheritance by collateral lines (brothers, nephews, etc.), and “[e]qual rights of inheritance to be enjoyed by illegitimate and legitimate children” (MECW 6: 350–1).

progressive taxation and related proposals in the *Manifesto* whose specific purpose was to whittle away capitalism after the communist take-over. Marx and Engels evidently relied on the ability of the new rulers not to compromise the hoped-for performance by the residual capitalist sector in creating the capacity required to assure the successful implementation of full-fledged communism.

Also relevant to the evolutionary theme are the further developments envisaged once the private-property system had been entirely eliminated. I refer again to Marx's "first phase" and "higher phase" of communism. We have thus seen that in the first phase – as the system has emerged out of Capitalism – wage *inequality* is to be recognized; only in the later phase would the egalitarian principle apply: "From each according to his abilities to each according to his needs." And there is Engels's express statement that his own and Marx's support for "cooperatives" applied only to a transitional arrangement (see note 22).

I have arrived at my conclusion – that violent transition between economic systems and within systems is rejected by Marx in favor of caution. It is an impressive insight to have emphasized transitional problems, one that might have served as a red flag for our modern-day advisors and their clients who in the 1990s rushed to dismantle control systems with the inevitable outcome – already clear to Smith and Ricardo when they, in their day, evaluated proposals to abandon various forms of contemporary control.<sup>32</sup>

<sup>32</sup> On the role of Western advisors in the Russian economic disaster of the 1990s, see Klein and Pomer 2001.

## FOURTEEN

### Is There a Marxian “Entrepreneur”? On the Functions of the Industrial Capitalist

#### A. Introduction

Frank Knight described the German socialist approach to profit – including Rodbertus and Lassalle as well as Marx and Engels – as entailing “a simple classification of income in which all that is not wages is a profit which represents exploitation of the working classes. Capital is equivalent to property. . . . It is analogous to a robber baron’s crag, a toll-gate on a natural highway, or a political franchise to exploit” (Knight 1964 [1921]: 27–8; also Sowell 1967: 71, Baumol 1975: 64).<sup>1</sup> There is no place here for “profit” as a return to one or more productive *activities*, and certainly none for Knightian “uncertainty”-bearing – uncertainty not susceptible to actuarial measurement – the presence of which “by preventing the theoretically perfect outworking of the tendencies of competition gives the characteristic form of ‘enterprise’ to economic organization as a whole and accounts for the peculiar income of the entrepreneur” (Knight: 232).<sup>2</sup>

J. A. Schumpeter in his *The Theory of Economic Development* expounds his famous notion of development as “the carrying out of new combinations [of productive means]” viewed as “a special process and the object of a special kind of ‘function,’” one undertaken by the *entrepreneur* (Schumpeter 1959 [1926]: 66, 79). Common ground with Knight seems to be reflected in the uncertainty attached by Schumpeter to the role of the innovating entrepreneur: “. . . outside these accustomed channels [of routine] the individual is without those data for his decisions and those rules of conduct which are usually very accurately known to him within them. . . . [M]any things must remain uncertain, still others are only ascertainable within wide limits, some can only be ‘guessed’” (84–5). It is the ability on the part

<sup>1</sup> There are statements in the *Wealth of Nations* representing the capitalist as well as the landlord in precisely this fashion (Hollander 1973: 148–9), statements that inspired the so-called “Ricardian Socialists.”

<sup>2</sup> Uncertainty which *can* “be reduced to an objective, quantitatively determinate probability, can be reduced to complete certainty by grouping cases. . . . [M]easurable uncertainties do not introduce into business any uncertainty whatever” (Knight 1964 [1921]: 231–2).

of the relatively few individuals to carry out the entrepreneurial function that is rewarded by pecuniary gain which also provides the motive for innovative activity – though there are other motives (93–4; see also 2003 (1928): 253).<sup>3</sup>

Schumpeter’s evaluation of Marx in the present context is well expressed in his *Business Cycles*: “It is leadership rather than ownership that matters. The failure to see this and, as a consequence, to visualize clearly entrepreneurial activity as a distinct function *sui generis*, is the common fault of both the economic and the sociological analysis of the classics and of Karl Marx” (Schumpeter 1939: 103–4). One implication was that, with Marx, “[a]ccumulated capital invests itself in a wholly automatic manner. All the phenomena and mechanisms in the emergence of mechanized large scale enterprise that hinge upon the personal element are completely shut out from his range of vision” (1954: 556n). As expressed more recently, by “conflat[ing] the functions of the capitalist and the entrepreneur” – i.e., failing to treat entrepreneurship as a distinct economic function – Marx “had simply no explanation to give of the actual source of the acknowledged technical dynamism of capitalism” (Blaug 1986: 222; see also 1995: 3). On the other hand, from Paul Sweezy’s perspective it is a matter of high principle that Marx’s innovative process reflects a sort of *technological determinism*, whereby “once machinery had taken hold it was bound to spread, to evolve into progressively more elaborate and productive forms, to harness all the natural sciences to its imperatives – and all this quite apart from the desires and intentions of individual capitalists or scientists” (Sweezy 1968: 116; see also Rosenberg 1982: 6).<sup>4</sup>

<sup>3</sup> There are these differences between the Knight and Schumpeter perspectives. First, Schumpeter’s entrepreneur “is never the risk bearer. . . . The one who gives credit comes to grief if the undertaking fails. . . . [E]ven if the entrepreneur finances himself out of former profits, or if he contributes the means of production belonging to his ‘static’ business, the risk falls on him as capitalist or as possessor of goods, not as entrepreneur. Risk taking is in no case an element of the entrepreneurial function” (Schumpeter 1959 [1926]: 137). (The term “risk” evidently refers to uncertainty in Knight’s sense.) Similarly, in *Business Cycles*: “. . . risk bearing is no part of the entrepreneurial function. It is the capitalist who bears the risk” (Schumpeter 1939: 104). See also Schumpeter 1954: 556n. On the importance Schumpeter attached to credit, see Arena and Romani: 2002: 175–6.

Second, Knight’s entrepreneur, who does bear the burden of uncertainty, is not engaged in innovation. (See Gloria-Palermo 2002: 29–30). This contrast, however, turns on Knight’s original formulation. He later did focus on innovation: “[The entrepreneur’s] first and primary function, in a *progressive society*, is that of leadership or economic pioneering; it is to initiate useful changes or innovations” (Knight 1942: 128; emphasis added). (This activity, he specifies, “is connected with ‘risk-taking’” – apparently in the sense of uncertainty.) There is though no hint of any such modification in the Prefaces to the reprints of *Risk, Uncertainty and Profit* in 1933, 1948 and 1957. That work was evidently constrained to a *stationary* economy.

<sup>4</sup> Schumpeter later revised his perspective, in the light of “the obsolescence of the entrepreneurial function” within the giant, bureaucratized, firm where “so many things can be strictly calculated that had of old to be visualized in a flash of genius” (Schumpeter 1950: 131–2). For discussion of Schumpeter’s treatment of “entrepreneurship” within large, established corporations and government agencies, see März 1991: 15; Rosenberg 1994: 55–6. But for critical evaluations of the notion of a revision of position, see Frank 1998, Langlois 2003, Ebner 2006.

Now the identification by Marx of entrepreneur and industrial capitalist seems to be a valid attribution. Moreover, Knight's representation of Marx's "profit" as a forced deduction made possible by ownership of the requisites of the laborer holds good at least as far as concerns interest on capital. But to leave the matter there we shall argue – in the light of the *Economic Manuscripts* of 1861–63 and the materials that appeared as *Capital 3* composed shortly thereafter – deflects attention from a range of "productive" functions that Marx *did* attribute to the active industrial capitalist; his "technological determinism" has only partial validity precisely because he did *not* neglect the complex calculations required of the individual capitalist in an "uncertain" environment. We shall keep track of Marx's heroic efforts to protect his exploitation approach to profit from the implications that might be drawn from *his own allowances* regarding the "productive" roles of the individual capitalist.

A second objective will be to examine the widely accepted view – whether the Schumpeter or the Sweezy version – that individual decision making with respect to innovation posed no particular problem in Marx's scheme of things. We should at the outset dismiss one contention – that Marx "lost sight altogether of . . . organizational innovations. . . . Marx for all his acute awareness of the changing nature of capitalist development failed to notice the great wave of organizational change that swept the capitalist world in the 1840s and 1850s, such as the corporate form of business enterprise characterized by the limited liability of its owners . . ." (Blaug 1995: 3). This contention has long been disposed of (e.g., Sweezy 1942; Avineri 1968; Henderson 1986). An extensive discussion in *Capital 3* of Cooperatives and of Joint-Stock organization with Limited Liability provision will play a central part of our story. It emerges that once Marx perceived that the traditional industrial capitalist was being superseded by new corporate forms of business enterprise, he felt able to give him a send-off which recognized the pervasiveness of extreme uncertainty in the search for and application of new technologies. The "entrepreneur," in brief, is allowed on the scene – but only when on his deathbed.

## B. Preliminaries: Industrial Organization

We must throughout have in mind the contrast elaborated in the *Economic Manuscripts* between Adam Smith's "simple manufacture" and the "mechanical workshop."<sup>5</sup> The latter mode of production in its most advanced form – Marx draws here on the *Grundrisse* (MECW 29: 82–5) – comprises an automatic factory entailing a "connected system of machinery," or a (vertical) series of mechanical processes, dependent on a mechanically driven "prime motor . . . with the drive provided by natural forces . . ."; moreover, the automatic workshop "is the more perfect, the more it forms a complete mechanical system, and the less individual

<sup>5</sup> The distinction will be found in *Capital 1* in the chapter "Machinery and Modern Industry."

processes still require (as do mechanical spinning mills not employing self actors) to be mediated through human labour” (MECW 33: 481–2).<sup>6</sup>

Not all mechanical workshops display the characteristics of a full-fledged “system of machinery,” Marx explained; for “we do not understand by this system merely the link between motive power, transmitting machinery, and working machinery. This link can be found in *all* mechanical factories without distinction” (483). In the less advanced form of mechanical workshop, “simple cooperation” – most operatives engaged in an identical function – is the essential feature, unlike the pervasive division-of-labor proper attributed to manufacturing which turns on “the principle of multiples, i.e. the principle that the different operations are not only distributed between different workers but according to certain numerical proportions, in which a definite number of workers, organised in groups, is assigned to, subsumed under, each individual operation.” (MECW 30:320);<sup>7</sup> “[i]n the *mechanical workshop* . . . it is essential that many should do *the same thing*. Indeed, this is its main principle” (321; also 33: 484–6). The mechanical workshop based on “*a system of machinery*” – entailing a phase sequence of operations – shared several characteristics with the mechanical workshop as such, with the major difference that now “division of labour naturally takes place,” based on “the differences between specialised machines which perform specific phases of the production process, and for the service of which there are therefore allotted parties of workers trained and assigned exclusively to that purpose” (MECW 33: 486). This is what Marx intended by “a new division of labour” emerging within the system of machinery.

The traditional form of specialization reemerges even in advanced “systems of machinery” in the guise of labor – usually juvenile labor – utilized in transfer of material between machines at various stages (486–7). However, apart from this menial category, specialization by ability and strength – already to be found, one might note incidentally, in Tucker (1931 [1757]: 242–3) though not in the *Wealth of Nations* – was inconsequential, for the sequence of specialized machinery was decisive and operatives could transfer between stages with little retraining (MECW 33: 487–8). “Discipline and subordination arise here not merely from cooperation but from subordination to the system of machinery as a whole” (489).

Andrew Ure – though “the shameless apologist of the factory system” – figures large in the account. There is his “correct” view of the Smithian perspective on manufacturing based on division of labor as outmoded in the new circumstances (Ure

<sup>6</sup> On the contrast between prime motor and working machinery, see a letter to Engels dated 28 January 1863 (MECW 41: 450). At this time Marx was troubled by the “self-actors” mentioned in the passage: “I’m in considerable doubt about the section in my book that deals with machinery. I have never quite been able to see in what way self-actors changed spinning, or rather, since steam power was already in use before then, how it was that the spinner, despite steam power, had to intervene with his motive power. I’d be grateful if you could explain this” (to Engels, 24 January 1863; 446).

<sup>7</sup> For Babbage’s formulation of the principle of “multiples,” see Marx’s citations, MECW 30: 288.

1836 I: Chapter 1; cited MECW 30: 300; also 33: 489). And he is cited favorably on machine construction itself, initially in the workshop based on division of labor – the manufacturing form – and subsequently in the *mechanical workshop*: “In the infancy of mechanical engineering, a machine-factory displayed the division of labour in manifold gradations – the file, the drill, the lathe, having each its different workmen in the order of skill; but the dexterous hands of the filer and driller are now superseded by the planing, the key-groove cutting, and the drilling machines; and those of the iron and brass turners, by the self-acting slide-lathe” (30: 321, citing Ure 1836 I: 30–1). A “system” of machinery is in fact implied by the sequence of stages described. And this seems to be the case in an important summary statement regarding the term “*automaton*” used by Ure to describe such a system. Thus the “*factory or mechanical workshop*” designates “the *combined operation of many orders of work-people . . . in tending with assiduous skill a system of productive machines continuously impelled by a central power . . .*,” excluding factories “in which the mechanisms do not form a *connected series*, nor are *dependent on one prime mover . . .*”; a factory, “in its strictest sense, involves the idea of a *vast automaton, composed of various mechanical and intellectual organs, acting in uninterrupted concert for the production of a common object*, all of them being *subordinated* to a self-regulated *moving force*” (MECW 33: 496–7, citing Ure 1836 I: 19–20).<sup>8</sup>

We should particularly note for later reference that the production system based on machinery “presupposes the conglomeration of workers at one point, their spatial concentration under the direction of a single capitalist. Concentration of this kind is its condition,” Marx citing Ravenstone 1824: 45 (MECW 33: 381; see also MECW 28: 325). Elsewhere Marx cites Rossi to similar effect (Rossi 1843: 334; MECW 30: 324). Investment by the firm is therefore typically heavy; for example: “. . . a first rate cotton-spinning factory cannot be built, filled with machinery, and fitted with the steam engines and gasworks, under £100,000. A steam-engine of 100 horse power will turn 50,000 spindles, which will produce 62,500 miles of fine cotton thread per day. In such a factory 1,000 persons will spin as much thread as 250,000 persons could without machinery” (Laing 1844: 75; cited MECW 30: 328).

Also to be noted is the related point that the “productive power of social labour” is based on concentration, that is on “the *communal* cooperation of a conglomeration of workers,” allowing a wide range of scale economies: “all this *relative* cheapening

<sup>8</sup> Marx also drew extensively for illustration from the anonymous *Industry of Nations* (1855), now known to be by C.W. Dilke. (But see MECW 33: 522n 212.) This is true of the transition from *manufacture* based on division of labor to *systems of machinery* based on the automatic or machine factory as in paper making, envelope manufacture, type-casting, and weaving; it is true of the contrast between “prime mover” – and the corresponding directing or transmission mechanism – and working machine, the former extending to steam engines, air engines, and electromagnetic engines (MECW 33: 410–22).

See Marx to Engels, 28 January 1863 on the controversy as to what distinguishes a *tool* from a *machine* (MECW 41: 449).

of constant capital, while its absolute value increases and its ratio to variable capital grows . . . – which raises the profit when the surplus value is *given* . . . – is itself only an *objective* expression of the *productive power of social labour*, and follows from the social combination of labour alone” (MECW 34: 125–6; also 30: 168–9). But Marx adds to this source of economy “the *cheapening* of the elements of constant capital which are supplied to [the direct production process] from outside; an *economising* which is therefore not a result of the organisation of the labour process into which these commodities enter as elements. But these commodities are the result of *another* labour process in *another* sphere of production” (MECW 34: 126).

### C. The Supervisory and Allocative Functions

We are now in a position to approach the functions explicitly attributed by Marx to the individual capitalist, taking for granted the industrial environment just described.

The bourgeois economists, on Marx’s reading, distinguished interest from “industrial profit” considering the latter *entirely* as the wages of the “*labour of superintendence, etc.*” paid the active capitalist (MECW 32: 471). Marx refers specifically to Senior who converts “*industrial profit* into wages of superintendence” (505); and to John Stuart Mill who followed the same line, though incomprehensibly since Mill appreciated that profit reflected *surplus labor* at least “in the form that the rate of profit and wages stand in inverse ratio to one another . . .” (505–6).<sup>9</sup> (Adam Smith is cited as refuting the apologetic view; MECW 30: 387.) Setting aside *interest* – due to “mere owner[ship] of capital” (MECW 32: 472) or institutional arrangement assuring rentiers “title to and the means for the appropriation of other people’s labour” (474) – Marx focused on “the apologetic interpretation” of net profit as *entirely* remuneration of superintendence, for he agreed that “[i]ndustrial profit included some part of wages – in those cases where the manager does not draw them” (496). (In this respect the capitalist “is the wage worker, even though not of another capitalist, yet of his own capital”; MECW 30: 413.) Superintendence would in fact have to be undertaken under *all* institutional arrangement involving “co-operation.” The peculiarity of *capitalist organization* is that such authority is “linked with exploitation” as the prerogative of a *particular class*. Furthermore, the tasks of direction are perceived as containing an *extra* component when undertaken within capitalist organization rather than other forms of “cooperation,” reflecting the capitalist’s dictatorial status *vis-à-vis* his workers – perhaps indiscipline on the

<sup>9</sup> Mill indeed included within his gross profit – apart from interest or “the remuneration of abstinence” – the “assiduity and skill of management,” but he refers also to the managerial element as remuneration for “the exertions *and risks* of the undertaker” (emphasis added), a word he took from French economists who “enjoy a great advantage in being able to speak currently of *les profits de l’entrepreneur*” (Mill 1963–91 [1848]: 400–1). See also note 17.



part of dissatisfied workers is intended – and “[t]hese costs, like the greater part of the trading expenses, belong to the *faux frais* of capitalist production” (MECW 33: 280; also 32: 504).<sup>10</sup>

The possibility that *all* directional tasks might be delegated to hired management raises the prospect that the income of industrial capitalists might evaporate entirely. This outcome Marx did not accept since he evidently takes for granted *a net payment to the industrial capitalist* – of course quite apart from interest – when objecting to the apologetic *identification* of industrial profit with managerial wages, an identification which in fact implied the end of “capitalist production, the appropriation of the surplus labour of others.” (MECW 33: 280). *A net income to the industrial capitalist remains even when all directional tasks are delegated.*

We proceed on the assumption that the industrial capitalist himself undertakes at least those managerial functions peculiar to capitalist arrangement, and note Marx’s rejection of the apologetic *interpretation* of the corresponding income: “In so far as specialised work of this kind arises out of functions created by capitalist production itself, it is of course absurd to use capital’s performance of these functions to prove the necessity of its existence” (MECW 30: 262). It was *a fortiori* the case that those tasks of superintendence common to a range of “cooperative” arrangement could not *justify* the return to private capital as a permanent or “necessary” income (MECW 32: 497–8). Tribute is paid to the British socialists for recognizing that managerial services can often be purchased on the market, proving that it “has become quite unnecessary for *capitalists* to perform this labour of direction” (497). This inference was reinforced by “the cooperative factories built by the workers themselves. They are proof that the capitalist as functionary of production has become just as superfluous to the workers as the landlord appears to the capitalist with regard to bourgeois production.”<sup>11</sup> Again, superintendence “is fully taken into account in the wages of the general manager in the larger capitalist enterprises. It has already been deducted from the general rate of profit. The best practical proof of this is provided by the cooperative factories set up by the English workers, for these, despite the higher rate of interest they have to pay, yield profits higher than average, although the wages of the general manager, which are naturally determined by the market price for this kind of labour, are deducted” (MECW 33: 280). This passage confirms that *the average return on capital contains a net surplus after all managerial costs (and interest) have been met.*

We must here take account of Marx’s observation that “industrial profit rises and falls in inverse [proportion] to interest or rent” (MECW 32: 497; see also

<sup>10</sup> With the end of capitalism, only those managerial tasks pertinent to all “cooperative” undertakings will remain: “Even this function would disappear together with the capitalist production, in so far as it does not arise from the nature of cooperative labour but from the domination of the conditions of labour over labour itself” (MECW 33: 282).

<sup>11</sup> An editorial note here refers to the Rochdale Equitable Pioneers’ Society dating to 1844, pointing out that such cooperatives “often combined productive functions with their activities as consumers’ societies.”

475, 493), or citing Ramsay (1836: 214): “The profits of enterprise depend upon the net profits of capital [interest], not the latter upon the former” (MECW 33: 279). These “surplus gains” – as they were labeled by Ramsay – are “determined absolutely by the ratio of interest to industrial profit; [i.e. the ratio between] the two parts into which the surplus value accruing to capital (in contrast to landed property) is divided” (282).<sup>12</sup>

It should be noted that the *canonical* inverse profit-wage relation – to which of course Marx also subscribed – entails the “surplus gains” of the industrial capitalist, which may include managerial wages, *plus* the interest paid to monied capital on the one hand, relative to the wage on the other.<sup>13</sup> For the return to management when undertaken by the industrial capitalist, though we have seen represented as a sort of wage corresponding to the market rate for *hired* management, is said to follow a path of its own unrelated to the falling trend path of the standard wage rate: “the superintendence of labour” has “nothing whatever to do . . . with the *decline in wages*” (MECW 32: 497). To the contrary: “This kind of wages has the peculiarity that it falls and rises in inverse proportion to real wages . . .,” whereas “the apologetic vulgarian . . . regard[ed] them as identical.”<sup>14</sup> In brief, *the implicit wage paid for managerial labor undertaken by the capitalist does not follow the market rate for such labor*, but like the “surplus gain” of which it is a part is treated as a residual after all outgoings (including interest payments) have been met.<sup>15</sup> The further circumstance that “the salaries of masters stand in inverse ratio to the size of capital” went to the root of the matter, by revealing that “[t]he larger the scale on which the capital operates, the more *capitalist* the mode of production, the more negligible is the element of industrial profit which is reducible to salary, and the more clearly appears the real character of industrial profit, namely, that it is a part

<sup>12</sup> Marx MECW 33: 279 cites Ramsay’s Say-like view on the industrial capitalist as a sort of fourth factor apart from and opposed to laborers, interest-receiving capitalists, and landlords: “The industrial capitalist is the general distributor of wealth; he pays to the labourers, the wages, to the capitalist, the interest, to the proprietor, the rent. . . . It is the master who *hires* labour, capital, and land, and of course tries to get the use of them on as low terms as possible; while the owners of these sources of wealth do their best to *let* them as high as they can” (Ramsay 1836: 218–19).

<sup>13</sup> Also apparent is the implication that profit-rate equalization entails the distribution of “surplus,” including the “surplus gains” of the active capitalist *plus* interest *plus* an insurance element (see pp. 429–30).

<sup>14</sup> These notions owed something to Ramsay who is cited (1836: 227, 229) thus: “The salary [of the employer], like the labour [of superintendence], remains roughly the same, be the concern large or small” (MECW 33: 282). But there is too a possible Smithian element, for Smith had maintained that “the labour of superintendence does not increase in the same measure as the scale of production . . .” (MECW 32: 258, paraphrasing Smith 1937 [1776]: 49).

<sup>15</sup> J. S. Mill too has it that the wages of management are determined in a different manner from ordinary labour, since they derive from sale of the product rather than contractually (1963–91 [1848]: 404). His early essay “On Profits and Interest” is very explicit: “The wages of superintendence . . . are not paid in advance out of capital, like the wages of all other labourers, but merge in the profit, and are not realized until the production is completed. This takes them entirely out of the ordinary law of wages . . .” (1963–91 [1844]: 301).

of the surplus gains, i.e. of surplus value, i.e. of unpaid surplus labour” (MECW 33: 282–3). Although managerial costs undertaken by the capitalist *formally* fall within the “surplus gains” or the “profits of enterprise,” the *true* surplus excludes the managerial return.

What then, more precisely, did Marx have to say of those tasks of control and supervision peculiar to capitalist organization? What he intended is conveniently summarized in the following extract relating to the labor process. The focus is entirely on economizing in the sense of avoidance of wastage of various sorts: “[T]he capitalist . . . will make sure that the material of labour is used for the right purpose. . . . If any material is wasted, it does not enter into the labour process, is not consumed as material of labour. The same is true of the means of labour, when, e.g. the worker wears out their material substance in a manner other than that prescribed by the labour process itself. Lastly, the capitalist will make sure that the worker . . . expends *necessary labour time only*, i.e. does the normal quantity of work over a given time” (MECW 30: 93). What is entailed is “a relation of domination and subordination, in that the consumption of labour capacity is done by the capitalist, and is therefore supervised and directed by him . . .” (MECW 34: 96).

These managerial tasks appear to entail *routine cost control*. There is no suggestion that they might include an element of non-routine decision-making in uncertain circumstances.<sup>16</sup> We shall, however, see reason to qualify this conclusion somewhat.

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Industrial capitalists also engage in allocative decision-making assuring the tendency towards uniformity of rates of return. Such activity entails “discerning” market price-cost price differentials over a seven-year cycle in “a very complex movement . . .” (MECW 32: 460), a task rendered more complex still in the open economy: “The industrial capitalist faces the world market; [he] therefore compares and must constantly compare his own cost prices with market prices not only at home, but also on the whole market of the world. He always produces taking this into account” (467; see also 33: 94–5 cited Chapter 10, p. 294).

<sup>16</sup> J. S. Mill took the matter further. Even where the manager is hired, “prudence” required that he be somehow controlled by the capitalist *or that he be stimulated by a share in profits* (Mill 1963–91 [1848]: 402); thus even the hired manager is accorded a degree of entrepreneurial status (cf. Rainelli 1983: 800, 802). This conclusion is reinforced by an allowance – it relates even to managers hired on contract – that “[w]here the concern is large, and can afford a remuneration sufficient to attract a class of candidates superior to the common average, it is possible to select for the general management . . . persons of a degree of acquirement and cultivated intelligence which more than compensates for their inferior interests in the result” (Mill 1963–91 [1848]: 139). Such managers may do a better job than the capitalists themselves – *including the task of undertaking ventures “out of the ordinary routine”* (emphasis added). Mill similarly spells out that the efficient exercise of managerial control, “if the concern is large and complicated, requires great assiduity, and often, no ordinary skill [which] must be remunerated” (401). And yet more specifically he refers to the “exertions and risks of the undertaker” in discussing the managerial function (see note 9).

Circumstances such as these, at least in principle, open up the prospect that “profit” – the “surplus gain” – does contain some return to uncertainty. But Marx, we shall now see, avoided any such implication by focusing on the *general* or *average* return on capital, presuming it to be independent of the standard of judgment exercised by the class of capitalists in a particular industry.<sup>17</sup> But here he went a step further and applied this same solution to *managerial* “skill,” recognizing a degree of non-routine decision making in that sphere – and obliging us to qualify our earlier conclusion – but stepping around it: “As far as the general *rate of profit* is concerned, the labour of the capitalists arising from their competition with one another and their attempts to ruin one another counts just as little as the greater or lesser skill of one industrial capitalist compared to another in extracting the largest amount of surplus labour from his workers for the smallest expenditure and making the best use of this extracted surplus labour in the process of circulation” (MECW 33: 280).<sup>18</sup> The *general theory of surplus value* thus dictated the response Marx was bound to make in the face of uncertainty or non-routine decision-making.

Allowances for individual judgment are indeed to be found, but again any doctrinal threat is diverted. We have in mind “profits of expropriation” – or as expressed elsewhere “profits upon alienation” – namely the sale of goods above value (cf. MECW 30: 351). Marx points out with reference to such profits that “there is a particularly wide scope for the ‘individual work’ of the capitalist in this, the mercantile field, where it is not a matter of creating surplus value but of distributing the aggregate profit of the whole class of capitalists among its individual members” (MECW 33: 351).<sup>19</sup> The important point for us to note is a declaration in this particular context that “[a]ll profits of expropriation are *uncertain*” (emphasis added), an allowance that is said in no way to affect the *creation* of surplus value in the production process, only its *distribution*. As such it could be safely admitted.

<sup>17</sup> J. S. Mill had already taken a similar line, profit-rate equalization referring not to “equal profits, but equal chances [1862: expectations] of profit” on the part of “persons of *average* abilities and advantages” (1963–91 [1848]: 406). Thus for Mill the tendency to uniformity must be understood as referring to *employments* not *individuals*; for (excluding pure interest) profit which in equilibrium varies little between employments may vary greatly between individuals, depending on “the knowledge, talents, economy, and energy of the capitalist himself, or of the agents whom he employs; on the accidents of personal connexion; and even on chance.”

<sup>18</sup> “These matters,” Marx adds, “should be dealt with in the analysis of the competition of capitals. Such an analysis deals in general with the struggle of the capitalists and their effort to acquire the greatest possible amount of surplus labour and it is concerned only with division of the surplus labour amongst the different individual capitalists, and not with the origin of surplus labour or its general extent” (MECW 33: 280).

<sup>19</sup> Marx also notes regarding the mercantile field that “[c]ertain kinds of profit, e.g., that based on speculation, occurs solely in this field.” He goes on to charge “vulgar economy” – referring to Roscher 1858: 384f – with the “brute stupidity that it lumps these . . . with profit so far as it originates in the creation of surplus value . . . with the causes behind the exploitation of the workers by the capitalists, with the factors behind the origin of profit as such . . .” (MECW 33: 351).

But this is surely wishful thinking when we recall how porous is the distinction between the “creation” and “realization” of surplus value.<sup>20</sup>

#### D. Science and the Sources of New Technology

Marx commended Richard Jones (1852) for his insight “that the increase in auxiliary capital” – Jones’s term for constant capital other than raw material – “over and above a certain level is contingent on an *increase of knowledge*” or “some invention by means of which the productive power of labour is increased sufficiently to reproduce the additional capital and to produce a profit on it” (MECW 33: 361). One might expect uncertainty-bearing to appear in a discussion of knowledge creation. But this proves not to be the case, and we shall seek to understand why.<sup>21</sup>

Marx’s emphasis is largely on *applied* science. This emerges in the theme that “[c]apitalist production leads to the separation of *science from labour* and at the same time to the application of science to material production” (364).<sup>22</sup> These joint propositions presume capitalist organization in its *advanced* form entailing “mechanized” factories contrasting with Smithian manufacturing (above, section B), the mechanized factory being “the first mode of production where practical problems are posed which can only be solved scientifically. Only now is experience and observation – and the necessities of the production process itself – on a scale which permits and necessitates the application of scientific knowledge. *Exploitation of science*, of the theoretical progress of humanity. Capital does not create science, but it exploits it, appropriates it to the production process” (MECW 34: 32–3). As such, it operates “as an autonomous power separated from labour” in contrast with the earlier “collection of procedures carried on traditionally and only expanding very slowly and little by little,” reflecting the “[l]earning by experience of the mysteries of each handicraft” (33).<sup>23</sup> Thus “*scientific knowledge* . . . is embodied in . . . machinery, or in the methods of producing, chemical processes, etc.”;

<sup>20</sup> References in the *Grundrisse* to devices relating to information that mitigates the dissonance between production and consumption decisions, are highly relevant (MECW 28: 98; cited Chapter 9, p. 274).

<sup>21</sup> Rosenberg cautions that “Marx’s use of the term ‘science’ was sufficiently broad that it included bodies of systemized knowledge far beyond what we ordinarily mean when we speak today of pure or even applied science – e.g., engineering and machine building. It was not a term which he attempted to use with precision. In *Theories of Surplus Value* [MECW 34: 87], for example, he refers to science as ‘the product of mental labour’” (Rosenberg 1974: 718n). This problem should not be exaggerated. In many of the specific extracts given below, a more precise sense of the term is intended.

<sup>22</sup> This theme is taken up in *Capital 1*: “modern industry . . . makes science a productive force distinct from labour and presses it into the service of capital” (MECW 35: 366). Support for the proposition is drawn here from Thompson 1824: 274. Marx allows that “[a]dmittedly, a small class of higher workers does take shape, but this does not stand in any proportion to the masses of ‘deskilled’ workers” (MECW 34: 34).

<sup>23</sup> Marx refers to the “concentration and . . . development into a science of the knowledge, observations and craft secrets obtained by experience and handed down traditionally, for the

and its application in this form “rests entirely on the separation of the intellectual potentialities of the process from the knowledge, understanding and skill of the individual worker . . .” (34).

The emphasis above is on applications to production of knowledge which itself reflects the “theoretical progress of humanity.” That *knowledge-creation* proceeds independently of social organization is also suggested by the observation that “[i]n the eighteenth century advances in mathematics, mechanics and chemistry and discoveries occurred at almost the same rate in England, France, Sweden, and Germany. *Inventions* too in France for example. But only in England were they applied in capitalist fashion at the time, because there alone were the economic relations sufficiently developed to allow the exploitation of scientific progress by capital” (58).<sup>24</sup> This suggests an autonomous science. So too does Marx’s belief that the delayed growth in agricultural productivity could be explained by the late development of certain scientific disciplines, whereas industry could rely on developments that had come earlier: “Mechanics, the really scientific basis of large-scale industry, had reached a certain degree of perfection during the eighteenth century. The development of chemistry, geology and physiology, the sciences that *directly* form the specific basis of agriculture rather than of industry, does not take place till the nineteenth century and especially the later decades” (MECW 31: 341) – the latter a reference to the 1840s and 1850s. (On this perspective see above, Chapter 4, pp. 124–5). As Rosenberg points out, the fact that profitable opportunities in agriculture failed to induce the requisite knowledge, “suggests some degree of independence and autonomy on the part of science in shaping the sequence of industrial change” (1974: 726).

That the capitalist relies on the “theoretical progress of humanity” – that he *exploits* rather than *creates* science – is also suggested by the notion that *knowledge creation* has the character of *skill creation*, in that both are available *free* to the industrial capitalist. One context involves a commendation of Hodgskin’s denial of labor’s alleged dependency on *accumulated* circulating capital; for “[w]hat is really ‘stored up’ . . . is the *skill* of the worker, the level of development of labour,” and true accumulation must be understood as “*assimilation*, continual preservation and at the same time transformation of what has already been handed over and realised” (MECW 32: 427–8).<sup>25</sup> Such accumulation – achieved “through practice alone” – “costs the capitalist nothing” (MECW 34: 323). And by proceeding immediately to “the accumulation and reproduction of *scientific knowledge*, which determines the

purpose of analysing the production process to allow the application of the natural sciences to the material production process . . .” (MECW 34: 34).

<sup>24</sup> Rosenberg draws on *Capital 1* to demonstrate the theme that “the handicraft and manufacturing stages of production lacked the technological basis which would *permit* the application of scientific knowledge to the solution of problems of industrial production. This essential technological basis emerged only with modern industry” (Rosenberg 1974: 717–18).

<sup>25</sup> See also the relation of labor productivity to “the division of labour and *transmitted skill* . . .” (MECW 33: 385).

material process of production more or less directly,” Marx implies that knowledge creation has the same character. He is, in fact, explicit when he compares population growth and “scientific power” as “productive force[s]” which cost the capitalist nothing (18).

Deflection of attention from the role of the *capitalist* in knowledge creation actually extends to *applied* science. Thus we find reiterated not only that *basic* science reflects the “*general* product of social development” (429), or “the general intellectual product” of such development (457), or “the product of general historical development” (458), but also that *applied* science – its embodiment in “machinery” – has only “the appearance of a *productive power of capital*” (429; also 458), deflecting attention from knowledge-creation as a function attributable to the industrialist capitalist. From this perspective if capital is *productive* it is – apart from “the *compulsion [it imposes] to do surplus labour*” – only “as the *personification and representative*, the reified shape of the ‘social productive powers of labour’ or the productive powers of social labour” (459–60). It is, one is led to understand, *capitalist organization* that provides the key to all sources of productivity increase, but not the *capitalist*.<sup>26</sup>

At first sight Marx’s perspective has much in common with that of J. S. Mill. For Mill also took for granted that the fruits of “speculative knowledge” comes free to the capitalist, theoretical discoveries reflecting the efforts of the “savant” not generally motivated by financial interest, while many practical inventions are “the direct consequences of theoretical discoveries, and every extension of knowledge of the powers of nature being fruitful of applications to the purposes of outward life . . .” (Mill 1963–91 [1848]: 42–3). A contemporary example is the “electromagnetic telegraph,” an “unexpected consequence of the experiments of Oersted and the mathematical investigations of Ampère.” Again: “The most marvelous of modern inventions . . . the electromagnetic telegraph – sprang into existence but a few years after the establishment of the scientific theory which it realizes and exemplifies” (706).

This parallelism must, however, be severely qualified. For we also find with Marx a very different and more sophisticated position. Thus while the capitalist *exploits* rather than *creates* science there is nonetheless a reciprocal relationship at play: “It is the capitalist mode of production which first puts the natural sciences to the service of the direct production process, while, conversely, the development of production provides the means for the theoretical subjugation of nature” (MECW 34: 32). The “separation and autonomisation” from labor of applied knowledge, described above, “which is at first of advantage to capital alone, is at the same

<sup>26</sup> In this context Marx treats as “superficial” J. S. Mill’s definition of the *productive power of capital* as “the quantity of real productive power which the capitalist, by means of his capital, can command” (1963 [1844]: 291; cited MECW 34: 460). Insofar as Marx had in mind *knowledge* there is room for criticism, for Mill made little effort to explore the determinants of resources devoted to knowledge creation, much of his discussion being of an empirical rather than an analytical nature (see Hollander 1985: 226–7).

time a *condition for the development of the powers of science and knowledge*” (57). Again: “. . . socialised labour alone is capable of applying the *general* products of human development, such as mathematics, etc., to the *direct* production process just as, conversely, the development of the sciences presupposes that the material production process has attained a certain level” (429).<sup>27</sup> These propositions imply that modern industrial capitalism is sufficiently productive to support a specialist scientific sector whose activity, though perhaps biased towards specific application, generates breakthroughs in knowledge of wider social significance in terms of new opportunities for wealth creation.<sup>28</sup> And that *science funding – extending apparently to basic science – falls to the industrial capitalist* emerges in a further passage in the *Economic Manuscripts*, explaining that though even knowledge relating to industrial application is the task of a specialist scientific sector, such activity is governed by the profit motive with an eye to opportunities in the industrial sector, and *ultimately funded out of industrial profits* – the sciences constituting “a means of enrichment by capital,” *thereby* becoming “a means of enrichment” for the scientists; thus: “The development of the natural sciences themselves (and they form the basis of all knowledge) as also the development of all knowledge with regard to the production process, itself takes place on the basis of capitalist production, *which generally first produces the sciences’ material means of research, observation and experiment*” (34; emphasis added).

Marx further explains that “the men of science compete with each other to discover *practical applications* for their science. Moreover, *invention* becomes a *métier* by itself. With capitalist production, therefore, the *scientific factor* is for the first time consciously developed, applied, and called into existence on a scale which earlier epochs could not have imaged.” That “the men of science compete with each other to discover practical applications for their science” may imply that the *initiative* in the discovery of new or improved technologies is taken by the science sector, though it cannot be excluded that it is the industrial capitalist who initially puts out tenders for the solution of technical problems encountered by current processes or for proposals regarding more radical improvements. We conclude

<sup>27</sup> The complex interdependence is captured by Rosenberg who has pointed out that, in *Capital I*, “science does not . . . function in history as an independent variable” (Rosenberg 1974: 714), Marx adopting “a Toynbeeian ‘challenge-response’ mechanism to account for the emergence of high productivity societies, in which the changing requirements of industry and the altering perception of economic needs . . . provide the stimulus to the pursuit of specific forms of scientific knowledge” (725); similarly: modern science itself was, for Marx, “an activity arising out of the needs of the productive process . . . the incentive structure of capitalism” (1991: 158; also 1994: 91). At the same time, the “demand-induced” approach to science is contingent on “the ability to apply science to the productive sphere [which] turns upon industry’s changing capacity to utilize such knowledge . . .” (1974: 725).

<sup>28</sup> A striking passage to this effect appears already in the *Grundrisse* (see Chapter 9, p. 277): “The all-round exploration of the earth to discover both new useful objects and new uses for old objects, such as their use as raw materials, etc.; hence the development of the natural sciences to their highest point” (MECW 28: 336).



that despite Marx's efforts to deny the industrial capitalist responsibility for basic and even applied science – for any such allowance might suggest attribution of a “productive” role – in the last resort such responsibility is in fact recognized.

\* \* \*

Marx's allowances prove less damaging than might appear to the notion of profit as exploitation, considering an implicit downplaying of *uncertainty* at least with respect to *applied* knowledge creation. I refer to a discussion of the forces at play which release resources for “new kinds of employment,” and simultaneously develop latent or entirely new “needs” *and also the technology – or “modes of labour” – required to satisfy them*:

Capitalist production, hence the division of labour within the workshop according to certain rules, directly increases the free division of labour within society . . . by making the labour of a particular number of workers more effective, therefore by constantly setting free a part of the labour force for new kinds of employment and thereby simultaneously developing needs which were so far latent or not present at all, *and modes of labour to satisfy those needs*. This process is also promoted by the increase of the population, by the cheapening of the means of subsistence required for the reproduction and multiplication of labour capacities; also by the fact that the surplus value, which becomes a part of revenue, now seeks to realise itself in the most diverse use values (MECW 30: 314, emphasis added; also 32: 403).<sup>29</sup>

An alternative version – following Hodgskin and Wakefield – emphasizes “the variation and differentiation of commodities” or “the establishment of new branches of production and the multiplication of kinds of commodities produced,” referring again both to these “new needs” and *therefore* to the “new means of satisfying them”:

The different *phases of one and the same product*, as well as the auxiliary operations (that is, the labour connected with various constituent parts, etc.) are separated and become different branches of labour, independent of one another; or various phases

<sup>29</sup> On the generation of new products see also: “the application of machinery increases the division of labour within society, that is to say it multiplies the number of specialised branches of industry and independent spheres of production” (MECW 30: 321); and the references to “[t]he *material* result of capitalist production” as “the *multiplication and diversification of products*,” and “the creation of *use values* in increasing extent, quality, diversity . . .” (MECW 34: 126). Marx cites G. Opdyke 1851 to the effect that “the augmented profits of [industry] set free a *large number of desires*, increase the demand for and the production of value in its consumable forms” (56). But elsewhere Marx played down the quantitative significance of entirely “*new branches of industry . . . founded on machinery*” – where “one cannot of course speak of the replacement of workers by machinery” – to focus on innovation within existing industries: “this case does not in general arise until machinery is already developed; in an advanced epoch of the mode of production based on it, and even here only to an infinitesimally small extent, whether compared with commodities where human labour is displaced by machinery, or commodities which replace those produced previously by hand labour alone” (27). Again, we find in this context the term “revolution” used to designate the *transition* from handicraft manufacture to the mechanical workshop. See also MECW 30: 329 on this usage.

of one product become *different kinds of commodities*. But secondly, owing to labour and capital (or labour and surplus product) becoming free; on the other hand, to the discovery of new practical applications of the same use value, either because new needs arise as a result of the modification of No. 1 [large-scale production] (for example, the need for more rapid and universal means of transport and communication arising with the application of steam in industry) and therefore new means of satisfying them, or new possibilities of utilising the same use value are discovered, or new substances or new methods (plastic-galvanisation, for instance) for treating well-known substance in different ways, etc. (MECW 32: 422).

These renditions seem to entail a notion of “discovery” as the *quasi-automatic* outcome of a novel problem created by “new needs,” thereby leaving little scope for uncertainty.<sup>30</sup> Elsewhere we read to similar effect that “[e]very invention becomes the basis of new inventions or new, improved methods of production” (MECW 34: 32).<sup>31</sup>

This may perhaps also be said of the inducement to engage in knowledge-creation encountered in discussion of substitution against labor. Marx intends process selection not on the basis of relative factor prices amongst a range of already available technologies or sets of blue-prints, but rather selection of an appropriate capital-intensive technique which becomes available *after appropriate knowledge has been generated*, the quest for which is stimulated by wage pressures. This perspective is outlined in a proposition regarding “[i]nvention and employment of machinery against strikes, etc., and against wage demands”; for example: “Selfactors, wool-combing machines in the spinning industry, the so-called ‘condenser’ which replaces the hand-turned ‘slubbing machine’ (in the woollen industry as well), etc., are all machines invented in order to defeat strikes” (MECW 30: 340). Similarly: “It is also demonstrated in *strikes* that machinery is invented and employed in direct opposition to the claims of living labour, and that it appears as a means of defeating and breaking them. (See *Ricardo* on the constant antagonism between machinery and living labour.)” (MECW 34: 29). In all of this there seems little room for uncertainty regarding the outcome.

<sup>30</sup> There is, however, some question whether the quasi-automatic “new means of satisfying them” also extends to the discovery of “new possibilities of utilizing the same use value . . . or new substances or new methods . . .”

<sup>31</sup> As an example we may refer to the significance accorded improvement in the *quality* of machinery itself produced by machinery, as a precondition of further progress both with respect to driving power and working equipment (MECW 33: 421–2). Here the anonymous work of 1855 (see note 8) is cited: “The construction of a machine to bring iron into shape must differ very materially from one intended to deal with the soft and delicate fibre of silk or cotton. A far *greater exercise of force* is necessary for the former class of engine. Without the steam-hammer, the lathe, and the drill, such machines as the printing press, the powerloom, and the carding-engine could not have been constructed” (1855: 221–2).

### E. Innovatory Investment

In the previous section we have focused largely on the generation of knowledge, whether basic or applied. What though of the actual introduction of technical change by an innovating firm? The fact is that notwithstanding all his technological determinism *Marx* did enter into individual motivation, and even into the complex calculations required of the innovating entrepreneur in an uncertain environment. Here the contrast between Smithian manufacture and the “mechanical” workshop turns out to be crucial, for the latter alone is characterized by high capital cost (above, p. 413): “The curtailment of living labour rests here upon a revolution in this part of constant capital [machinery], and one can say . . . that complex, large-scale, and expensive instruments of production replace simple and cheap ones” (MECW 33: 376). For “[t]he forces of nature cost nothing; they enter into the labour process without entering into the valorisation process,” whereas “the prime motors on which they act, or through which [they] are appropriated for the labour process, do cost something. The past labour contained in the constant capital forms a value component of the commodity, just as does the living labour obtained in exchange for the variable capital” (477). Similarly: “The increase in productive power achieved through simple cooperation and the division of labour costs the capitalist nothing. They are natural forces provided free of charge by social labour in the particular forms it takes on under the rule of capital,” whereas “*machinery . . . is a productive force which has been produced; it costs money*” (MECW 30: 321–2; emphasis added).

The heavy outlays relating to constant capital involving use of machinery in the mechanical workshop, obliges investigation of its *potential* profitability and thus the *motivation* on the part of the prospective innovator. Marx himself formulates the issue thus: “Why . . . is the commodity produced by this more expensive instrument of production cheaper than the commodity produced without it? Why is the labour time contained in the machinery itself less than the labour time replaced by it?” (MECW 30: 323; cf. 33: 376–7, 477). “[T]he problem is solved,” Marx concludes, “by saying that the total quantity of the commodities produced by the machinery is *so large* that in every aliquot commodity there enters a smaller value component (part of the depreciation) of the machinery, buildings and the *matières instrumentales* needed for the functioning of the machinery than if the same commodity were produced in the old manner by human beings and their old craft tools” (MECW 33: 377).

But this merely defines the *potential* advantage flowing from adoption of expensive capital-intensive processes. Marx himself proceeds to some of the complexities faced by the capitalist in considering investment therein. In the first place, “[m]achinery, etc., is valorised over a lengthy period, during which the same labour process is constantly repeated in order to produce new commodities. This period is determined by calculating the average time it takes for the whole value of the machinery to be transferred to the product” (MECW 30: 332). In such calculation,

one presumes, the prospect of entry by imitators would be a crucial consideration. That Marx does not formally take up this matter in the present context is surprising considering the great weight placed on the whittling away of innovatory profit by imitators (below, p. 427). On the other hand, he does elaborate the prospect of *technological obsolescence* – a concern motivating expansion of the working day so as to reduce the “reproduction period.” For “[w]hen new machinery is introduced the improvements come thick and fast. Thus, a large part of the old machinery constantly loses part of its value or becomes entirely unusable before it has passed through its circulation period, or its value has re-appeared in the value of the commodities.” Accordingly: “*The more the reproduction period is curtailed, the slighter this danger is, and the more the capitalist is able, the value of the machinery having returned to him in a shorter period, to introduce the new improved machinery and sell cheaply the old machinery, which can again be profitably employed by another capitalist, since it enters into his production as from the outset the representative of a smaller magnitude of value*” (332–3; emphasis added).

It is not, therefore, the case that Marx, by adopting thoroughgoing technological determinism, denied that decision-making in an uncertain environment was required of the innovating capitalist.<sup>32</sup> But though he recognized the phenomenon, he sought to avoid any implications that might threaten the doctrine of surplus value as “exploitation.” This is the theme we shall now trace out.

The potential of “machinery” to allow production at reduced unit cost motivates its introduction by an innovating capitalist taking the going market price as given: “in the case of the individual capitalist, in so far as he seizes the *initiative*,” is the circumstance “that value = the socially necessary labour time objectified in the product, and therefore *surplus value* begins to be created for him once the *individual* value of his product stands *below* its social value, and can as a result be sold *above* its individual value” (MECW 34: 428). This principle applied generally, whether or not a wage-goods industry is involved, Marx referring to “the *direct motive* of the capitalist . . . hold[ing] sway over all the spheres of production which come under the control of capital equally, independently of the use value they produce and therefore independently of whether the product does or does not enter into the worker’s necessary means of subsistence or into the reproduction of labour capacity” (111). Now Marx recognized a threat to basic exploitation doctrine, but he sidesteps the issue by the simple if circular expedient of appealing to that very doctrine, and by emphasizing that productivity improvement results merely

<sup>32</sup> In discussing the process of adjustment to a cost reduction J. S. Mill took account of the strategies adopted by innovative entrepreneurs who, aware of the likelihood of entry by firms in response to the supernormal profit created, act to forestall them with an eye to demand elasticity and prospective market shares (1963–91 [1848]: 473–4; see Hollander 1985: 289–90, 316–17, 319–20, 385n). Even so, as with Marx, the implicit uncertainty element is not adequately brought to the surface.

For a modern discussion of relevant issues with respect to “technological expectations” see Rosenberg 1982: 104–19.

from the “social character” of “combined labor” – a notion encountered already (pp. 414, 421) – thereby dismissing the *ex ante* calculations by the innovator: “in its employment is the employment of combined labour, and it only produces *surplus value* as a means of exploiting to a higher degree the worker’s powers of labour and the of workers” (MECW 34: 126); similarly: “The economical use of those [communal] conditions of labour (and the resultant increase in profit and cheapening of commodities) . . . appears as something quite different from the *surplus labour* of the worker; it appears as the direct *deed* and *accomplishment of the capitalist*, who functions here altogether as the personification of the *social* character of labour, of the *total workshop* as such” (457).<sup>33</sup> And Marx took Richard Jones to task for neglecting to spell out explicitly “how he conceives the genesis of . . . profit” relating to innovatory investment, *which had to be understood in terms of exploitation*: “Jones [1852: 38f] declares that the second condition [for the use of auxiliary capital] is the ‘profit’ which the auxiliary capital must ‘produce’. . . . Nowhere does Jones explain how he conceives the genesis of this profit. . . . This surplus produce however, just as the other parts of the product, consists of the workers’ realised labour, but labour which is not paid for; this product of labour is appropriated by the capitalist without any equivalent” (MECW 33: 361).<sup>34</sup> And since the worker “gives the [innovating] capitalist a greater number of hours of labour as surplus labour, and it is only this relative surplus labour which provides the latter, when selling the commodity, with the excess of its price over its value . . . this case can also be subsumed under the general law that surplus value equals surplus labour” (MECW 30: 320).

There is a second line of defense and this might explain why Marx, after recognizing the initiatives of the innovating capitalist, felt able to all but dismiss them in an assertive appeal to the surplus-value doctrine. Innovatory profit – however interpreted – is merely a temporary income in the assumed competitive environment: “This kind of surplus value, which is based on the *difference between the individual and the social value* of a commodity, brought about by a change in the mode of production, is of diminishing magnitude, and falls to zero once the new mode of production is in general use, thereby itself becoming the average mode of production. . . . This form of surplus value . . . is transitory, it can only relate to the individual capitalist and not to capital as a whole . . .” (MECW 34: 111). This sort

<sup>33</sup> The ramifications of this perspective extended to criticism of Hodgskin: “The *capitalist*, as capitalist, is simply the personification of capital, that creation of labour endowed with its own will and personality which stands in opposition to labour. Hodgskin regards this as a pure subjective illusion which conceals the deceit and the interests of the exploiting classes. He does not see that the way of looking at things arises out of the actual relationship itself; the latter is not an expression of the former, but vice versa” (MECW 32: 429). More generally: “In the same way, English socialists say: ‘We need capital, but not the capitalist’ [Bray 1839: 59]. But if one eliminates the capitalist, the means of production cease to be *capital*.”

<sup>34</sup> Jones states three conditions for innovating investment: “The means of saving the additional capital; the will to save it; some invention by which it may be [made] possible . . .” (cited MECW 33: 358).

of response surely does not settle the issue; fortunes may be made in this “transitory” manner wholly consistent with the Schumpeterian perspective, for though innovatory profit or “the surplus of the entrepreneur . . . and his immediate followers disappears . . . [n]evertheless, the surplus is realised, it constitutes under given conditions a definite amount of net returns even though only temporary” (Schumpeter 1959 [1911]: 132).<sup>35</sup> This is *a fortiori* the case in a dynamic setting entailing ongoing technological progress.

### F. The Category of “Minor” Improvement

Marx distinguished between major innovatory investment and minor “improvements,” and the problem of “motivation” emerges also with regard to the latter, though here the element of uncertainty is inconspicuous.<sup>36</sup> Thus “[o]nce machinery has been introduced as the basis of a branch of production (with no more competition from manufacture)” – implying that the branch in question is based entirely in the mechanical workshop – “it only displaces labour to the degree that it is improved” (MECW 33: 374). There is accordingly a motive for each individual capitalist to introduce “ever new, small improvements” (MECW 30: 330).<sup>37</sup>

But minor improvements – at least those affecting power generation – are contingent on *prior* costly expansion,<sup>38</sup> thus reducing the significance of this category *as such* (MECW 33: 139–40). The quantitative significance of “minor” improvements is also in question in terms of their frequency. We read on the one hand that “[w]hen new machinery is introduced the improvements come thick and fast”

<sup>35</sup> We have shown that *individual motivation* was, for Marx – despite first appearance – *central to innovation*, though he sought to overcome the threat to the surplus-value doctrine created by innovatory profit. It may be noted that the matter of individual motivation also emerges incidentally in discussion of the proposition that surplus value will be *permanently* increased relative to the initial situation, after entry by imitating firms only in the event that a *wage-goods* industry is subject to innovatory investment (MECW 30: 334–5). But capitalist organization creates no *particular* bias in this direction; because reductions in wage-goods costs extend to *all* sectors, there is no “motive for the individual capitalist to introduce machinery . . . it is a general result which is not particularly advantageous to him” (329).

<sup>36</sup> Marx, for example, refers to Adam Smith on the advantage of intra-plant division of labor in stimulating the invention of machinery – in Marx’s terms “invent[ion] by the workers themselves, the whole of whose attention is exclusively directed towards a simple object . . .” (MECW 30: 273). The emphasis here is on the quasi-automatic generation of improvements to machinery not subject to heavy cost and uncertainty. Conceivably, the generation of knowledge and application reflecting *substitution against labor* (above, p. 424) entails typically less uncertainty and expense than “exogenous” innovation. And some at least of his remarks on the “discoveries” relating to the appearance of “new needs” (above, pp. 423–4) might refer to the solution to minor applied problems.

<sup>37</sup> Ure 1836: 62–3 is cited to illustrate that “[w]ith development, machinery becomes cheaper. . . . The driving force – the machine which produces the motive power – becomes cheaper as the machinery which transmits the power and the machine which the power operates, are improved, as friction is reduced, etc.” (MECW 33: 364).

<sup>38</sup> For a modern-day estimate, see Hollander 1965.

(see above, p. 426),<sup>39</sup> a weighting reinforced by the generalization that the capital-conversion process is “facilitated” by the extent of mechanization already achieved, for the existence of machines “facilitates the further transformation of circulating into fixed capital, and makes it possible to carry on this transformation on an ever growing scale” (MECW 32: 181). Yet Marx also writes that “[i]mprovements in machinery are gradual, or only come into general use gradually” (MECW 34: 39). This apparent contradiction may perhaps be resolved to some extent by reference to an empirical circumstance. Marx explains the pressures towards an extension of the workday as a means of raising surplus value once temporary innovatory profits had been whittled away by competition, i.e., once “the *social value*, the market value, of the commodities produced with machinery [is] brought down to their individual value, so that the capitalist can no longer pocket the difference” (MECW 33: 380).<sup>40</sup> Now *legislation to control hours* precluded such extensions, thus creating an incentive to introduce compensatory “improvements” to raise the *intensity of work*.<sup>41</sup> In fact, Marx goes so far as to declare that without the legislative pressure “that great revolution in the running of industry would not have occurred” – though it was also true that all depended on the “technological development already attained” – having in mind specifically “the small, piece-by-piece improvements in machinery” and its speed of operation (384). Notwithstanding the qualification, to argue in this fashion is to threaten the concept of “technological determinism.”

### G. On Measurable Risk and Insurance

Marx accepted Ramsay’s view (Ramsay 1836: 199n) that compensation for risk, in contemporary English circumstances, does not fall on the lender: “Ramsay says – rightly [that] . . . ‘we cannot consider compensation for risk as at all entering into the interest received from the funds [lent] on what would be called good security’” (MECW 33: 279); the “want of certainty of repayment,” Marx paraphrases Ramsay, “is not a factor which enters into the calculation.”<sup>42</sup> Rather, he cites Ramsay (1836: 226) to the effect that “[t]he profits of enterprise may be considered as made up of three parts: 1) the salary of the master; 2) [an insurance for] his risk; 3) his *surplus*

<sup>39</sup> Babbage 1832: 281 is cited on the rapidity of improvement (MECW 33: 350).

<sup>40</sup> Marx here represents extensions of the work-day as reflecting an *unconscious* drive, contrasting with the conscious quest for methods which find their profitability – as explained above – in spreading the high costs of machinery so that unit costs decline: “This is a driving motive entirely independent of the valorisation of the part of the constant capital which consists of machinery and buildings. The valorisation motive, as being more obvious, is directly present in the consciousness of the capitalist and their spokesmen” (MECW 33: 380).

<sup>41</sup> See the citation of Horner’s factory reports regarding the “great improvements that have been made in machinery . . . improvements to which a stimulus was doubtlessly given, *especially as regards the greater speed of the machinery in a given time, by the restrictions of the hours of work*” (MECW 33: 473). The theme is rehearsed in *Capital 1* (see Chapter 15, note 14).

<sup>42</sup> By contrast, Adam Smith had allowed for a risk-of-default element within interest (1937 [1776]: 96).

gains” (MECW 33: 281).<sup>43</sup> But *measurable risk* created no problem for the theory of surplus value: “Corbet [1841: 100–102] (and Ramsay himself [1836: 222–5]) has stated that the *insurance* which covers the risk only distributes the losses of the capitalists uniformly or distributes them more generally amongst the whole class. The profits of the insurance companies . . . must be deducted from these uniformly distributed losses. These companies receive a part of the surplus value in the same way as mercantile or monied capitalists do, without participating in its direct production.” More specifically: “The worker obviously cannot provide any more than his surplus labour. He cannot make an additional payment to the capitalist so that the latter may *insure* the fruits of this surplus labour *against* loss. . . . Instead of each capitalist insuring himself, it is safer as well as cheaper for him if one section of capital is entrusted with this job. Insurance is paid out of a portion of surplus value, its protection and distribution between the capitalists has nothing to do with its origin and extent” (281–2).<sup>44</sup> Marx in this manner deflected at least one threat to the basic surplus-value doctrine.<sup>45</sup>

#### H. On “Profit of Enterprise” in *Capital 3*

The term “profits of enterprise” appeared in the *Economic Manuscripts* following Ramsay (above, p. 416). *Unternehmergeinn*, understood as a payment “deriving solely from the operations, or functions, which he [the “active capitalist”] performs as entrepreneur in industry or commerce,” is also found in *Capital 3* (MECW 37: 370).<sup>46</sup> We shall try to see whether any substantive modifications to Marx’s perceptions emerge in these somewhat later materials.

To be noted first is the implicit denial that knowledge-creation – science and invention – is in any way the responsibility of the industrial capitalist: “Universal labour is all scientific labour, all discovery and all invention. This labour depends partly on the co-operation of the living, and partly on the utilisation of the labours of

<sup>43</sup> Shortly thereafter Marx clouds the issue by positing that “surplus gains” themselves include compensation for risk (MECW 33: 282).

<sup>44</sup> See also *Capital 3*: “. . . investments of capital in lines exposed to greater hazards, for instance in shipping, are compensated by higher prices. As soon as capitalist production, and with it the insurance business, are developed, the hazards are, in effect, made equal for all spheres of production (cf. Corbet 1841: 100-02); but the more hazardous lines pay higher insurance rates, and recover them in the prices of their commodities” (MECW 37: 207).

J. S. Mill, who allowed for the “risks of the undertaker” within gross profit, also appreciated that when they are “committed for a fixed payment,” the insurance premium becomes a regular production cost (1963–91 [1848]: 404).

<sup>45</sup> Noteworthy too is Marx’s further remark that under Socialist organization allowance for insurance would also be required: “At most one could say that, even apart from capitalist production, the producers themselves might have certain expenses, that is, they would have to spend a part of their labour, or of the products of their labour in order to insure their products, their wealth, or the elements of their wealth, against accidents, etc.” (MECW 33: 282).

<sup>46</sup> Marx makes to mention of Mangoldt 1855. On Mangoldt’s *Unternehmergeinn* in relation to uncertainty, and Mangoldt’s predecessors including von Thünen, see Tuttle 1927.



those who have gone before" (106). Yet more explicitly, "the uninterrupted advance of science and technology" is represented in *Capital 1* as falling "gratis" to the capitalist: "science and technology give capital a power of expansion independent of the given magnitude of the capital actually functioning. They react at the same time on that part of the original capital which has entered upon its stage of renewal. This, in passing into its new shape, incorporates gratis the social advance made while its old shape was being used up" (MECW 35: 601).<sup>47</sup> This orientation has been encountered in the 1861–63 materials (above, pp. 420–1).

It will also be recalled that the "surplus gain" of the *Economic Manuscripts* formally included managerial wages received by the industrial capitalist (above, p. 414); and, consistently with this, that the inverse relation there posited between industrial profit and interest included the managerial return within the former (above, p. 416). In *Capital 3* too the return to the active capitalist reflecting "entrepreneurial" functions in their entirety varies inversely with contractually paid interest (MECW 37: 370–1). There is then no change of orientation in this regard. Also to be noted is use of the term "appearance" with respect both to the profit obtained by the "functioning capitalist" and the interest obtained by the owner of capital, considering that both reflect *exploitation* despite the impression to the contrary: "The interest he pays to the [money capitalist] thus *appears* as that portion of gross profit which is due to the ownership of capital as such. As distinct from this, that portion of profit which falls to the active capitalist *appears* now as profit of enterprise, deriving solely from the operations, or functions, which he performs with the capital in the process of reproduction, hence particularly those functions which he performs as entrepreneur in industry or commerce" (371; emphasis added). Appearance is particularly misleading in the case of interest "[b]ecause, in the first place, the rate of interest is independently determined despite its dependence upon the general rate of profit, and, in the second place, like the market price of commodities, it appears in contrast to the intangible rate of profit as a fixed, uniform, tangible and always given relation for all its variations" (374–5).<sup>48</sup> Furthermore, interest does

<sup>47</sup> An illustration of the theme relates to chemical technology: "Every advance in chemistry not only multiplies the number of useful materials and the useful applications of those already known, thus extending with the growth of capital its sphere of investment. It teaches at the same time how to throw the excrements of the processes of production and consumption back again into the circle of the process of reproduction, and thus, without any previous outlay of capital, creates new matter for capital" (MECW 35: 601).

<sup>48</sup> Yet elsewhere Marx cites Ramsay (1836: 206–7), apparently favorably, in a less simplistic fashion. The "rate of net profit" or interest "depends partly upon the rate of gross profits, partly on the proportion in which these are separated into profits of capital and those of enterprise, [which] proportion again depends upon the competition between the lenders and borrowers of capital," competition "influenced, though by no means entirely regulated, by the rate of gross profit *expected* to be realized . . . because on the one hand many borrow without any view to productive employment, and, on the other, because *the proportion of the whole capital to be lent, varies with the riches of the country independently of any change in gross profits*" (emphasis added).

not *appear* to be a component of surplus value because direct exchange between money capital and labor is not entailed (376–7).

Marx does not postulate an *inverse interest-wage relation*; rather, an inverse relation exists between wages and *gross profit* or “surplus value as a sum, a whole, the unity of these two parts,” namely interest and “profit of enterprise” (378–9). Similarly, the “profit of enterprise” as such is not inversely related to the wage: “. . . profit of enterprise is not related as an opposite to wage labour, but only to interest. . . [A]ssuming the average [gross] profit to be given, the rate of the profit of enterprise is not determined by wages, but by the rate of interest. It is high or low in inverse proportion to it” (377). Marx is yet more precise regarding the “profits of enterprise” as residual, citing Ramsay – as in the *Economic Manuscripts* (above, p. 416) – to the effect that they “depend upon the net profits of capital [viz. interest], not the latter upon the former.” There is nothing new in all this as far as concerns the relation between the two parts of “surplus value”; and in both versions the surplus after deduction of interest includes the *entire* “profits of enterprise.”

The division between the categories of gross profit applies even when the industrial capitalist operates with his own funds. In all cases the “average profit established by the equalisation of capitals” relates to *both* categories within gross profit albeit that one is a return to “entrepreneurship” (372–3). There is though this difference, that “as long as the owners of the capital employ it on their own in the reproduction process, they do not compete in determining the rate of interest” (367) – “at least not actively” (376). It is “the division of capitalists into money capitalists and industrial capitalists that transforms a portion of the profit into interest, that generally creates the category of interest; and it is only the competition between these two kinds of capitalists which creates the rate of interest” (368).

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In the *Capital 3* version, the profit of enterprise derives “solely from the operations, or functions,” undertaken by the “active capitalist” performed as “entrepreneur in industry or commerce” (above, p. 430). Can we be more precise about these activities? They are said to be no “sinecure,” for “the capitalist directs the processes of production and circulation. Exploiting productive labour entails exertion, whether he exploits it himself or has it exploited by someone else on his behalf. Therefore, as distinct from interest, his profit of enterprise appears to him as independent of the ownership of capital, but rather as the result of his functions as a non-proprietor – a *labourer*” (378).

*Exertion*, it would appear, is the essence of the matter, rather than *judgement*, apart perhaps from a remark that follows immediately: “his function as a capitalist consists in creating surplus value, i.e., unpaid labour, and creating it under the most economical conditions.” But in fact Marx did perceive savings in cost price as “depend[ing] on individual business acumen, alertness, etc.” (208; also 138), and allowed that the “greater or lesser shrewdness and industry of the capitalist” – as

also his applications of peculiarly productive capital goods and methods — was relevant to the yield on capital, *although only as far as concerns deviations from average profit*:

. . . the rate of profit within the production process itself does not depend on surplus value alone, but also on many other circumstances, such as purchase prices of the means of production, methods more productive than the average, savings of constant capital, etc. And aside from the price of production, it depends on special circumstances, and in every single business transaction on the greater or lesser shrewdness and industry of the capitalist, whether, and to what extent, he buys or sells above or below the price of production and thus appropriates a greater or smaller portion of the total surplus value in the process of circulation (371).

Thus “the *manner* in which the active capitalist manages his capital, and what gross profit it yields to him as a functioning capital, i.e., in consequence of his functions as an active capitalist” does matter. However, Marx insists that the average itself is independent of “the manner” in which active capitalists *in general* manage their capitals. At one point Marx even writes of the capitalist’s functions that they “are *prescribed by the branch of industry concerned*” (370; emphasis added). The notion of an average profit rate, reflecting not only a *statistical* index but the tendency towards uniformity of returns, thus helped save the day — the *successful entrepreneur* could be bypassed, precisely as in the 1861–63 document (above, p. 418).

To be noted now is the allowance that the function of “direct[ing] the processes of production and circulation” — the “exertion” entailed in exploiting labor — might be delegated by the capitalist to “someone else on his behalf” (above, p. 432). As in the *Economic Manuscripts* (above, p. 414), Marx rejected only the *identification* of profit of enterprise with wages of superintendence when engaged in by the capitalist himself, referring to profit net of interest as comprising “profit of enterprise, and *further* of wages of superintendence” (380; emphasis added). In brief, a *part only* of the total profit net of interest constituted high-powered wages which, in large-scale plants, might justify “a special salary” for higher management: “The conception of profit of enterprise as the wages of superintendence, arising from the antithesis of profit of enterprise to interest, is further strengthened by *the fact that a portion of profit may, indeed, be separated, and is separated in reality, as wages*, or rather the reverse, that a portion of wages appears under the capitalist mode of production as integral part of profit” (381; emphasis added). The *net* return in so-called “profit of enterprise,” after managerial payments have been met, is not explored further any more than in the *Economic Manuscripts*. It is apparently taken for granted that this element has the character of Knight’s “political power to exploit.”

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Despite all his allowances for the managerial element, Marx was loath to treat it simply as a form of *labor-power*, as we shall now show. Consider the reiteration in *Capital 3* of the 1861–63 theme (see above, p. 414) that the task of coordination,

though common to all complex organization – “a productive job, which must be performed in every combined mode of production” (MECW 37: 382) – takes on a special aspect under capitalism entailing the “antithesis” between labor and means of production: “The greater this antithesis, the greater the role played by supervision. Hence it reaches its peak in the slave system [Cairnes 1862: 44]. But it is indispensable also in the capitalist mode of production, since the production process in it is simultaneously a process by which the capitalist consumes labour power.” Assuming then capitalist arrangement, “it is quite proper to compel the wage labourer to produce his own wages and *also the wages of supervision*, as compensation for the labour of ruling and supervising him . . .” (384; emphasis added).

Furthermore, while allowing a wages element in “profit” reflecting the managerial function, Marx could not bring himself to treat that function in the same way as *general labor power*, doubtless because to do so would imply that *managerial labor generated surplus, upsetting the apple cart in the case of the capitalist who himself undertakes management*. It is true that Marx (as in 1861–63) allowed for capitalists’ supervisory functions that do *not* “originate in the purely capitalistic process of production,” i.e., are not “confine[d] . . . solely to the function of exploiting the labour of others” (385) – reflecting the *universal* task of control in the presence of “combination and cooperation of many in pursuance of a common result”; but this allowance turns out to be a formal matter only, for he immediately steps back to imply that there is, in practice, no way of isolating the *exploitative* element when supervision is exercised by the *capitalist* manager, such activity being rewarded in excess of the “moderate” wage available to *hired* management: “The industrial capitalist is a worker, compared to the money capitalist, but a worker in the sense of capitalist, i.e., an exploiter of the labour of others. The wage which he claims and pockets for this labour is exactly equal to the appropriated quantity of another’s labour and depends directly upon the rate of exploitation of this labour, in so far as he undertakes the effort required for exploitation; it does not, however, depend on the degree of exertion that such exploitation demands, and which he can shift to a manager for moderate pay.”

To summarize: gross profit (net of interest) reflects “effort” or “exertion” of the capitalist *engaged in “exploitation.”* Second, and somewhat paradoxically, the element of “exertion” entailed by this *exploitative* function can be delegated to paid managers. Third, even in the latter case the capitalist yet receives a *net* return; profit (net of interest) cannot be *entirely* reduced to wages of management in the orthodox fashion. Even so, the discussion as a whole leaves the reader with the nagging possibility that it is not this net element in profit that alone constitutes *surplus value* (in addition always to interest), but that surplus value *includes* the return to management since the “exploitation” element within the latter return could not in practice be isolated. It is clear that the managerial element within entrepreneurial profit created an embarrassment for the doctrine of surplus value when the capitalist himself acted as manager.

## I. On Cooperation

We turn to discussions in *Capital 3* of cooperatives for more light on the managerial function. As in the *Economic Manuscripts* (MECW 33: 501), reference is made to Ure's observation that it is the industrial *managers* who are "the soul of our industrial system," not the industrial capitalists who know little about machinery (MECW 37: 384). And as in the earlier document (above, p. 415), the *cooperative movement* demonstrated that as far as concerns the function of direction common to *all* organisations entailing "combination and cooperation of many in pursuance of a common result," there was no need whatsoever for an industrial capitalist: "The capitalist mode of production itself has brought matters to a point where the labour of superintendence, entirely divorced from the ownership of capital, is always readily obtainable. . . . Cooperative factories furnish proof that the capitalist has become . . . redundant as a functionary in production . . ." (385). But again there is the complexity that part of the supervisory task undertaken by the capitalist "originate[s] in the purely capitalistic process of production" entailing "the function of exploiting the labour of others" and this element in the "profits of enterprise" would disappear entirely with the end of capitalism – would "cease on its own when capital ceases."

There is still no suggestion in all this that the managerial function – even when purged of a connection with industrial capital – involved anything other than routine activity. Now it is true that Marx contended on the basis of contemporary data – as in the *Economic Manuscripts* (above, pp. 414–15) – that cooperatives typically generated higher than average "profits of enterprise," net of management and interest costs (386).<sup>49</sup> But here the "enterprising" function is said to reflect "economy in the application of constant capital." *Nothing is said of uncertainty*, while risk is treated as in the *Economic Manuscripts* (above, Section G).

We recall that even with respect to *capitalist* arrangement, the "greater or less *shrewdness* . . . of the capitalist" was recognized as relevant to the return on capital, but only in the case of *deviations* from the average return (above, pp. 432–3). In general, references to *the* capitalist were in fact to an *average* – not an exceptionally successful – capitalist which, we found, goes some way in accounting for Marx's neglect of "the *manner* in which the active capitalist manages his capital." Recognition of the exception might, so it appears, be more easily allowed in the case of a co-operative firm.

## J. On Joint-Stock Organization and Limited Liability

A three-part article by Marx for the *New York Daily Tribune* dated 24 June 1856 – the first part was published in *The People's Paper* on 6 June – on the *Crédit Mobilier*,

<sup>49</sup> According to an editorial note by Engels the "public accounts" relating to cooperation date no later than 1864 since "the above was written in 1865."

the French bank founded in 1852 by the Péréire brothers, spells out that the company was “a joint-stock company with limited liability of the shareholders” (MECW 15: 11).<sup>50</sup> Marx noted further that the *Crédit Mobilier* was legally required to limit its financing to joint-stock, limited-liability, *industrial companies* so that “there must arise a tendency to start as many such societies as possible, and, further, to bring all industrial undertakings under the form of these societies” (21); and he opined “that the application of joint-stock companies to industry marks a new epoch in the economical life of modern nations. . . . [I]t has revealed the productive powers of association, not suspected before, and called into life industrial creations, on a scale unattainable by the efforts of individual capitalists.” It was the “immortal merit” of Charles Fourier (1841) that – “under the name of *Industrial Feudalism*” – he had predicted the novel arrangement whereby “[t]he concentration of capital has been accelerated, and, as its natural corollary, the downfall of the small middle class. A sort of industrial kings have been created, whose power stands in inverse ratio to their responsibility – they being responsible only to the amount of their shares, while disposing of the whole capital of the society – forming a more or less permanent body, while the mass of shareholders is undergoing a constant process of decomposition and renewal, and enabled, by the very disposal of the joint influence and wealth of the society, to bribe its single rebellious members.” Marx observed further that “in joint-stock companies it is not the individuals that are associated” – as in partnerships of various sorts – “but the capitals,” whereby “proprietors have been converted into shareholders, i.e., speculators.”

This same contrast appears in *Capital 3*, where the joint-stock form of organization is described as entailing “the abolition of capital as private property within the framework of the capitalist mode of production itself” (MECW 37: 434). The *irrelevance of the capitalist* is elaborated thus:

Stock companies in general – developed with the credit system – have an increasing tendency to separate [the] work of management as a function from the ownership of capital, be it self-owned or borrowed. . . . But since, on the one hand, the mere owner of capital, the money capitalist, has to face the functioning capitalist, while money capital itself assumes a social character with the advance of credit, being concentrated in banks and loaned out by them instead of by its direct owners, and since, on the other hand, the mere manager who has no title whatever to the capital, whether through borrowing it or otherwise, performs all the real functions pertaining to the functioning capitalist as such, only the functionary remains and the capitalist disappears as superfluous from the production process (386).

Marx reinforced the lack of effective control by the mass of shareholders, taking up a theme already present in his 1856 paper: “Titles of ownership to public works,

<sup>50</sup> The stock company is also alluded to by Marx while working on the *Grundrisse*: “*Capital* falls into 4 sections. A) *Capital en général*. . . . B) *Competition*, or the interaction of many capitals. C) *Credit*, where capital, as against individual capitals, is shown to be a universal element. D) *Share capital* as the most perfected form (turning into communism) together with all its contradictions” (to Engels, 2 April 1858; MECW 40: 298).

railways, mines, etc., are . . . titles to real capital. But they do not place this capital at one's disposal. It is not subject to withdrawal. They merely convey legal claims to a portion of the surplus value to be obtained by it. But these titles likewise become paper duplicates of the real capital. . . . They come to nominally represent non-existent capital. For the real capital exists side by side with them and does not change hands as a result of the transfer of these duplicates from one person to another" (476).

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In the account of stock companies – and on a par with cooperatives in this respect – “profit of enterprise” is unambiguously represented as a *net* return after managerial costs have been met: “The wages of management both for the commercial and industrial manager are completely isolated from the profits of enterprise in the cooperative factories of labourers, as well as in capitalist stock companies” (386). Again, the net return presumably reflects a pure exploitation income (though how this is explained in the case of cooperatives raises a new issue). And the account also confirms the absence of any particular function undertaken in production attributable to a “*functioning*” capitalist – for he can disappear from the scene with no untoward consequences. That there is no act of “*enterprise*” for which profit is paid confirms that the suggestive *Unternehmergeinn* carries with it no substantive implications.

All this is nicely summarized in a statement relating to the evolution of doctrine and the implications of the falling wages paid hired managers:

Profit of enterprise and wages of supervision, or management, were confused originally . . . by the apologetic aim of representing profit not as a surplus value derived from unpaid labour, but as the capitalist's wages for work performed by him. This was met on the part of socialists by a demand to reduce profit actually to what it pretended to be theoretically, namely, mere wages of superintendence [see MECW 32: 497]. And this demand was all the more obnoxious to theoretical embellishment, the more these wages of superintendence, like any other wage, found their definite level and definite market price, on the one hand, with the development of a numerous class of industrial and commercial managers [Hodgskin 1825: 27, 30], and the more they fell, on the other, like all wages for skilled labour, with the general development which reduces the cost of production of specially trained labour power (387).<sup>51</sup>

Marx again points out that “[w]ith the development of cooperation on the part of the labourers, and of stock enterprises on the part of the bourgeoisie, even the last pretext for the confusion of profit of enterprise and wages of management was removed, and profit appeared also in practice as it undeniably appeared in theory,

<sup>51</sup> Marx paraphrased a passage in Mill's *Principles* thus: “The general relaxation of conventional barriers, the increased facilities of education tend to bring down the wages of skilled labour instead of raising those of the unskilled” (MECW 37: 387). For the full passage, see Mill 1963–91 [1848]: 388.

as mere surplus value, a value for which no equivalent was paid, as realised unpaid labour” (387–8).

An important elaboration of the foregoing theme emphasizes the absolute divorce within joint-stock organization (1) of “profits of enterprise” from the reproduction process as such; and (2) of the management function from ownership of capital:

Even if the dividends which [money capitalists] receive include the interest and the profit of enterprise, i.e., the total profit (for the salary of the manager is, or should be, simply the wage of a specific type of skilled labour, whose price is regulated in the labour market like that of any other labour), this total profit is henceforth received only in the form of interest, i.e., as mere compensation for owning capital that now is entirely divorced from the function in the actual process of reproduction, just as this function in the person of the manager is divorced from ownership of capital. Profit thus appears (no longer only that portion of it, the interest, which derives its justification from the profit of the borrower) as a mere appropriation of the surplus labour of others . . . (434).

Here the grey area regarding “profits of enterprise” entirely disappears – *there is a net return (paid out as dividends) after management and interest has been paid which (like interest) is unmistakably a “mere appropriation of the surplus labour of others”;* and so does the grey area regarding management – *the manager is a wage laborer like all others whose labor power yields surplus value.*

### K. Conclusion: The Industrial Capitalist and Uncertainty Revisited

In closing one of his accounts of the development of cooperation by labor and of joint-stock enterprises by the bourgeoisie, Marx added a retrospect: “It was then seen that the functioning capitalist really exploits labour” – meaning was *revealed* to do so – “and that the fruit of his exploitation, when working with borrowed capital, was divided into interest and profit of enterprise, an excess of profit over interest” (MECW 37: 388). But this remark applied specifically to the “functioning industrial capitalist” working with *borrowed* capital. A fascinating feature of the record is the rather better press given in *Capital 3* to the old-fashioned industrial capitalist *working with his own funds*. It occurs in the course of weighing the implications of the divorce of ownership from control which characterizes the “stock company” – an increasingly monopolistic arrangement, though a transitional one pointing to state intervention:

This is the abolition of the capitalist mode of production within the capitalist mode of production itself, and hence a self-dissolving contradiction, which *prima facie* represents a mere phase of transition to a new form of production. It manifests itself as such a contradiction in its effects. *It establishes a monopoly in certain spheres and thereby requires state interference.* It reproduces a new financial aristocracy, a new variety of parasites in the shape of promoters, speculators and simply nominal directors; a whole system of swindling and cheating by means of corporation promotion, stock issuance,



and stock speculation. *It is private production without the control of private property* (436; emphasis added).

More specifically (as we have seen in Chapter 5, p. 156), whereas the capitalist owner “anxiously weighs the limitations of his private capital in so far as he handles it himself,” this is no longer the case where ownership is divorced from control; and it is this latter form that gives free reign to the effects of credit: “The credit system appears as the main lever of overproduction and overspeculation in commerce solely because the reproduction process, which is elastic by nature, is here forced to its extreme limits, and is so forced because *a large part of the social capital is employed by people who do not own it and who consequently tackle things quite differently than the owner, who anxiously weighs the limitations of his private capital in so far as he handles it himself*” (438; emphasis added).

Marx may have felt comfortable making a more positive evaluation of the industrial capitalist working with his own capital, now that the older system was becoming, as he saw it, a matter of history with the advent of the stock company. But it is a great pity that he did not elaborate at this point in what precisely consisted the “anxious weighing” undertaken by the *functioning* capitalist that he had now come to admit. And it is equally regrettable that he did not properly explore the new organizational arrangement for evidence of its potential *technological and mechanical progressiveness* compared with simple private ownership – taking account of the innovatory function and uncertainties attached thereto that might be better accommodated by the stock company – but merely attributed to them irresponsible managerial judgment.<sup>52</sup> In effect, the “entrepreneur” disappears, as with Sweezy or in the late-Schumpeter revised perspective (see note 4).

We have found nothing in the texts so far considered in the *Economic Manuscripts* and *Capital 3* regarding “profits of enterprise” as a return for *Knightian uncertainty-bearing*, distinct from actuarial or insurable risk, and this despite the fact that decision-making in the face of uncertainty relating to allocative and innovatory activity is sometimes recognized (above, pp. 417–18, 425–6). And Marx is quite explicit that “all profits of expropriation are *uncertain*” – an allowance relating to the “realization” rather than the creation of surplus value (p. 418). *But at two places in Capital 3 Marx does allude to the high degree of uncertainty attached to innovation*

<sup>52</sup> By contrast, Mill had much to say in his chapter on scale economies regarding joint-stock companies as reflecting an observed trend towards this form of organization by large firms, such firms being in a position to attract management of a quality particularly suitable for the undertaking of projects “out of the ordinary routine” (1963–91 [1848]:139). He considered Smith’s hostile evaluation of stock companies as “one of these overstatements of a true principle, often met with” in the *Wealth of Nations*. . . .” (see Hollander 1985: 228–9). As for cooperative organization, this he portrayed as an idea for the future, considering its potential for efficiency and innovation, and its potential impact on the capitalist sector in reducing exploitation, product adulteration, and the proliferation of distributors (810–22). Finally, he made proposals for government regulation in the presence of market failure, including the problem of monopoly (696–9, 738, 749–62).

based on invention and traces out failure of such ventures as the typical consequence despite defensive action to protect “the anticipated improvements.”

The first occurs in the course of identifying “all scientific labour, all discovery and all invention” with “[u]niversal” labour (above, p. 430). Here Marx draws on Ure (1836: 61–3) and Babbage (1833: 377–8), in contrasting “[t]he great difference in the cost of the first model of a new machine and that of its reproduction. . . . The far greater cost of operating an establishment based on a new invention as compared to later establishments arising out of their ruins . . .” (MECW 37: 106) Indeed: “*This is so very true that the trail-blazers generally go bankrupt, and only those who later buy the buildings, machinery, etc., at a cheaper price, make money out of it.* It is, therefore, generally the most worthless and miserable sort of money capitalists who draw the greatest profit out of all new developments of the universal labour of the human spirit and their social application through combined labour” (emphasis added).

A second passage similarly draws on Babbage regarding “[t]he continual improvements which lower the use value, and therefore the value, of existing machinery, factory equipment, etc.,” a “*process [that] has a particularly dire effect during the first period of newly introduced machinery, before it attains a certain stage of maturity, when it continually becomes antiquated before it has time to reproduce its own value*” (115; emphasis added). In some cases “[t]he value of the machinery, etc., falls . . . not so much because the machinery is rapidly crowded out or depreciated to a certain degree by new and more productive machinery, etc., but because it can be reproduced more cheaply. *This is one of the reasons why large enterprises frequently do not flourish until they pass into other hands, i.e., after their first proprietors have been bankrupted, and their successors, who buy them cheaply, therefore begin from the outset with a smaller outlay of capital*” (emphasis added).

Rosenberg has noted that Marx “did not sufficiently appreciate the extent to which the search for new technologies is pervaded by extreme uncertainties that play a major role in determining the specific forms of institutional development in a maturing capitalist society” (1991: 158). But citing the first of our passages, he points out that Marx “recognized these uncertainties, although only begrudgingly in the third volume of *Das Kapital*, published after his death and long after the immensely influential first volume.” We shall try to understand whether this and our second passage do indeed indicate an altered perception regarding the profits of “enterprise” and, if so, seek out the circumstances that may have brought it about.

As for the timing of the discussion, that appears to fall a little after the composition of the *Economic Manuscripts* in 1861–63, during the period when *Capital 1* was being prepared for press.<sup>53</sup> This dating reduces the range of empirical stimuli

<sup>53</sup> There is Engels’s editorial note regarding cooperation, that Marx’s comments were written in 1865 (above, note 49). And in a further editorial note on a discussion of the “swindling” activities of monied capitalists (above, pp. 438–9), Engels observes that “the entire Panama

conceivably relevant for Marx's modifications. In fact, the references to literature dating as far back as the 1830s – Babbage and Ure in particular – points to the *industrial capitalist* when Marx writes that innovating firms generally go bankrupt (though it cannot be positively excluded that he also intended the proposition to extend to the *joint-stock company*). The point to note is that it is “generally *the most worthless and miserable sort of money capitalists*” who are said to profit from the adoption of new technology. The true innovator now receives a good press – he is a “trail blazer” engaged in hefty expenditure, and thus, at least by implication, were *he* to retain the profits (as in the original story) he would in effect be rewarded for undertaking innovatory activity of an uncertain character, in effect amalgamating the Knight and Schumpeter perspectives.

The contrast with the *Economic Manuscripts* is striking. There the innovating capitalist engages in defensive strategies against the threats from technological obsolescence and imitating entrants (above, pp. 425–6). Innovating capitalists were there seen as engaged in *uncertain* activity, with allowance for a successful outcome, but Marx avoided the damaging implications for the surplus-value doctrine (in my view unconvincingly) by reference to the competitive environment assuring that innovatory profits were *temporary* and in any event related only to “the individual capitalist” not the class of capitalists (pp. 418, 427). In *Capital 3* attention is deflected from individual “enterprise” by relating invention and innovation to a sort of *general social development*, implying that knowledge creation and application are costless to the capitalist, and again by focusing on *average* performance (pp. 430–1, 433). This orientation is now undermined by the allowance that the “trail-blazers” *generally* go bankrupt. And the dilemma that an element in the “profit of enterprise” might be understood as a return – albeit temporary – to entrepreneurial activity for uncertainty-bearing no longer arises, since the profits due to *successful* innovation go to “miserable” *money* capitalists envisaged as *wholly* unproductive recipients of surplus value. Marx could now more safely make the allowance for uncertainty-bearing.

As for analysis, Marx does not follow through the consequences of the “new” view – and such it seems to be – for the mechanism of industry adjustment to innovation. Entry is encouraged by initial innovatory gains, but the fact that these are *typically* soon dissipated – so soon as to actually bankrupt the innovator – must surely alter the adjustment to a new equilibrium. In any event, when the tendency towards *monopoly* (above, pp. 438–9) is taken into account the entire profit-rate uniformity principle loses much of its relevance.

Marx did, however, modify a related matter – the fall in the “general” profit rate. This emerges when he posited that the *dividends* paid out by large stock corporations were “henceforth received only in the form of interest” since the “profit of enterprise” element now appears as a pure exploitation income reflecting

swindle [1888] is here correctly anticipated, fully twenty years before it occurred” (MECW 37: 437), suggesting a date no later than 1868.

capital ownership in the manner of interest proper (above, pp. 437–8). And he proceeded to the “economically important fact,” that “[s]ince profit here assumes the pure form of interest” – that is to say, it is not a payment for some *function* – “undertakings of this sort are still possible if they yield bare interest” (MECW 37: 435). This circumstance is said to be “one of the causes, stemming the fall of the general profit rate, since such undertakings, in which the ratio of constant capital to the variable is so enormous, do not necessarily enter into the equalization of the general rate of profit.”<sup>54</sup>

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We return to possible stimuli for the reformulation in *Capital 3* regarding industrial innovation. The citation from Babbage’s *Economy of Machinery and Handicrafts* and Ure’s *Philosophy of Manufactures* – works dating back to the mid-1830s – on the rapid reductions in the replacement costs of machinery are the same as in the *Economic Manuscripts*. There is nothing new here. A potentially more fruitful line is empirical evidence pointing to the *money* capitalists or the creditors of the bankrupt establishments “who draw the greatest profit out of all new developments . . .” (above, p. 440). The advantage taken by creditors of firms in poor straits emerges too in discussion of *crisis* conditions: “After every crisis there are enough ex-manufacturers in the English factory districts who will supervise, for low wages, what were formerly their own factories in the capacity of managers of the new owners, who are frequently their creditors” (385).

An observation on the consequences of “credit” is relevant for this theme: “Aside from the stock-company business, which represents the abolition of capitalist private industry on the basis of the capitalist system itself and destroys private industry as it expands and invades new spheres of production, credit offers to the individual capitalist . . . absolute control within certain limits over the capital and property of others, and thereby over the labour of others” (436). Now in a note at this point Marx cites press reports in the London *Times* dating back to the 1850s, namely a “list of business bankruptcies in a crisis year such as 1857” allowing a comparison of “the private property of those bankrupt with the amount of their debt,” and revealing a disproportionate ratio of debt to equity in the case of insolvent firms. The comments on the failure of uncertain enterprises and the advantage taken of such failure by monied interests might then have been stimulated partly by the crisis of 1857, though the crisis years 1861–62 and even 1866–68 remain

<sup>54</sup> That the large stock company is better able to tolerate a fall in the profit rate than smaller firms, does not relate (at least directly) to a better tolerance of *uncertain innovation*. In any event, it is an old story dating back at least to J. S. Mill’s early paper “Civilization”: “In Great Britain especially . . . the fall of profits, consequent upon the vast increase of population and capital, is rapidly extinguishing the class of small dealers and small producers, from the impossibility of living on their diminished profits, and is throwing business of all kinds more and more into the hands of large capitalists – whether these be rich individuals, or joint-stock companies formed by the aggregation of many small capitals” (Mill 1963–91 [1836]: 136).

candidates.<sup>55</sup> The role of the “epoch-changing” joint-stock organization and its finance in encouraging instability, recognized in the 1856 article on the *Crédit Mobilier*, also points to the mid-1850s.<sup>56</sup>

One further consideration should be taken into account, though it creates additional complexity. In the discussion of cyclical recovery mechanisms appearing in the *Economic Manuscripts* (see Chapter 11, p. 348) we encountered a surprisingly *positive* evaluation of the monied interest which benefited from the bankruptcy of industrial firms; for these “parvenus into whose hands . . . stocks and shares fall cheaply” are said to be “mostly more enterprising than [the] former owners” (MECW 32: 127–8). Although the context is not specifically the bankruptcy of *innovating* firms, the possibility arises that between 1861–63 and 1865–66, when the materials constituting *Capital 3* were largely composed, Marx altered his view on the character of the monied interests.

<sup>55</sup> Lacking is recognition of the contemporary innovative banking arrangements curtailing the stimulus of innovation from the direction of *credit supply*. Conceivably, though this phenomenon was more prevalent on the Continent than in Britain (Landes 1969: 156, 206–8).

<sup>56</sup> In fact, to illustrate “a new swindle” in stock companies whereby “boards of numerous managers or directors are placed next and above the actual director” and engage in fictitious management as “pretext to plunder the stockholders and amass wealth,” Marx draws on a work published in 1845: “The proceedings of the Court of Bankruptcy show that these wages of supervision were, as a rule, inversely proportional to the actual supervision performed by these nominal directors” (MECW 37: 388).

## FIFTEEN

### Principles of Social Reform

#### A. Introduction

This chapter asks the question: What, for Marx, if anything, could be expected by way of concessions from the bourgeoisie in terms of its willingness and ability to improve working-class well-being? We take as our point of departure Ludwig von Mises's position that "Marx and the school of orthodox Marxism" was more opposed to social reform measures within capitalist organization in later years – viewing them as "reactionary" – than they had been earlier: "From the point of view of this later doctrine Marx and the school of orthodox Marxism reject all policies that pretend to restrain, to regulate and to improve capitalism. Such policies, they declare, are not only futile, but outright harmful. For they rather delay the coming of age of capitalism, its maturity, and thereby also its collapse. They are, therefore, not progressive, but reactionary" (1980 [1950]: 29). The evidence we shall bring points rather to *increasing appreciation on Marx's part, as time passed, of the potential for welfare reform within capitalist organization*. Indeed, social reform comes to be represented as a *necessary* characteristic of advanced capitalism. Marx emerges as the "first revisionist."<sup>1</sup>

#### B. Early Statements

Engels's *Principles of Communism* (October 1847) – which constitutes the blue print for the joint *Communist Manifesto* – formulates the early Marxian approach towards social reform: The very same measures appearing as part of a program designed to dismantle the private-property system – "[d]emocracy would be quite useless

<sup>1</sup> The term "revisionist" has been used more broadly to refer to Engels as "responsible for the evolutionism and accommodation of the Second International" (Levine 1975: xv, 182–3; see also Elliott 1967: 73–5; Tucker 1972: 406). But as in Chapter 13, Engels will make an appearance in this chapter only insofar as necessary for better comprehension of Marx's position. Our concern is the *welfare* dimension specifically; but the main outcome is corroborated from a study of Marx's position regarding *constitutional* reform.

to the proletariat if it were not immediately used as a means of carrying through further measures directly attacking private ownership and securing the means of subsistence of the proletariat” (MECW 6: 350) – were otherwise unacceptable: “. . . [the] democratic socialists . . . in the same way as the Communists desire part of the measures listed,” alluding here essentially to the program to appear shortly in the *Communist Manifesto* “not, however, as a means of transition to communism” – recall that this program assumes proletarian control of the state apparatus (Chapter 13, p. 407) – “but as measures sufficient to abolish the misery of present society and to cause its evils to disappear” (355). What is said of the “democratic socialists” held true *a fortiori* of the “bourgeois” or “reactionary” socialists who sought to “preserve present society.” The objection here is not merely that their proposals *cannot succeed* in improving living conditions within capitalist society, “the evils” being “inseparable from it” and “bound up with it” – for this incapacity was equally the case with free trade and unionization which were nonetheless favored as we shall see – but that they “would retain the foundations of present society.” The *Communist Manifesto* itself reacts in just this way to a variety of “reactionary,” “conservative,” “democratic,” or “bourgeois” socialists – Proudhon falls into the latter category – and “hole and corner reformers of every imaginable kind” (MECW 6: 513).

The approach towards Free Trade illustrates a further aspect of Marx’s perspective on social policy. As reported by Engels, Marx maintained in a speech prepared for delivery in September 1847, that the “laws” of “classical” political economy are increasingly approximated insofar as a free-trade regime comes to be adopted: “If you wish to read in the book of the future, open Smith, Say, Ricardo. There you will find described, as clearly as possible, the condition which awaits the working man under the reign of perfect Free Trade” (“Speech of Dr. Marx on Protection, Free Trade and the Working Classes,” in Engels, “The Free Trade Congress at Brussels”; MECW 6: 289).<sup>2</sup> “Th[e] law, that the lowest level of wages is the natural price of the commodity of labour, will realise itself in the same measure with Ricardo’s supposition that Free Trade will become a reality” (290). There is also reference to Malthus in the further proposition that with Free Trade his “law of population” will – along with the other laws of economics – come into its own, Marx concluding: “Either you must disavow the whole of political economy as it exists at present, or you must allow that under the freedom of trade the whole severity of the laws of political economy will be applied to the working classes.” But precisely because the capitalist system would be given free reign to expand, with these consequences, he *favored* Free Trade: “by Free Trade all economical laws . . . will act upon a larger scale, upon a greater extent of territory, upon the territory of the whole earth; and

<sup>2</sup> The speech, prepared for the International Congress of Economists in Brussels, was not delivered, but extracts were published by Engels in *The Northern Star* in October. These extracts also cover several substantive notions conveyed by Marx in a speech delivered on 9 January 1848 to the Democratic Association of Brussels.

because from the uniting of all these contradictions into a single group, where they stand face to face, will result the struggle which will itself eventuate in the emancipation of the proletarians.” His “Speech on the Question of Free Trade,” delivered in Brussels on 9 January 1848, contains the assertion that with the “progress of industry” the subsistence basket itself deteriorates – that “as means are constantly found for the maintenance of labor on cheaper and more wretched food, the minimum of wages is constantly sinking” (MECW 6: 463). And again he concludes that by allowing free reign to capital, the “laws” relating to subsistence wages come fully into their own, “the whole severity of the economic laws . . . fall[ing] upon the workers.” The efficiency advantages obtained were irrelevant to the principle issue: “It is really difficult to understand the presumption of the Free Traders who imagine that the more advantageous application of capital will abolish the antagonism between industrial capitalists and wage-workers. On the contrary. The only result will be that the antagonism of these two classes will stand out more clearly.” And though with Free Trade the exploitative system remains in place *on terms increasingly less favorable to labor*, he strongly favored it from a “revolutionary standpoint”: “[G]enerally speaking, the Protective system in these days is conservative, while the Free Trade system works destructively. It breaks up old nationalities and carries antagonism of proletariat and bourgeoisie to the uttermost point. In a word, the Free Trade system hastens the Social Revolution. In this revolutionary sense alone, gentlemen, I am in favor of Free Trade” (465).

A related consideration emerges from the treatment of unions in *Poverty of Philosophy* (1847). We note incidentally that Marx here applied the Ricardian inverse wage-profit relation to counter Proudhon’s case against strikes that if followed by an increase in wages, they “culminate in a *general* rise of wages” (MECW 6: 206). The main theme though is the perception of combination as a natural consequence of a developing competitive capitalist system *to such an extent that its legalization is forced upon the legislature*: “it is the economic system which has forced Parliament to grant this legal authorisation. . . . The more modern industry and competition develop, the more elements there are which call forth and strengthen combination, and as soon as combination becomes an economic fact, daily gaining in solidity, it is bound before long to become a legal fact” (209). England “whose industry has attained the highest degree of development, has the biggest and best organised combinations,” whereas “the article of the [French] Penal Code proves at the most that modern industry and competition were not yet well developed under the Constituent Assembly and under the Empire. . . .” (209–10).<sup>3</sup> Indeed, Marx points to the success of British unionization extending far beyond the “passing strike” by “partial combinations,” to *trades* unions and beyond that even towards a *national*

<sup>3</sup> Marx distanced himself from the “socialists,” including Fourierists and Owenites, on the grounds that they, like the “economists,” though for different reasons, opposed unionization (MECW 6: 209–10).



organization along with the Chartists' formation of a working-class political party (210–22).

What though of the *effectiveness* of unions with respect to real wages? For Marx the effect would be counter-productive considering substitution against labor; indeed, the encouragement of new technology seems to be represented as a *desirable* consequence: "If combinations and strikes had no other effect than that of making the efforts of mechanical genius react against them, they would still exercise an immense influence on the development of industry" (207). Marx does go on to emphasize attempts by the early combinations merely to maintain wages in a sort of defensive operation, but it is the *political* not the wage effects that he saw as the major preoccupation of unions: "If the first aim of resistance was merely the maintenance of wages, combinations, at first isolated, constitute themselves into groups as the capitalists in their turn unite for the purpose of repression, and in face of always united capital, the maintenance of the association becomes more necessary to them than that of wages. . . . In this struggle – a veritable civil war – all the elements necessary for a coming battle unite and develop. Once it has reached this point, association takes on a political character" (210–11). Unions were thus represented by Marx as a necessary feature of capitalist development, rather than a restraint, reflecting the increasingly bitter class struggle that would end with the dissolution of capitalist organization (212).

This perspective is elaborated further in *The Communist Manifesto*. Here is spelled out the process of increasing "concentration" of labor in masses receiving, with the obliteration of skills, a uniform rate of pay which tends downwards in consequence of improvement in machinery "to the same low level," though subject increasingly to cyclical instability (MECW 6: 492). Under these conditions – all part-and-parcel of the industrialization process – "the collisions between individual workmen and individual bourgeois take more and more the character of collisions between two classes" (492–3). Even a successful effort "to keep up the rate of wages" – i.e., to *maintain* it – could be "only for a time" (493), since real conditions necessarily deteriorate: "The modern labourer" – unlike the serf or the petty bourgeois of earlier times – "instead of rising with the progress of industry, sinks deeper and deeper below the conditions of existence of his own class. He becomes a pauper, and pauperism develops more rapidly than population and wealth. . . . Society can no longer live under this bourgeoisie, in other words, its existence is no longer compatible with society" (495–6).

As for factory legislation, this too is represented in the *Communist Manifesto* as reflecting the "organisation of the proletarians into a class, and consequently into a political party," a *natural outcome of capitalist development*, which "compels legislative recognition of particular interests of the workers," who profit from the "divisions among the bourgeoisie itself" (493). "Thus the ten hours' bill in England was carried." From this specific perspective the legislation should have been championed in the same manner as unionization. But the matter is rather more complex, for in two papers of 1850 on the Ten Hours Bill Engels did *not* take

this line but condemned the legislation as “reactionary,” on the grounds that such controls, *if effective* – a major qualification we shall see – threatened to restrain capitalist development (MECW 10: 271–6; 288–300).<sup>4</sup> And this *general* principle is patently clear in Marx’s “The Class Struggles in France 1848–50” of 1850, condemning reformist measures proposed by those he classified as “bourgeois socialists” – credit institutions, progressive taxation, limitation of inheritance, nationalization of industry, state support of “association” – who sought thereby to assure “the peaceful achievement” of their objectives, which was to “*forcibly stem the growth of capital*” (MECW 10: 126). On the other hand, such “reactionary attempts to hold up bourgeois development” must fail “just as certainly as all moral indignation and all enthusiastic proclamations of the democrats” (135). The inevitable failure reflects in some formulations the uncontrollable force of ongoing capitalist development, but in the present context Marx intended rather *a refusal of the capitalist state to tolerate them*. Thus several reformist enactments introduced by the French National Assembly before the outbreaks of 1848–49 were withdrawn or reversed immediately thereafter, as with a so-called “right to work” – an “absurdity” from the bourgeois viewpoint, considering that it implied the undermining of capitalism, but enacted out of fear of the working class – which was then whittled down to a mere “right to public relief” (77–8). *Progressive taxation* Marx represented as a “bourgeois measure which can be carried out within the existing relations of production to a greater or less degree,” a purely intra-bourgeois matter of little consequence to labor (78); but even this was reversed by the “big-bourgeoisie” who “by the legal prohibition of a progressive tax . . . put bourgeois reform on the same level as proletarian revolution,” leaving only the “big bourgeoisie” as the mainstay of their republic.”

A joint Marx-Engels “Address of the Central Authority to the [Communist] League” (March 1850) elaborates further the charge that the French “democratic petty bourgeoisie” had a self-serving reform program: “by means of which the existing society will be made as tolerable and comfortable as possible for them” (MECW 10: 280). Nonetheless, since the workers were in no position to “propose any directly communist measures,” they were advised to cooperate with the “democrats” in the sense, however, of taking the democratic program further (286). They were to “[c]ompel the democrats to interfere in as many spheres as possible of the hitherto existing social order, to disturb its regular course and to . . . concentrate the utmost possible productive forces, means of transport, factories, railways, etc., in the hands of the state; and to “carry to the extreme” the proposals of the democrats, in order to “transform them into direct attacks upon private property.” For example, confiscation by the state rather than purchase of railways and factories; progressive rather than proportional taxation, and at rates designed to ruin “big capital”; and measures to assure state bankruptcy rather than mere regulation of state debts.

<sup>4</sup> The factory legislation dealt solely with employment of women and children not adult males (and the law was not extended beyond the textile trades till 1867).

These recommendations pose a problem. They propose all manner of interventions including income redistribution which, one might suppose, *would constrain capitalistic growth and ultimate collapse*, on which grounds such interventions had been condemned. The probable solution is that the proposals were designed to stir political dissent but not considered to be in any way realistic.

As for Britain, we find in the joint paper "May to October [1850]," a similar if less dramatic picture of reform measures proposed but not instituted: "each spell of prosperity is a time when Whiggery comes into its own. . . . The ministry brings before Parliament little hole-and-corner reform bills which it knows will be rejected by the Upper House or which it withdraws itself at the end of the session on the pretext of insufficient time" (MECW 10: 510). Measures that *were* enacted by Sir Robert Peel during the 1840s were largely designed to strengthen the industrial bourgeoisie at the expense of the financial and landed aristocracy and, by implication, of little interest to labour: "Thus it was with the Catholic emancipation and the police reform, by which he increased the political power of the bourgeoisie; with the bank laws of 1818 and 1844, which strengthened the finance aristocracy; with the tariff reform of 1842 and the free-trade laws of 1846, by which the landed aristocracy was positively sacrificed to the industrial bourgeoisie" (512).

We return to the *factory legislation* of 1847 which applied to the work-day of female workers and juveniles under eighteen. Noteworthy here is a further joint paper pertaining to "January-February 1850" which remarks that with the business upturn commencing in spring of 1849 when "factories are overloaded with orders and are working at an accelerated rate . . . every means is being sought to dodge the Ten Hours' Bill and gain new hours of labour . . ." (MECW 10: 264), demonstrating *the impossibility of achieving in practice any effective progress under capitalist organization beneficial to labor*. This is the theme of the two papers by Engels of 1850 – "The Ten Hours' Question" and "The English Ten Hours' Bill" – referred to above (pp. 447–8).

### C. Marx's "Revisionism": The 1860s and 1870s

Our next port of call is Marx's "Inaugural Address to the Working Men's International Association" of September 1864. Here we find mixed evidence regarding working-class welfare. As for Britain, Marx insists "that the misery of the working masses has not diminished from 1848 to 1864" despite "unrivalled" development of industry and commerce (MECW 20: 5). So too in the "industrious and progressive countries of the Continent . . . as in England", only "a minority of the working classes got their real wages somewhat advanced . . . [while] [e]verywhere the great mass of the working classes was sinking down to a lower depth, at the same rate, at least, that those above them were rising in the social scale" (9). And this is the forecast: "every fresh development of the productive powers of labour must tend to deepen social contrasts and point [sic] social antagonisms." Also conspicuous is the political reaction on the Continent immediately after 1848, carried over to

Britain, namely the withdrawal of promised concessions by property owners, contributing to the depression of British working-class morale, already undermined by mass emigration “leaving an irreparable void in the ranks of the British proletariat,” and treachery by better-paid categories of labour “turned into ‘political blacks’” (10). This evaluation is reinforced the following year by the declaration that “the very development of modern industry must progressively turn the scale in favour of the capitalist against the working man, and . . . sink the average standard of wages . . . more or less to its *minimum limit*,” a trend that union activity could not *prevent*: “they are retarding the downward movement, but not changing its direction” (“Value, Price and Profits,” 1865; MECW 20: 148), repeating an earlier theme that played down wage effects (above, p. 447).

Despite this evaluation of the course of real wages, Marx at the same time – in his Inaugural Address in September 1864 – recognized the “immense physical, moral and intellectual benefits” to labor of *factory legislation*: “After a thirty years’ struggle, fought with most admirable perseverance, the English working classes, improving a momentaneous split between the landlords and money-lords, succeeded in carrying the Ten Hours’ Bill. The immense physical, moral, and intellectual benefits hence accruing to the factory operatives, half-yearly chronicled in the reports of the inspectors of factories, are now acknowledged on all sides” (MECW 20: 10).<sup>5</sup> Even most continental governments had to adopt the factory legislation “in more or less modified forms,” and the English Parliament itself was “every year compelled to enlarge its sphere of action.” Taking a broader view, “the marvellous success of this working men’s measure” refuted middle-class predictions made “[t]hrough their most notorious organs of science, such as Dr. Ure, Professor Senior . . . that any legal restriction of the hours of labour must sound the death knell of British industry . . .” (10–11).<sup>6</sup> Yet more significant were the profound implications of the legislation for “the great contest between the blind rule of the supply and demand laws which form the political economy of the middle class, and social production controlled by social foresight, which forms the political economy of the working class” (11). It was in fact “the first time that in broad daylight the political

<sup>5</sup> In a letter to Engels dated early 1860, Marx had qualified this “progress”: “It appears from the ‘Factory Inspectors’ Reports’ (of ‘1855’-‘1859 first six months’) that, since 1850, industry in England has made miraculous progress. The state of health of the workers (adults) has improved since your *Conditions of the Working-Class* . . . whereas that of the children (mortality) has deteriorated” (MECW 41: 5).

<sup>6</sup> On Senior’s “last-hour” position and Marx’s objections, see Bowley 1937: 256; Johnson 1969; West 1983.

Pullen (1989) shows that Senior’s case against a reduction in hours assumed the daily wage to remain unchanged, i.e., the real wage to increase, though he failed to spell this out in 1837. Marx too treated the number of hours worked apart from the hourly wage rate as if they are two separate issues. And this procedure is desirable, since the legislation made no provision for rates of pay and it cannot be ascertained *a priori* what effect reduced hours will have on pay. As Jevons pointed out: “I suppose that no Union ever yet proposed a reduction of the hours of labour without wanting the same wages [per hour] as before; thus really attempting somewhat by a sidewind to raise the rate per hour. But the rate of wages and the length of hours are two totally distinct things” (Jevons 1883 [1868]: 107).

economy of the middle class succumbed to the political economy of the working class."

We are here witness to a sea-change in the evaluation of the effectiveness of social-reform measures within capitalist organization, since in 1850 Marx and Engels had denied that industrialists would tolerate factory legislation in practice and emphasised the devices designed to by-pass the 1847 regulations. But with appropriate control by the State these devices could, it is now accepted, be prevented: "Since you wrote your book about England [1844], a second *Children's Employment Commission Report* [1863] has at long last appeared. It shows that all those horrors that were banished from certain spheres of industry by the Factory Acts, have proliferated with redoubled vigour *wherever there is no control!*" (Marx to Engels, 15 August 1863; MECW 41: 490).

Furthermore, whereas in his two papers of 1850 on the issue Engels had insisted that the effective application of the Ten Hours' Act would hold back industrial growth, Marx's remark in 1864 on Ure and Senior implies that British industry had *not* been restrained. Striking too is the representation of the 1847 legislation as a *proletarian victory* – again in contrast to Engels's earlier interpretation – and a step from market towards control organization. Finally, the "immense physical and moral benefits," which in 1850 had been recognized even by Engels in the case of juveniles and female factory workers are now extended it seems quite generally.

There were though limits to what could be achieved. For example, in *The Eighteenth Brumaire* (1852) Marx had written somewhat disparagingly of the French proletariat which partly "throws itself into *doctrinaire experiments, exchange banks and workers' associations* [co-operatives], *hence into a movement in which it renounces the revolutionising of the old world by means of the latter's own great, combined resources, and seeks, rather, to achieve its salvation behind society's back, in private fashion, within its limited conditions of existence, and hence necessarily suffers shipwreck*" (MECW 11: 110–11). The Inaugural Address of September 1864 is only a little more positive regarding co-operatives. For while Marx here recognized the expansion of the British cooperative movement 1848–64 and thought it "excellent in principle, and . . . useful in practice," he reiterates the theme of 1852, that because "kept within the narrow circle of the casual efforts of private workmen," it was unable "to arrest the growth in geometrical progression of monopoly, to free the masses, [or] even to perceptibly lighten the burden of their miseries" (MECW 20: 11–12). To have effects of this order "co-operative labour ought to be developed to national dimensions, and consequently, to be fostered by national means"; and this would never be countenanced by "the lords of land and the lords of capital [who] will always use their political privileges for the defence and perpetuation of their economical monopolies" (12). That we end up with a denial of prospects for *truly radical reform* – *extending, that is, to communal ownership* – is scarcely surprising. We shall return to this issue presently (below, p. 457).

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As will be recalled from Chapter 3, there is much evidence of Marx's commitment in *Capital* to the "increasing immiseration" theme. More specifically, he questioned

Gladstone's position in his budget speech of 16 April 1863 that real wages had risen since 1843, basing his objection on evidence of a rise in general prices 1860–62 of some 20 percent compared with 1851–53 and a further "progressive rise" in wage-goods prices over the following three years 1863–65 (MECW 35: 646). He also cited Gladstone's somewhat ambiguous budget speech of 7 April 1864, and Fawcett's view that "the rich grow rapidly richer, whilst there is no perceptible advance in the comfort enjoyed by the industrial classes," money-wage increases being largely balanced by rising wage-goods prices (Fawcett 1865: 67–82). By contrast, and in line with the September 1864 address, he represents the British Factory Acts in the Preface to the first German edition of *Capital* as having assured a *meaningful improvement in labor's welfare* (unlike the German situation). Here too we find a paean of praise for the quest to "get at the truth" regarding social conditions, specifically in the British case a quest involving government, parliament and inspectorate. Underlying the contrast were the "natural laws of capitalist production" entailing "tendencies working with iron necessity towards inevitable results," the more advanced industrially showing the less advanced "the image of its own future" (MECW 35: 9). For the *social legislation* was imposed upon the ruling classes by the ever-growing power of organized labor: "In England the progress of social disintegration is palpable. . . . Apart from higher motives" – for these are not denied – "their own most important interests dictate to the classes that are for the nonce the ruling ones, the removal of all legally removable hindrances to the free development of the working class" (9–10). And the same course "must re-act on the Continent [where] it will take a form more brutal or more humane, according to the degree of development of the working class itself."<sup>7</sup> This is the reason he had devoted so much space to English factory legislation, the "unmistakable advance" in Britain extended, *in prospect*, to the Continent and the United States (10–11).

All this is reinforced in discussion of "The Struggle for the Normal Working Day" in the body of *Capital*.<sup>8</sup> We note first various considerations introduced to

<sup>7</sup> As for the impact of British experience on Continental developments, Marx failed to specify how such linkage would operate, and steps back from any implication that a country can, learning from another's experience, leapfrog the "normal" obstacles that had to be overcome: "One nation can and should learn from others. And even when a society has got upon the right track for the discovery of the natural laws of its movement – and it is the ultimate aim of this work, to lay bare the economic law of modern society – it can neither clear by bold leaps, nor remove by legal enactments, the obstacles offered by the successive phases of its normal development" (MECW 35: 10). It could, however, he did allow, "shorten and lessen the birth-pangs."

<sup>8</sup> It is a history, to begin with, of concessions by capital "conquered by the work people" that were merely *nominal*: "Parliament passed 5 Labour Laws between 1802 and 1833, but was shrewd enough not to vote a penny for their carrying out, for the requisite officials, &c." (MECW 35: 283). The 1833 Factory Act fixed a "normal working day for modern industry" including cotton, wool, flax, and silk factories, but because of continued efforts by factory owners to avoid its application it only came fully into effect in 1836 (285). This law remained in effect until June 1844 when females over 18 were included together with "young persons" with a limit of 12 hours and night work forbidden and when the working day of children under 13 was reduced from 8 to 6½ or 7 hours: "For the first time, legislation saw itself compelled

account for intervention by the state, albeit "the repository of power of the ruling and exploiting bourgeois class," as West put it (1983: 277). For under competitive capitalism each employer, who follows the dictum "*Après moi le déluge*," tends to force the limits of his workers: "Capital is reckless of the health or length of life of the labourer, unless under compulsion from society. . . . Free competition brings out the inherent laws of capitalist production, in the shape of external coercive laws having power over every individual capitalist" (MECW 35: 275–6).<sup>9</sup> An instance of what is in effect a measure to overcome *free riding* is provided by the fact that some manufacturers "who had managed their factories in conformity with the Act of 1833, overwhelmed Parliament with memorials on the immoral competition of their false brethren whom greater impudence, or more fortunate local circumstances, enabled to break the law" (286). There is also the matter of "public morals, of bringing up an orderly population . . ." referred to in Horner's reports (283n), that might be comfortably incorporated into this "public good" perspective.<sup>10</sup>

But this is far from the whole story, for the timing of the intervention must be accounted for. A reference to "concessions conquered by the work people" in discussing the period 1802–33 (283) sets the stage for a general emphasis on *working-class pressure* as the main driving force, especially from the late 1830s. This emerges in a discussion of the "origin" of the 1844 legislation which went part way in meeting labor's demands for a Ten Hours' Bill: "The factory hands, especially since 1838, had made the Ten-Hours' Bill their economic, as they had made the Charter their political, election-cry. . . . [H]owever much the individual

to control directly and officially the labour of adults" (287). Of singular importance is the consequence that the working day of *adult males* in the industrial sector came in effect to be regulated "since in most processes of production the co-operation of the children, young persons, and women is indispensable" (288). Accordingly, from 1844 through 1847 "the 12 hours' working day became general and uniform in all branches of industry under the Factory Act." Furthermore, the legislature also sought to assure the end of abuses – various forms of the "relay system" – by which employers had avoided the regulations and which the Factory Inspectorate had soundly condemned from the outset.

See the later remark by Jevons that though the Factory and Workshop Act of 1878 still covered only children, young persons, and women "[i]ndirectly . . . a large number of workmen fell practically under restriction . . ." (Jevons 1910 [1882]: 66).

<sup>9</sup> Marx cites the *Times* (5 November 1861): "But though the health of a population is so important a fact of the national capital, we are afraid it must be said that the class of employers of labour have not been the most forward to guard and cherish this treasure. . . . The consideration of the health of the operatives was forced upon the mill-owners" (MECW 35: 275).

<sup>10</sup> Marx cites Horner's "Reports of Insp. of Fact. for 31st December 1841," p. 30: "Without entering into the question of health no one will hesitate, I think, to admit that, *in a moral point of view*, so entire an absorption of the time of the working classes, without intermission, from the early age of 13, and in trades not subject to restriction, much younger, must be extremely prejudicial, and is an evil greatly to be deplored. . . ." (MECW 35: 283n). Accordingly, the Report concluded, "[f]or the sake . . . of public morals, of bringing up an orderly population, and of giving the great body of the people a reasonable enjoyment of life, it is much to be desired that in all trades some portion of every working day should be reserved for rest and leisure."

manufacturer might give the rein to his old lust for gain, the spokesmen and political leaders of the manufacturing class ordered a change of front and of speech towards the workpeople” (286). These changes, at least in formal attitude, on the part of the industrialists to some extent reflected a temporary need for labor’s support in “the contest for the repeal of the Corn Laws,” enducing them to promise “not only a double-sized loaf of bread, but the enactment of the Ten Hours’ Bill in the Free-trade millennium.” For their part, “[t]hreatened in their holiest interest, the rent of land, the Tories thundered with philanthropic indignation against the ‘nefarious practices’ [Horner’s term] of their foes,” referring to attempts by firms to by-pass existing restrictions. Nonetheless, taking center stage is the *necessitarian character of the legislative interventions* – “these minutiae, which, with military uniformity, regulate by stroke of the clock the times, limits, pauses of the work” – for they “developed gradually out of circumstances as natural laws of the modern mode of production. Their formulation, official recognition, and proclamation by the State, were the result of a *long struggle of classes*” (287–8; emphasis added). *We are apparently to attribute the reforms largely to the growth of proletarian power, itself a necessary consequence of modern industrial development.*

The same story underlies the Ten Hours’ Bill of 1847 itself – though it still did not formally cover adult males. For in the same years as repeal of the Corn Laws and of the duties on cotton and other raw material (1846–47) “*the Chartist movement and the 10 hours’ agitation reached their highest point*” (288; emphasis added). Supported by revengeful Tories, and in the face of “the fanatical opposition of the army of perjured Free-traders, with Bright and Cobden at their head” – who had reneged on their earlier promises – “the Ten Hours’ Bill, struggled for so long, went through Parliament.”

The theme of legislative intervention to regulate the workday as *necessitated by the very nature of industrial development*, is elaborated in a convenient overview of British experience: “The history of the regulation of the working day . . . prove[s] conclusively that the isolated labourer, the labourer as ‘free’ vendor of his labour power, when capitalist production has once attained a certain stage, succumbs without any power of resistance. *The creation of a normal working day is, therefore, the product of a protracted civil war, more or less dissembled, between the capitalist class and the working class.* As the contest takes place in the arena of modern industry, it first breaks out in the home of that industry – England” (303; emphasis added). Also to be found is the implicit notion – a wholly orthodox position – that the factory legislation actually reinforced the *competitive* character of the labor contract, since in the absence of social control the individual worker is far from a “free” agent on a par with his employer: “In the market he stood as owner of the commodity ‘labour power’ face to face with other owners of commodities, dealer against dealer. The contract by which he sold to the capitalist his labour power proved . . . that he disposed of himself freely. The bargain concluded, it is discovered that he was no ‘free agent,’ that the time for which he is free to sell his labour power is the time for which he is forced to sell



it . . ." (306).<sup>11</sup> In defense, "*the labourers must put their heads together, and, as a class, compel the passing of a law, an all-powerful social barrier that shall prevent the very workers from selling, by voluntary contract with capital, themselves and their families into slavery and death*" (emphasis added).

On Marx's account the struggle was not a smooth one. The efforts of industrialists to circumvent the regulations which came into force in May 1848 (such as the discharge of women and young people and restoring night work for adult males who were not formally covered), constituted a retrogression ascribed at home to "the fiasco of the Chartist party" which "had shaken the confidence of the English working class in its own strength;" and abroad to "the June insurrection in Paris and its bloody suppression" which "united, in England as on the Continent, all fractions of the ruling classes . . . under the common cry for the salvation of Property, Religion, the Family and Society" (290). Under these conditions, "[t]he manufacturers had no need any longer to restrain themselves. They broke out in open revolt not only against the Ten Hours' Act, but against the whole of the legislation that since 1833 had aimed at restricting in some measure the 'free' exploitation of labour power."

It was, Marx concluded, "a pro-slavery rebellion in miniature, carried on for two years with a cynical recklessness. . . ."<sup>12</sup> All the more striking then was the legal battle fought by the factory inspectorate on moral grounds. Now initially this was to little avail since the county magistrate courts before whom capitalists were summoned for infringement of the labor laws were under the industrialists' control (293–4).<sup>13</sup> Worse still, "one of the four highest Courts of Justice in England, the Court of Exchequer . . . in a case brought before it on February 8th, 1850, decided that the manufacturers were certainly acting against the sense of the Act of 1844, but that this Act itself contained certain words that rendered it meaningless" (296). "By this decision" – Marx here cites Engels's "The English Ten Hours' Bill" (1850; MECW 10: 297) – "the Ten Hours' Act was abolished." But this is far from the end of the story, for this reaction was *very short-lived*. We recall first that in their joint contribution of early 1850 and in the two papers by Engels of that year,

<sup>11</sup> Marx cites here Engels, "The English Ten Hours' Bill," MECW 10: 288; and also the *Reports* of the Factory Inspectors regarding "the fallacy of the assertion so often advanced, that operatives need no protection, but may be considered as free agents in the disposal of the only property which they possess – the labour of their hands and the sweat of their brows" (MECW 35: 306n)

<sup>12</sup> The term "pro-slavery rebellion" is also used by Marx to describe the likely capitalist response once proletarian power had been achieved (see, for example, the "First Draft of The *Civil War in France*" (MECW 22: 491).

<sup>13</sup> An interesting passage describes the renegeing by employers of their earlier promises: "They paid 10 hours' wages for 12 to 15 hours' lordship over labour power. This was the gist of the matter, this the masters' interpretation of the 10 hours' law!" (MECW 35: 296). Marx added that "[t]hese were the same unctuous Free-traders, who for full 10 years, during the anti-Corn Law agitation, had preached to the operatives . . . that with free importation of corn, and with the means possessed by English industry, 10 hours' labour would be quite enough to enrich the capitalists."

the efforts “to dodge” the regulations of 1847 were seen as a *successful* reaction by employers especially upon the upturn of activity beginning in 1849 (above, p. 449). What we now have in *Capital* is Marx’s *insistence upon the almost immediate failure of that reaction, a failure due to working-class counter-threats*: “But on this apparently decisive victory of capital, followed at once a revulsion. The workpeople had hitherto offered a passive . . . resistance. They now protested in Lancashire and Yorkshire in threatening meetings. The pretended Ten Hours’ Act was thus simple humbug, parliamentary cheating, had never existed! The Factory Inspectors urgently warned the Government that the antagonism of classes had arrived at an incredible tension” (MECW 35: 296). Even some industrialists complained of the disparity of application, that “the manufacturer in large towns could evade the law, the manufacturer in country districts could not find the people necessary for the relay system, still less for the shifting of hands from one factory to another, &c.,” while – Marx adds – a uniform rate of exploitation characterized (mature) capitalism: “the first birthright of capital is equal exploitation of labour power by all capitalists” (297). The outcome was the Factory Act of August 1850, whereby “an end was put to the *relay* system once for all.” Remaining abuses were met by legislation of 1853 so that “[h]enceforth with a few exceptions the Factory Act of 1850 regulated the working day of all workers in the branches of industry [textiles] that came under it” (299). All in all, “the gradually surging revolt of the working class compelled Parliament to shorten compulsorily the hours of labour, and to begin by imposing a normal working day on factories proper . . .” (412).<sup>14</sup>

*What stands out in all this is the success of working-class pressure, and this despite the absence of representation in Parliament.* And that Marx intended success in the very real sense of improvement to working-class welfare is clear from the following extraordinary passage relating to the effect of the 1850 Act as modified by that of 1853 – extraordinary were it not that it merely reiterates what was already insisted upon in 1864: “. . . the principle had triumphed with its victory in those great branches of industry which form the most characteristic creation of the modern mode of production. Their wonderful development from 1853 to 1860, *hand in hand with the physical and moral regeneration of the factory workers*, struck the most purblind. The masters from whom the legal limitation and regulation had been wrung step by step after a civil war of half a century, themselves referred ostentatiously to the contrast with the branches of exploitation still ‘free’” (300; emphasis added). Again one notes that the most impressive advances achieved by labor in terms of its “physical and moral regeneration,” occurred in the *most advanced* industries. Marx goes on to allude to further progress since 1860: “It will be easily

<sup>14</sup> Marx adds that “so soon consequently as an increased production of surplus value by the prolongation of the working day was once for all put a stop to, from that moment capital threw itself with all its might into the production of relative surplus value, by hastening on the further improvement of machinery” (MECW 35: 412–13). See on this matter Chapter 14, p. 429.

understood that *after the factory magnates had resigned themselves and become reconciled to the inevitable, the power of resistance of capital gradually weakened*, whilst at the same time the power of attack of the working class grew with the number of its allies in the classes of society not immediately interested in the question. Hence the comparatively rapid advance since 1860" (emphasis added). Extensions of the Act in 1863 and further proposals to cover all the important branches of industry – except for agriculture, mining, and transportation – illustrate that advance (302).

That the "factory magnates" should have become thus "reconciled to the inevitable" presumably reflects fear of an increasing class-conscious proletariat. But perhaps Marx himself had written prematurely since he adds a note to the second edition (1873) reading: "Since 1866, when I wrote the above passages, a reaction has set in" (302n), though it is difficult to imagine that by this he came to withdraw the remarkable proposition that *effective welfare legislation accompanied the development of modern industry, indeed was its necessary consequence*. Interesting indeed is the notion that the Owenite proposals once disparaged as "utopian" had become normal features of the capitalist system: "Robert Owen, soon after 1810, not only maintained the necessity of a limitation of the working day in theory, but actually introduced the 10 hours' day into his factory at New Lanark. This was laughed at as a communistic Utopia; so were his 'Combination of children's education with productive labour' and the Co-operative Societies of working men, first called into being by him. To-day the first Utopia is a Factory Act, the second figures as an official phrase in all Factory Acts, the third is already being used as a cloak for reactionary humbug" (304n).

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The somewhat disparaging implication regarding cooperatives just cited is in line with earlier expressions of skepticism (see above, p. 451). But in "Instructions" he drew up in August 1866 for the delegates of the Provisional General Council of the International in preparation for the Geneva meetings in September Marx offered a more positive, if still cautious, opinion:

(a) We acknowledge the co-operative movement as one of the transforming forces of the present society based upon class antagonism. Its great merit is to practically show, that the present pauperising, and despotic system of the *subordination of labour to capital* can be superseded by the republican and beneficent system of the *association of free and equal producers*. (b) Restricted, however, to the dwarfish forms into which individual wages slaves can elaborate it by their private efforts, the co-operative system will never transform capitalist society. To convert social production into one large and harmonious system of free and co-operative labour, *general social changes* are wanted, *changes of the general conditions of society*, never to be realised save by the transfer of the organised forces of society, viz., the state power, from capitalists and landlords to the producers themselves (MECW 20: 190).

Marx adds two specific recommendations of high practical significance. First, that workers "embark in *co-operative production* rather than in *co-operative stores*. The

latter touch but the surface of the present economical system, the former attacks its groundwork. . . .” Second: “In order to prevent co-operative societies from degenerating into ordinary middle-class joint stock companies (*sociétés par actions*), all workmen employed, whether shareholders or not, ought to share alike. As a mere temporary expedient, we are willing to allow shareholders a low rate of interest.”<sup>15</sup>

At this time too we find J. G. Eccarius, Marx’s echo on the General Council of the International (Berlin 1963: 231; McLellan 1973: 369, 381), opining in his newspaper series of 1866–67 – of which Marx approved (Marx to Engels 27 June 1867; MECW 42: 394; see also Bernstein 1961 [1899] 110; Evans 1989: 292) – that cooperative associations were indeed significant as a transitional form to socialist production. (Eccarius incidentally ignored Mill’s own arguments favoring cooperation; see Evans 1989: 293.) A formulation of this evaluation appearing in *Capital 3* (MECW 37: 438). provides a splendid summary of Marxian “evolutionism” elaborated in our Chapter 13 (above, pp. 406–7).

We return to the “Instructions” of August 1866. This same document throws light on Marx’s position regarding unions. The emphasis is partly on their role in countering capitalists’ bargaining advantage by restricting competition between individual laborers: “It cannot be dispensed with so long as the present system of production lasts. On the contrary, it must be generalised by the formation and the combination of Trades’ Unions throughout all countries” (MECW 20: 191). More significant is the role of unions as a training ground: “On the other hand, unconsciously to themselves, the Trades’ Unions were forming *centres of organisation* of the working class, as the mediaeval municipalities and communes did for the middle class. If the Trades’ Unions are required for the guerilla fights between capital and labour, they are still more important as *organised agencies for superseding the very system of wages labour and capital rule.*” And there was also evidence of the unions’ growing awareness of “their great historical mission,” including “their participation, in England, in the recent political movement,” referring to their active support of electoral reform. As for the immediate future Marx cautioned against exclusivity: “Considering themselves and acting as the champions and representatives of the whole working class, they cannot fail to enlist the non-society men into their ranks. They must look carefully after the interests of the worst paid trades, such as the agricultural labourers, rendered powerless by exceptional circumstances. They must convince the world at large that their efforts, far from

<sup>15</sup> Marx’s caution in practice is reflected too in his reaction to the draft scheme of the Gotha Programme of 1875 according to which “The German workers’ party, in order to *pave the way for the solution of the social question*, demands the establishment of producers’ co-operative societies with *state aid under the democratic control of the working people*. The producers’ co-operative societies *are to be called into being* for industry and agriculture on such a scale that *the socialist organisation of the total labour will arise from them*” (cited, MECW 24: 93). On this Marx warned that cooperative societies “are of value *only* insofar as they are the independent creations of the workers and not protégés either of the governments or of the bourgeois” (94).

being narrow and selfish, aim at the emancipation of the downtrodden millions" (192).

Eduard Bernstein, who emphasized Marx's cautious perspective regarding cooperatives, found Marxist practice to be "predominantly political, and . . . directed towards the conquest of political power and attributes, and gives importance almost solely to the trade union movement, as a direct form of the class struggle of the workers" (Bernstein 1961 [1899]: 109). There may be some undue underplaying here of Marx's enthusiasm for cooperatives; but the particular emphasis on unions and the political dimension seems to be justified.<sup>16</sup>

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In his "Political Indifferentism" (1873) Marx refers to his refutation in *Poverty of Philosophy* (1847) of Proudhon's "sophisms against the working-class movement" (MECW 23: 395), but reformulates his position in the light of Proudhon's anarchical *De la capacité politique des classes ouvrières* (1868). The logic of the case attributed to Proudhon against all forms of compromise with the State, extends beyond working-class political activity to unionization, strikes, legal limitation of the working-day, restrictions of female and child factory labor and state-financed primary education (392–3).<sup>17</sup>

Proudhon's position that a weak French law of 1864 authorizing combinations was, in his own terms, "highly anti-juridical, anti-economic and contrary to any society and order" or "contrary to the economic *Right* of free competition," Marx rejected, as was by now his wont, on grounds of the "*necessity*" of such activity in a competitive bourgeois state, such freedom of combination being on the books in England for decades: "If the master had been a little less *chauvin*, he might have asked himself how it happened that forty years ago a law, thus contrary to the *economic rights of free competition*, was promulgated in England, and that as industry develops, and alongside it *free competition*, this law – so contrary to *any society and order* – imposes itself as a necessity even to bourgeois states themselves" (396).

The document of 1873 also complains, as in 1847 (above, p. 446), of Proudhon's neglect of Ricardian theory when he maintained in 1868 that "[w]age rates determine the price of commodities." It is unlikely that Marx intended to assert that Britain's relatively high wages actually reflected successful union activity, since (as we have seen) he consistently played down real-wage effects, pointing rather to educational and organizational training. The point at hand may then be: *even*

<sup>16</sup> The significance of the latter is incidentally confirmed in the apparent approval of the evaluation by the Factory Inspectorate whereby by making the workers "masters of their own time," the Factory Acts "have given them a moral energy which is directing them to the eventual possession of political power" (Reports for 31 October 1859, cited MECW 35: 307n).

<sup>17</sup> Marx nonetheless distinguished between Proudhon and his disciples, "the master" himself energetically opposing *economic* activities such as combinations and strikes, but in practice encouraging the working-class political movement (MECW 23: 395).

if *unions had positive wage effects* they would not damage Britain's international competitiveness.<sup>18</sup>

For all his criticisms of Proudhon, there is some evidence from this period that Marx was losing confidence in the British unions, representing them as “an aristocratic minority” – this brings to mind J. S. Mill (see Hollander 1985: 753, 897–907) – and looking rather to the International Working Men's Association. This emerges in an address at the London meetings of the International held on 20 September 1871 opining that the British unions would not enter into a federation as proposed at the Basle Congress in 1869: “Marx . . . thought at that time – the thing possible – now he is persuaded that the trades unions will not accept this federation – The trades unions, he says, are an aristocratic minority. . . . [They] will remain a minority – they have no power over the mass of proletarians – whereas the International . . . is the only society to inspire complete confidence in the workers” (MECW 22: 614). There is too an interview accorded *The World* on 3 July 1871, which downplays “every known workmen's organization . . .,” again putting faith in the International: “The working classes remain poor amid the increase of wealth, wretched amid the increase of luxury. Their material privation dwarfs their moral as well as their physical stature. They cannot rely on others for a remedy. . . . They must revise the relations between themselves and the capitalists and landlords, and that means *they must transform society*. . . . To establish a perfect solidarity between these organizations” – Marx includes in addition to workmen's organizations, “land and labor leagues, trade and friendly societies, co-operative stores and co-operative production” – “is the business of the International Association” (MECW 22: 602–3; emphasis added).

Clearly then, there were limits to what could be achieved by union activity within capitalist arrangement by way of *material* benefit. Transformation of society was still the order of day and cooperation between national proletariats would be an essential feature in its achievement. Yet, none of this can efface what is described in *Capital* as “the physical and moral regeneration of the factory workers” in consequence of social legislation by the bourgeois state (above, p. 456), a “revisionist” perspective contrasting sharply with the pessimism of 1850 by conveying the message that reaction had failed. Nor does Marx suddenly revert in the 1871 reports to Proudhonist nihilism regarding working-class activity within the bourgeois state. It is noteworthy, for example, that he finds even *local* strike activity to be rendered more effective by international cooperation: “Formerly, when a strike took place in one country, it was defeated by the importation of workmen from another. The International has nearly stopped all that” (*The World*, 18 July 1871; MECW 22: 602).

<sup>18</sup> Ricardo's inverse wage-profit relation provided J. S. Mill with a reply to critics of union activity engendered by the legislation of 1867 (see Hollander 1985: 917–19).

We note finally an indication of prospects for welfare reform in Marx's late "Preamble to the Programme of the French Workers' Party" of May 1880. This document champions universal suffrage as the means to achieve the ultimate proletarian objective, namely collective ownership of the means of production; but Marx outlines as a "*minimum programme*" for the Party a series of reform demands *within going capitalist arrangement* potentially achievable via the ballot box: factory regulations including Monday holidays, restrictions of hours for adults and juveniles, abolition of child labour, minimum wages, non-discriminatory pay between the sexes, state finance of scientific and technological education, exclusive worker control of their mutual societies, and employer contributions to insurance (MECW 24: 340–1).

#### D. Summary and Conclusion

Measures championed in the *Communist Manifesto* as part of a program designed to weaken private-property institutions, and to be introduced once the proletariat had achieved political control – the Factory Acts *par excellence* – were there treated as *unacceptable* if adopted by the bourgeois régime itself, for such measures *restrained capitalist development*. Those measures which, to the contrary, gave capitalist development free rein – Free Trade is a prime instance – were acceptable precisely because in so doing they encouraged capitalist development and thereby hastened its demise. (They were to be supported even though their perceived consequence might be to *worsen* working-class standards.) As for Unions, they were envisaged in the *Poverty of Philosophy* (1847) not as a counteracting or modifying force capable of reversing the downward wage trend but as one of the inevitable *consequences* of capitalist industrialization, providing political training to a united, nationally organized work force and to be countenanced for this reason.

We have established in Section B that Marx, writing in the late 1840s and early 1850s, recognized the progressive factory legislation enacted by the British Parliament, but emphasized the practical impediments imposed by the industrialists rendering such measures a dead letter. We encountered in the following Section a major change of viewpoint apparent in *Capital*. Despite continued pessimism regarding the course of real wages, Marx now emphasized the positive consequences for labor emanating from the *effective* operation of the Factory Acts. The contrast with 1850 is remarkable, Marx setting aside his earlier belief that such measures – a restraint on capitalist development – would never be tolerated in practice. That the factory magnates had now become reconciled to the inevitable, reflected the impact of ever-increasing proletarian power. Marx in fact treats *social welfare legislation* as one of his "tendencies working with iron necessity towards inevitable results" (see p. 452), putting a completely different gloss on that expression than normally encountered.

We have sought the reasons offered by Marx to explain why the capitalists, and their organ the State, ultimately complied in granting *effective* reform measures, and found the explanation to be a natural outcome of capitalist development reflecting fear of growing proletarian class power (above, pp. 453–4, 456–7). It may be added that Engels, writing in 1892, related this trend specifically to *large* capitalists as part of the “centralization” process (MECW 27: 258–9, 311). The evidence points unmistakably away from von Mises’s view that “Marx and the school of orthodox Marxism” grew increasingly opposed to social reform measures within capitalist organization in later years seeing them as reactionary attempts to restrain capitalist development (above, p. 444). To the contrary, such measures were increasingly considered an *inevitable* feature of advanced capitalism.



## CONCLUSION

### A Recapitulation and Overview

#### A. The Theory of Surplus Value

In this concluding chapter we take a general overview of the main results that have emerged with respect to matters theoretical, empirical, and historiographical. Our primary concern is the surplus-value doctrine, for the theoretical core of Marx's enterprise must stand or fall with this kingpin of his system. *Objections to the doctrine are clearly discernable in his own work.* We surmise – and it is no more than a conjecture – that this dissatisfaction might help explain why *Capital* remained unfinished.<sup>1</sup>

The “labor-power” concept, we first recall, was introduced to explain how it is that in the absence of monopsony – i.e., assuming a competitive exchange of “equivalents” in *wage-rate* determination – there can yet be a positive return to capital. The proposed solution requires that “*labor capacity*” and not “labor” be perceived as valued by the wage contract, the worker receiving a competitive return though the whole work day yields more than is required to cover the costs of his reproduction. The argument thus turns on the notion of surplus as comprising *unpaid hours* in a day's labor, a surplus that (as expressed in *Capital 1*) is “embezzled, because abstracted without return of an equivalent . . .” (MECW 35: 607). Unequal exchange is central to the matter considering that labor is excluded from ownership of property.<sup>2</sup> But two points require emphasis. First, although for Marx the moral

<sup>1</sup> See Robinson 1980 (1955): 15 on this matter. Also Jut 2006: 89n. Failing health, of course, played its part. Against this must be weighed the argument that “[t]he last decade of Marx's life was a tremendously productive period for him” indicated *inter alia* by additions to the French edition of *Capital 1* appearing in 1873 (Anderson 1983: 231). Yet the fact remains that the *Capital 2 and 3* materials proved too heavy a burden.

<sup>2</sup> See Roemer 1983. Gordon 1968 has helpfully clarified Marxian exploitation theory in terms of a normative “distributive-rights function”  $R = R(L)$ , where  $R$  is the quantity of right to receive income and  $L$  the labor performed; a “distribution equation”  $O = l + p$ , where  $O$  is net rational output and  $l$  and  $p$  wages and “surplus value” respectively, describing the fact that property-owners actually receive income. Gordon adds that a labor theory of value,  $O = O(L)$  is necessary in order to solve the “product-exhaustion problem,” assuring that the

right to real income derived from performance of socially necessary labor, he eschewed appeal to “morality” or “justice” in evaluating capitalist organization, as we have shown in Chapter 13; indeed, “the capitalist – as soon as he pays the worker the real value of his labour power – would have every right, i.e. such right as corresponds to this mode of production, to *surplus value*” (above, p. 387). Second, the labor-power concept was designed only to *interpret* surplus for those inhabiting the “illusory” world of markets, and had, for Marx himself, no *operational* significance whatsoever since in actuality the wage contract specifies a payment per time period (Chapter 2, p. 76; Chapter 9, p. 287). As for the *value* of labor power, that is nothing but the labor time required to produce the real wage paid per day. It follows that use of terms such as the “value-creating” or “wealth-augmenting” power of labor, amount to no more than brilliant rhetoric since when all is said and done all that is entailed is the unexceptionable proposition that only part of the worker’s day is required to reproduce his daily wage goods.

It has been asserted not only that “the impression that Marx gave, and must have meant to give, is that the value of labor-power is to be identified with the actual wage or at least with the average wage over a period of time” – presumably given technology, the value of labor power then reflecting the commodity wage – but also that he “thus held a subsistence wage theory” (Brewer 1995: 123). Now certainly an *unambiguous* notion of the value of labor power requires a real wage sufficient only to *maintain* the labor supply; and when Marx assumes as a first approximation that the actual wage does not fall below the value of labor power – as for example in 1861–63 (Chapter 12, p. 375) – he is implicitly taking this definition for granted. But we have also shown, over and again, that Marx’s full-fledged growth process accords a central place to expansion of population and the work force, indeed that Marxian growth cannot be perceived apart from population expansion. The value of labor power is accordingly in practice redefined to allow a component in the real wage which assures not only the replacement but the growth of the work force (Chapter 3, p. 93); and that the value of labor power (always in the sense of the real wage, apart from technical progress) is subject to downward pressure – the principle of “immization” – is insisted upon from the 1840s through *Capital* (Chapter 6.C; 7.G; 12.E; 3.D). Accordingly, it is only in some purely conceptual stationary state, not in the real-world economy under investigation, that the value of labor power reflects strict subsistence.

Of course, allowance must be made for productivity improvement, Marx’s hallmark. Here we recall the accounts of growth entailing a *constant* real wage at a level sufficiently high to encourage population expansion, which – because subject to reduction in labor cost – generates increased surplus and thus increased aggregate

sum of rights to income resulting from labor performed is exactly equal to the value of goods produced with “the total product exhausted by the *just* claims made upon it.” This purpose, one might add, would not require a strict labor theory, but would be served by the *Capital* 3 or Ricardian variety.

demand for labor (Chapters 8.D, 12.E). The two perspectives should be seen as complementary.

Widening the labor-power concept to accommodate population growth, coupled with allowance for a downward trend in the real wage under freely operating labor-market pressures, comes at a high cost indeed, for the contrast between “necessary” and “surplus” segments of the workday loses all sharpness. Particularly damaging is the implication that constraints on the growth of *labor supply*, as by Malthusian “prudential” measures, can contribute towards maintenance of the real wage or even its increase, the working class having some degree of control over the distribution of “surplus.” As Waterman has suggested (1998: 300), we must give some credence to Bonar’s view that while “seeking to demonstrate the hopelessness of the labourer’s position,” Marx was “too acute not to know that his demonstration would be seriously weakened if he admitted the truth of the Malthusian doctrine and the bare possibility of the adoption of prudential habits by the labourers. This is the reason for his bitter attacks on the Essay” (Bonar 1924 [1885]: 391).

Setting aside the foregoing complexities by taking the doctrine on its simplest terms, all depends as far as concerns the “generation” of surplus on what to include within the “productive” labor category.<sup>3</sup> Marx found himself from the outset embroiled in the inevitable classificatory exercises. On the one hand, he widened the criteria for entry beyond a simple *materiality* qualification to cover such activities as transport or “spatial movement” (Chapter 9, pp. 269–71) and also management, including that exercised by the capitalist himself, the latter creating a particular embarrassment for the doctrine of surplus value (Chapter 14, p. 434). Even the opera singer puts in an appearance. On the other hand, there are remarkable exclusions, conspicuously unskilled labor – the *Lumpenproletariat* (Chapter 8, p. 237). In the 1861–63 document, in *Capital 3* and in correspondence of 1868 there is a further narrowing by the omission of agricultural labor with the emergence of Absolute Rent when the industrial sector is accorded priority in profit-rate determination (Chapter 1, pp. 29–31; Chapter 10, p. 305). In *Capital 3* the treatment of labor employed by large joint-stock companies is not clear-cut, in that “such undertakings, in which the ratio of constant capital to the variable is so enormous, do not necessarily enter into the equalization of the general rate of profit” (Chapter 1, p. 31). A notion of surplus value which turns upon (unpaid) “labor” of a fluid and ill-defined sort and which excludes major sectors, is on weak grounds even on its own best terms.

The doctrine is further severely compromised by concessions that had to be made arising from value “realization,” for Marx allowed in the *Grundrisse* that “a moment

<sup>3</sup> A remark by Samuelson on the Sraffa-Marx connection is of interest. “He [Sraffa] was 50 when I first knew him; and the puzzlement this sophisticated intellectual engendered in me by orally defending such a notion as Smith’s concept of PRODUCTIVE labour (whereby concrete goods are given a primacy over ephemeral services) suddenly evaporated when I came to hypothesize that this sophisticated mind had a penchant for Marxist notions. This paradigmatic insight for understanding Sraffa serves the observer well” (1990: 264–5).

of value determination come[s] in here which is independent of labour” and “does not arise from the direct relation of labour to capital” (Chapter 9, pp. 268, 271). The defensive representation of “circulation” merely as a “barrier” to the creation of surplus value (pp. 272–3) is a mere formality. All these qualifications come to a head in the “overproduction” context where the interdependence of the production and valorization processes is of the essence (pp. 274–5).<sup>4</sup> We have traced out the doctrinal dilemma as it emerges in the *Economic Manuscripts* (Chapter 10.G) and in *Capital 3* (Chapter 1.H).

We come now to the primary implication of surplus value conceived as unpaid labor, namely that the capitalist employer is “functionless,” merely taking advantage of his status as a sort of toll-gate keeper allowing him to obtain “productive” labor free of charge. In what follows we review the disintegration of the Marxian doctrine in consequence of changes in Marx’s perspective on industrial capitalism.

Paul Sweezy opined that Marx won hands down as far as concerns the “judgement of history,” with the institutional and deliberate planning of science, technology and production during and since World War II putting the role of individual inventors and entrepreneurs into second place (Sweezy 1968: 117).<sup>5</sup> But such attributions of second sight are unhelpful – Marx was after all dealing with mid-nineteenth century industrial capitalism. And in any event, we have documented in Chapter 14 a radical change in Marx’s position based on his reading of contemporary events.

Marx’s so-called technological determinism is particularly conspicuous with respect to major historical transitions *between* organizational arrangement, but we have focussed in Chapter 14 on the functions attributed in the *Economic Manuscripts* to the industrial capitalist *within* the “automatic workshop” environment, seeking for recognition of individual decision-making in the face of riskiness and uncertainty. In our account of the sources of new technology, we found Marx focusing on *basic science* in terms of “the theoretical progress of humanity,” as “the general product of social development” which “costs the capitalist nothing”; but even in the context of *applied science* capital is treated as “the personification and representative . . . of the productive powers of social labour,” directing attention away from the individual capitalist innovator, for only in “*appearance*” was applied science “the work of capital” (Chapter 14, pp. 419–21). There is no scope for decision making in the face of uncertainty in these contexts. And this is true also of discussions of new products whose discovery is treated as the semi-automatic response to “new needs” (pp. 423–4).

Marx was at pains to reject what he read as apologetic interpretations of “profit” as a justified return to managerial functions, both because those managerial expenses under capitalist arrangement were peculiarly high – reflecting control

<sup>4</sup> On the production-circulation dichotomy, see Boss 1990: 96–103.

<sup>5</sup> Schumpeter later adopted the Sweezy position, writing of “the obsolescence of the entrepreneurial function” with the increasing bureaucratization of the entrepreneurial function within the large firm (see Chapter 14, note 4).

over labor and thus falling within the *faux frais* of capitalist organization – and because there still remained a “surplus gain” to be accounted for. In any event, the management tasks are represented largely as entailing routine cost control. This generalization must be qualified in the light of differential managerial abilities emerging in discussions of the capitalist’s allocative function where complexity, reflecting forward-looking decision making in an uncertain environment, seems to be of the essence. Marx avoided the conclusion that part at least of the capitalist’s return reflected a reward for uncertainty-bearing by focusing on the *average* return in a particular industry, assuming that to be unaffected by the efficiency with which the allocative (or managerial) task was undertaken by individual capitalists (pp. 417–18). Marx was now applying a device that he had in 1844 condemned, namely Ricardo’s alleged abstraction entailing the disappearance of the *individual* capitalist and laborer (see Chapter 6, p. 181).

With respect to major innovatory investment where complex decision making in the face of uncertainty and high capital cost is central to his account, Marx similarly avoids any implication that the capitalist’s return reflects a reward for uncertainty bearing by emphasizing the transitory nature of such profits in the competitive environment, apart from the circumstance that they relate while they last to the *individual* not the *industry* – an unsatisfactory defense, as Schumpeter was to point out in discussion of his own original perspective (see Chapter 14, p. 428). But there is a further line of defense that would, in principle, cover even “permanent” innovatory profit. Marx allows that the *profit motive* dictates the innovating capitalist’s behavior, but insists that this in no way detracted from the validity of the surplus-value doctrine; only in *appearance* did innovatory profit resulting from cost reduction constitute “the *deed and accomplishment of the capitalist*,” who functioned as “the personification of the social character of labour, of the *total workshop* as such” (p. 427). In brief, profits from innovatory investment, though motivating the innovating capitalist, were the result of social forces at play – which takes us back to the position adopted in discussing the sources of new technology where Marx was at pains to get behind “appearance.”

Marx seems therefore to have recognized the *fact* of decision making under uncertain conditions, but – impeded by his presumptive exploitation doctrine – could not allow that the return to the capitalist constituted a reward for *uncertainty-bearing*. There is an exception – his ready agreement that “[a]ll profits of expropriation are uncertain,” referring to the “individual work” of the capitalist in *commercial* activity (p. 418). But here it was only a matter of distributing the surplus value created in the production process; there was no doctrinal danger with which to contend – if we are prepared to forget the interdependence allowed between the production and valorization processes. And he also relied on measurable risk to defend the theory of surplus value (p. 429–30).

Appeal to the empirical framework to justify, as it were, Marx’s failure to follow through *his own recognition of the forward-looking entrepreneur*, by spelling out properly the consequences for profits of uncertainty, will not do. It would not even

be convincing with respect to late eighteenth-century Britain,<sup>6</sup> while the contemporary evidence for the play of uncertainty in Knight's sense as non-insurable risk was readily available to Marx (and Mill), as the Appendix to Chapter 14 makes clear. Precisely for this reason we have been obliged to rationalize Marx's hesitancy to allow uncertainty its due weight in terms of his concern to protect the exploitation doctrine. And that this doctrine indeed imposed a constraint preventing him from following up promising lines of investigation is confirmed by the much warmer attitude adopted in *Capital 3* towards the industrial capitalist who *manages his own capital*, coupled with recognition of *failure* as the typical consequence of the high degree of *uncertainty* attached to innovatory investment (pp. 439–40).

Nathan Rosenberg argues, on the basis of the *Capital 3* “trail blazer” who generally goes bankrupt, that if “in his earlier work” Marx had “paid more attention” to the “vulnerability of capitalists in their social role as carriers of technological innovation, the main source of capitalist dynamics . . . it would have been necessary to portray capitalists in a distinctly different light” (1991: 158). This is valid in general, but requires modification. It is not a matter of an “earlier” and “later” Marx. The relevant materials published by Engels as *Capital 3* date to the mid-1860s when *Capital 1* was being prepared for the press; moreover, much of Marx's position is based on empirical materials relating to the mid-1850s, indeed much earlier. *Capital was under threat from Marx himself even before he published the first volume.*

We have sought to understand why in the end Marx could afford to relax somewhat. First, it was not the industrial capitalist who earned innovatory profits but the *monied* capitalist who picked up the pieces (Chapter 14, pp. 440–1). Were the trail-blazer engaged in heavy outlay himself *to enjoy innovatory profit* – the position of the *Economic Manuscripts* of 1861–63 – such profit might be envisaged as a return to uncertainty-bearing undermining the entire surplus-value doctrine though, as noted, Marx then appealed to the temporary character of such returns in defense. That it was monied capitalists who profited from innovation reduced the danger, and Marx could afford to portray the industrial capitalist more favorably. In any event, this figure was, he believed, fast disappearing from the scene with the expansion of the stock-company and cooperative organizations, the former entailing “the abolition of capital as private property within the framework of the capitalist mode of production itself” (pp. 438, 442).

There are two further indications that Marx finally adopted a warmer attitude towards “classical” or industrial capitalism, both relating to the operation of the credit system. One occurs in *Capital 3*: “The capital itself, which a man really owns

<sup>6</sup> Adam Smith's discussion of the contemporary usury laws reflected in part his concern with unjustifiable risk-tolerance, such that in a free credit market the lenders' *prejudice* towards high-risk projects would predominate to the social detriment. Beyond this, all “long-term” financing was to derive from *private* not *bank* credit since banks were incapable of evaluating risk properly. Without exaggerating the risk attached to innovation and invention in the late eighteenth century, there was evidently already enough uncertainty present to raise such considerations in Smith's mind – and in Bentham's (see Hollander 1999).

or is supposed to own in the opinion of the public, becomes purely a basis for the superstructure of credit. This is particularly true of wholesale commerce, through which the greatest portion of the social product passes. All standards of measurement, *all excuses more or less still justified under capitalist production* (emphasis added), disappear here. What the speculating wholesale merchant risks is social property, not *his own*" (MECW 37: 437). Second, and a related point, the perspective on "classical" abstinence was changing. For despite his charges against Senior, Marx in *Capital 1* distinguishes between "the capitalist of the classical type [who] brands individual consumption as a sin against his function, and as 'abstinence' from accumulation," and "the modernised capitalist [who] is capable of looking upon accumulation as 'abstinence' from pleasure" (MECW 35: 589; cited Chapter 2, p. 62); again, in *Capital 3*: "Equally sordid becomes the phrase relating the origin of capital to savings, for what he demands is that *others* should save for him [the wholesale merchant]. The . . . phrase concerning abstention is squarely refuted by his luxury, which is now itself a means of credit.<sup>7</sup> Conceptions which have *some meaning on a less developed stage of capitalist production*, become quite meaningless here" (MECW 37: 437; emphasis added). The text proceeds from wholesale trading based on credit to industry as a whole, with respect to the process of "centralization," involving "expropriation" not only of successful small and medium firms, but also of *failures* or bankrupt and weak firms bought up cheap by their creditors – an entirely different breed from the classical industrialist.

We return to our main theme. It is surely fair to say that there is no reason to criticize Marx in particular for the *general* position adopted in the *Economic Manuscripts* and *Capital*, since Mill too failed to give uncertainty its due, devoting surprisingly little attention to knowledge creation and application (Chapter 14, note 26). Similarly, the insistence that innovatory profit is pertinent to the *individual* not the *industry* (above, pp. 427–8) corresponds to Mill's perspective whereby profit – excluding pure interest – varies little in equilibrium between employments, but may vary greatly between individuals (Chapter 14, note 17). We can take this a step further. While Schumpeter complained that the British classicists all but "accomplished the impossible feat of overlooking the most colourful figure in the capitalist process" – namely the entrepreneur (Schumpeter 1954: 554), he himself did not make *uncertainty* the basis of his theory of innovatory profit (Brouwer 2002: 90). (Though "Knightian" uncertainty *does* characterize Schumpeterian innovation, losses are born by capitalists not entrepreneurs; Chapter 14, note 3.) And as Whitaker has recently observed, even Marshall "failed to anticipate the rapidity of [the rise of the joint-stock company] when composing the *Principles* in the 1880s and so he locked himself into a framework that rapidly became outdated, yet was difficult to amend satisfactorily" (Whitaker 2003: 153). It is, we must also allow, to Marx's credit that in the light of ongoing developments in industrial organization he was ready to revise his original evaluation of the function of the industrial capitalist.

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<sup>7</sup> Marx drew on Tooke 1844: 79, 136 and cites the *Economist*, November 20 1847: 1333.

It has been said that “Marx’s *Capital* (1867) was essentially and consciously macro-economic . . . particularly . . . his theories of reproduction and accumulation, falling profit rates, increasing misery of the proletariat, industrial reserve army, concentration, etc.” (Machlup 1963: 105). There is much to this; but it would be a severe indictment indeed for Marx to have written a book on “capital” in which the individual “capitalist” in effect disappears from the scene. Our point thus far has been that Marx came to realize this once the industrial system that he had set out to analyze was thought to be in the course of disintegration. But beyond this, the macro-dimension to *Capital* requires qualification. The notion of surplus value as unpaid labor time did not prevent Marx from providing a splendid analysis of the circular-flow process wherein expenditure by laborers appears on a par with expenditure by any other class, very much like the analysis provided by J.S. Mill and Ricardo (Chapters 2.B, 9.E, 12.B); and certainly the Transformation of values into prices and the equalization of profit rates, we have shown, occurs by *market* processes, again in the canonical classical tradition (Chapters 1.D, 8.F, 10.C). Upon reflection then, it should not come as too much of a surprise to find a sophisticated appreciation of the operation of the price mechanism in practical applications, as emerges with respect to rent-confiscation and price control, and inventory control (Chapter 13.C). There is thus a powerful *allocative* dimension to Marx’s economics – as there is to canonical classicism – that is easy enough to neglect if we allow ourselves to be guided solely by the methodological concern to convey a notion of “exploitation” at the *aggregate* level disguised by the surface operation of markets, alone visible to the untrained eye. (See also Sowell 2006: 164–5.) Indeed, as Desai recognized – and as we have demonstrated (Chapter 13.B) – “Marx was the first economist to make a proper distinction between equity and efficiency, and he in his critique of the Gotha Programme warned German socialists not to confuse the two” (1997: 3).<sup>8</sup>

A “competitive” allocation mechanism is essential for the Transformation process and thus for the basic surplus-value doctrine, which comes under threat by the trend towards monopoly or “centralization” or “concentration” of capital.<sup>9</sup> Once again we see that the doctrine turns on a rationalization which real-world

<sup>8</sup> Our perspective leads us to question the following contrast between Knight and Marx: “. . . for the modern economist Knight was – or, more accurately, could have been – a far more effective radical than Marx: for in contrast to Marx, Knight understood the workings of the market system, but he went on by a deeper analysis of these workings to deny the ethical foundations of this system” (Patinkin 1981: 36).

<sup>9</sup> *Per contra*, it has been said that since so much in Marx depends on competitive conditions, it may be presumed that Marx did not by “centralization” so much intend a tendency to monopolization or “the concentration of firms within markets,” but rather concentration of “control over the productive process in the hands of fewer individuals” a process that increasingly “removes control over the productive process from the owners of business,” and which “by concentrat[ing] power over the productive process . . . hasten[s] the collapse of capitalism” (Williams 1982: 241). While I do not deny the latter process (see Chapter 14, p. 498n6), at the same time there seems little doubt that increasing concentration in the standard sense implying increasing firm size was also intended (see Chapter 1.E; Chapter 2, pp. 67–8; Chapter 5, p. 140 and note 7; Chapter 14, pp. 413–14, 438–9, 441).



conditions recognized by Marx was rendering irrelevant. In fact the phenomenon was recognized at least as early as 1856 (see Chapter 14, p. 436). And that Marx was troubled by the issue in outlining the Transformation is apparent from his qualification to the condition regarding “the removal of all monopolies,” that it applied “with the exception of the natural ones, those that is, which naturally arise out of the capitalist mode of production” (Chapter 1, p. 28). Again we recall the remarkable circumstance that since land scarcity is included within the “natural monopoly” category, agriculture is excluded from the determination of the general profit rate; and equally striking is the proposition that the returns to major stock companies “do not necessarily enter into the equalization of the general rate of profit” (above, p. 465).

“Competition” also refers to the dynamic process engendering cost reduction on the part of innovating firms in a quest to raise the rate of return with subsequent correction of market price to the new, lower, level, by which process the industry-wide  $c/v$  ratio rises and the general or average rate of profit tends downwards (Chapter 1, p. 37). But this process too is equally under threat. As the matter is stated in *Capital 3*: “as soon as formation of capital were to fall into the hands of a few established big capitals, for which the mass of profit compensates for the falling rate of profit, the vital flame of production would be altogether extinguished. It would die out” (Chapter 2, p. 67; see also the 1861–63 document, Chapter 10, p. 310).

There is a further consequence flowing from the trend towards monopoly. I refer to the “chaotic” dimension to the price system that is responsible for cyclical instability with accompanying excess capacity and unemployment, contrasting with its “allocative” function.<sup>10</sup> Thus we find the falling profit rate held responsible for the tendency towards speculative ventures on the part of *small firms specifically* (Chapter 4, pp. 132–3; Chapter 5, pp. 140–1). By implication, the regular cyclical pattern would be superannuated by the tendency towards monopoly. Again, Marx’s cyclical analysis makes much of heavy investment during upswings in response to the promise of a high rate of return, but this relationship holds good of small firms only, the large corporations being unresponsive to the rate of return (Chapter 5, p. 142).

## B. Marx and the Classical Canon: The Theory of Value

I have throughout this work indicated points of contact between Marx and the canonical classicists, Ricardo in particular.<sup>11</sup> The study largely confirms Marx’s recognition of the efficiency benefits deriving from competition – subject to qualifications relating to cyclical wastages – the population mechanism, the significance

<sup>10</sup> On this matter of “duality,” see Lavoie 1983; Rosenberg 1994: 49–50.

<sup>11</sup> The term “classical” was formally applied by Marx to cover a body of political economy, originating with Sir William Petty, concerned with investigating “the real relations of production in bourgeois society, in contradistinction to vulgar economy, which deals with appearances only . . .” (MECW 35: 92n).

of surplus for growth and the convergence of prices on costs, features comprising Eltis's valid conception of classical, including Marxian, economics (Eltis 2000, 2001).<sup>12</sup>

In this section I will look more closely at the issues considered in Chapter 8.H regarding matters of timing and indebtedness with respect to the surplus-value doctrine and various derivations. I then turn in Section C to the trend paths of the factor returns, which so much preoccupied the classical writers.

As we know, one of Marx's primary objectives was to counter the view that wages, profit, and rent represent "the constituent elements which . . . are the sources of the regulating price (natural price, *prix nécessaire*) of the commodities themselves," in other words, that "wages, profit and rent are three independent magnitudes of value, whose total magnitude produces, limits and determines the magnitude of the commodity-value" (MECW 37: 849; see Chapter 1, p. 51). But this criticism of orthodoxy applies only to Adam Smith's "adding-up" approach to price determination and the implications of this approach for the relation between distribution and pricing. Ricardo had abandoned Smith's approach. For Ricardo, the necessary or long-run equilibrium price of a particular commodity is made up of the sum of wage and profit costs, and disturbances affecting a specific industry could be treated on the assumption of given average rates of return to the factors; but this procedure had to be abandoned when a disturbance – such as a change in the general wage rate – affected all industries, for what is then involved is an inverse movement of the profit rate, profits treated as a residual. The level of prices would not change with a change of general wages as Smith implied; at most, the price structure would be influenced. This corpus of theory became a standard part of the classical canon, McCulloch's formulation of the consequences of a general wage change providing an early statement:

Though fluctuations in the rate of wages occasion some variation in the exchangeable value of particular commodities, they neither add to nor take from the *total value* of the entire mass of commodities. If they increase the value of those produced by the least durable capitals, they equally diminish the value of those produced by the more durable capitals. Their aggregate value continues, therefore, always the same. And though it may not be strictly true of a particular commodity, that its exchangeable value is directly as its *real* value, or as the quantity of labour required to produce it and bring it to market, it is most true to affirm this of the mass of commodities taken together (McCulloch 1825: 312–13).

<sup>12</sup> See also Sowell's chapter on "The Mysteries of Marxian Economics" (Sowell 2006: 104–28).

As in O'Brien's 1975 version, Marx is not discussed in that of 2004, on the same grounds that "[a]lthough his analytical apparatus was borrowed entirely from Classical economics and cannot be understood without a knowledge of Classical economics, it . . . is doubtful whether Marx was himself a Classical economist" (O'Brien 2004: xvi; 1975: xvi). We are not told from which part or parts of Classical economics, or from which Classical economist, Marx borrowed. In any event, O'Brien repeats his contention that "the full Ricardian apparatus attracted hardly any disciples" (50; 43), the apparatus in question identified as always with the Corn Model (48; 41).

We may then easily appreciate the sense of McCulloch's formal insistence that commodities exchange according to the labor theory; the rise in price of some commodities, following a change in the wage rate, is balanced by the fall in price of others, so that – in Marxian terms – the “deviations of prices from values” cancel out, and it is this result which counted for the derivation of the inverse profit-wage relation. McCulloch did not, as Ricardo had done, make it explicit in his first edition that to assure the foregoing result, the medium of exchange or *numéraire* must be produced by a process requiring the mean capital-labor ratio of the system, though he clarified this requirement in the fifth edition of the *Principles* (1864: 290–1).

J. S. Mill reproduces the fundamental Ricardian theorem on distribution and its derivation in terms of the standard measure. And he emphasizes that the category of wage increase which reduces profits is one involving a greater labor embodiment in wage goods and thus a rise in labor's *proportionate* share: “There is no mode in which capitalists can compensate themselves for a higher cost of labour, through any action on values or prices. If the labourers really get more, that is, the produce of more labour, a smaller percentage must remain for profit. From this Law of Distribution, resting as it does on a law of arithmetic, there is no escape” (1963–91 [1848]: 479–80).<sup>13</sup>

Now all of this is part and parcel of Marx's economics. On the other hand there is his insistence on a sharp distinction between  $s/v$  and  $s/(c+v)$  which, he rightly pointed out, Ricardo had failed fully to appreciate.<sup>14</sup> This may be perceived to be a correction and so too may Marx's proper allowance for the effect on the profit rate of changes in materials' prices (Chapter 1.G, 10.E). But two substantive points of difference remain, namely the treatment of luxury goods in profit-rate determination (Chapters 1.H, 10.E), and that of Absolute Rent whereby the general profit rate is determined in the industrial sector and taken as a *datum* in agriculture to account for the breakdown of surplus value between profit and rent (Chapter 1.E, 10.C).

<sup>13</sup> In his chapter “Of Distribution, as Affected by Exchange” Mill – following Ricardo – further clarifies that a measure of proportionate wages is furnished by *money wages*, provided money satisfies the conditions required of a stable absolute measure (Mill 1963–91 [1848]: 695f).

<sup>14</sup> The capital stock of £3000 tacked on to Ricardo's substantive argument in his chapters “On Wages” and “On Profits” relating to profit-rate determination (1951–73 I: 117) adds nothing essential. As Marx read Ricardo, quite understandably,

$$r = \frac{F'(L) \cdot P_c - w_m}{w_m}$$

where  $F'(L)$  is the marginal physical or corn product,  $P_c$  the money or “gold” price of corn and  $w_m$  the money wage rate. If we define  $F'(L) \cdot P_c$  as the value of the product due to a *workday*, taken as the minimum unit of labor (instead of the value of the product of 10 men as in Ricardo's arithmetical example), the modified formula for  $r$  expresses precisely the fraction of the workday devoted to producing goods for the capitalist-employer, Marx's  $s$ , relative to the fraction devoted to producing wage goods, Marx's  $v$ .

Marx's representation of his relation with the orthodox classicists is characteristically ambivalent. Thus we find recognition of progress on the part of the classics with respect to their undermining of the "Trinity Formula":

It is the great merit of classical economy to have destroyed this false appearance and illusion, this mutual independence and ossification of the various social elements of wealth, this personification of things and conversion of production relations into entities, this religion of everyday life. It did so by reducing interest to a portion of profit, and rent to the surplus above average profit, so that both of them converge in surplus value; and by representing the process of circulation as a mere metamorphosis of forms, and finally reducing value and surplus value of commodities to labour in the direct production process (MECW 37: 817).

Yet Marx immediately proceeds to the charge – it reflects his ideological perspective on the history of economics – that "even the best spokesmen of classical economy remain more or less in the grip of the world of illusion which their criticism had dissolved, as cannot be otherwise from a bourgeois standpoint, and thus they all fall more or less into inconsistencies, half-truths and unsolved contradictions." Elsewhere there is an unjustified assertion that Ricardo "did not understand the levelling of values to prices of production" (201n); and an irrelevant criticism that Ricardo and his "*servile herd of imitators*" deal only with the consequences for prices of a rise of wages, neglecting to consider a fall.

Particularly important is the complaint in *Capital 1* that Ricardo "never concerns himself about the origin of surplus value. He treats it as a thing inherent in the capitalist mode of production, which mode, in his eyes, is the natural form of social production. Whenever he discusses the productiveness of labour, he seeks in it, not the cause of surplus value, but the cause that determines the magnitude of that value" (MECW 35: 516–17). (We have recorded a version of this complaint appearing in the *Grundrisse* in Chapter 8.I.) Now it is true that Ricardo did not formally address the issue of the source of profits in terms of unpaid labor hours – though it is implied by his formulations. *But J. S. Mill certainly did.* In his discussion of the Law of Distribution he adds that "[t]he mechanism of Exchange and Price may hide it from us, but is quite powerless to alter it" (1963–91 [1848]: 480), and represents (in the fourth edition of 1857) the "popular apprehension [that] the profits of business depended upon prices," as an error arising from a failure to look below "the outside surface of the economical machinery of society" (410). Profits, in fact, derived from surplus labor time: "the reason why capital yields a profit, is because food, clothing, materials, and tools, last longer than the time which was required to produce them; so that if a capitalist supplies a party of labourers with these things, on condition of receiving all they produce, they will, in addition to reproducing their own necessaries and instruments, have a portion of their time remaining, to work for the capitalist . . ." (411; see Chapter 8, p. 259).

Despite Mill's rejection of misleading surface impressions and his isolation of the source of profit in surplus labor time Marx reacted harshly.<sup>15</sup> As in *Capital 3*

<sup>15</sup> The critique was first introduced in the first French edition of *Capital 1* in 1873.

he recognized some progress, and allowed that “[Ricardo’s] school has openly proclaimed the productiveness of labour to be the originating cause of profit (read: surplus value). This at all events is a progress as against the mercantilists who, on their side, derived the excess of the price over the cost of production of the product, from the act of exchange, from the product being sold above its value” (MECW 35: 517). But once again he immediately dilutes the concession: “Nevertheless, Ricardo’s school simply shirked the problem, they did not solve it. In fact these bourgeois economists instinctively saw, and rightly so, that it is very dangerous to stir too deeply the burning question of the origin of surplus value. But what are we to think of John Stuart Mill, who, half a century after Ricardo, solemnly claims superiority over the mercantilists, by clumsily repeating the wretched evasions of Ricardo’s earliest vulgarisers?” For Mill (in the passage of 1857) “confounds the duration of labour time with the duration of its products,” and represents “exchange, buying and selling, those general conditions of capitalist production, [as] an incident,” while insisting that “there would always be profits even without the purchase and sale of labour power!” It should, however, be noted that in later correspondence Marx greatly toned down his objection, referring to Mill’s formulation as “a striking example of how bourgeois economists, even with the best of intentions, instinctively go off the rails at the very moment when *they seem about to light on the truth*” (11 February 1875, MECW 45: 58; emphasis added).

The published reaction was the subject of a famous commentary by Bortkiewicz according to which Mill “deduces profit from surplus value, just as Marx does. . . . One will not go wrong if one connects the ill will which Marx displays towards Mill, with the circumstance that Mill had, basically, anticipated Marx’s theory of surplus value” (1952 [1907]: 52–3n). Now while an element of ill will cannot positively be excluded, it would at most relate only to Mill’s prior appearance in print; it is not a matter of plagiarism, as we have argued in Chapter 8 (p. 259). Moreover, Mill has it in 1857 and thereafter that “the general profit of the country is always what the productive power of labour makes it, whether any exchange takes place or not. If there were no division of employments there would be no buying or selling, but there would still be profit” (1963–91 [1848]: 411). Now Bortkiewicz claimed against Marx that Mill “did not mean the buying and selling of labour power, but merely the buying and selling of *products*” (1952 [1907]: 53n). He is probably right, but what sort of institutional arrangement Mill could possibly have intended is quite unclear.<sup>16</sup>

There is a further matter, relating to Marx’s view that the “scientific” era in economics closed with Ricardo and Sismondi (though his positive representation of various authors – for example, Jones, Ramsay, and Cherbuliez – raises difficulties, as King 1979 has pointed out). This reading of the literature appears first in correspondence of 1851 with Engels: “*Au fond*, this science has made no progress since A. Smith and D. Ricardo, however much has been done in the

<sup>16</sup> On this and other aspects of the Marx-Mill connection, see Evans 1989. Evans documents instances of misquotation by Marx of Mill, but by and large dismisses the charge of plagiarism.

way of individual research, often extremely discerning” (2 April 1851; MECW 38: 325). And again in the *Grundrisse*: “The history of modern political economy ends with Ricardo and Sismondi. . . . The later literature of political economy ends up either in eclectic, syncretic compendia, like e.g., the work of J.St. Mill, or in rather detailed elaboration of particular branches like e.g. Tooke’s *History of Prices* and in general the more recent English writers on circulation – the only branch in which really new discoveries have been made. . . . There are some reproductions of old economic controversies for a larger public and some practical solutions for day-to-day problems. . . . Finally, there are tendentious exaggerations of the classical theories. . . .” (MECW 28: 5). A version appears in the *Economic Manuscripts*: “. . . the determination of exchange value by labour time has been formulated and expounded in the clearest manner by Ricardo, who gave to classical political economy its final shape. . . .” (MECW 29: 301); the problem was that “the bourgeois form of labour is regarded by Ricardo as the eternal natural form of social labor” (300), though here Marx attributes to Sismondi 1838 greater insight into the proper perspective. This general view is cited in the Afterword (1873) to the second German edition of *Capital 1*, with 1830 taken to be the “decisive” year:

In France and in England the bourgeoisie had conquered political power. Thenceforth, the class struggle, practically as well as theoretically, took on more and more outspoken and threatening forms. It sounded the knell of scientific bourgeois economy. It was thenceforth no longer a question, whether this theorem or that was true, but whether it was useful to capital or harmful, expedient or inexpedient, politically dangerous or not. In place of disinterested inquirers, there were hired prize-fighters; in place of genuine scientific research, the bad conscience and the evil intent of apologetic (MECW 35: 15).

In this context J.S. Mill is designated, as in the *Grundrisse*, “the best representative” of a “shallow syncretism.”<sup>17</sup>

<sup>17</sup> In the same Afterword, Marx identifies his method in *Capital* with that of the “English school,” responding to a Comtist reviewer who had charged him *inter alia* with treating economics “metaphysically”:

As early as 1871, N. Sieber, Professor of political economy in the University of Kiev, in his work *David Ricardo’s Theory of Value and of Capital*, referred to my theory of value, of money and of capital, as in its fundamentals a necessary sequel to the teaching of Smith and Ricardo. That which astonishes the Western European in the reading of this excellent work, is the author’s consistent and firm grasp of the purely theoretical position. . . . In answer to the reproach *in re* metaphysics, Professor Sieber has it: “In so far as it deals with actual theory, the method of Marx is the deductive method of the whole English school, a school whose failings and virtues are common to the best theoretic economists” (MECW 35: 17).

If by “the whole English school” Marx himself understood primarily the founders, Smith and Ricardo, his satisfaction with Sieber would be consistent with the significance accorded 1830.

The passage was composed specifically to counter the charge against him of “metaphysics.” Accordingly, the fact that in 1867 Marx had represented his method as “Darwinian” or “historical” (Chapter 13, p. 406) creates no problem. All depended on context whether the “deductive” or “historical” approach was appropriate.

Now an illustration of Mill's alleged "syncretism" is that he "accepts on the one hand Ricardo's theory of profit, and annexes on the other hand Senior's 'remuneration of abstinence.' He is as much at home in absurd contradictions, as he feels at sea in the Hegelian contradiction, the source of all dialect" (592n). The presumption that the theory of surplus value rules out abstinence is also apparent in the *Economic Manuscripts*: "It is incomprehensible how economists like John Stuart Mill, who are Ricardians and even express the principle that profit merely = surplus value, surplus labour, in the form that the rate of profit and wages stand in inverse ratio to one another and that the rate of wages determines the rate of profit (which is incorrect when put in this form)" – here at least is a clear enough if qualified concession to Mill regarding surplus value – "suddenly convert industrial profit into the individual labour of the capitalist instead of into the surplus labour of the worker . . ." (MECW 32: 505–6).

Marx's objection is unconvincing. There is no good reason to avoid the simultaneous adoption of the abstinence theory and of the notion of profit envisaged as a residual reflecting surplus labor time, for the former relates to capital-supply conditions and contributes to the actual determination of surplus labor time. That Marx did not make out a valid case against Mill is scarcely surprising. Ricardo did not reject the notion of abstinence as a "necessary" cost; and, as Schumpeter has emphasized (1954: 661–2) – and as we have shown – there are present in Marx's own analysis elements of abstinence and waiting (see Chapter 2.C).

### C. Marx and the Classical Canon: The Trend Path of the Factor Returns

We turn now from surplus-value to the wage-rate and profit-rate trends. To establish their status we should recall that for Ricardo, Malthus, and Mill positive forecasting had not been the issue. Their land-scarcity based model comprised an "engine of analysis" designed to specify the strategic variables in order to provide a basis for policy recommendation, in which approach technical change is treated as a "disturbing cause" of a random order that might intervene to disturb the "predicted" outcome – falling wage and profit rates – based as it is on *ceteris paribus* reasoning (Hollander 1979: 637–42; 1985: 945–7; 1997: 978–9). Sir Edward West provides one of two major exceptions known to me to this sort of orientation, for he treated diminishing agricultural returns as an *empirical* not an *analytical* assumption, with the decline in factor returns expected notwithstanding technical progress (Hollander 1998: 232–3). J.B. Say is the second case, considering his explicit treatment of knowledge-creation itself as subject to diminishing returns: "in proportion as machines and accelerating methods become more numerous, the difficulty of still discovering new improvements is increased" (Say 1821 [1820]: 70–1; see Hollander 2005: 126–7, 255).

Marx's falling rates of return to labor and to property are of a quite different order. For the ultimate collapse of the capitalist system *required* increasing immiseration and thus working-class dissatisfaction, supplemented by worsening cyclical

instability in consequence of the falling return to capital. The latter trend was responsible also for capital concentration and for the disappearance of the middle classes and the bifurcation of income distribution expected to precede ultimate collapse. There were disturbing causes but they were unable to reverse the secular paths – thus union pressure could at best “retard” not alter the direction of the downward wage path (Chapter 15, p. 450). Above all, there could be no appeal to technical change to justify empirically rising real wages since the outstanding feature of the analysis – its main claim to distinction – was its incorporation into the analysis as the key variable *responsible for the downward trends*.

Marxian theory thus certainly constituted an engine of analysis but was much more than that, purporting as it did to generate specific historical forecasts. As an engine of analysis it was defective. First, the falling real wage is said to result from a labor-supply growth rate exceeding the rate of increase in labor demand. This outcome reflects population growth rather than the availability of unemployed labor encountered in most accounts of Marx’s system (see Chapters 3.D, 7.H, 8.D, 12.D). It is to Marx’s credit that he insisted upon expanding aggregate demand for labor, for it would have been quite outrageous to have missed this feature of nineteenth-century growth.<sup>18</sup> The problem lies in his failure to justify a supposedly *necessary* expansion of labor supply at a faster rate than demand, a matter touched on in Section A above (p. 465). As for the falling profit rate, that too is not justified – though the standard objection which focuses on a rising rate of surplus value does not hold water – the outcome being highly sensitive to differential rates of productivity increase in the agricultural and industrial sectors (above Chapter 4.F).

\* \* \*

Unlike the canonical growth model, Marx’s analyses of the trend paths of the wage and profit rates proceed independently of each other with too little said of the interconnections. In the last resort, since returns to both factors (I use the term advisedly) decline, one is obliged to allow into the picture – in classical fashion – a third factor as beneficiary of rising productivity due to on-going technical progress. This complexity raises a historiographical issue of considerable interest: Did Marx himself understand the *canonical* model entailing falling real wage- and profit-rates? There is evidence from the 1861–63 materials that he did *not*, and with this revelation we shall close the present discussion.

Marx, so it appears, did appreciate Ricardo’s falling real-wage trend, which he contrasts with Smith’s reverse assumption. For both are said to “explain the fall of profits by the rise in wages, one of them [Smith], in real and nominal wages, the other [Ricardo], in nominal wages, with rather a decrease of real wages” (MECW

<sup>18</sup> But according to Eltis’s account of Marx’s position “mechanisation would all the time reduce the demand for labour . . .” (2000: 255). Subsequently, this is qualified – “. . . the labour force increases faster than the demand for labour” (257) – apparently allowing for a positive expansion of demand.



32: 445). So far so good (though elsewhere we find him attributing to Ricardo growth at the *minimum* real wage, e.g., Chapter 8.D). But he errs when he proceeds to argue that a fall in the real wage might *insulate* the profit rate. Thus he maintains that if the corn price rises in the Ricardo-Malthus land-scarcity case the profit rate decline followed logically in consequence of the fall in  $s/v$ : “this can only arise from the fact that a great *quantity of necessary labour time* is required on the worst lands, and therefore a small *quantity of surplus labour* is left over. . . . But if we assume with Malthus that the *wages of labour* fall, because *more labour is required to produce them*, how can the *rate of profit* be reduced thereby?” (MECW 34: 157–8). Now the fall in the wage under discussion relates to the *commodity* wage, which falls because of diminishing-returns pressure. Again: “If the corn has become dearer by 1/3, and he receives 1/3 less corn, he continues to work *the same* surplus labor time for his employer. . . . The *rate of profit* would thus remain the same . . .” (158).

Here Marx shows a failure to appreciate a key feature of the canonical model, namely that the fall in productivity necessarily *exceeds* the fall in the real wage so that the labor embodied in the basket – in Ricardo-Malthus terminology “proportionate wages” – necessarily rises, or in Marxian terminology the “rate of exploitation”  $s/v$  necessarily falls. (It is, incidentally, the same error made much earlier by Mountifort Longfield 1834: 184–5.) As Malthus had summarized the matter: “if poorer land which required more labour were successively taken into cultivation, it would not be possible for the corn wages of each individual labourer to be diminished in proportion to the diminished product; a greater *proportion* of the whole would necessarily go to pay the wages of labour; and the rate of profits would continue regularly falling till the accumulation of capital had ceased” (Malthus 1836: 274; 1820: 299). The orthodox growth model was based on far stronger grounds than Marx (or Longfield) imagined. It is then particularly piquant that an *increase* in wage-goods costs according to Marx’s own analysis of the profit-rate trend generates the same final outcome as in the orthodox analysis (Chapter 4, p. 129). As Samuelson has phrased it: “When the limitation of land and natural resources are added to the model of Karl Marx, he also ends up with the same canonical classical model” (1978: 1415).

#### D. Marx as “Revisionist”

Accurate historical predictions can, of course, follow from faulty engines of analysis. But from this perspective the Marxian enterprise was scarcely a success considering the upward trend in real wages carefully documented by Giffen (1904 [1883]), and the resilience, indeed expansion, of the middle classes. Here it is revealing to have in mind Eduard Bernstein’s challenge to several of Marx’s economic prognostications, *inter alia* the “concentration” theme that property owners were growing smaller in number: “It is . . . quite wrong to assume that the present development of society shows a relative or indeed absolute diminution of the number of the members of the possessing classes. Their number increases both relatively and

absolutely. . . . Socialism, or the social movement of modern times, has already survived many a superstition, it will also survive this, that its future depends on the concentration of wealth or . . . on the absorption of surplus value by a diminishing group of capitalist mammoths” (1961 [1899]: 48; also 212). He similarly rejected the related theme that the lot of the proletariat was progressively deteriorating, referring to the “altogether outworn idea that the realisation of socialism depends on an increasing narrowing of the circle of the well-to-do and an increasing misery of the poor. . . . [T]he misery theory has now been given up nearly everywhere, if not with all its logical conclusions and outright, yet at least by explaining it away as much as possible” (175–6).<sup>19</sup>

Now to some extent Bernstein drew on Marx himself with respect to welfare improvement, for he refers to Marx’s recognition in *Capital* of the “physical and moral regeneration” of the Lancashire textile workers due to the Factory Act of 1847, which “signifies not hopelessness but capability of improvement in the condition of the worker” (207). And, he goes on, legislation “has not grown weaker but has been improved, made more general, and has been implemented by laws and organisations working in the same direction. . . .”

<sup>19</sup> On the matter of worsening cycles, Bernstein insisted that “[s]igns of an economic world-wide crash of unheard-of violence have not been established, nor can one describe the improvement of trade in the intervals between the crises as particularly short-lived” (1961 [1899]: 79). He pointed to “the enormous extension of the world market, in conjunction with the extraordinary shortening of time necessary for the transmission of news and for the transport trade, [that] has so increased the possibilities of adjustment of disturbances; and [to] the enormously increased wealth of the European states, in conjunction with the elasticity of the modern credit system and the rise of industrial Kartels,” and suggested (largely against Rosa Luxemburg) that these phenomena has “so limited the reacting force of local or individual disturbances that, at least for some time, general commercial crises similar to the earlier ones are to be regarded as improbable” (80). Sensibly, Bernstein allowed that it was “impossible to pre-judge *à priori* the ultimate relation of these forces to one another, or their development” (93); but he maintained that in the absence of “unforeseen external events . . . there is no urgent reason for concluding that such a crisis will come to pass for purely economic reasons. Local and partial depressions are unavoidable; general stagnation is not unavoidable with the present organisation and extension of the world market, and particularly with the great extension of the production of articles of food. . . . Perhaps nothing has contributed so much to the mitigation of commercial crises or to the stopping of their increase as the fall of rent and of the price of food” (93–4).

By contrast, we have Leontief’s panegyric upon Marx’s “brilliant analysis of long-run tendencies of the capitalistic system,” namely: “increasing concentration of wealth, rapid elimination of small and medium sized enterprise, progressive limitation of competition, incessant technological progress accompanied by the ever growing importance of fixed capital, and, last but not least, the undiminishing amplitude of recurrent business cycles – an unsurpassed series of prognostications fulfilled, against which modern economic theory with all its refinements has little to show indeed” (1966 [1938]: 78). Account should also be taken of the much more critical evaluation in Mason 1957: 23–32. Robinson 1980 (1968) provides a well-balanced evaluation of Marx’s hits and misses.

Wolfson 1966 applies the criterion that nonrefutable propositions are tautologous to the forecast of the end of capitalism. For an account of the “immunizing strategems” devised to protect the Marxian system against the failure of several of its predictions, see Blaug 1980: 31–59; also 1991.

Elliott notes a "crucial factor which prevented the mechanical working out of Marx's economic laws *mit eherner Notwendigkeit* (as Marx had put it in his preface to the first German edition of *Capital*)," namely "the pressure exerted by the trade unions in protecting the industrial workers. The trade unions were able to force the capitalists to pay the workers more than a subsistence wage (thus abrogating the Marxist 'law' which decreed that no commodity could be paid more than its 'value')" (Elliott 1967: 75). And Bernstein refers to "[t]he fight of the workmen organised in trade unions for the improvement of their standard of life [which] from the standpoint of the capitalist [is] a fight between wage rate and profit rate" (1961 [1899]: 135–6). Similarly with respect to shorter hours: "If the shorter day of labour does not directly cause a diminution in the amount of work done for the wage given hitherto – in many cases it is known that the reverse happens – yet it leads by a side way to an increase in the workers' demands for better conditions of life, and so makes a rise in wages necessary" (137–8).

All in all, Malthus turns out to have been the better "prophet" in these respects, though – working within the classical tradition and eschewing appeal to inevitable outcomes which preclude policies designed to improve welfare – he did not purport to engage in prophecy. As for J.S. Mill, he was not prepared (he explained in "Chapters on Socialism") to accept Louis Blanc's insistence in 1845 on a necessary fall in working-class living standards under capitalism – "*une baisse continue des salaires*": "the assertion is in opposition to all accurate information, and to many notorious facts. It has yet to be proved that there is any country in the civilised world where the ordinary wages of labour, estimated either in money or in articles of consumption, are declining; while in many they are, on the whole, on the increase; and an increase which is becoming, not slower, but more rapid" (Mill 1963–91 [1879] 5: 727–8). Even population pressure was no longer an "irrepressible tendency" considering the rapid acceleration of capital accumulation, easier emigration – due to transportation advances and improved knowledge – and increased "prudence" (728–9).<sup>20</sup>

Two questions must be addressed. Did Marx recognize the apparent predictive failure of his engine of analysis? And, if so, how did he respond? We have shown in Chapter 15 that he certainly came to appreciate improvements in *general welfare* experienced by British factory workers in the most advanced industries, referring indeed in *Capital 1* to their "physical and moral regeneration" (pp. 456, 460), as Bernstein pointed out. This evaluation is interpreted by Marx himself as the outcome of legislative reform forced on the ruling class by working-class pressure, the "factory magnates" increasingly "reconciled to the inevitable," all in consequence of modern industrial development. The original stance that effective reformist legislation, because a constraint on economic development, could never be tolerated

<sup>20</sup> This was written sometime after 1869 and published posthumously in 1879. In his *Principles* Mill has it that only the labor *élite* was benefiting from growth, with "prudential" behavior practiced by skilled workers alone (Hollander 1985: 456).

by the capitalist establishment is wholly reversed, social reform now represented as a *necessary* characteristic of advanced capitalism. We have then in *Capital 1* itself a clear indication of incipient “revisionism.”

As for earnings, in the English case Irish immigration could for the moment be relied upon to keep a lid on working-class aspirations (9 April 1870; MECW 43: 474–5). Even so, there is some recognition in 1871 of at least the potential for real-wage improvement given the promise of greater success by local strike activity as a result of international cooperation, and in the proposals of 1880 (pertaining to France) for reform extending to Monday holidays, minimum wages, non-discriminatory pay between the sexes and employer contributions to insurance (Chapter 15, p. 461). The vision of an *inevitable* worsening of labor’s condition was dissipating. And this transformation cannot be explained away by resort to the emergence of strong unions, considering the firm *denial* in 1865 that unions could reverse the trend. Marx in fact was *revising* his orientation.<sup>21</sup>

Marx’s revisionism with respect to working-class conditions constituted a threat to the prospect of *revolution* by an increasingly dissatisfied labor force. It has been recently asserted that had Marx indeed “enunciated an increasing misery doctrine” his support for unions would have “lacked much rationale”; indeed, rising real wages were considered by Marx as “necessary to realize socialism” (Howard 2000: 1040). Now certainly Marx thought a well-trained, self-conscious, militant proletariat was essential to assure the collapse of capitalism, and that these characteristics were encouraged by capitalist development itself, including unionization. But this does not gainsay that increasing “misery” too was envisaged as a *sine qua non*.

We should certainly not forget the standard repost that any improvement in labor’s condition is a *secondary* matter so long as the exploitative wages system itself remained untouched. But this old refrain in no way negates the substantive *fact* of progress within capitalism on the welfare front that in the end Marx came to admit; and it in no way resolves the dilemma that progress under capitalism severely compromises the sought-after outcome. Bernstein spelled out the predicament facing Marx: “. . . the general sympathy with the strivings for emancipation of the working classes does not in itself stand in the way of the scientific method. But, as Marx approached a point when that final aim enters seriously into the question, he becomes uncertain and unreliable . . . for instance in the section [of *Capital*] on the movement of incomes in modern society. It thus appears that this great scientific spirit was, in the end, a slave to a doctrine” (1961 [1899]: 210). This conclusion holds goods, as we have shown, with respect to a variety of issues apart from the real-wage trend.

Marx never properly resolved the dilemma (see Wolfson 1966: 189). But a lifeline was provided in effect by his “evolutionist” perspective of *Capital 3* documented in

<sup>21</sup> Engels in 1874 referred to labor’s sharing “the advantages of the immense expansion of its large-scale industry” at a time when England “ruled the world market” (MECW 23: 613).

Chapter 13. For the major alterations under way in industry structure were paving the road to communism, the joint-stock arrangement constituting “the abolition of capital as private property within the framework of the capitalist mode of production itself” (p. 406). We have then an instance of disintegration of the original structure, on a par with the greater willingness to allow for a return to uncertainty bearing in the industrial capitalist’s profit once that form of organization was seen to be under threat from joint-stock, cooperative, and nationalized ventures. Quite extraordinary is the circumstance that Marx was already aware of the industrial transformation at a very early stage, writing in 1858 of “[s]hare capital as the most perfected form (turning into communism) . . .” (p. 406). We have here further evidence that Marx’s original project was constructed on an axiomatic foundation reflecting an empirical reality in the course of disintegration, and this according to his own account.

Here we should step back to allow perspective. Marx had quietly altered his evaluation of the forces at play undermining capitalist institutions. The cost of this transition was to render tenuous the original link between basic Marxian surplus-value theory, which pertained to the *competitive* world of industrial capitalism, and historical trends. As for the striking accounts of *contemporary* “globalization” (see Chapter 9, pp. 270–1, 276–8, 290; Chapter 4, p. 130; Chapter 14, p. 417), these had more to do with the “realization” than the “creation” of surplus value. And the understanding of a land-exhaustion propensity of capitalist agriculture (Chapter 4, pp. 124–5) is again an issue unrelated to the basic theoretical structure.

### E. Marx and the Moderns

Professor Brewer, who has little patience with Marxian theory (above, p. 1), at the same time writes of attempts “to modernize or resuscitate Marx’s ideas” (Brewer 1995: 141), and allows that the reproduction schemes “could be seen as forerunners of National Income accounting, input-output models, and so forth” (129). Unfortunately, the forementioned lines had to wait for “the development of the mathematical techniques and computer hardware to allow simultaneous equation systems to be manipulated in a useful way and for the empirical data on intersectoral flows to become available”; while “the fact that so many ‘descendants’ can and have been suggested shows how underdeveloped Marx’s schemes of reproduction actually are.” Now one could equally well argue that though the neglect of Marxian theory by late-nineteenth-century writers might have been justified, neglect by later generations is not.<sup>22</sup>

<sup>22</sup> See also Samuelson 2000: 28–9, cited below, p. 484. Also of high interest are the Soviet developments where a more direct influence may be discernible, particularly the application of Marx’s departmental schemes by G. A. Fel’dman in his growth models of the 1920s (see Jones 1976: 110–19; Ellman 1987). See also Erdős 1967.

In the first place, it is to Marx's credit that he should have spelled out the superposition of cycles on an upward trend (Chapter 5, p. 160). After all, it was not until Harrod (1939, 1948) and Domar (1946) that "the propriety, indeed the necessity of approaching the business cycle as a problem of an expanding economy . . . fluctuating about a rising trend" was properly appreciated (Hicks 1950: 7–9). And even then the English-language literature continued to preoccupy itself with "equilibrium" or "steady" growth; thus for example, Meade 1968 makes no mention of the cyclical dimension. On the other hand, Schumpeter maintained of Marx that "we are left without a factor that would necessarily impart cyclical fluctuation to the [secular] process and account for an *imminent* alteration of prosperities and depressions" (Schumpeter 1952: 49). But this is singularly unfair, since a similar criticism can be directed against Schumpeter's own *Business Cycles* (see Kuznets 1940).<sup>23</sup>

More specifically, Joan Robinson opined that "[t]here are many pointers in *Capital* to a theory of effective demand. Marx's disciples could have worked it out before Keynes and Kalecki learned it from the brutal teaching of the great slump; but they did not do so" (Robinson 1967 [1942]: vi). Morishima comes to a similar verdict: "It is no exaggeration to say that before Kalecki, Frisch and Tinbergen no economist except Marx, had obtained a macro-dynamic model rigorously constructed in a scientific way" (Morishima 1973: 3). And Paul Samuelson allows that the expanded reproduction scheme of *Capital 2* "is perhaps the first example of those golden-age paths of compound interest which Cassel, D.H. Robertson, Von Neumann, Harrod, Domar and all the rest have made so fashionable in modern economics" (1967: 618); even if these writers were not influenced by Marx, "we all might well have benefited earlier from study of the Marx tableaux" (617). He refers also to Marx's "successful depiction" of tableaux of *stationary reproduction* and (geometrically) *expanding reproduction . . .*" and "hail[s] his numerical tableaux" (Samuelson 2000: 28–9). These are royal tributes indeed.<sup>24</sup> The sympathetic treatment by Bronfenbrenner of Marx's macro-dynamics, setting out from the departmental schemes, is equally revealing, for in his "translation" and extensions he "stress[es] Marx's merits, not always recognized, in anticipating analyses and ideas which we academics only derived (however independently) fifty years after his

<sup>23</sup> On the matter of cycles, see also Desai's parallel between Marx and Hayek: "Hayek agonized over capital heterogeneity, and his attempts to provide a complete theory of cycles foundered on his failure to integrate heterogeneous capital as well as money in a Walrasian general equilibrium framework. This is no denigration. The only other economist, in my view, who tried and failed as well was Marx. Compare if you will the middle third of the second volume of *Capital* and Hayek's *Pure Theory of Capital*, and you will discover a similar enterprise" (Desai 1997: 5–6).

<sup>24</sup> This alone should put paid to Samuelson's own earlier designation of Marx as "a minor post-Ricardian" (1957: 911). Despite his sympathetic treatment of Marx's economics, Sowell apparently accepts this verdict (2006: 186).

death” (Bronfenbrenner 1965: 205; also 1966). Brewer himself recognises a specific impact of Marxian theory on Sraffa and on Kalecki and Robinson.<sup>25</sup>

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A brief discussion of the Sraffa-Marx connection, which is surely the most important from the perspective of the surplus-value issue, is in order.<sup>26</sup>

By way of general background it should be mentioned that Sraffa adopted a perspective on the development of economics in general and the nineteenth-century in particular that is entirely Marxian in its emphasis on ideology. This fact emerges clearly in the Cambridge Lectures (Piero Sraffa Papers, D2/4: pp. 2, 4). The development of theory is also said to reflect environmental factors – in Ricardo’s case the clash between landlords and others (both capitalists and labourers); in the post-Ricardian period the increasing importance of the conflict between manufacturers and labor (10). Sraffa refers to the use made of Ricardo’s value theory by the so-called “Ricardian Socialists” Thompson and Hodgskin (11). The use of “orthodox Ricardian economics” in this “unexpected way” led to a reaction by Torrens, McCulloch, Senior, and J. S. Mill; and “thanks to the influence of Mill, the Ricardian theory, though considerably qualified and changed in important respects, dominated political economy up to the seventies” (14). In the same light Sraffa viewed the development of marginal utility theory as a defensive reaction against Marx (14–16). So much for Sraffa’s Marxian historiographical outlook turning on ideology and environmental considerations.

Sraffa’s familiarity with, and sympathy for, Marx in fact goes back to his early years, before his first travels to Britain in 1920 (see, e.g., Roncaglia 1998). Potier observes regarding 1924–25 that “[i]t is not easy today to determine precisely what might have been Sraffa’s opinion of Marx’s *Capital*” (1991: 16), and Cavalieri points out that “little is known about the range of works read by Sraffa in the 1920s and early 1930s” (2001: 114). But it is surely significant that at the close of his famous 1926 paper on costs, after discussing credit and the like, Sraffa concludes in Marxian terms: “these are mainly aspects of the process of diffusion of profits throughout the various stages of production and of the process of forming a normal level of profits throughout all the industries of a country” (1926: 550). We also know that in the mid-1920s the research culminating in *Production of Commodities* was set in motion, Sraffa drawing on notes from that period when preparing the work

<sup>25</sup> For the continued relevance of Marx from a very different perspective, see Howard and King 2001. The authors argue that “Marx’s treatment of agents’ choices and constraints, and of systemic cooperation and conflict, is far superior to that of orthodoxy in several crucial respects and can provide a better grounding for non-neoclassical analyses.” (It is not clear how their perspective would apply to Marx’s treatment of entrepreneurship, the subject matter of Chapter 14.) See also Eltis’s evaluation that when one extends the coverage to encompass the institutional framework determining “class power,” and changes therein, for an appreciation of income distribution, there is much to be learned from Marx (2000: 307–9).

<sup>26</sup> These remarks draw on Hollander 2000. See also Porta 2001 for a similar approach.

(see the Piero Sraffa Papers) and that by the late 1920s its “central propositions had taken shape” (Sraffa 1960: vi). Now Sraffa is reported as expressing his indebtedness to Marx at this time: “Sraffa told us [in June 1973] that he would not have been able to write *Production of Commodities* . . . if Marx had not written *Capital*. It is clear, he told us, that the work of Marx strongly influenced him, and that he felt more in sympathy with him than with those he called the ‘camouflagers’ [*les camoufleurs*] of capitalist reality” (Dostaler 1982: 103; see also 1986: 468).<sup>27</sup> More specifically: “Sraffa considered that his model described some aspects of the same reality that Marx had described, a reality characterized by class antagonism between workers and capitalists, the exploitation of the first by the second”; and his equation  $r = R(1-w)$  derived from the Standard Commodity was seen by Sraffa to be the equivalent of Marx’s rate of exploitation, for it was “immaterial whether this reality is expressed in terms of the worker working  $x$  hours to reproduce his labour-power and  $y$  hours to create surplus-value for the capitalist, or in terms of a physical surplus,  $R$ , the distribution of which constitutes the stake [*l’enjeu*] in a struggle expressed ‘algebraically’ by the famous equation  $r = R(1-w)$ .”<sup>28</sup> Indeed, the role of the Standard System was, Sraffa explained, to “give transparency to an [actual] system and render visible what was hidden” (1960: 189), a formulation that conveys precisely Marx’s methodological rule that “all science would be superfluous if the outward appearance and the essence of things directly coincided” and his concern to counter the superficial view of “normal average profits” as “immanent in capital and independent of exploitation” (MECW 37: 804, 816).

The informal record of Sraffa’s position that *Production of Commodities* was inspired by Marx’s perspective on exploitation should be read together with two further considerations: First, Sraffa’s insistence that the main features of his own work – concerned with the problem of a given physical surplus to be distributed to assure a uniform profit rate – reflect Ricardo’s “method of approach” of the *Principles*, not only the passing phase of the *Essay*, which “rendered distribution independent of value” (Sraffa 1951: xxxii–xxxiii); and secondly his position that Marx’s critique of capitalism is entirely based upon Ricardo’s theory of values” (PSP, D/4: 14–15).<sup>29</sup>

<sup>27</sup> Dostaler particularly emphasizes the Sraffa-Marx linkage, considering the subsequent “criticisms to which Sraffa has been subjected from certain Marxist centres” (1982: 103). But he also points out that Sraffa himself “also confirmed [in 1973] that he considered the transformation problem to be a false problem” (1986: 468n).

<sup>28</sup>  $R$  is Sraffa’s Maximum Rate of Profit, corresponding to a zero wage. This, Sraffa observed, had been suggested by Marx’s rejection of Adam Smith’s claim (see Chapter 2, Appendix) that prices are “immediately or ultimately” resolved with no commodity residue into wages, profit and rent, “a claim which necessarily presupposed the existence of ‘ultimate’ commodities produced by pure labour without means of production except land, and which was therefore incompatible with a fixed limit to a rise in the rate of profits” (Sraffa 1960: 94).

<sup>29</sup> There is another linkage. At the time Sraffa composed his 1926 paper on costs, he was working on the reproduction schemes of *Capital 2* (Potier 1991: 60). These schemes, it has been pointed



Some Marxian loyalists are incensed by Sraffa and “neo-Ricardians” for abandoning labor value and equal rates of surplus value as starting point (on which matter, see Blaug 1988: 29–30),<sup>30</sup> and some non-Marxians insist on a complete divorce of Sraffa from Marx.<sup>31</sup> But it seems to me perfectly reasonable for one to retain the spirit of Marx even though dispensing with the letter. This we have seen was Sraffa’s own position. (See also Meek 1975: xxviii–xliv; Kurz 1979; Blaug 1980: 20–3; Sweezy 1981; Garegnani 1998.) It was also that of Morishima who proposed “a Marxian economics without the labour theory of value,” and concluded that “Marx’s theory of exploitation may survive the von Neumann Revolution,” at least “in an economy with homogeneous labour” (1973: 181, 196). Lange perceived “exploitation” simply as the forced surrender by labor of part of the national product to undeserving property owners (1935). And so too did Joan Robinson who wrote famously that “no point of substance in Marx’s argument depends upon the labour theory of value. Voltaire remarked that it is possible to kill a flock of sheep by witchcraft if you give them plenty of arsenic at the same time. The sheep, in this figure, may well stand for the complacent apologists of capitalism; Marx’s penetrating insight and bitter hatred of oppression supply the arsenic, while the labour theory of value provides the incantations” (1942: 22). It is all the more essential to insist that Marx himself thought of his exploitation theory as requiring a labor theory of value, at least of the *Capital* 3 or Ricardian variety (see above, note 2).

\* \* \*

I have not been concerned above with the validity or invalidity of Sraffa’s reading of Marx (or, for that matter, of Ricardo). My remarks relate rather to Sraffa’s understanding of the literature and the inspiration he drew from it.<sup>32</sup> The textual evidence considered in this book in fact suggests that Marx in common with Ricardo

out, were the source of propositions that Sraffa showed Keynes in 1927, from which developed *The Production of Commodities* (Eatwell and Panico 1987: 446). See also Samuelson 2000: 28.

<sup>30</sup> Steedman – adopting Sraffa’s apparatus, taking account of joint production and choice of production methods, and drawing on Morishima 1973 – set out to demonstrate the irrelevance of Marx’s value magnitudes to a range of “Marxian” issues including “the relationship between surplus labour and the existence of profits” (Steedman 1977: 15). For an important objection to Steedman’s claim, see Horverak 1988: 285n.

As expressed by Schefold: “Sraffa’s essential goal was to show that prices (in the sense of natural prices, prices of production or normal prices) were defined, given the structure of production and distribution. It thus became clear that prices of production could not be represented as ‘transformed’ labour values: both labour values and prices have to be derived from the structure of production. In place of Marxian surplus value, we have here a physical surplus, the production of which requires both the physical means of production and labour” (Schefold 1996: 1319).

<sup>31</sup> Thus Samuelson: “Sraffian economics . . . devastatingly repudiates that central part of Marx’s economics, *Capital*, Volume I (1967) which proposes a new paradigm involving an *equal* ‘rate of surplus values’ by industries or departments” (1987: 458); and “[Sraffian analysis] debunks [the] proposed Marxian transformation solutions” (1990: 278).

<sup>32</sup> For pertinent comments, though in a different context, relating to the “influence” exerted by a work even though misunderstood, see Baumol 2000.

and the Ricardians, and unlike Sraffa, proposed adjustment mechanisms involving output variations to assure uniformity of the rate of return on capital and also variability of the wage rate and the interdependence of value and distribution (see Chapter 1); and that, unlike both Ricardo and Sraffa, he allowed for an effect on the general profit rate of disturbances emanating in *luxury* production (Chapter 1.H, 10.E).

There is also, of course, the entire range of issues pertaining to growth, of the highest concern to Marx but excluded by Sraffian static-equilibrium economics. It is only in this broader context that we can, for example, understand J.A. Schumpeter's deep appreciation of Marx's perception of the advance of science and technology as endogenous to capitalist organization, an aspect of the "economic interpretation of history" (see Rosenberg 1994: 58–9). Schumpeter in fact refers to the "testimony to [Marx's] broad-mindedness" offered by the "glowing" account in the *Communist Manifesto* of the achievements of capitalism; moreover, "even in pronouncing *pro futuro* death sentence on it, he never failed to recognize its historical necessity" (Schumpeter 1950: 7). All this has been documented in Chapter 13, though subject to the *caveat* that Marx was impeded by the surplus-value doctrine from accounting for the dynamism of capitalism, only belatedly allowing that the industrial *capitalist* played some role.

#### F. Epilogue: On Engels and the "Closure" of Marx's System

As promised in the Introduction we allow the last word to Frederick Engels. We are unfortunately obliged to leave textual support for our attributions for another occasion, and proceed here assertively.

The range of Marxian theoretical issues touched on by Engels in his *Outlines of a Critique* published in 1844 but composed in 1843 – the *Umrisse* – is impressive; and it can be shown that Marx owed a largely unacknowledged debt to Engels for many of the themes discussed in Chapters 6 and 7. Beyond this, all the Marxian predictions regarding a revolution emerging from the processes of capitalist development – processes generating untenable conditions for labor including essentially increasing instability and secular depression of living standards – are to be found in Engels's writings during the 1840s before Marx devised his technical notions of "surplus value" and "exploitation." Engels in fact provided the *vision*, and went far beyond "moral indignation" (upon which commentators tend to focus) into the theoretical processes at play.

Of high significance is Engels's discussion of the impact of mechanization on both the aggregate demand for industrial labor and population, specifically net secular growth in aggregate labor demand – any displacement more than compensated for – and *consequently* rapid population growth. The Reserve Army emerges as a force available to service capitalists' exceptional requirements at peak levels of cyclical activity, the requisite labor supply to meet long-term industrial growth deriving not from the pool of unemployed but largely from population growth.

This is precisely the picture of industrial development later elaborated by Marx. And much of his later discussion regarding concentration of capital, the Reserve Army in a cyclical context, inflows into the labor force from the middle classes, the use of female and child labor leading to absolute immizeration, rehearse the earlier formulations in Engels’s *Outlines*.

Engels’s objections to *Malthusian population theory* proceeded at an impressive level, incorporating *the role of science* both in eliminating the problem of excess population relative to *subsistence* and replacing it by one of excess population relative to *means of employment* considering the labor-saving bias of new technology. In this context too we encounter the implication that prudential population control would be damaging to labor by encouraging the adoption of machinery. All of this, of course, is to be found later in Marx.

*The Communist Manifesto* of 1848 was formulated by Marx but its substance is provided by Engels’s *Principles of Communism* of 1847. The main technical themes of the *Manifesto* already found in the *Principles* include the matter of regularly repeated crises which threaten the existence of bourgeois society; the treatment of the “commodity” labor including its pricing in terms of its production costs, namely subsistence; the destruction of the lower middle classes; the “concentration of labor” with a consequential growth of its political and social power; the deterioration of living standards – more specifically “pauperism” – and prospective revolution. Even the “stunning prediction of the nature and effects of globalization” in the *Communist Manifesto* referred to by Eric Hobsbawm (*Guardian*, 14 July 2005) in justification of the outcome of the BBC-poll (see Preface), was originally conceived by Engels (MECW 6: 345).<sup>33</sup>

Marx also had at hand *The Condition of the Working Class in England* (1845) where the major themes of Engels’s *Outlines* appear in more elaborate form, including technical change and its adverse impact on labor, increasing firm size, the Reserve Army concept, worsening crises, and deteriorating real wages. This work

<sup>33</sup> The passages to which Hobsbawm presumably refers scarcely constitute a “prediction”; rather they are a stunning description of what was well under way. For example:

The needs of a constantly expanding market for its products chases the bourgeoisie over the whole surface of the globe. It must nestle everywhere, settle everywhere, establish connexions everywhere.

The bourgeoisie has through its exploitation of the world market given a cosmopolitan character to production and consumption in every country. To the great chagrin of Reactionists, it has drawn from under the feet of industry the national ground on which it stood. . . .

The bourgeoisie, by the rapid improvement of all instruments of production, by the immensely facilitated means of communication, draws all, even the most barbarian, nations into civilisation. The cheap prices of its commodities are the heavy artillery with which it batters down all Chinese walls, with which it forces the barbarians’ intensely obstinate hatred of foreigners to capitulate. It compels all nations, on pain of extinction, to adopt the bourgeois mode of production; it compels them to introduce what it calls civilisation into their midst, i.e., to become bourgeois themselves. In one word, it creates a world after its own image. (MECW 6: 487–8)

See also above Chapter 5, note 3, for a remarkable passage by Marx of 1873 on globalization and cyclical activity.

is therefore of prime importance in the development of Marx's mature position, whether directly or indirectly. And we reiterate that the general "Marxian" vision of capitalist development and several of the technical concepts used to interpret it already appear in Engels's *Outlines*.

\* \* \*

We turn to what may be considered as the "closure" of Marx's system. We recall that Marx, writing in the late 1840s and early 1850s, recognized the progressive factory legislation enacted by the British Parliament, but emphasized the practical impediments imposed by the industrialists rendering such measures a dead letter (Chapter 15, p. 449). We have encountered a transformation of viewpoint in the 1860s apparent in *Capital* where, despite continued pessimism regarding the course of real wages, Marx outlined the positive consequences for labor emanating from the *effective* operation of the Factory Acts. Moreover, Marx now welcomed such legislation – forced on Parliament by working-class pressure and effective *in practice* – contrasting sharply with his hostility in 1850 based on the grounds that capitalist development would be restrained thereby.

Engels's adoption of this "revisionist" position regarding effective – and desirable – reform within a capitalist state is somewhat delayed, but in the mid-1870s and thereafter he takes up Marx's recognition of progress on the welfare front with respect to improved working conditions, but also makes greater allowance for real-wage increase in the factories and unionized trades. Subsequently, advance is noted even in the *unskilled* sector under pressure of the "New Union" movement with respect to hours and pay. It is surprising that Engels did not recognize the "revisionism" apparent in *Capital* immediately upon its appearance, and for this I have no explanation, but that he did ultimately come to do so is apparent and confirms that his famous 1895 Introduction to Marx's "The Class Struggles in France 1848–50" indicates no radical change of position late in the day, and certainly no "deception" of Marx such as has been attributed to him (Levine 1975). *The first "revisionist" was Marx himself*. However, with respect to the ability of unions to assure improved real wages for their members and the extensions made to unskilled workers we do find Engels taking *a more positive view than had Marx*, at least Marx in the mid-1860s.

What stands out in all this is the representation of social reform as a *necessary* feature of advanced capitalism. Marx had already intimated in *Capital* that the (successful) Ten Hours' legislation was the inevitable consequence of the development of modern industry (Chapter 15, p. 452). And "all these concessions to justice and philanthropy," Engels wrote in 1892 of the Factory Acts and acceptance of unions, were "but means to accelerate the concentration of capital in the hands of the few . . ." (MECW 27: 259). But all this creates an obvious dilemma since growing *dissatisfaction* with capitalism by the proletariat also plays a key role in the Marxian vision, requiring (in Engels's terms) "the development . . . of a class whose conditions of life necessarily drive it to social revolution" ("The Housing

Question” 1872; MECW 23: 377). It is of high interest that Engels was concerned from an early date – even before reliable empirical evidence came in of rising real wages and improving conditions – with “the fact that the English proletariat is actually becoming more and more bourgeois, so that the ultimate aim of this most bourgeois of all nations would appear to be the possession, *alongside* the bourgeoisie, of a bourgeois aristocracy and a bourgeois proletariat” (Engels to Marx, 7 October 1858; MECW 40: 344).

The solution to the dilemma lay in Engels’s perception that British industrial supremacy was now under threat, so that what advantages had admittedly been enjoyed by labor could not be sustained. The imminent revolution would now follow upon *secular stagnation*, the supercession of British industrial power breaking the last bond between the working and middle classes. Engels’s Preface of 1886 to the first English edition of *Capital* elaborates the replacement of the cyclical pattern recurrent from 1825 to 1867 by “a permanent and chronic depression,” with dire consequences for labor: “The decennial cycle of stagnation, prosperity, overproduction and crisis, ever recurrent from 1825 to 1867, seems indeed to have run its course; but only to land us in the slough of despond of a permanent and chronic depression” (MECW 35: 35). This then is the primary qualification to Engels’s “revisionism” dating from the mid-1870s which recognized welfare progress, including real-wage improvement under capitalist organization – *such progress was unsustainable*. Doubtless Marx would have approved. For in taking this line Engels was actually unearthing a forty-year-old theme, *The Holy Family* (1845) – formally a joint composition but in fact by Marx – containing brief remarks on the undermining of Britain’s international competitiveness, and on centralization, promising a grim future for labor under capitalism (MECW 4: 14).<sup>34</sup>

The transition from Marx’s vision of a regular trade cycle around a rising trend path of national income to one of secular stagnation, is dramatic indeed. Yet this vision was already compromised by the restriction of key relationships to small private firms rather than the increasingly important joint-stock companies (above, p. 471).

<sup>34</sup> A second lifeline was provided for Engels by the prospect of massive immigration from China, replacing that by the Irish earlier in the century.



## Appendices

### Chapter 2: Objections to Smithian National-Income Accounting

In *Capital I*, Marx phrases objections to Adam Smith's national-income accounting thus:

Adam Smith, by a fundamentally perverted analysis, arrives at the absurd conclusion, that even though each individual capital is divided into a constant and a variable part, the capital of society resolves itself only into variable capital, i. e., is laid out exclusively in payment of wages. For instance, suppose a cloth manufacturer converts £2,000 into capital. One portion he lays out in buying weavers, the other in woollen yarn, machinery, &c. But the people, from whom he buys the yarn and the machinery, pay for labour with a part of the purchase money, and so on until the whole £2,000 are spent in the payment of wages, i. e., until the entire product represented by the £2,000 has been consumed by productive labourers. It is evident that the whole gist of this argument lies in the words "and so on," which send us from pillar to post. In truth, Adam Smith breaks his investigation off, just where its difficulties begin (MECW 35: 586).

The objection had already been privately intimated to Engels in a letter of 6 July 1863, where Marx adds that "Smith himself is conscious of the nonsensicality of subsuming the *gross product* of a society *simply under revenue* (which may be consumed annually), whereas in the case of *each individual* branch of production he resolves price into *capital* (raw materials, machinery, etc.) and *revenue* (wages, profit, rent). If this were so, a society would have to start each year *de novo*, *without capital*" (MECW 41: 485).

Now Smith did indeed assert in his Book I that all payments by the individual firm can be reduced to wages, profit, and rent, and extended the proposition to national income such that "all the commodities which compose the whole annual produce of the labour of every country, taken complexly, must resolve itself into the same three parts, and be parcelled out among different inhabitants of the country, either as the wages of their labour, the profits of their stock, or the rent of their land" (Smith 1937 [1776]: 52). That Smith was "conscious of the nonsensicality" of this position is another matter. Marx may, however, be referring to Smith's subsequent qualification in Book II, his distinction between net and gross revenue, the former composing wages, profits, and rent and the latter allowing for fixed

capital: “. . . machines and instruments of trade, &c., require a certain expence, first to erect them, and afterwards to support them, both which expences, though they make a part of the gross, are deductions from the neat revenue of the society” (273). On this view aggregate net revenue corresponds to production of *consumer goods*, or “the stock reserved for immediate consumption, the subsistence, conveniencies, and amusements of individuals.” (See Hollander 1973: 144–6.)

In the course of the Departmental analysis appearing in *Capital 2*, Marx focuses not on the Smithian qualification – he in fact neglects it, unlike the implicit allusion to it in the letter of 1863 – but on the unqualified assertions which identify aggregate (gross) income with aggregate wages, profit, and rent. Here, in effect, Marx comes very close to adopting Smith’s *qualified* version, as I shall now show.

As we have seen, the value of consumer goods from the *social* perspective may be “resolved” into  $v + s = (v_I + s_I) + (v_{II} + s_{II})$ , although from the perspective of *consumer-goods capitalists*, it is divided into  $c_{II} + v_{II} + s_{II}$ . It is precisely the trap into which Adam Smith had fallen: “And it is this circumstance which induced Adam Smith to maintain that the value of the annual product resolves itself into  $v + s$ . This is true 1) only for that part of the annual product which consists of articles of consumption, and 2) it is not true in the sense that this total value is produced in II and that the value of its product is equal to the value of the variable capital advanced in II plus the surplus value produced in II. It is true only in the sense that  $\Pi_{(c+v+s)} = \Pi_{(v+s)} + I_{(v+s)}$ , or because  $\Pi_c = I_{(v+s)}$ ” (MECW 36: 425). In terms of Marx’s example ( $\sum v + \sum s$ ) = £3000 amounts to a “social revenue” of only one third of the value of national output, the remainder constituting the value of constant capital produced to replace used-up capital goods in both sectors: “Adam Smith, however, has promulgated this astounding dogma, which is believed to this day, not only in the previously mentioned form, according to which the entire value of the social product resolves itself into revenue, into wages plus surplus value, or, as he expresses it, into wages plus profit (interest) plus ground rent, but also in the still more popular form, according to which the *consumers* must ‘ultimately’ pay to the producers the *entire value of the product*” (433).<sup>1</sup>

In an elaboration, Marx traces out the *vertical stages of production* involved in the case of a particular product, shirts valued at £100, and agrees that “[t]he consumers of the shirts pay these £100, i. e., the value of all the means of production contained in the shirts, and of the wages plus surplus value of the flax-grower, spinner, weaver, bleacher, shirt manufacturer, and all carriers” (434). But on the basis of his earlier departmental analysis whereby  $v_I + s_I = c_{II}$ , this proposition could not be extended

<sup>1</sup> The “ultimately” may allude to Smith’s usage 1937 [1776]: 50. Marx credited Storch with the correct view though “without [his] being able to prove it”: It is clear that the value of the annual product is divided partly into capital and partly into profits, and that each one of these portions of the value of the annual product is regularly employed in buying the products which the nation needs both for the maintenance of its capital and for replacing its consumption fund. . . . The products which constitute the *capital* of a nation *are not to be consumed*” (Storch 1824: 134–35, 150).



to *all* goods in the system as common opinion had it; rather it applied specifically to the totality of “*all articles of consumption*” purchased out of revenue: “True enough, the sum of the values of all these commodities is equal to the value of all the means of production (constant portions of capital) used up in them plus the value created by the labour last added (wages plus surplus value).” As for “the constant capital of department I [that] is replaced *in natura*, partly by exchange among capitalists I, partly by replacement *in natura* in each individual business” (435) – the putative solution of course, to the constant capital “riddle.”

A modern evaluation brings us full circle. For Paul Samuelson has shown that “paradoxically” the Marxian departmental procedure itself *vindicates the unqualified Smithian triad* (Samuelson 2000: 28–30). Sraffa, on the other hand, apparently takes a different view (1960: 94; cited in our concluding chapter, note 28; and so does Robinson 1980 (1978): 276.

### Chapter 7: *The Communist Manifesto*

*The Communist Manifesto*, published in February 1848, was written at the behest of the Communist League meeting in London, November 29 – December 8 1847. Engels and Marx worked together during December but Marx worked alone throughout January and was responsible for writing up the document: “La rédaction définitive du *Manifeste* incomba . . . au seul Marx” (Rubel 1963: 159). We relegate the document to a brief Appendix because the theoretical observations, with which we are concerned, have all been encountered in the documents considered in this chapter. These include: (1) Worsening crises presaging the collapse of capitalism (MECW 6: 489–90). (2) Treatment of labor as “*commodity*” subject to “all the fluctuations of the market,” but on an average equal to its “cost of production” (490–1), or the subsistence level: “The average price of wage-labour is the minimum wage, *i.e.*, that quantum of the means of subsistence, which is absolutely requisite to keep the labourer in bare existence as a labourer” (499). (3) Downward pressure on the subsistence minimum itself due to deskilling and consequential replacement of males by women and children (491). (4) Pressure on the real wage resulting from the use of machinery and division of labor, and from downward mobility from the middle into the work force in consequence of *concentration of capital* (491–2).

### Chapter 7: On Differential Rent 1851–53

In correspondence with Engels on 7 January of 1851, Marx expressed approval of the differential-rent principle, insisting only that it applied specifically to advanced capitalism and not universally as Ricardo allegedly maintained. This we will demonstrate, since it is easy to come away with a contrary impression.

Marx takes issue with Ricardo on the grounds that all his propositions “are everywhere refuted by history,” considering “the progress of science and industry,”

whereby although “ever poorer types of soil are brought into cultivation . . . these poorer types of soil are relatively good as against those previously regarded as good” (MECW 38: 258). Second, the empirical evidence showed that British corn prices had *fallen* since 1815 but that rent had steadily risen. For all that, in interpreting the data *Marx retains the differential principle*, supposing, in effect, a rightward displacement of the marginal-product curve subject to a twist: “The more general the improvement in the land, the greater the variety of the fields it will embrace, and the country’s overall rental may rise, although there is a general fall in the price of corn. . . . [I]t is simply a question of . . . the extent to which the quality of the land varies as between the best and the poorest” (262). This amounted “to adjust[ing] the law of rent to progress in fertility in agriculture generally” in order “to explain the historical facts” (261). The point is that despite the historical increase in rent and fall in corn price “*Ricardo’s law still holds good*” (262; Marx’s emphasis) turning on the differential principle rather than a particular historical sequence: “The law of rent, as laid down by Ricardo . . . does not presuppose the diminishing fertility of the land, but only – and this *despite the general increase in fertility that accompanies the development of society* – the *varying* fertility of fields or the varying results obtained by the capital successively employed on the same land.” The defense of Ricardo is well founded.<sup>2</sup>

In correspondence some two years later, Marx entered a surprisingly strong defense of Ricardian rent doctrine, this time against Carey.<sup>3</sup> And though he as usual ascribed to Ricardo a *universalist* doctrine, even this was turned to Ricardo’s advantage: “as I have proved in my book on Proudhon . . . [Ricardo’s] theory is true only of bourgeois society in a condition of full development. Rent, in its *commercial* form – the only one he mentions – does not otherwise exist at all. It therefore leaves him unaffected to maintain that at *various* historical epochs it was not the worse, but rather the better, lands that were successively cultivated” (to Adolf Cluss, 5 October 1853; MECW 39: 381–2). He also points out approvingly that “Ricardo does not speak only of the *natural* properties of the soil, but also of its *situation*, a social product, a social attribute;” and he reminds his correspondent: “The *fertility of the soil*, as I have likewise already said in the *Anti-Proudhon*, is something purely relative. Changes in the soil’s fertility and its *degree* in relation to society, and that is the only aspect of fertility with which we are concerned, depend on changes in the science of chemistry and its application to agronomy” (382).

<sup>2</sup> The discussion closes with the assertion that while under Communal ownership the problem of diminishing returns would still exist – though what happens to the preceding insistence on new technology is unclear – the marginal-cost pricing principle would be inapplicable: “Even after the elimination of bourgeois production, however, there remains the snag that the soil would become relatively more infertile, that, with the same amount of labour, successively less would be achieved, although the best land would no longer, as under bourgeois rule, yield as dear a product as the poorest” (MECW 38: 262).

<sup>3</sup> Cf. also J. S. Mill’s defence of Ricardo against Carey (Hollander 1985: 213–16).

More generally, and as in the letter of 1851, Marx insisted that the differential-principle itself retained its validity, even allowing for shifting productivity curves. And he emphasized the endogeneity of the margin as a feature of Ricardo's theory, whereby "the commodity produced under the most unfavourable circumstances, and made *necessary* because of the demand for it, determines the price of all *other commodities of the same kind*" (383). But here, unfortunately, Marx falls into the common error of interpreting Ricardo as ascribing rent to "the land" as such: "What . . . gives rise to rent? Not the land, as supposed by Ricardo, but the *market price* and the laws by which it is regulated."<sup>4</sup> It followed that "if rent is to be overthrown" – alluding presumably to Communist arrangement – "it must not be interpreted philanthropically; rather the laws of *market price* and thus of prices generally and thus the whole framework of the bourgeois economy must be overthrown."

### Chapter 13: Mises on Marx

The history of post-Marx Communism is one of conflict between "evolution" *versus* "revolution" as the legitimate path to the future, Marx himself more often than not envisaged as championing a *revolutionary* road. For example, the Erfurt Program of 1891, due largely to Karl Kautsky, has been described as "mark[ing] a return to the more revolutionary, and hence more purely Marxian, socialist vision" compared to the Gotha Program of 1875, while Edward Bernstein reversed directions in his *Evolutionary Socialism* of 1909 (1899)" (Caldwell 1997: 2–3). And there is ongoing debate regarding Lenin – whether and how his program was faithful to Marx (see e.g., Service 2000: 5).

I have argued that the Gotha Program was in fact *too* revolutionary for Marx. Here I wish to point to a "solution" offered by Mises, who distinguishes what he calls Marx's "plan for the step-by-step transformation of capitalism into socialism" of the *Manifesto* with the position in *Capital*:<sup>5</sup>

Karl Marx and Frederick Engels recommended successively each of . . . two ways for the realization of socialism. In 1848, in the Communist Manifesto, they outlined a plan for the step-by-step transformation of capitalism into socialism. The proletariat should be raised to the position of the ruling class and use its political supremacy "to wrest, by degrees, all capital from the bourgeoisie." This, they declare, "cannot be effected except by means of despotic inroads on the rights of property and on the conditions of bourgeois production; by means of measures, therefore, which appear economically insufficient and untenable, but which in the course of the movement outstrip themselves, necessitate further inroads upon the old social order, and are unavoidable as a means of entirely revolutionizing the mode of production." In this vein they enumerate by way of example ten measures.

In later years, Marx and Engels changed their minds. In his main treatise, *Das Kapital*, first published in 1867, Marx saw things in a different way. Socialism is bound to come "with the

<sup>4</sup> Say had similarly attributed to Ricardo the view that the existence of poor land is the *cause* of rent on good land; and so too had Richard Jones (Hollander 1985: 40; 2005: 131–2).

<sup>5</sup> The general context reflects Mises's view of "interventionism" (above, pp. 402–3).

inexorability of a law of nature.” But it cannot appear before capitalism has reached its full maturity. There is but *one* road to the collapse of capitalism, namely the progressive evolution of capitalism itself. Then only will the great final revolt of the working class give it the finishing stroke and inaugurate the everlasting age of abundance (1980 [1950]: 28–9).

Now there are problems with Mises’s contrast. It cannot be taken for granted that Marx in *Capital* intended a literal *once-and-for-all transition* by his dramatic declarations that the “knell of capitalist private property sounds,” or that “the expropriators are expropriated.”<sup>6</sup> There is no necessary conflict with the *Communist Manifesto* where the achievement of Communist *political* power – the Revolution no less – is *itself* envisaged as coming at the appropriate time in the course of capitalist development “with the inexorability of a law of nature,” and yet where Marx was explicit that the capitalist structure could not be abolished “at one stroke.”

Another aspect of the contrast is questionable. Mises designates Marx’s position in *Capital* as opposed to reforms on the grounds that they are in effect *reactionary*: “From the point of view of this later doctrine Marx and the school of orthodox Marxism reject all policies that pretend to restrain, to regulate and to improve capitalism. Such policies, they declare, are not only futile, but outright harmful. For they rather delay the coming of age of capitalism, its maturity, and thereby also its collapse. They are therefore not progressive, but reactionary” (29). But the notion that the position in 1848 was more progressive is misleading. As emphasized in our text, all the “reforms” recommended in 1848 *presume the Communist Party to be in firm control*. It is highly unlikely, for example, that a steeply progressive income tax would have been recommended in 1848 *for the capitalist system*.

## Chapter 14: Contemporary Commentary on Limited Liability

Marx makes no proper evaluation of the merits or otherwise of the *limited liability* privilege granted joint-stock companies by the Acts of 1855, 1856, and 1862.<sup>7</sup> But he makes explicit reference in 1856 to the privilege in France as applicable to industrial as well as banking enterprises and writes quite generally of “a tendency to start as many such societies as possible . . .” (above, p. 436). Having in mind the well-publicized debate surrounding the British legislation, it is inconceivable that

<sup>6</sup> Mises may well have had in mind the following famous passage in *Capital 1* regarding the historical process:

Along with the constantly diminishing number of the magnates of capital, who usurp and monopolise all advantages of this process of transformation, grows the mass of misery, oppression, slavery, degradation, exploitation; but with this too grows the revolt of the working class, a class always increasing in numbers, and disciplined, united, organised by the very mechanism of the process of capitalist production itself. The monopoly of capital becomes a fetter upon the mode of production, which has sprung up and flourished along with, and under it. Centralisation of the means of production and socialisation of labour at last reach a point where they become incompatible with their capitalist integument. This integument is burst asunder. The knell of capitalist private property sounds. The expropriators are expropriated (MECW 35: 750).

<sup>7</sup> On nineteenth-century company-law legislation, see Shannon 1954 [1931], 1954 [1933].

he was unaware that registration under the Acts of 1855 and 1856 carried with it limited liability. His elaborate observations regarding the expansion of the stock-company form, evidently *took for granted* the limited-liability privilege as a factor explaining its growing popularity, of which the “credit system” took advantage. Had he expanded on this feature, he might have reinforced his case against the “credit system” by referring to some of the arguments addressed by Lord Overstone and others opposed to limited liability.

Debate concerning limited liability turned partly on the question of high risk entailed by the generation and exploitation of new techniques. In the early 1830s Babbage had already adduced an argument for limited liability turning on the generation and application of *invention* (1835: 361–2). This perspective is encapsulated thus by Payne in discussing the pressures that by the 1840s were militating against the non-corporate enterprise: “Foremost of these pressures was the growing capital requirements necessitated by the exploitation of new techniques. In itself, the raising of large capitals apparently did not constitute so much of a problem as that feature of the English law of partnership that made each contributor fully liable for the losses of the enterprise” (Payne 1978: 194).

As for Marx, we recall his ascribing responsibility to the credit system for exacerbating *crises* and encouraging the growth of large stock-companies as part of the process of “expropriation” and “centralization,” and with it the undermining of a system wherein the capitalist owner “anxiously weighs the limitations of his private capital in so far as he handles it himself” (above, p. 439). We also recall that the “speculating wholesale merchant risks . . . social property, not *his own*” in consequence of the ready availability of credit (Conclusion p. 469). In both contexts, Marx implicitly expressed concern with the interests of the *creditors* of a company, assuming the disintegration of traditional industrial arrangement.

*These perspectives immediately bring to mind Lord Overstone’s arguments against Limited Liability*, namely that such a privilege encouraged irresponsible behavior since the subscribing owners are not liable for the debts of the enterprise in the event of failure to the extent of their wealth, and was by the same token “unfair to creditors” (Overstone 1856). Moreover, the encouragement to keep only an “insufficient reserve out of profit as an insurance against risk,” would result in “a transfer of capital from ‘concerns now constituted and conducted with caution and prudence which the sense of unlimited liability generates to Joint-Stock companies.’” And there is the problem of *aggregative instability*, in that limited liability by undermining “the sober and substantial virtues of the mercantile character” and enabling speculators “to take all the gains but little of the losses of an undertaking,” would destroy “the due equipoise between the restraints and the stimulants of enterprise and speculation” and – at times of monetary pressure – result in disastrous crashes.<sup>8</sup> Bagehot’s later account of credit and crises paints a bleak picture wholly in line with Overstone’s (Bagehot 1962 [1873]: 77–8).

<sup>8</sup> But see Overstone 1971: 641–2 for evidence of dissatisfaction with the speech: “I was guilty of sins of commission and omission. . . .” (letter dated 20 March 1856).

As mentioned, one of Overstone's concerns was the potential danger of the Limited Liability Corporation to *creditors*. By contrast, J. S. Mill – and also Robert Lowe – favored Limited Liability on grounds of the self-interest principle: “If a number of persons choose to associate for carrying on any operation of commerce or industry, agreeing among themselves and announcing to those with whom they deal that the members of the association do not undertake to be responsible beyond the amount of the subscribed capital; is there any reason that the law should raise objections to this proceeding, and should impose on them the unlimited responsibility which they disclaim?” (Mill 1963–91 [1848]: 898). Mill was persuaded that since prospective creditors “are in general perfectly capable of taking care of themselves,” there was “no reason that the law should be more careful of their interests than they will be themselves.” Marx’s view that the wholesale merchant speculating with borrowed funds puts at risk “social property, not *his own*,” when applied to the limited-liability issue, points away from the perspective of Mill, though unfortunately Marx did not engage in the debate.

## Bibliography of Works Cited

### A. Works by Karl Marx

- I. *Karl Marx-Frederick Engels Collected Works*. 1975–2004. New York: International Publishers: Volumes 1–25, 28–32, 38–39, 41–44. London: Lawrence and Wishart: Volumes 26–27, 33–37, 40, 45–50.
- Paris Notebooks. Comments on James Mill, *Éléments d'économie politique*. 1844. MECW 3: 211–28.
- Economic and Philosophic Manuscripts. 1844. MECW 3: 229–346.
- Correspondence. 1844–83. MECW 38–46.
- Draft of an Article on Friedrich List's Book *Das nationale System der politischen Ökonomie*. 1845. MECW 4: 265–93.
- The Poverty of Philosophy. An Answer to the "Philosophy of Poverty" by M. Proudhon*. 1847. MECW 6: 105–212.
- Wages*. 1847. MECW 6: 415–37.
- Speech on the Question of Free Trade, Brussels. 1848. MECW 6: 450–65.
- Wage Labour and Capital*. 1849. MECW 9: 197–228.
- The Class Struggles in France, 1848 to 1850*. 1850. MECW 10: 45–145.
- The Eighteenth Brumaire of Louis Bonaparte*. 1852. MECW 11: 99–197.
- The French Crédit Mobilier*. 1856. MECW 15: 8–24.
- Project for the Regulation of the Price of Bread in France*. 1858. MECW 16: 110–14.
- Outlines of the Critique of Political Economy. (Grundrisse der Kritik der Politischen Ökonomie.)* 1857–58. MECW 28; 29: 5–251.
- A Contribution to the Critique of Political Economy (Part I)*. 1859. MECW 29: 257–417.
- Economic Manuscripts. 1861–63. MECW 30–34. Includes "Theories of Surplus Value." 30: 348–51; 31; 32; 33: 7–371.
- Inaugural Address of the Working Men's International Association. 1864. MECW 20: 5–13.
- On Proudhon [Open Letter]*. 1865. MECW 20: 26–33.
- Value, Price and Profit*. 1865. MECW 20: 101–49.
- Instructions for the Delegates of the Provisional General Council of the International Working Men's Association [Geneva Congress]. 1866. MECW 20: 185–94.
- Capital: A Critique of Political Economy 1*. 1867. MECW 35.
- First Draft of *The Civil War in France*. 1871. (April-May.) MECW 22: 437–514.

*The Civil War in France. Address of the General Council of the International Working Men's Association.* 3rd ed. 1871. MECW 22: 307–59.

Interview with *The World* Correspondent. 1871. MECW 22: 600–6.

Speech on Trade Unions. From minutes of the session of the London Conference of the International Working Men's Association. 1871. MECW 22: 614–15.

*Political Indifferentism.* 1873. MECW 23: 392–7.

Letter to Wilhelm Bracke, March 18–28, regarding "Critique of the Gotha Programme." 1875. MECW 24: 77–9.

*Critique of the Gotha Programme.* Marginal notes on the unity programme of the German Workers' Party. 1875. MECW 24: 81–99.

*Preamble to the Programme of the French Workers' Party.* 1880. MECW 24: 340–1.

*Capital: A Critique of Political Economy* 2. 1885. F. Engels ed. MECW 36.

*Capital: A Critique of Political Economy* 3. 1894. F. Engels ed. MECW 37.

- II. *Karl Marx. Oeuvres.* M. Rubel ed. Paris: Gallimard. Bibliothèque de la Pléiade. *Économie I.* 1963 (cited as Marx 1963). *Économie II.* 1968 (cited as Marx 1968). *Philosophie.* 1982 (cited as Marx 1982).

Manuscripts Parisiens I. Notes de lecture. 1844. Marx 1968: 7–43.

Manuscripts Parisiens II. Ébauche d'une critique de l'économie politique. 1844: Marx 1968: 44–141.

### III. Other Marx References

*Capital 1.* 1965. Moscow: Progress Publishers.

*Capital 1.* 1976. Trans. Ben Fowkes. London: Penguin (cited as Marx 1976).

*Grundrisse: Foundations of the Critique of Political Economy.* 1973 (1857–58). Translated with a Foreword by Martin Nicolaus. New York: Vintage Books; Harmondsworth: Penguin Books.

*The Letters of Karl Marx.* 1979. S. K. Padover, ed. Englewood Cliffs: Prentice-Hall.

## B. Works by Karl Marx and Friedrich Engels

*The Holy Family or Critique of Critical Criticism Against Bruno Bauer and Company.* 1845. MECW 4: 4–211.

*The German Ideology. Critique of Modern German Philosophy According to its Representatives Feuerbach, B. Bauer and Stirner, and of German Socialism according to its various prophets.* 1845–46. MECW 5: 19–539.

*Manifesto of the Communist Party.* 1848. MECW 6: 477–519.

Review: January-February. 1850. MECW 10: 257–70.

Review: May to October. 1850. MECW 10: 490–532.

Address to the Central Authority of the [Communist] League. 1850. MECW 10: 277–87.

## C. Works by Friedrich Engels

*Outlines of a Critique of Political Economy (Umriss).* 1844. MECW 3: 418–43.

*The Condition of the Working-Class in England.* 1845. MECW 4: 295–583.

*The Free Trade Congress at Brussels.* 1847. MECW 6: 282–90.

*Principles of Communism.* 1847. MECW 6: 341–57.

*The Ten Hours' Question.* 1850. MECW 10: 271–6.

*The English Ten Hours' Bill.* 1850. MECW 10: 288–300.



- The Housing Question*. 1873. MECW 23: 317–91.
- The English Elections*. 1874. MECW 23: 611–16.
- Marx and Rodbertus. Preface to the First German Edition of *The Poverty of Philosophy* by Karl Marx. 1884. MECW 26: 278–91.
- Introduction to Karl Marx's *Wage Labour and Capital*. 1891. MECW 27: 194–201.
- Preface to the 1892 English Edition of *The Condition of the Working-Class in England in 1844*. 1892. MECW 27: 257–69.
- Anti-Dühring. Herr Eugen Dühring's Revolution in Science*. 1894 (1878). MECW 25: 1–309.
- The Peasant Question in France and Germany*. 1894. MECW 27: 481–502.
- Introduction to Karl Marx's *The Class Struggles in France 1848 to 1850*. 1895. MECW 27: 506–24.

#### D. Works Cited by Marx

- Aikin, J. 1795. *A Description of the Country from Thirty to Forty Miles Around Manchester*. London: John Stockdale.
- [Anon.] 1821. *Observations on Certain Verbal Disputes in Political Economy, particularly relating to Value and to Demand and Supply*. London: R. Hunter.
- [Anon.] 1821. *The Source and Remedy of the National Difficulties Deduced from Principles of Political Economy. A Letter to Lord John Russell*. London: Rodwell and Martin.
- Babbage, C. 1832. *On the Economy of Machinery and Manufactures*. 2nd ed. London: Charles Knight.
- Babbage, C. 1833. *Traité sur l'économie des machines et des manufactures*. 3rd ed. Tr. E. C. Biot. Paris: Bachelier.
- Babbage, C. 1835. *On the Economy of Machinery and Manufactures*. 4th ed. London: Charles Knight.
- Bailey, S. 1825. *A Critical Dissertation on the Nature, Measures, and Causes of Value; Chiefly in Reference to the Writings of Mr. Ricardo and His Followers*. London: R. Hunter.
- Bailey, S. 1837. *Money and Its Vicissitudes in Value; as they affect National Industry and Pecuniary Contracts; with a Postscript on Joint-Stock Banks*. London: Effingham Wilson.
- Barton, J. 1817. *Observations on the Circumstances which influence the Condition of the Labouring Classes of Society*. London: Arch.
- Bastiat, C. F. 1850. *Gratuité du crédit. Discussion entre M. Fr. Bastiat et M. Proudhon*. Paris: Guillaumin.
- Blake, W. 1823. *Observations on the Effects Produced by the Expenditure of Government during the Restriction of Cash Payments*. London: Murray.
- Bray, J. F. 1839. *Labour's Wrongs and Labour's Remedy*. Leeds: David Green, Briggate.
- Cairnes, J. E. 1862. *The Slave Power: Its Character, Career and Probable Designs: Being an attempt to explain the real issues involved in the American contest*. London: Macmillan.
- Carey, H. C. 1837. *Principles of Political Economy: Part the First: Of the Laws of the Production and Distribution of Wealth*. Philadelphia: Carey, Lea & Blanchard.
- Carlyle, T. 1840. *Chartism*. London: Fraser.
- Cazenove, J. 1853. Preface, notes and supplementary remarks to Malthus 1827.
- Chalmers, T. 1832. *On Political Economy in Connexion with the Moral State and Moral Prospects of Society*. Glasgow: William Collins.
- Cherbuliez, A. 1841. *Richesse ou pauvreté. Exposition des causes et des effets de la distribution actuelle des richesses sociales*. Paris: Librairie d'Ab. Cherbuliez et C<sup>e</sup>.

- Colins, J. G. H. 1857. *L'économie politique. Source des révolutions et des utopies prétendues socialistes*. Vol. 3. Paris: Librairie Générale.
- Cooper, T. 1826. *Lectures on the Elements of Political Economy*. Columbia, S.C.: Doyle E. Sweeney.
- Corbet, T. 1841. *An Inquiry into the Causes and Modes of the Wealth of Individuals; or the Principles of Trade and Speculation Explained*. London: Smith, Elder and Company.
- De Quincey, T. 1844. *The Logic of Political Economy*. Edinburgh: Blackwood and Sons.
- Dilke, C. W. 1855. *Exhibition of the Works of Industry of all Nations*. 1851. London.
- Edmonds, T. R. 1828. *Practical Moral and Political Economy; or, the Government, Religion, and Institutions, Most Conducive to Individual Happiness and to National Power*. London: E. Wilson.
- Fawcett, H. 1865. *The Economic Position of the British Labourer*. Cambridge and London: Macmillan.
- Fourier, C. 1841. *Théorie des quatre mouvements et des destinées générales*. Vol. I of *Oeuvres Complètes*. 2nd ed. Paris: Bureaux de la Phalange.
- Hodgskin, T. 1825. *Labour Defended Against the Claims of Capital*. London: Knight and Lacey.
- Hodgskin, T. 1827. *Popular Political Economy*. London: C. and W. Tait.
- Jones, R. 1831. *An Essay on the Distribution of Wealth, and on the Sources of Taxation: Part I – Rent*. London: John Murray.
- Jones, R. 1833. *An Introductory Lecture on Political Economy delivered at King's College*. London.
- Jones, R. 1852. *Textbook of Lectures on the Political Economy of Nations*. Hertford.
- Laing, S. 1844. *National Distress; its Causes and Remedies*. London: Longman, Brown, Green, and Longmans.
- Lalor, J. 1852. *Money and Morals*. London: Chapman.
- Lardner, D. 1850. *Railway Economy*. London: Taylor, Walton and Maberly.
- List, F. 1841. *Das nationale System der politischen Ökonomie, Erster Band*. Stuttgart and Tübingen: J. G. Cotta.
- McCulloch, J. R. 1825. *The Principles of Political Economy, with a Sketch of the Rise and Progress of the Science*. Edinburgh: William and Charles Tait.
- McCulloch, J. R. 1830. *The Principles of Political Economy, with a Sketch of the Rise and Progress of the Science*. 2nd ed. Edinburgh and London: Tait and Longmans.
- McCulloch, J. R. 1864. *The Principles of Political Economy, with some inquiries respecting their application*. 5th ed. Edinburgh: Adam and Charles Black.
- Malthus, T. R. 1820. *Principles of Political Economy, considered with a view to their practical application*. London: John Murray.
- Malthus, T. R. 1836. *Principles of Political Economy, considered with a view to their practical application*. 2nd ed. London: William Pickering.
- Malthus, T. R. 1853 (1827). *Definitions in Political Economy*. John Cazenove ed. London: Simpkin and Marshall.
- Mill, J. 1821. *Elements of Political Economy*. London: Baldwin, Craddock, and Joy.
- Mill, J. 1823. *Éléments d'économie politique*. Traduit de l'anglais par J. T. Parisot. Paris: Bossange.
- Mill, J. S. 1844. *Essays on Some Unsettled Questions in Political Economy*. London: J. W. Parker.
- Mill, J. S. 1848. *Principles of Political Economy with Some of Their Applications to Social Philosophy*. London: J. W. Parker.

- Necker, J. 1789 [1775]. *Sur la législation et le commerce des grains*. In *Oeuvres de M. Necker*. Vol. 4. Lausanne and Paris: Volland.
- Necker, J. 1789 [1784]. *De l'administration des finances de la France*. In *Oeuvres de M. Necker*. Vol. 2. Lausanne and Paris: Volland.
- Opdyke, G. 1851. *A Treatise on Political Economy*. New York: G.P. Putnam.
- Pecqueur, C. 1842. *Théorie nouvelle d'économie sociale et politique, ou études sur l'organisation des sociétés*. Paris: Capelle.
- Proudhon, P. J. 1840. *Qu'est-ce que la propriété? ou Recherches sur le principe du droit et du gouvernement*. 2nd ed. 1841. Paris: Prévot.
- Proudhon, P. J. 1846. *Système des contradictions économiques ou philosophie de la misère*. Paris: Guillaumin.
- Proudhon, P. J. 1868. *De la capacité politique des classes ouvrières*. Paris: Lacroix.
- Ramsay, G. 1836. *An Essay on the Distribution of Wealth*. Edinburgh: Adam and Charles Black.
- Ravenstone, P. [pseudonym of Richard Puller] 1824. *Thoughts on the Funding System and its Effects*. London: J. Andrews.
- Ricardo, D. 1817. *On the Principles of Political Economy and Taxation*. 1st. ed. London: John Murray.
- Ricardo, D. 1821. *On the Principles of Political Economy and Taxation*. 3rd. ed. London: John Murray.
- Rodbertus-Jagetzow, J. K. 1842. *Zur Erkenntniss unsrer staatswirthschaftlichen Zustände*. Vol. 1. Neubrandenburg und Friedland: G. Barnewitz.
- Rodbertus-Jagetzow, J. K. 1851. *Sociale Briefe an von Kirchmann. Dritter Brief*. Berlin: F. Gerhard.
- Roscher, W. 1858. *System der Volkswirtschaft. I: Die Grundlagen der Nationalökonomie*. 3rd ed. Stuttgart: J.G. Cotta.
- Rossi, P. L. E. 1843. *Cours d'économie politique*. Deuxième édition, revue et corrigée. Bruxelles: Société Typographique Belge. [Paris: G.Thorel et Joubert.]
- Say, J. B. 1803. *Traité d'Economie Politique ou Simple Exposition de la Manière dont se Forment, se Distribuent, et se Consomment les Richeses*. 1st ed. Paris: Déterville.
- Say, J. B. 1814. *Traité d'Economie Politique*. 2nd ed. Paris: Renouard.
- Say, J. B. 1817. *Traité d'Economie Politique*. 3rd ed. Paris: Déterville.
- Say, J. B. 1819. *Notes Explicatives et Critiques* to Ricardo 1819. Paris: J.P. Aillaud.
- Say, J. B. 1821 (1820). *Letters to Mr. Malthus on Several Subjects of Political Economy and on the Cause of the Stagnation of Commerce*. Translated from the French by John Richter. London: Sherwood, Neely & Jones.
- Say, J. B. 1843 (1828–29). *Cours Complet d'Economie Politique Pratique*, 1–578. Ed. Horace Say. Bruxelles: Société Typographique Belge.
- Schulz, W. 1843. *Die Bewegung der Produktion*. Zürich, Winterthur.
- Senior, N. 1836. *Principes fondamentaux de l'économie politique, tirés de leçons editées et inédites de Mr. Senior*. Ed. Jean Arrivabene. Paris: Aillaud.
- Sismondi, J. C. L. Simonde de. 1819. *Nouveaux Principes d'Économie Politique*. Paris: Delaunay.
- Sismondi, J. C. L. Simonde de. 1827. *Nouveaux Principes d'Économie Politique*. 2nd ed. Paris: Delaunay.
- Sismondi, J. C. L. Simonde de. 1837–38. *Études sur l'économie politique*. Bruxelles: Société Typographique Belge.
- Smith, A. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Strahan and Cadell.

- Storch, H. 1823. *Cours d'Économie Politique: ou exposition des principes qui déterminent la prospérité des nations*. Paris: Bossange & Aillaud.
- Storch, H. 1824. *Cours d'économie politique. V: Considérations sur la nature du revenu national*. Paris: Bossange.
- Thompson, W. 1824. *An Inquiry into the Principles of the Distribution of Wealth*. London: Longman, Hurst, Rees, Orme, Brown and Green.
- Tooke, T. 1844. *An Inquiry into the Currency Principle; the Connection of the Currency with Prices, and the Expediency of a Separation of Issue from Banking*. 2nd ed. London: Longman, Brown, Green, Longmans.
- Tooke, T. 1848. *A History of Prices, and of the State of the Circulation, from 1839 to 1847 inclusive: with a general review of the currency question*. London: Longman, Brown, Green, Longmans.
- Tooke, T. and Newmarch, W. 1857. *A History of Prices, and of the State of the Circulation, during the Nine Years 1848–1856*. London: Longman, Brown, Green, Longmans.
- Torrens, R. 1815. *An Essay on the External Corn Trade*. London: J. Hatchard.
- Turgot, A. R. J. 1844 (1766). *Réflexions sur la formation et la distribution des richesses*. In E. Daire and H. Dussard eds. *Oeuvres*. Paris: Guillaumin.
- Ure, A. 1836. *Philosophie des Manufactures, ou économie industrielle de la fabrication du coton, de la laine, du lin, et de la soie, avec la description des diverses machines employées dans les ateliers anglais*. Vol. 1. Bruxelles: Louis Haumann et Cie.
- Wade, J. 1833. *History of the Middle and Working Classes*. London: E. Wilson.
- Wakefield, E. G. 1833. *England and America. A Comparison of the Social and Political State of Both Nations*. London: Bentley.
- Wakefield, E. G. 1835–39. Commentary to A. Smith *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Charles Knight & Co.
- Wright, T. B. and Harlow, J. 1844. *The Currency Question. The Gemini Letters*. London and Birmingham: Simpkin, Marshall and Company.

### E. Other References

- Anderson, K. 1983. The “Unknown” Marx’s *Capital*, Volume I: The French Edition of 1872–75, 100 Years Later. *Review of Radical Political Economics* 15: 71–80.
- Arena, R. and Romani, P.-M. 2002. Schumpeter on entrepreneurship. In R. Arena and C. Dangel-Hagnauer eds. *The Contribution of Joseph Schumpeter to Economics: Economic development and institutional change*, 167–83. London and New York: Routledge.
- Arnon, A. 1984. Marx’s Theory of Money: the Formative Years. *History of Political Economy* 16: 555–75.
- Avineri, S. 1968. *The Social and Political Thought of Karl Marx*. Cambridge: Cambridge University Press.
- Bagehot, W. 1962 (1873). *Lombard Street: A Description of the Money Market*. Homewood: Richard D. Irwin, Inc.
- Bajt, A. 1971. Labor as Scarcity in Marx’s Value Theory: An Alternative Interpretation. *History of Political Economy* 3: 152–69.
- Baumol, W. J. 1974. The Transformation of Values: What Marx “Really” Meant (An Interpretation). *Journal of Economic Literature* 12: 51–62.
- Baumol, W. J. 1975. A New Critique of Marx’s Economics (a review of Morishima 1973). *Monthly Review* 26: 57–64.
- Baumol, W. J. 2000. Review. *History of Political Economy* 32: 1037–9.

- Baumol, W. J. 2001. Priceless Value (or almost so): misunderstood concerns of Marx and Ricardo. In E. L. Forget and S. Peart eds. *Reflections on the Classical Canon in Economics*, 224–40. London and New York: Routledge.
- Berlin, I. 1963. *Karl Marx. His Life and Environment*. 3rd ed. Oxford: Oxford University Press.
- Bernstein, E. 1961 (1899). *Evolutionary Socialism: A Criticism and Affirmation*. New York: Schocken Books.
- Bharadwaj, K. 1989. On a Controversy over Ricardo's Theory of Distribution. In *Themes in Value and Distribution*. London: Unwin-Hyman.
- Blanc, J.-J. L. 1845. *Organisation du travail*. 4th. ed. Brussels: Hauman.
- Blaug, M. 1980. *A Methodological Appraisal of Marxian Economics*. Amsterdam: North-Holland Publishing Company.
- Blaug, M. 1986. *Economic History and the History of Economics*. New York: New York University Press.
- Blaug, M. 1988. *Economics Through the Looking Glass: The Distorted Perspective of the New Palgrave Dictionary of Economics*. London: Institute of Economic Affairs.
- Blaug, M. 1991. Marx on the future of Capitalism. In G. A. Caravale ed. *Marx and Modern Economic Analysis* 2: 36–58. Aldershot: Edward Elgar.
- Blaug, M. 1995. Entrepreneurship in the History of Economic Thought. *University of Exeter Discussion Paper* 95/15.
- Blaug, M. 1997. *Economic Theory in Retrospect*. 5th ed. Cambridge: Cambridge University Press.
- Böhm-Bawerk, E. von. 1890. *Capital and Interest: A Critical History of Economic Theory*. Trans. W. Smart. London: Macmillan.
- Bonar, J. 1924 (1885). *Malthus and his Work*. London: Frank Cass.
- Bortkiewicz, L. von. 1952 (1907). Value and Price in the Marxian System. *International Economic Papers* 2: 5–60.
- Boss, H. 1990. *Theories of Surplus and Transfer: Parasites and Producers in Economic Thought*. Boston: Unwin Hyman.
- Bottigelli, E. 1969. Présentation, traduction et notes. *Karl Marx: Manuscrits de 1844*. Paris: Editions Sociales.
- Bowley, M. 1937. *Nassau Senior and Classical Economics*. London: George Allen & Unwin Ltd.
- Brewer, A. 1995. A Minor Post-Ricardian? Marx as an Economist. *History of Political Economy* 27: 111–45.
- Bronfenbrenner, M. 1965. *Das Kapital* for the Modern Man. *Science and Society* 30: 205–26.
- Bronfenbrenner, M. 1966. The Marxian Macro-Economic Model: Extension from Two Departments. *Kyklos* 19: 201–18.
- Bronfenbrenner M. 1979. *Macroeconomic alternatives*. Arlington Heights Ill: AHM Publishing Corporation.
- Bronfenbrenner, M. and Wolfson, M. 1984. Marxian macrodynamics and the Harrod Growth Model. *History of Political Economy* 16: 175–86.
- Brouwer, M. T. 2002. Weber, Schumpeter and Knight on entrepreneurship and economic development. *Journal of Evolutionary Economics* 12: 83–105.
- Burkett, P. 1999. *Marx and Nature: A Red and Green Perspective*. New York: St. Martin's Press.
- Caldwell, B. J. 1997. Introduction to Hayek 1997, 1–50.

- Callari, A. 1988. Some Developments in Marxian Theory Since Schumpeter. In W. O. Thweatt ed. *Classical Political Economy: A Survey of Recent Literature*, 227–58. Boston: Kluwer.
- Cavalieri, D. 2001. On some controversial aspects of Sraffa's theoretical system in the second half of the 1920s. In T. Cozzi and R. Marchionatti eds. *Piero Sraffa's Political Economy: A centenary estimate*, 100–20. London and New York: Routledge.
- Cavalieri, D. 2005. Review. *History of Economic Ideas* 13: 211–14.
- Claeys, G. 1984. Engels' *Outlines of a critique of political economy* (1843) and the origins of the Marxist critique of capitalism. *History of Political Economy* 16: 207–32.
- Cogoy, M. 1987 [1973]. The Falling Rate of Profit and the Theory of Accumulation. *International Journal of Political Economy* 17: 54–74.
- Cottrell, A. and Darity, W. A. 1988. Marx, Malthus, and wages. *History of Political Economy* 20: 173–90.
- De Brunhoff, S. 1976. *Marx on Money*. New York: Urizen Books.
- Desai, M. 1991. The Transformation Problem. In G. A. Caravale ed. *Marx and Modern Economic Analysis* 1: 3–44. Aldershot: Edward Elgar.
- Desai, M. 1997. Hayek, Marx and Keynes. In S. F. Frowen ed. *Hayek: Economist and Social Philosopher. A Critical Retrospect*, 1–8. London: Macmillan.
- Dickinson, H. D. 1956–57. The Falling Rate of Profit and the Theory of Accumulation. *Review of Economic Studies* 24: 120–30.
- Dobb, M. 1933. Economic Theory and the Problems of a Socialist Economy. *Economic Journal* 43: 588–98.
- Dobb, M. 1934–35. Economic Theory and Socialist Economy: a Reply. *Review of Economic Studies* 2: 144–51.
- Dobb, M. 1959. The Falling Rate of Profit. *Science and Society* 23: 97–103.
- Dobb, M. 1970. Introduction to Karl Marx, *A Contribution to the Critique of Political Economy* (1859), 5–16. Moscow: Progress Publishers.
- Dobb, M. 1973. *Theories of Value and Distribution Since Adam Smith*. Cambridge: Cambridge University Press.
- Dobb, M. 1982. Marx's Critique of Political Economy. In E. J. Hobsbawm ed. *The History of Marxism* 1: 79–102. London: Cass.
- Dolléans, E. 1948. *Proudhon*. Paris: Gallimard.
- Domar, E. 1946. Capital Expansion, Rate of Growth, and Employment. *Econometrica* 14: 137–47.
- Dostaler, G. 1982. Marx et Sraffa. *L'Actualité Economique* 1–2: 95–114.
- Dostaler, G. 1986. From Marx to Sraffa. *History of Political Economy* 18: 463–9.
- Duménil, G. 1983–84. Beyond the Transformation Riddle: a Labor Theory of Value. *Science and Society* 47: 427–50.
- Duncan, G. 1973. *Marx and Mill: Two Views of Social Conflict and Social Harmony*. Cambridge: Cambridge University Press.
- Dussel, E. 2001. *Towards an Unknown Marx: A Commentary on the Manuscripts of 1861–63*. London and New York: Routledge.
- Eatwell, J. 1987. Competition: Classical Conceptions. In J. Eatwell, M. Milgate and P. Newman eds. *The New Palgrave: A Dictionary of Economics* 1: 537–40. London: Macmillan.
- Eatwell, J. and Panico, C. 1987. Sraffa, Piero (1898–1983). In J. Eatwell, M. Milgate and P. Newman eds. *The New Palgrave: A Dictionary of Economics* 4: 445–51. London: Macmillan.
- Ebenstein, A. 2001. *Friedrich Hayek: A Biography*. London: Palgrave.
- Ebner, A. 2006. Schumpeterian Entrepreneurship Revisited: Historical Specificity and the Phases of Capitalist Development. *Journal of the History of Economic Thought* 28: 315–32.

- Eccarius, J. G. 1866–67. A Working Man's Refutation of Some Points of Political Economy endorsed and advocated by John Stuart Mill, Esq., MP. *The Commonwealth*. Nos. 192–5, 198, 200, 203–4, 206–11. (10 November 1866–23 March 1867.)
- Elliott, C. F. 1967. Quis Custodiet Sacra? Problems of Marxist Revisionism. *Journal of the History of Ideas* 28: 71–86.
- Elliott, J. E. 1976. Marx and contemporary models of socialist economy. *History of Political Economy* 8: 151–84.
- Elliott, J. E. 1979. Continuity and change in the evolution of Marx's theory of alienation from the *Manuscripts* through the *Grundrisse* to *Capital*. *History of Political Economy* 11: 317–62.
- Ellman, M. 1987. Fel'dman, Grigorii Alexandrovich, 1884–1958. In J. Eatwell, M. Milgate and P. Newman. *The New Palgrave: A Dictionary of Economics* 2: 299–301. London: Macmillan.
- Eltis, W. 2000. *The Classical Theory of Economic Growth*. 2nd ed. Basingstoke: Palgrave.
- Eltis, W. 2001. The French foundations of the classical canon. In E. L. Forget and S. Peart eds. *Reflections on the Classical Canon in Economics*, 185–204. New York and London: Routledge.
- Endres, A. M. 1997. *Neoclassical Microeconomic Theory: The Founding Austrian Version*. London and New York: Routledge.
- Erdős, P. 1967. The Application of Marx's Model of Expanded Reproduction to Cycle Theory. *Socialism, Capitalism and Economic Growth: Essays presented to Maurice Dobb*, 59–71. Cambridge: Cambridge University Press.
- Evans, M. 1989. John Stuart Mill and Karl Marx: some problems and perspectives. *History of Political Economy* 21: 273–98.
- Fetter, F. W. 1965. *Development of British Monetary Orthodoxy*. Cambridge: Harvard University Press.
- Fine, B. 1990. On the composition of capital: a comment on Groll and Orzech. *History of Political Economy* 22: 149–55.
- Flaschel, P. and Semmler, W. 1987. Classical and Neoclassical Competitive Adjustment Processes. *Manchester School of Economic and Social Studies* 55: 13–37.
- Foley, D. K. 1982. The Value of Money, the Value of Labor Power, and the Marxian Transformation Problem. *Review of Radical Political Economics* 14: 37–47.
- Foley, D. K. 1986. *Understanding Capital: Marx's Economic Theory*. Cambridge, MA: Harvard University Press.
- Frank, M. W. 1998. Schumpeter on Entrepreneurs and Innovation: A Reappraisal. *Journal of the History of Economic Thought* 20: 505–16.
- Gårdland, T. 1958. *The Life of Knut Wicksell*. Stockholm: Almquist and Wicksell.
- Garegnani, P. 1987. Surplus Approach to Value and Distribution. In J. Eatwell, M. Milgate and P. Newman eds. *The New Palgrave: A Dictionary of Economics* 4: 560–74. London: Macmillan.
- Garegnani, P. 1998. Piero Sraffa. In H. D. Kurz and N. Salvadori eds. *The Elgar Companion to Classical Economics* 2: 391–9. Cheltenham: Edward Elgar.
- Giffen, R. 1904 (1883). The Progress of the Working Classes in the Last Half Century. *Economic Inquiries and Studies* 1: 382–422. London: George Bell and Sons.
- Gillman, J. M. 1956. *The Falling Rate of Profit*. New York: Cameron Associates.
- Gloria-Palermo, S. 2002. Schumpeter and the old Austrian school: interpretations and influences. In R. Arena and C. Dangel-Hagnauer eds. *The Contribution of Joseph Schumpeter to Economics: Economic development and institutional change*, 21–39. London and New York: Routledge.

- Gordon, S. 1968. Why Does Marxian Exploitation Theory Require a Labor Theory of Value? *Journal of Political Economy* 76: 137–40.
- Gottheil, F. M. 1966. *Marx's Economic Predictions*. Evanston: Northwestern University Press.
- Groll S. and Orzech, Z. B. 1987. Technical Progress and Values in Marx's Theory of the Decline in the Rate of Profit: an Exetical Approach. *History of Political Economy* 19: 591–613.
- Haberler, G. von. 1958. *Prosperity and Depression. A Theoretical Analysis of Cyclical Movements*. Cambridge: Harvard University Press.
- Harrod, R. F. 1939. An Essay in Dynamic Theory. *Economic Journal* 49: 14–33.
- Harrod, R. F. 1948. *Towards a Dynamic Economics*. London: Macmillan.
- Harvey, D. 1982. *The Limits of Capital*. Oxford: Basil Blackwell.
- Hayek, F. von. 1967 (1944). *The Road to Serfdom*. Chicago: University of Chicago Press.
- Hayek, F. von. 1988. *The Fatal Conceit: The Errors of Socialism*. W. W. Bartley ed. Chicago: University of Chicago Press.
- Hayek, F. von. 1997 (1939). Prices vs. Rationing. In B. Caldwell ed. *The Collected Works of F. A. Hayek 10: Socialism, Documents, Reviews*, 151–6. Chicago: University of Chicago Press.
- Henderson, J. P. 1986. Agency or alienation? Smith, Mill and Marx on the Joint-stock company. *History of Political Economy* 18: 111–31.
- Hicks, J. R. 1950. *A Contribution to the Theory of the Trade Cycle*. Oxford: Clarendon Press.
- Hicks, J. R. 1973. *Capital and Time: A Neo-Austrian Theory*. Oxford: Clarendon Press.
- Hollander, S. 1965. *The Sources of Increased Efficiency: A Study of Du Pont Rayon Plants*. Cambridge: M.I.T. Press.
- Hollander, S. 1973. *The Economics of Adam Smith*. Toronto: University of Toronto Press.
- Hollander, S. 1979. *The Economics of David Ricardo*. Toronto: University of Toronto Press.
- Hollander, S. 1981. Marxian Economics as “General Equilibrium” Theory. *History of Political Economy* 13: 121–54.
- Hollander, S. 1984. Marx and Malthusianism: Marx's Secular Path of Wages. *American Economic Review* 74: 139–51.
- Hollander, S. 1985. *The Economics of John Stuart Mill*. Toronto: University of Toronto Press.
- Hollander, S. 1986. Marx and Malthusianism: A Reply to Miguel Ramirez. *American Economic Review* 76: 548–50.
- Hollander, S. 1991. Marx and the falling rate of profit. In G. A. Caravale ed. *Marx and Modern Economic Analysis* 2: 3–35. Aldershot: Edward Elgar.
- Hollander, S. 1992. *Classical Economics*. Toronto: University of Toronto Press.
- Hollander, S. 1995. *Ricardo – the New View. Collected Essays I*. London and New York: Routledge.
- Hollander, S. 1997. *The Economics of Thomas Robert Malthus*. Toronto: University of Toronto Press.
- Hollander, S. 1998. *The Literature of Political Economy: Collected Essays II*. London and New York: Routledge.
- Hollander, S. 1999. Jeremy Bentham and Adam Smith on the usury laws: a “Smithian” reply to Bentham and a new problem. *European Journal of Economic Thought* 6: 523–51.
- Hollander, S. 2000. Sraffa and the Interpretation of Ricardo: The Marxian Dimension. *History of Political Economy* 32: 187–232.
- Hollander, S. 2001. “Classical Economics.” A reification wrapped in an anachronism? In E. L. Forget and S. Peart eds. *Reflections on the Classical Canon in Economics*, 7–26. London and New York: Routledge.
- Hollander, S. 2003. Engels-Marx Versus Malthus on Distribution and the Population Issue. In D. Hum ed. *Faith, Reason, and Economics: Essays in Honour of Anthony Waterman*, 135–52. Winnipeg: St. John's College Press.



- Hollander, S. 2004. Economic Organization, Distribution and the Equality Issue: The Marx-Engels Perspective. *Review of Austrian Economics* 17: 5–39.
- Hollander, S. 2005. *Jean-Baptiste Say and the Classical Canon in Economics: the British Connection in French Classicism*. London and New York: Routledge.
- Horverak, Ø. 1988. Marx's view of competition and price formation. *History of Political Economy* 20: 275–97.
- Howard, M. C. 2000. Review. *History of Political Economy* 32: 1039–41.
- Howard, M. C. and King, J. E. 1985. *The Political Economy of Marx*. 2nd ed. London and New York: Longman.
- Howard, M. C. and King, J. E. 1989. *A History of Marxian Economics: Volume I, 1883–1929*. Princeton: Princeton University Press.
- Howard, M. C. and King, J. E. 1992a. *A History of Marxian Economics: Volume 2, 1929–1990*. Princeton: Princeton University Press.
- Howard, M. C. and King, J. E. 1992b. Marx, Jones, Rodbertus and the Theory of Absolute Rent. *Journal of the History of Economic Thought* 14: 70–83.
- Howard, M. C. and King, J. E. 2001. Where Marx was right: towards a more secure foundation for heterodox economics. *Cambridge Journal of Economics* 25: 785–807.
- Hunt, E. K. and Glick, M. 1987. Transformation Problem. In J. Eatwell, M. Milgate and P. Newman eds. *The New Palgrave: A Dictionary of Economics* 4: 688–91. London: Macmillan.
- Hutchison, T. W. 1981. *The Politics and Philosophy of Economics: Marxians, Keynesians and Austrians*. Oxford: Blackwell.
- Husami, Z. 1978. Marx on Distributive Justice. *Philosophy and Public Affairs* 8: 27–64.
- Indart, G. 1990. The Formation and Transformation of Market Value. *History of Political Economy* 22: 721–44.
- Itoh, M. 1976. A Study of Marx's Theory of Value. *Science and Society* 40: 307–40.
- Jevons, W. S. 1883 (1868). Trades Societies: Their Objects and Policy. *Methods of Social Reform and Other Papers*, 101–21. London: Macmillan.
- Jevons, W. S. 1910 (1882). *The State in Relation to Labour*. London: Macmillan.
- Johnson, O. 1969. The “Last Hour” of Senior and Marx. *History of Political Economy* 2: 359–69.
- Jones, H. G. 1976. *An Introduction to Modern Theories of Economic Growth*. New York: McGraw-Hill.
- Judt, T. 2006. Review. *The New York Review of Books* 53(14): 88–92.
- Kaldor, N. 1954. The Relation of Economic Growth and Cyclical Fluctuations. *Economic Journal* 64: 53–71.
- Kayali, R. and Sari, O. 1989. The Winternitz Solution: A Comment. *History of Economics Society Bulletin* 11: 238–51.
- Keynes, J. M. 1936. *The General Theory of Employment, Interest and Money*. London: Macmillan.
- King, J. E. 1979. Marx as an historian of economic thought. *History of Political Economy* 11: 282–394.
- Klein, L. and Pomer, M. eds. 2001. *The New Russia: Transition Gone Astray*. Cambridge: Cambridge University Press.
- Knight, F. H. 1942. Profit and Entrepreneurial Functions. *The Journal of Economic History* 2: 126–32.
- Knight, F. H. 1964 (1921). *Risk, Uncertainty and Profit*. New York: Augustus M. Kelley.
- Kurz, H. D. 1979. Review of Steedman 1977. *Australian Economic Papers* 18: 52–70.
- Kurz, H. D. and Salvadori, N. 1988. *Understanding “Classical” Economics: Studies in Long-Period Theory*. London: Routledge.

- Kuznets, S. 1940. Schumpeter's Business Cycles. *The American Economic Review* 30: 257–71.
- Landes, D. S. 1969. *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present*. Cambridge: Cambridge University Press.
- Lange, O. 1935. Marxian Economics and Modern Economic Theory. *Review of Economic Studies* 2: 189–201.
- Langlois, R. N. 2003. Schumpeter and the obsolescence of the entrepreneur. In R. Koppl ed. *Advances in Austrian Economics 6: Austrian Economics and Entrepreneurial Studies*, 283–98. Oxford: JAI Press.
- Lapides, K. 1994. Henryk Grossman on Marx's Wage Theory and the "Increasing Misery" Controversy. *History of Political Economy* 26: 239–66.
- Lapides, K. 1998. *Marx's Wage Theory in Historical Perspective: Its Origins, Development and Interpretation*. Westport, CT: Praeger.
- Lavoie, D. 1983. Some strengths in Marx's disequilibrium theory of money. *Cambridge Journal of Economics* 7: 55–68.
- Lebowitz, M. A. 2003. *Beyond "Capital": Marx's Political Economy of the Working Class*. Basingstoke: Palgrave-Macmillan.
- Leontief, W. 1966 (1938). The significance of Marxian economics for present-day economic theory. *Essays in Economics: Theories and Theorizing*, 72–83. New York: Oxford University Press.
- Lerner, A. 1934–35a. Economic Theory and Socialist Economy. *Review of Economic Studies* 2: 51–61.
- Lerner, A. 1934–35b. A Rejoinder to Dobb. *Review of Economic Studies* 2: 152–4.
- Levine, N. 1975. *The Tragic Deception: Marx Contra Engels*. Oxford: Clío Books.
- Lipietz, A. 1982. The So-Called "Transformation Problem" Revisited. *Journal of Economic Theory* 26: 59–88.
- Longfield, M. 1834. *Lectures on Political Economy*. Dublin: Richard Milliken and Son.
- Luxemburg, R. 1951 (1913). *The Accumulation of Capital*. New York and London: Modern Reader Paperbacks.
- Machlup, F. 1963. *Essays in Economic Semantics*. Englewood Cliffs, NJ: Prentice Hall Inc.
- Mandel, E. 1962. *Traité d'économie marxiste*. Paris: René Julliard.
- Mandel, E. 1971. *The Formation of the Economic Thought of Karl Marx: 1843 to Capital*. New York and London: Monthly Review Press.
- Mangoldt, H. K. E. von. 1855. *Die Lehre vom Unternehmergeinn: ein Beitrag zur Volkswirtschaftslehre*. Leipzig: Teuber.
- Marshall, A. 1920. *Principles of Economics* 8th ed. London: Macmillan.
- März, E. 1991. *Joseph Schumpeter: Scholar, Teacher and Politician*. New Haven and London: Yale University Press.
- Mason, E. S. 1957. *Economic Concentration and the Monopoly Problem*. Cambridge: Harvard University Press.
- Matthews, R. C. O. 1959. *The Business Cycle*. Chicago: University of Chicago Press.
- McLellan, D. 1970. On the Importance of the "Grundrisse." *Encounter* 35: 34–45.
- McLellan, D. 1973. *Karl Marx. His Life and Thought*. London: Macmillan.
- Meade, J. E. 1968. *The Growing Economy: Principles of Political Economy*. London: George Allen and Unwin Ltd.
- Medio, A. 1972. Profits and Surplus-Value. Appearance and Reality in Capitalist Production. In E. K. Hunt and J. G. Schwartz eds. *A Critique of Economic Theory*, 312–46. Harmondsworth: Penguin Books.
- Meek, R. L. 1962. *The Economics of Physiocracy: Essays and Translations*. London: George Allen and Unwin Ltd.

- Meek, R. L. 1967. *Economics and Ideology and Other Essays: Studies in the Development of Economic Thought*. London: Chapman and Hall Ltd.
- Meek, R. L. 1975. Introduction, *Studies in the Labor Theory of Value*. 2nd ed. i–xliv. London and New York: Monthly Review Press.
- Mill, J. S. 1963–91 (1826). Paper Currency and Commercial Distress. *Collected Works 4*: 71–123. Toronto: University of Toronto Press.
- Mill, J. S. 1963–91 (1836). Civilization. *Collected Works 18*: 116–47. Toronto: University of Toronto Press.
- Mill, J. S. 1963–91 (1844). Of the Influence of Consumption on Production. Essay II in *Essays on Some Unsettled Questions in Political Economy*. *Collected Works 4*: 262–79. Toronto: University of Toronto Press.
- Mill, J. S. 1963–91 (1848). *Principles of Political Economy with Some of Their Applications to Social Philosophy*. (1st ed. 1848, 7th ed. 1871.) *Collected Works 2–3*. Toronto: University of Toronto Press.
- Mill, J. S. 1963–91 [1879]. Chapters on Socialism. *Collected Works 5*. Toronto: University of Toronto Press.
- Mises, L. von. 1947. *Planned Chaos*. Irvington-on-Hudson, NY: Foundation for Economic Education.
- Mises, L. von. 1980 [1950]. *Planning for Freedom*. South Holland, IL: Libertarian Press.
- Morishima, M. 1973. *Marx's Economics: A Dual Theory of Value and Growth*. Cambridge: Cambridge University Press.
- Morishima, M. and Catephores, G. 1975. Is There an Historical Transformation Problem? *Economic Journal* 85: 309–28.
- Moseley, F. ed. 2005. *Marx's theory of money: modern appraisals*. Basingstoke: Palgrave-Macmillan.
- Moss, L. S. 1979. Professor Hollander and Ricardian Economics. *Eastern Economic Journal* 5: 501–12.
- Nelson, A. 1999. *Marx's Concept of Money: The god of commodities*. London and New York: Routledge.
- Nikaido, H. 1983. Marx on competition. *Zeitschrift für Nationalökonomie* 43: 337–62.
- Oakley, A. 1976. Two Notes on Marx and the “Transformation Problem.” *Economica* 43: 411–17.
- Oakley, A. 1979. Aspects of Marx's *Grundrisse* as Intellectual Foundations for a Major Theme of *Capital*. *History of Political Economy* 11: 286–302.
- Oakley, A. 1983. *The Making of Marx's Critical Theory: A Bibliographical Analysis*. Boston: Routledge and Kegan Paul.
- Oakley, A. 1984. *Marx's Critique of Political Economy: Intellectual Sources and Evolution 1. 1844 to 1860*. London: Routledge and Kegan Paul.
- Oakley, A. 1985. *Marx's Critique of Political Economy: Intellectual Sources and Evolution 2. 1861 to 1863*. London: Routledge and Kegan Paul.
- O'Brien, D. P. 1975. *The Classical Economists*. Oxford: Clarendon Press.
- O'Brien, D. P. 1981. Ricardian Economics and the Economics of David Ricardo. *Oxford Economic Papers* 33: 352–86.
- O'Brien, D. P. 2004. *The Classical Economists Revisited*. Princeton: Princeton University Press.
- O'Brien, D. P. and Darnell, A. C. 1982. *Authorship Puzzles in the History of Economics: A Statistical Approach*. London: Macmillan.
- Ong, N. P. 1980. Marx's Classical and Post-Classical Conceptions of the Wage. *Australian Economic Papers* 19: 264–77.

- Orzech, Z. B. and Groll, S. 1989. Stages in the development of a Marxian concept: the composition of capital. *History of Political Economy* 21: 57–76.
- Overstone, Lord. 1856. Speech on Limited Liability. *Hansard*. 3rd series. CXLI. 139–43. 14 March.
- Overstone, Lord. 1971. *Correspondence*. D. P. O'Brien ed. Cambridge: Cambridge University Press.
- Patinkin, D. 1981. *Essays on and In the Chicago Tradition*. Durham: Duke University Press.
- Payne, P. L. 1978. Industrial Entrepreneurship and Management in Great Britain. In P. Mathias and M. M. Postan eds. *The Cambridge Economic History of Europe* 7: 180–230. Cambridge: Cambridge University Press.
- Perelman, M. 1985. Marx, Malthus and the organic composition of capital. *History of Political Economy* 17: 461–90.
- Pokorni, D. 1985. Karl Marx and General Equilibrium. *History of Political Economy* 17: 109–32.
- Popper, K. R. 1983 (1945). Marx's Theory of the State. In D. Miller ed. *A Pocket Popper*, 326–37. Oxford: Fontana.
- Porta, P. L. 2001. Sraffa's Ricardo after fifty years. In E. L. Forget and S. Peart eds. *Reflections on the Classical Canon in Economics*, 241–69. London and New York: Routledge.
- Potier, J. P. 1991. *Piero Sraffa. Unorthodox Economist, 1898–1983. A Biographical Essay*. London: Routledge.
- Pullen, J. M. 1989. In defence of Senior's last hour-and-twenty-five-minutes. *History of Political Economy* 21: 299–309.
- Rainelli, M. 1983. Entrepreneur et Profits Dans les "Principles" de John Stuart Mill et d'Alfred Marshall. *Revue Economique* 34: 794–810.
- Ramirez, M. D. 1986. Marx and Malthusianism: Comment. *American Economic Review* 76: 543–7.
- Ricardo, D. 1835 (1819). *Des Principes de l'Économie Politique et de l'Impôt . . . traduit de l'anglais par F. S. Constancio . . . avec des notes explicatives et critiques par Jean-Baptiste Say*. Bruxelles: H. Dumont.
- Ricardo, D. 1951–73. *Principles of Political Economy. Works and Correspondence*. Vol. 1. P. Sraffa ed. Cambridge: Cambridge University Press.
- Ricardo, D. 1951–73 (1820). *Notes on Malthus's Principles of Political Economy. Works and Correspondence*. Vol. 2. P. Sraffa ed. Cambridge: Cambridge University Press.
- Robbins, Lord. 1979. *Against Inflation: Speeches in the Second Chamber 1965–1977*. London: Macmillan.
- Robbins, Lord 1998. *A History of Economic Thought: The LSE Lectures*. Princeton: Princeton University Press.
- Robertson, D. H. 1915. *A Study of Business Fluctuation*. London: P.S. King.
- Robinson, J. 1951. Introduction to Rosa Luxemburg, *The Accumulation of Capital*, 13–28. New York and London: Modern Reader Paperbacks.
- Robinson, J. 1967 (1942). *An Essay on Marxian Economics*. London: Macmillan.
- Robinson, J. 1980 (1948). Marx and Keynes. *Collected Economic Papers* 1: 133–45. Cambridge: MIT Press.
- Robinson, J. 1980 (1955). Marx, Marshall and Keynes. *Collected Economic Papers* 2: 1–17. Cambridge: MIT Press.
- Robinson, J. 1980 (1968). Economics versus Political Economy. *Collected Economic Papers* 4: 25–32. Cambridge: MIT Press.

- Robinson, J. 1980 (1978). Formalism Versus Dogma. *Collected Economic Papers* 5: 275–9. Cambridge: MIT Press.
- Roemer, J. E. 1983. Exploitation, class and property relations. In T. Ball and J. Farr eds. *After Marx*, 184–212. Cambridge: Cambridge University Press.
- Roncaglia, A. 1982. Hollander's Ricardo. *Journal of Post-Keynesian Economics* 4: 339–59.
- Roncaglia, A. 1998. Piero Sraffa as an Interpreter of the Classical Economists. In H. D. Kurz and N. Salvadori eds. *The Elgar Companion to Classical Economics* 2: 399–404. Cheltenham: Edward Elgar.
- Rosdolsky, R. 1980. *The Making of Marx's "Capital"*. London: Pluto Press.
- Rosenberg, N. 1974. Karl Marx on the Economic Role of Science. *Journal of Political Economy* 82: 713–28.
- Rosenberg, N. 1976. Marx as a student of technology. *Monthly Review* 28: 56–77.
- Rosenberg, N. 1982. *Inside the Black Box: Technology and Economics*. Cambridge: Cambridge University Press.
- Rosenberg, N. 1991. Marx wasn't all wrong. *Scientific American*. December: 158.
- Rosenberg, N. 1994. *Exploring the Black Box: Technology, economics and history*. Cambridge: Cambridge University Press.
- Rubel, M. 1963. ed. *Oeuvres de Karl Marx. Économie I*. Paris: Gallimard.
- Rubel, M. 1968. ed. *Oeuvres de Karl Marx. Économie II*. Paris: Gallimard.
- Rubel, M. 1982. ed. *Oeuvres de Karl Marx. Philosophie*. Paris: Gallimard.
- Samuelson, L. and Wolfson, M. 1986. Expository Marxism and comparative economic dynamics. *History of Political Economy* 18: 65–85.
- Samuelson, P. A. 1957. Wages and Interest: A Modern Dissection of Marxian Economic Models. *American Economic Review* 47: 341–69.
- Samuelson, P. A. 1961. Abstract of a Theorem Concerning Substitutability in Open Leontief Models. In T. C. Koopmans, ed. *Activity Analysis of Production and Allocation*, 142–6. New York: Wiley.
- Samuelson, P. A. 1967. Marxian Economics as Economics. *American Economic Review* 57: 616–23.
- Samuelson, P. A. 1971. Understanding the Marxian Theory of Exploitation: a Summary of the So-called Transformation Problem. *Journal of Economic Literature* 9: 399–431.
- Samuelson, P. A. 1978. The Canonical Classical Model of Political Economy. *Journal of Economic Literature* 16: 1415–34.
- Samuelson, P. A. 1987. Sraffian Economics. In J. Eatwell, M. Milgate and P. Newman eds. *The New Palgrave: A Dictionary of Economics* 4: 452–61 London: Macmillan.
- Samuelson, P. A. 1990. Revisionist Findings on Sraffa. In K. Bharadwaj and B. Schefold eds. *Essays on Piero Sraffa: Critical Perspectives on the Revival of Classical Theory*, 263–80. London: Routledge.
- Samuelson, P. A. 1991a. Logic of the Historical Transformation Problem: Exchange Ratios under Simple Commodity Production. In G. A. Caravale ed. *Marx and Modern Economic Analysis* 1: 145–68. Aldershot: Edward Elgar.
- Samuelson, P. A. 1991b. Conversations with my History of Economics Critics. In G. K. Shaw ed. *Economics, Culture and Education: Essays in Honour of Mark Blaug*, 3–13. Aldershot: Edward Elgar.
- Samuelson, P. A. 1992. Marx on Rent: A Failure to Transform Correctly. *Journal of the History of Economic Thought* 14: 143–67.

- Samuelson, P. A. 2000. Revisionist findings on Sraffa. In H. D. Kurz ed. *Critical Essays on Piero Sraffa's Legacy in Economics*, 25–45. Cambridge: Cambridge University Press.
- Sardoni, C. 1986. Marx and Keynes on effective demand and unemployment. *History of Political Economy* 18: 419–41.
- Schefold, B. 1976. Different Forms of Technical Progress. *Economic Journal* 86: 806–19.
- Schefold, B. 1996. Piero Sraffa, 1898–1983. *Economic Journal* 106: 1314–25.
- Schumpeter, J. A. 1939. *Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process*. New York and London: McGraw-Hill.
- Schumpeter, J. A. 1950. *Capitalism, Socialism and Democracy*. 3rd ed. New York: Harper and Brothers Publishers.
- Schumpeter, J. A. 1952. *Ten Great Economists: From Marx to Keynes*. London: George Allen and Unwin.
- Schumpeter, J. A. 1954. *History of Economic Analysis*. New York: Oxford University Press.
- Schumpeter, J. A. 1959 [1926]. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. 2nd ed. Cambridge: Harvard University Press.
- Schumpeter, J. A. 2003 (1928). Entrepreneur. (Translated by M. C. Becker and T. Knudsen.) In R. Koppl ed. *Advances in Austrian Economics 6: Austrian Economics and Entrepreneurial Studies*, 235–65. Oxford: JAI Press.
- Secombe, W. 1983. Marxism and Demography. *New Left Review* 137: 22–47.
- Semmler, W. 1984. Marx and Schumpeter on Competition, Transient Surplus Profit and Technical Change. *Economie appliquée* 37: 419–55.
- Semmler, W. 1987. Competition: marxian conceptions. In J. Eatwell, M. Milgate and P. Newman eds. *The New Palgrave: A Dictionary of Economics* 1: 540–2. London: MacMillan.
- Senior, N. 1837. *Letters on the Factory Acts as it affects the Cotton Manufacture*. London: B. Fellowes.
- Service, R. 2000. *Lenin: A Biography*. Cambridge MA: Harvard University Press.
- Seton, F. 1976 (1957). The “Transformation Problem.” In M. C. Howard and J. E. King eds. *The Economics of Marx*, 162–76. Harmondsworth: Penguin Books Ltd.
- Shannon, H. A. 1954 (1931). The Coming of General Limited Liability. In E. M. Carus-Wilson ed. *Essays in Economic History* 1: 358–79. London: Edward Arnold.
- Shannon, H. A. 1954 (1933). The Limited Companies of 1866–1883. In E. M. Carus-Wilson ed. *Essays in Economic History* 1: 380–405. London: Edward Arnold.
- Sinha, A. 1997. The Transformation Problem: A Critique of the “New Solution.” *Review of Radical Political Economics* 29: 51–8.
- Sinha, A. 1998. Hollander’s Marx and Malthusianism: A Critique. *The History of Economics Review (Australia)* 29: 104–112.
- Sinha, A. 2001. Review. *Review of Radical Political Economics* 33: 241–4.
- Sismondi, J. C. L. Simonde de. 1951. *Nouveaux Principes d’Économie Politique*. 3rd ed. Genève & Paris: Edition Jeheber.
- Smith, A. 1937 (1776). *The Wealth of Nations*. New York: Modern Library.
- Sowell, T. 1960. Marx’s “Increasing Misery” Doctrine. *American Economic Review* 50: 111–20.
- Sowell, T. 1967. Marx’s Capital After One Hundred Years. *Canadian Journal of Economics and Political Science* 33: 50–74.
- Sowell, T. 1980. *Knowledge and Decisions*. Princeton: Princeton University Press.
- Sowell, T. 2006. *On Classical Economics*. New Haven & London: Yale University Press.
- Sraffa, P. Papers. *Wren Library*. Trinity College. Cambridge.

- Sraffa, P. 1926. The Laws of Return under Competitive Conditions. *Economic Journal* 36: 535–50.
- Sraffa, P. 1951. Introduction to vol. 1 of *Works and Correspondence of David Ricardo*, vii–lxii. Cambridge: Cambridge University Press.
- Sraffa, P. 1960. *The Production of Commodities by Means of Commodities: Prelude to a Critique of Economic Theory*. Cambridge: Cambridge University Press.
- Stedman Jones, G. 1987. Engels, Friedrich. In J. Eatwell, M. Milgate and P. Newman eds. *The New Palgrave. A Dictionary of Economics* 2: 144–6. London: Macmillan.
- Steedman, I. 1977. *Marx after Sraffa*. London: New Left Books.
- Steedman, I. 1982. Marx on Ricardo. In I. Bradley and M. Howard eds. *Classical and Marxian Political Economy: Essays in Honor of Ronald L. Meek*, 115–56. New York: St. Martin's Press.
- Steedman, I. 1995. Comment on Brewer 1995. *History of Political Economy* 27: 201–6.
- Stigler, G. J. 1965. *Essays in the History of Economics*. Chicago: University of Chicago Press.
- Sweezy, P. M. 1942. *The Theory of Capitalist Development: Principles of Marxian Political Economy*. New York: Monthly Review Press.
- Sweezy, P. M. 1968. Marx and the Industrial Revolution. In R. V. Eagly ed. *Events, Ideology and Economic Theory: the Determinants of Progress in the Development of Economic Analysis*, 107–19. Detroit: Wayne State University Press.
- Sweezy, P. M. 1981. Marxian Value Theory and Crises. In I. Steedman et al. *The Value Controversy*, 20–35. London: Verso.
- Sweezy, P. M. 1987 (1973). Some Problems in the Theory of Capital Accumulation. *International Journal of Political Economy* 17: 38–53.
- Tomass, M. 1998. On the Relativist Fallacy. *Journal of the History of Economic Thought* 20: 279–98.
- Tribe, K. 1974. Remarks on the Theoretical Significance of Marx's *Grundrisse*. *Economy and Society* 3: 180–210.
- Tucker, G. S. L. 1961. Ricardo and Marx. *Economica* 28: 252–69.
- Tucker, J. 1931 (1757). *Instructions for Travellers*. In R. L. Schuyler ed. *Josiah Tucker: A Selection of his Economic and Political Writings*. New York: Columbia University Press.
- Tucker, R. C. 1969. *The Marxian Revolutionary Idea*. New York: Norton.
- Tucker, R. C. 1972. Ed. *The Marx-Engels Reader*. New York: Norton.
- Tuttle, C. A. 1927. The Entrepreneur Function in Economic Literature. *The Journal of Political Economy* 35: 501–21.
- Uebel, T. E. 2005. Incommensurability, Ecology, and Planning. *History of Political Economy* 37: 309–42.
- Vaughn, K. 1998. Review of Caldwell 1997. *Journal of the History of Economic Thought* 20: 235–7.
- Walras, L. 1954. *Elements of Pure Economics*. W. Jaffé ed. 4th definitive ed. 1926. London: George Allen & Unwin.
- Waterman, A. M. C. 1998. Reappraisal of “Malthus the Economist,” 1933–97. *History of Political Economy* 30: 293–334.
- Weintraub, E. R. 1995. Editor's introduction to minisymposium: Locating Marx After the Fall. *History of Political Economy* 27: 109–10.
- West, E. G. 1983. Marx's Hypotheses on the Length of the Working Day. *Journal of Political Economy* 91: 266–81.
- Whitaker, J. K. 2003. Alfred Marshall's *Principles* and *Industry and Trade*: Two Books or One? Marshall and the Joint Stock Company. In R. Arena and M. Quéré eds. *The Economics of Alfred Marshall: Revisiting Marshall's Legacy*, 137–57. Basingstoke: Palgrave-Macmillan.

- Williams, P. L. 1982. Monopoly and centralization in Marx. *History of Political Economy* 14: 228–41.
- Wolff, E. N. 1979. The Rate of Surplus Value, the Organic Composition and the General Rate of Profit in the U.S. Economy, 1947–67. *American Economic Review* 69: 329–41.
- Wolfson, M. 1966. *A Reappraisal of Marxian Economics*. New York and London: Columbia University Press.
- Wolfson, M. 1979. Three Stages in Marx's Thought. *History of Political Economy* 11: 117–46.
- Wood, A. 1972. The Marxian Critique of Justice. *Philosophy and Public Affairs* 1: 244–82.



## Index

- accumulation, 59–61, 145  
and abstinence, 17, 62–3, 238, 469, 477  
and concentration, 226  
and communism, 393  
determinants of, 61–8, 95, 132, 141–2, 160–1,  
175, 311, 336  
hitchless, 334–8, 339, 352  
and money as general form of wealth, 238,  
287  
and population growth, 76, 220–1, 230, 334,  
336, 352, 370–1, 376–7  
and profit-rate equalization, 295  
and “realization” problem, 276–8  
and trade cycles, 145, 341–4, 351  
by working-class, 238  
*see also*: law of markets, profits, reproduction  
schemes
- agriculture, 16, 102  
and endogenous margin, 15, 189, 193, 204–5,  
229, 497  
excluded from general profit-rate formation,  
30–1, 302, 305–6, 307, 324–5, 465, 471  
extensive and intensive margins, 30, 64, 189,  
204, 229, 309, 496  
and falling aggregate labor demand, 88, 97,  
102  
and land scarcity, 128, 477  
land-use analysis, 303, 396  
low organic composition of capital, 29–30,  
297–9, 302–3  
and rent-free land, 168, 191, 204  
and Reserve Army of Unemployed, 102–3  
and science, 396, 495–6  
and soil exhaustion, 124–5, 128, 308–9,  
483  
and technical progress, 107, 124–6, 396, 405,  
420, 478  
and trade cycles, 143–5  
*see also*: canonical classical economics,  
materials, Physiocracy, rent
- Aikin, J., 62
- alienation, 7, 183, 186, 236–7, 241, 261, 262, 287,  
318n, 377
- allocative mechanism, 6, 195–6, 396–8, 470–1  
and central control, 385, 398–401  
and inventory analysis, 353–7, 398, 470  
and price regulation, 385, 396–7, 405,  
470  
and rent-confiscation schemes, 205–6, 229,  
385, 396, 405, 406, 470  
and the Transformation, 23–8, 254–5, 293–4,  
470  
*see also*: communism, competition, general  
equilibrium, monopoly, value
- Anderson, K., 5, 463n
- Anti-Dühring* (1878) *see*: Engels
- Arena, R., 410n
- Arnon, A., 7n, 243n, 285, 394n
- Austrian economics 36–7. *See also*:  
Böhm-Bawerk, Hayek, Mises
- Avineri, S., 406n, 411
- Babbage, C., 218n, 412n, 429n, 440, 441, 442,  
499
- Bagehot, W., 499
- Bailey, S., 14n, 284n
- Bajt, A., 43
- Bakunin, M., 85
- Barton, J., 108n, 374n, 377n, 381
- Bastiat, C.F., 243, 244, 245, 252, 317
- Bauer, B., 184n
- Bauer, E., 184n, 185n, 187
- Bauer, S., 4n
- Bharadwaj, K., 11n

- Baumol, W.J., 13, 42, 48n, 53–4, 112, 386, 406, 409, 487n
- Bentham, J., 57n, 165, 463n
- Berlin, I., 458
- Bernstein, E., 4–5  
     on Marxian crises, 149, 159  
     on social reform, 458, 459, 479–80, 481, 482, 497
- Blake, W., 348
- Blanc, J.-J. L., 481
- Blanqui, J.-A., 207
- Blaug, M., 31n, 85n, 113, 410, 411, 480n, 487
- Böhm-Bawerk, E. von, 5, 256–7, 266
- Boisguillebert, Pierre de, 165, 183n
- Bonar, J., 465
- Bortkiewicz, L. von, 21n, 41n, 112, 113, 475
- Boss, H., 466n
- Bottigelli, E., 165n
- Bowley, M., 450n
- Bowring, J., 223n
- Bracke, W., 391
- Bray, J.F., 210–12, 229, 264, 388–90, 396
- Brewer, A., 1–2, 31n, 464, 483–5
- Bright, J., 454
- Bronfenbrenner, M., 12n, 55n, 132n, 484–5
- Brouwer, M.T., 469
- Buchanan, J., 401n
- Burkett, P., 125n
- Cairnes, J.E., 434
- Caldwell, B.J., 497
- canonical classical economics, 8, 11–12, 14, 17, 62, 66–7, 86, 94–5, 106–9, 128, 129, 166, 175, 176–82, 185, 191–2, 204–5, 224, 224–7, 227–31, 251, 280–5, 338, 416, 470, 471–7, 477–9, 481  
     and land-based growth model, 175, 176, 189–90, 191, 193, 225–6, 477, 478–9
- capital  
     and aggregate labor demand, 360–8  
     cheapening of constant  $c$ , 119–20  
     constant  $c$ . “riddle”, 74, 326–34, 337, 351–2, 495  
     organic composition ( $c/v$ ), 18, 95–6, 113–14, 114–15, 119–20, 126–7, 175, 219–21, 230, 253, 254, 266, 297–9, 308, 310, 352  
     *see also*: centralization, profits, technical change
- Capital*, 2–6, 7, 12, 18–19, 48–9, 149, 440, 468  
     as “Darwinian”, 7, 406, 476n  
     drafts of, 6, 195, 474n  
     origins of surplus-value doctrine in, 6, 194, 211–12, 230  
     Pléiade edition, 2, 5  
     *Poverty of Philosophy* as prototype, 6, 194, 212, 227, 230  
     *see also*: Marx, methodology
- Capitalism *see*: entrepreneurship, industrial capitalism, industrial organization
- Carey, H.C., 252, 264, 496
- Carlyle, T., 218n, 221n
- Cassel, G., 484
- Catephores, G., 24n, 25, 48n
- Cavalieri, D., 22n, 485
- Cazenove, J., 56, 351n
- centralization, 67–8, 132–3, 140, 174, 191, 226, 413–14, 436, 438–9, 441, 469, 470, 479–80, 489, 495  
     and falling interest rate, 173  
     and falling profit rate, 310  
     *see also*: industrial organization, monopoly
- Chalmers, T., 131, 150, 282n
- Chartism, 447, 453–5
- Cherbuliez, A., 190, 205, 211n, 218, 220n, 308n, 475
- circular flow *see*: synchronized activity
- Civil War in France* (1871), 455n
- Claeys, G., 165n, 166
- Class Struggles in France 1848–50* (1850), 145n, 448, 490
- Cluss, A., 496
- Cobden, R., 454
- Cogoy, M., 113
- Colins, J.G.H., 378
- commodities vs. products, 56, 142, 206, 270, 358
- communism  
     abolition of money and markets, 392, 393–4, 399, 400  
     and accumulation, 393  
     and central control, 385, 392–3  
     and consumer rationing, 399–401  
     and dictatorship of proletariat, 407  
     and income distribution, 390–6  
     irrelevance of “value”, 399  
     and knowledge creation, 405  
     and labor certificates, 393–4, 398, 400  
     and law of markets, 338  
     and social overheads, 393  
     stages of, 385–6, 390–1, 395, 408, 498  
     and wage differentials, 394–5  
     *see also*: *Communist Manifesto*, evolutionism
- Communist Manifesto* (1848), 386, 392, 395, 403, 407, 444–5, 447, 461, 488, 489, 495, 498

- competition  
 constraints on, 12, 28–31, 305–6  
 and cost-price, 170, 202–3, 215, 228, 307, 348, 471  
 dynamics of, 36, 37–8, 471  
 and extended reproduction scheme, 77  
 illusory character of, 48–9, 285, 288–9, 290  
 inter-industry c. and profit-rate formation, 12, 28–9, 31–2, 33, 202, 254–6, 293–4, 306  
 intra-industry c. and “market” value, 12–13, 31–8  
 and overproduction, 278–80  
 and market as regulative vs. chaotic, 169–71, 185, 203, 228, 335, 471  
 Smithian, 16, 36–7, 196–7  
 and trade cycles, 278–80, 289, 348–9, 471  
*see also*: allocative mechanism, methodology, monopoly, rent, Smith, Transformation, value
- Comte, A., 476n  
*Contribution to the Critique of Political Economy* (1859), 7, 34n, 166, 195, 258
- consumption decisions, 195–6, 227  
 capitalists’ 145, 149, 343–4  
 and coordination with production, 273–4, 268, 290  
 and realization of surplus value, 268  
 and rejection of law of markets, 270–1, 273–4, 276–8, 290  
 working-class, 285–9, 290  
*see also*: allocative mechanism, general equilibrium, value
- co-operation *see*: industrial organization
- Cooper, T., 203n, 210n, 303
- Corbet, T., 296n, 356, 430
- cost price *see*: competition, value
- cotton industry, 28, 89, 136, 152, 200, 217, 228, 342–3, 367–8
- Cottrell, A., 106
- Courcelle-Seneuil, J-G., 63
- credit system, 28, 134, 135, 149, 174, 314  
 and cost-price adjustments, 295–6  
 “*crédit gratuit*”, 317  
*Crédit Mobilier* 436, 443  
 and industrial capitalism, 468–9  
 and limited liability, 499  
 and trade cycle, 150–6, 278, 283–4, 347, 438–9, 442, 499
- Darity, W.A., 106
- Darnell, A.C., 14n
- Davis, J., 386n
- demand-supply analysis *see*: allocative mechanism, general equilibrium, value
- demography *see*: population growth
- departmental analysis *see*: reproduction schemes
- De Brunhoff, S., 7n
- De Quincey, T., 262–3
- Desai, M., 22n, 386, 401n, 470, 484n
- Destutt de Tracy, A.L.C., 165, 186
- Dickinson, H.D., 112, 113, 119, 123
- Dilke, C.W., 413n
- distribution *see*: income distribution
- Dobb, M., 11, 24n, 85, 119, 166, 192, 241n, 258, 268, 400n
- Dolléans, E., 390n
- Domar, E., 784
- domestic industry, 103
- Dostaler, G., 486
- Droz, F.X.J., 207
- Dürring, E., 394n, 399
- Duménil, G., 22n
- Duncan, G., 391n, 407n
- Dussell, E., 4n, 6n, 302
- Eatwell, J., 11n, 487n
- Ebenstein, A., 401n
- Ebner, A., 410n
- Eccarius, J.G., 458
- Economic Manuscripts* (1861–63), 3, 4, 30, 67, 70, 108n, 118n, 121, 122n, 124, 126, 128, 130, 133, 153n, 259n, 443, 466, 468  
 and capitalist’s functions, 414–19  
 and competition, 294  
 disdains socialist perspective on interest, 293, 313, 317–18  
 and historiography, 476  
 and industrial organization, 411  
 and innovation, 425–6, 441  
 and interest rate, 293, 312–18  
 and inventory holdings, 355, 398  
 and inverse wage-profit relation, 167, 176  
 objections to Ricardian “abstraction”, 300  
 and profit-rate formation, 53, 295, 296–7, 324  
 and profits of enterprise, 416, 430, 435, 439, 440, 468  
 rejects Ricardo’s alleged principle of agricultural priority, 305  
 and science funding, 422
- economic progress, beneficiaries of, 176, 191, 224, 231
- Economical and Philosophical Manuscripts* (1844), 6, 165, 175, 191
- Economist*, 313n, 469n

- Edmonds, T.R., 210
- egalitarianism  
 case based on justice rejected, 385, 386–7  
 economic role of inequality under capitalism, 385, 387–90  
 economic role of inequality under communism, 385, 390–6  
 Proudhon rejected, 199, 203–4, 209–10  
 and wage differentials, 394–6  
*see also*: income distribution
- Eighteenth Brumaire* (1852), 451
- Elliott, J.E., 7n, 391n, 444n, 481
- Ellman, M., 483n
- Eltis, W., 472, 478n
- Endres, A.M., 36–7
- Engels, F., 8, 19n, 34, 56n, 70, 124n, 147, 150, 165, 224n, 235, 266, 294, 326, 435n, 440–1n, 488–91, 495, 497  
 advances science of political economy, 187  
 his *Anti-Dühring* (1878), 326n, 385n, 399–400  
 and *Capital*, 2–5, 468  
 and *Communist Manifesto* (1848), 392, 407, 408, 444–5, 447, 489, 495  
 and Communist “revolution”, 407–8  
 his *Condition of the Working Class* (1844), 489–90  
 on cost pricing, 228  
 and factory legislation, 447–8, 449, 451, 455  
 on falling profit rate, 114  
 his fear of money and markets under communism, 399, 403  
 and *German Ideology* (1845–46), 392  
 and labor power, 207–9, 211  
 his letters on absolute rent, 293, 299, 300  
 on discovery of source of surplus value, 194–5, 207–9, 210, 211, 259–60  
 and nationalization of industry, 407  
 his *Outlines (Umriss)* (1844), 187, 488–9  
 on population control, 107  
 and price mechanism, 398–401  
 his *Principles of Communism* (1847), 444, 489  
 his revisionism, 462, 490–1  
 on Transformation, 25  
 unaware of *Grundrisse*, 6  
 on wage structure, 396n  
 on wage trends, 482n
- entrepreneurship, 7, 409–11  
 and allocative function, 417–19, 467  
 and bankruptcy, 440, 441, 443, 468  
 and managerial function, 414–17, 435, 466–7  
 and M’s attitude to industrial capitalism, 438–43, 466–9  
 and “profits of enterprise”, 430–5, 437–8  
 and science, 419–25, 440, 466  
 and uncertainty, 409, 417–9, 423, 435, 438–43, 466–8, 469, 483  
*see also*: risk
- Erdős, P., 483n
- Erfurt Program (1891), 497
- Evans, M., 458, 475n
- evolutionism *see*: Marx
- exploitation, rate of *see*: surplus value, rate of
- Fawcett, H., 452
- Fel’dman, G.A., 483n
- Feldstein, M.S., 403n
- Fetter, F.W., 283n
- Fine, B., 110
- Flaschel, P., 12n
- Foley, D.K., 22n
- Fourier, C., 185, 186, 436
- France  
 industrialization and social reform, 447–9, 461, 482  
 knowledge creation, 420  
 limited liability, 435–6, 498  
 price controls, 396–7  
 Proudhonist socialism, 403  
 relative industrial backwardness, 446  
 trade unions, 459
- Frank, M.W., 410n
- Frisch, R., 784
- Fullarton, J., 285, 311
- Gårdland, T., 410n
- Garegnani, P., 11n, 487
- Gaskell, P., 95n
- general equilibrium *see*: allocative mechanism, synchronized activity, value
- German Ideology* (1845–46), 392
- Germany, 137, 190, 420, 452
- Giffen, R., 479
- Gillman, J. M., 113
- Gladstone, W.E., 90, 452
- Glick, M., 22n
- Gloria-Palermo, S., 410n
- Gordon, S., 463n
- Gotha Program* (1875), 386, 390–2, 393–6, 458n, 470, 497
- Gottheil, F.M., 85n, 90n, 104n
- Greg, W.R., 225
- Groll, S., 5, 110, 114, 235, 253n
- growth *see*: accumulation, population growth, reproduction schemes
- Grundrisse* (1857–58), 4, 108n, 130, 151, 235, 361n, 419n, 422n

- claims to have demolished Ricardo's profit theory, 235–6, 252
- on the “competitive” process, 255, 293–4
- criticizes orthodox law of markets, 280–5
- endogenizes population growth, 249, 378–9
- on falling profit rate, 121
- a growth model, 246–51, 266
- and historiography, 476
- and industrial organization, 411
- on “insipid” Say, 282
- on interest rate, 266
- on “just” income distribution, 386
- on Mill's “syncretism”, 476
- on priority of production over exchange, 268, 346
- on Reserve Army of Unemployed, 247, 248–50, 266–7
- surplus-value theory, 258–60, 260–5, 265–7, 272–3, 289–90
- on the Transformation, 254–6, 295, 298
- Haberler, G., 136n
- Harlow, J., 283n
- Harrod, R.F., 484
- Harvey, D., 86
- Hayek, F. von, 386, 401–2, 405
- Henderson, J.P., 406n, 411
- Hess, M., 165
- Hicks, J.R., 484
- Hilditch, R., 190, 205
- historical materialism, 7, 11, 385, 387–8, 406, 466–7, 482–3, 488, 490
- see also*: technological determinism
- historiography
- ideological character of M's, 17, 57, 263–4, 474
- and significance of the year 1830, 475–6
- Sraffian, 11, 485–6
- Hobsbawm, E., 489
- Hodgskin, T., 55, 56–7, 58, 192n, 210, 241n, 353–4, 358–60, 423, 427n, 485
- Hollander, S., 12, 14, 15, 31, 45, 52n, 57, 66n, 106n, 116, 117, 143, 167, 170n, 172n, 175, 197, 204, 206n, 215, 225, 282n, 284n, 303, 346, 349, 351, 354, 370, 385n, 403, 409n, 421n, 426n, 428n, 439n, 460, 468n, 477, 481n, 494, 496n, 497n
- Holy Family* (1845), 184–8, 491
- Horner, E., 429n, 453
- Horverak, Ø., 38n, 487n
- Howard, M.C., 21n, 22n, 30, 31n, 41n, 52n, 85, 255, 302, 482
- Hunt, E.K., 22n
- Husami, Z., 386n
- Hutchison, T.W., 398–400
- income distribution
- and final demand, 6, 45, 46–7, 50–1
- morality of, 385, 386–7, 463–4
- and pricing, 6, 11–12
- Marx and Austrians compared 36–7, 386, 401–5, 497–8
- and progressive taxation, 403, 448
- see also*: egalitarianism, inverse wage-profit relation, methodology, profits, rent, wage rate
- Indart, G., 25
- industrial capitalism, 297, 314–17, 411, 438–43, 466–9, 470, 488
- and justice, 387, 464
- prospective collapse of, 281, 406, 477–8, 479–83, 488, 490–1, 498
- and uncertainty, 438–43, 466–8
- vs. commercial c., 318–24, 418, 467, 468
- see also*: communism, entrepreneurship, industrial organization
- industrial organization, 7, 174, 411–14
- cooperation, 392–3, 406–7, 411, 414, 415, 435, 437, 451, 457–8, 483
- and factory system, 172
- joint-stock, 31, 111, 406–7, 411, 435–8, 438–9, 441–2, 458, 483, 491
- and limited liability, 411, 435–8, 498–500
- and nationalization, 407, 438–9, 448, 483
- and systems of machinery, 411–14, 466
- and trade cycles, 471
- see also*: centralization, industrial capitalism, monopoly
- innovation *see*: science, technical change
- interest rate, 223, 266, 293, 312–18, 414
- chronology, 137–9
- as claim on future surplus value, 315, 325
- a contractual income, 296, 315–16, 325
- and demise of rentier, 173
- dividends of stock corporations as i., 441–2
- fall of i. and inflows into labor force, 173, 217, 220, 223
- and “fetishistic” trap, 312–13, 314–16, 431–2
- and profit rate, 174, 296–7, 312–18, 415–16, 431–2
- and Proudhon, 317–18
- as pure exploitation income, 441–2
- its source in surplus value, 313, 317
- see also*: credit system, trade cycles

- international trade  
 and economic development, 227  
 and employment, 381  
 and profit-rate trend, 339, 352  
 and social policy, 188, 224–7, 445–6, 454  
 and real wages, 219, 224–7  
*see also*: globalization
- inventory analysis, 353–7, 398, 470  
*see also*: synchronized activity
- inverse wage-profit relation, 13, 38–40, 47, 51–2, 143, 167, 176, 185, 189–93, 212–14, 225, 230, 311n, 325, 414, 416, 446, 459, 460n, 472–3, 478–9  
*see also*: canonical classical economics, Ricardo, synchronized activity, value
- Ireland, 107, 205, 219, 482
- Itoh, M., 21
- Jevons, W.S., 196, 283n, 450n, 453n
- Johnson, O., 450n
- Jones, H.G., 483n
- Jones, R., 67, 132, 205, 229, 419, 427, 475
- Judt, T., 463n
- Kaldor, N., 160n
- Kalecki, M., 484–5
- Kautsky, K., 4n, 107, 497
- Kayali, R., 22n
- Keynes, J.M., 76n, 132n, 158, 222n, 484, 487n
- King, J.E., 21n, 22n, 30, 31n, 41n, 52n, 255, 302, 401n, 475
- Klein, L., 408n
- Knight, F.H., 409, 411, 433, 439, 441, 468, 469, 470n
- Kugelman, L., 5n
- Kurz, H.D., 11n, 487
- Kuznets, S., 484
- labor  
 commercial, 322–3  
 as commodity, 206, 229, 489, 495  
 managerial, 313, 316–17, 414, 433–4  
 productive l. as source of surplus value, 237, 268–70, 289–90, 323, 465  
*see also*: labor market, labor power, population growth, trade unions, wage rate
- labor market  
 agricultural, 97, 102–3  
 and control of hours, 447–8, 450–1  
 and deskilling, 217, 220, 223, 377–8, 447, 495  
 “dual”, 88, 106, 146, 222, 267, 287, 372–3  
 and free trade, 445–6  
 inflows from middle class, 173, 217, 220, 223, 230, 489, 495  
 inter-sectoral movements, 102–4  
 and overproduction of capital, 145–6  
 participation rate, 87, 88, 104–6, 220, 221, 230, 369, 378, 489, 495  
 and population growth, 248–50, 368–75  
 and Reserve Army of Unemployed, 87–8, 100–2, 103, 176, 191, 218, 221–2, 230, 247, 248–50, 266–7, 353, 368, 372–5, 488–9  
 and secular expansion of aggregate labor demand, 96–7, 216–17, 230, 353, 365–7, 381, 478, 488  
 and technical change, 95–7, 360–8  
 and trade cycles, 100–2, 145–9, 221–2, 230, 266  
 and trade unions, 222, 446–7, 458–60, 481, 482  
*see also*: wage rate
- labor power, 6, 57, 59, 64, 90–4, 187–8, 189, 193, 194, 207–12, 229–30, 236–7, 240–1, 265, 433–4, 463  
 operational irrelevance of, 58, 76, 265, 287, 288, 290  
*see also*: surplus value
- labor theory of value  
 and competition, 199–200, 201, 228, 294  
 and cost price, 197, 203, 228  
 and demand-supply analysis, 198  
 objections to Proudhon, 197–9, 201  
 objections to Rodbertus, 294  
 objections to Ricardo, 294–5, 299  
 rejected, 23–4, 48, 294–5, 299  
*see also*: value
- Laing, S., 103–4, 413
- Lalor, J., 357
- Landes, D.S., 443n
- Lange, O., 487
- Langlois, R.N., 410n
- Lardner, D., 159
- Lapides, K., 3n, 85
- Lassalle, F., 225n, 236, 260, 393, 406, 409
- Lauderdale, J., 165, 182, 198, 371n
- Lavoie, D., 471n
- law of markets, 130–1, 150, 182–4, 273–4, 278–80, 290, 338  
 analogous to planning, 338  
 and crises, 132, 141, 145–50, 160–1, 222, 223–4, 231, 281, 283  
 and efforts to expand markets, 270–1, 276–8, 290

- and money accumulation, 344, 346  
 “overproduction” literature, 280–5, 290, 338, 349–51  
 and underconsumption, 67, 111, 129–32, 134, 141, 148–9, 160–1, 183–4, 223–4, 284, 290, 339  
 and working-class consumption, 285–9, 290, 340, 350–1  
*see also*: globalization, money, overproduction, trade cycles
- Lebowitz, M.A., 3n
- legislation  
 Bank Acts 1857, 1858, 154  
 Catholic emancipation 1829, 449  
 Factory Acts 1850, 1853, 1863, 456–7  
 Free Trade 1846, 449  
 Joint-stock Acts 1855, 1856, 1862, 498  
 Peel’s Act 1844, 285, 449  
 Police reform 1829, 1835, 1839, 449  
 Tariff reform 1842, 449  
 Ten Hours’ Act 1847, 447–8, 449, 450, 452, 454, 490
- Leontief, W., 480n
- Lenin, V.I., 497
- Lerner, A., 400n
- Levine, N., 444n, 490
- Levy, D., 403n
- Lipietz, A., 22n, 45n
- List, F., 188–90, 193, 230
- Longfield, M., 479
- Lowe, R., 500
- Lucas, R.E., 403n
- Luxemburg, R., 82
- luxury goods  
 as index of credit worthiness, 469  
 and profit-rate determination, 13, 41, 293, 309, 311–12, 324, 473, 488
- Machlup, F., 43, 470
- management *see*: entrepreneurship, labor, surplus value, wage rate
- Mandel, E., 85, 165n, 166, 169n, 172n, 182, 192n, 211n
- Mangoldt, H., 430n
- Malthus, T.R., 14–15n, 15, 17n, 57n, 62, 96n, 230, 445  
 on cyclical-secular relation, 351  
 and effects of free trade on prices and wages, 225  
 and falling profit rate, 129–30  
 and inverse wage-profit relation, 479  
 his land-based growth model, 175, 479  
 opposed by J.S. Mill, 150, 284  
 and population growth, 86, 99, 178, 192, 250–1, 445, 465  
 and prediction, 477  
 on prospects for real-wage improvement, 106–9  
 and prudential population control, 107, 381, 465  
 and surplus value, 260, 301–2  
 and underconsumption, 67, 130–1, 150, 160, 182, 284, 290, 350–1, 352  
 and unproductive consumption, 285  
 on working-class consumption, 285, 350–1  
 “market value”  
 dependence on demand, 12–13, 36, 38, 471  
 and intra-commodity competition, 12–13, 31–8, 294–5  
 as weighted costs, 34–6
- Marshall, A., 11, 28, 295, 469
- Marx, Karl  
 his case against egalitarianism, 385, 386–7  
 changes attitude towards industrial capitalism, 7, 438–43, 466–9, 470, 488  
 commends Engels’s *Outlines*, 187  
 on composition of *Capital*, 3–4  
 his debt to Engels summarized, 488–90  
 his evolutionism, 1, 7, 386, 406–8, 458, 482–3, 497–8  
 his fear of money and markets under communism, 399, 400  
 hostile to utopian socialism, 7, 386–96  
 his ideological perspective on historiography, 17, 57, 263–4, 474  
 his Malthusian perspective on secular underconsumption, 129–32, 160, 184, 285, 290, 349–51, 352  
 his Millian perspective on trade cycles, 134, 139, 142–3, 150–1, 349  
 minimizes significance of income redistribution, 388, 404  
 rejects labor theory of value, 23–4, 48, 294–5, 299  
 his “revisionism”, 444, 449–61, 461–2  
 his strategy in *Capital*, 13, 48–53  
 his technological determinism, 410, 466  
 his transition to “Marxism” 1847–49 *vs.* 1843–45  
 (1) 1843–5  
 condemns Ricardian “abstraction”, 169–71, 228, 467  
 defends Say against charges of self-interest, 188  
 his “humanism”, 166

- Marx, Karl (*cont.*)  
 represents Ricardo as apologist, 177–82, 192  
 takes Proudhonist approach to surplus value, 168–9, 187, 191–2, 229  
 (2) 1847–49  
 defends Ricardo’s “cynical” language against French writers, 207, 229  
 objects to Malthusianism, 220–2, 230  
 objects to Proudhon on source of surplus value, 209–11, 229  
 objects to Proudhon’s “abstractions”, 196, 210, 228  
 objects to Proudhon’s egalitarianism, 199, 203–4, 387–8  
 objects to Proudhon’s labor theory of value in favor of Ricardo’s, 197–9  
 his qualified adoption of Ricardo’s inverse wage-profit relation, 212–14, 225–6  
 his Ricardianism summarized, 227–31  
*see also: Capital, Economic Manuscripts, Engels, Grundrisse, methodology, social reform*
- März, E., 410n
- Mason, E.S., 480n
- Matthews, R.C.O., 160
- materials  
 and profit-rate determination, 13, 40–1, 125, 128, 311–12, 325, 473  
 and trade cycles, 143–5, 345–6
- McCulloch, J.R., 57n, 66, 165, 170, 176, 219n, 281–2, 337n, 472–3, 485
- McLellan, D., 235, 258, 458
- Meade, J.E., 484
- Medio, A., 11, 41n
- Meek, R.L., 22n, 113, 118, 119, 123, 326n, 487
- Meissner, O., 3
- mercantilism, 227, 321, 475
- methodology  
 “abstract to concrete”, 25–6  
 and “counteracting tendencies”, 107, 110–11, 119, 124, 254, 441–2, 477–8  
 and “eclecticism” of Ricardians, 63, 236, 477  
 and evolutionism, 1, 7, 386, 406–8  
 vs. illusions regarding capital-population relation, 376  
 vs. illusions regarding labor power, 287  
 vs. illusions regarding laborers’ consumption, 288–9, 290  
 vs. illusions regarding profit as surplus value, 241, 244, 252, 255, 301, 312–13, 314–17
- M’s early focus on real world of markets, 166, 189, 192, 193, 228
- M’s early opposition to Ricardo’s “abstractions”, 169–71, 181, 192, 300, 467
- M’s opposition to Proudhon’s “abstractions”, 196, 228, 388
- M’s scientific strategy, 13, 48–53, 470, 486  
 and prediction, 1, 52, 86, 90, 106, 110–11, 137, 466, 477–8, 479–83  
 on Ricardo’s “scientific” method, 197, 228
- Sraffian, 486  
*see also: Capital, historiography, labor power, Marx, surplus value*
- Meyer, R., 260
- Mill, J., 6, 56, 57, 151, 165, 167, 178, 190, 205, 281–2, 305, 338
- Mill, J.S.  
 on abstinence, 63, 477  
 on adjustment to cost variation, 29n, 426n  
 his alleged “syncretism”, 63, 477  
 on capital replacement, 59–60  
 on cooperation, 392  
 his demand-supply analysis, 14, 15, 16  
 his dual approach to wages, 287  
 on falling profit rate and centralization, 442n  
 favors limited liability, 500  
 on interest rate as “known”, 314n  
 on insurance premiums, 430n  
 and inverse wage-profit relation, 63, 311n, 414, 473  
 and knowledge creation, 421, 469  
 on labor’s “dependence”, 172n  
 on law of markets, 130, 150, 284, 290  
 his Laws of Production and Distribution, 403  
 and prediction, 477, 481  
 and profit-rate differentials, 469  
 on profit-rate uniformity, 418n  
 rejects Smith’s case against joint-stock organization, 439n  
 and social reform, 106  
 Sraffa on, 11, 485  
 and surplus value, 259, 297, 414, 474–7  
 and synchronized activity, 470  
 and trade cycles, 139, 142, 284, 346, 349, 351  
 and trade unions, 460  
 and uncertainty, 468, 469  
 on upward real-wage trend, 481  
 on wage structure, 58, 394, 437n  
 and wages of management, 416n, 417n  
 on workers’ cultural development, 238n
- Mises, L. von, 386, 402–5, 444, 462, 497–8
- Molinari, G. de, 63
- money  
 absence under communism, 392, 399, 403  
 and accumulation, 238, 287  
 Banking and Currency Schools, 151, 283, 285



- and Birmingham inflationists, 282–3, 290  
 and departmental analysis, 72–3  
 excess demand for, 273, 275, 284, 344, 346  
 as general form of wealth, 238, 242–3, 287  
 and interest rate, 314  
 and inverse wage-profit relation, 38  
 and Proudhon as “money conjurer”, 283  
 and realization of exchange value, 271, 274,  
 282–3  
 and surplus value, 242–3, 244–5  
 and trade cycles, 150–6, 273–4, 283–4, 284  
 and Transformation, 21, 24–5  
 value of, 200  
*see also*: credit system, interest rate, law of  
 markets
- monopoly  
 and joint-stock organization, 438, 471  
 of land, and absolute rent, 31, 304–5, 306,  
 471  
 threatens allocative process, 200–1, 228, 441,  
 470–1  
 and trade cycles, 471  
 and Transformation, 471  
*see also*: centralization, industrial  
 organization
- Moore, S., 392  
 Morishima, M., 2, 12, 22n, 24n, 25, 43, 48n, 77n,  
 82, 100, 484, 487  
 Moseley, F., 7n  
 Moss, L.S., 12n
- Napoleon III 396–7  
 national income accounting, 5, 55, 179–80, 327,  
 331, 336–8, 493–5  
 Necker, J., 259n  
 Nelson, A., 7n, 243n, 285, 394n  
 neo-Ricardianism, 11, 487  
 Neumann, J. von, 484, 487  
 Neurath, O., 400n  
 Newmarch, W., 154–5  
 Nicolaus, M., 4n  
 Nikaido, H., 17n, 38n  
*Notebooks* (1843–45), 4, 6, 151, 165, 175,  
 191
- Oakley, A., 2n, 5n, 48n, 165n, 166, 174n, 179n,  
 184n, 235, 241n, 255  
 O’Brien, D.P., 12n, 14n, 472n  
 Ong, N.P., 92n  
 Opdyke, G., 423n  
 Orzech, Z.B., 5, 110, 114, 235, 253n
- overproduction (cyclical), 136, 138, 146, 147,  
 150, 177, 182–4, 220, 280, 280–5, 290,  
 338, 341–4, 349, 352, 354  
*see also*: law of markets, trade cycles,  
 consumption decisions
- overproduction (secular), 182–4, 270–1, 276–80,  
 285, 290, 326, 338–41, 341–4, 349–51,  
 352  
*see also*: underconsumption
- Overstone, Lord, 154, 499–500  
 Owen, R., 390n, 446n, 457
- Padower, S.K., 3  
 Panico, C., 487n  
 Patinkin, D., 470n  
 Payne, P.L., 499  
 Pecqueur, C., 182n  
 Peel, Sir R., 283n, 449  
 Perelman, M., 93n, 124–5  
 Petty, Sir W., 471n  
 Physiocracy, 17, 74, 84, 167, 185, 190, 225,  
 313  
 and *Tableau Economique* 70, 74, 326,  
 351  
*see also*: Quesnay, Turgot
- Pokorni, D., 25–6, 44n  
 Pomer, M., 408n  
 Popper, K.R., 407n
- population growth, 6, 76, 86–7, 88, 89, 92–4,  
 97–100, 106, 216–17, 246–51, 334, 352,  
 353, 368–75, 478  
 absent in early analysis, 172, 176  
 data on, 103, 107, 381  
 endogenous, 220, 230, 246, 249, 266, 378–80,  
 488  
 free to capitalist, 370, 421  
 mechanics of, 103–4, 375–6, 377–8, 380–1  
 objections to Malthus, 106–9, 220–2, 230,  
 250–1, 381, 489  
 and Reserve Army of Unemployed, 248–50,  
 368–75  
 and subsistence wage, 90–2, 246, 266
- Potier, J.P., 485, 486n  
*Poverty of Philosophy* (1847), 6, 194, 197, 203,  
 204, 206, 207, 212, 214, 223, 227, 229,  
 258, 387, 396, 397, 446, 459, 461, 496
- Prévost, G., 170–1, 176  
 prediction *see*: methodology  
 price mechanism *see*: allocative mechanism  
 price theory *see*: value  
*Principles of Communism* (1847), 444, 489
- private property  
 defense of Sismondi, 188  
 early condemnation of Ricardo, 176–82  
 and inevitability of overproduction, 183–4,  
 192  
*see also*: *Holy Family*

- profits  
 of “alienation”, 314, 418  
 and dividends of stock companies, 437–8, 441–2  
 of “enterprise”, 430–4, 437–8, 439, 441–2  
 innovatory, 427–8, 467–8  
 and interest, 55–6, 174, 266, 296–7, 312–18, 324–5, 415–16, 431–2, 438  
 and managerial wages, 415, 431  
 and rent, 266, 296–7, 307, 324–5  
 and supervisory function, 414–17  
 source in surplus value, 12–13, 17–21, 50, 239, 416–17, 437–8  
*see also*: entrepreneurship, inverse wage-profit relation, methodology, surplus value
- profit-rate equalization *see* profit-rate formation
- profit-rate formation  
 absolute rent and priority of industrial sector, 6, 293, 297–306, 324–5, 465, 471, 473  
 and allocative process, 12, 38–40, 293–7, 487–8  
 applies to excess over contractual interest and rent, 52–3, 296–7, 316, 324  
 and credit system, 295–6  
 inclusive of luxury goods, 309, 312, 324, 473  
 and joint-stock companies, 31, 111, 465, 471  
 and materials, 311–12, 325, 473  
 and net investment, 295  
 threatened by monopoly, 438–9, 441  
*see also*: agriculture, Transformation
- profit-rate trend, 2–6, 111–14, 114–17, 118–20, 120–3, 127–9, 160, 191, 252–4, 306–11, 352, 477–9  
 applies to entire surplus value, 297, 307, 316  
 counteracting tendencies, 110–11, 119, 124, 140, 254, 441–2, 477–8  
 empirical rate of decline, 310  
 and effect on accumulation, 311  
 and free trade, 225–6  
 and land scarcity, 127–9, 224–5, 478–9  
 Malthusian analysis of, 129–32, 160, 285, 290, 349–51, 352  
 significance of decline, 132–3, 140–1, 306–11  
 and underconsumption, 111, 129–32  
 Smithian analysis, 173–5, 176, 191, 223–4, 231, 306–7, 352  
*see also*: canonical classical economics, law of markets, methodology, surplus value (rate of), trade cycles
- profit-rate uniformity *see* profit-rate formation
- Proudhon, P.J., 6, 165, 184–8, 192, 194, 195, 227–8, 288n
- his “abstract” method, 196, 210, 228, 244, 388  
 his egalitarian principles, 199, 203–4, 209–10, 387–8, 396  
 and falling profit rate, 223, 252  
 and falling real wages, 214, 387–8  
 and French socialism, 403  
 on interest, 294, 317  
 his labor theory of value, 197–201, 203, 387, 397–8  
 as “money conjurer”, 283  
 his neglect of demand, 397  
 his nihilism regarding social reform, 459–61  
 on rent, 204–6  
 his Smithian “adding-up” cost approach, 212–13, 446, 459  
 on surplus value, 168–9, 171, 187, 209–11, 212, 229, 243–4, 317, 388
- Pullen, J.M., 450n
- Quesnay, F., 226, 326n, 351  
*see also*: Physiocracy
- Ramirez, M.D., 85, 102
- Ramsay, G., 56, 239, 257, 261, 262, 416, 429–30, 432, 475
- Ravenstone, P., 259, 413
- rent  
 absolute, 6, 12, 29–31, 266, 293, 297–306, 473  
 confiscation proposals rejected, 205–6, 229, 396, 406, 470  
 as contractual income, 296, 316  
 differential, 12, 37, 167–8, 189, 191, 204–6, 224, 299, 495–7  
 and interest, 317  
 source in surplus value, 317–18  
*see also*: agriculture, competition, profit-rate formation,
- reproduction schemes, 2, 4, 6, 55, 484, 494  
 and constant capital “riddle”, 326–34, 351–2  
 “extended”, 75–83, 158, 334–8  
 “simple”, 55–8, 68–74, 326–34, 351  
 and trade cycles, 147–9, 157–9, 161, 343  
 and traverse, 75, 82, 83–4
- Reserve Army of Unemployed *see*: labor market, trade cycles
- revisionism *see*: Engels, Marx, social reform
- revolution, 407, 497–8  
*see also*: communism, Engels, Marx, social reform
- Riazanov, D., 4n
- Ricardian Socialists, 241n, 402n, 409n
- Ricardo, D., 57, 63, 108n, 132n, 165, 195, 227–31, 242n, 281, 320n, 445, 471, 486

- on abstinence, 477  
 his alleged “abstraction”, 169–71, 181, 192, 228, 300, 467  
 and alleged priority of agricultural profit rate, 305  
 as “apologist”, 177–82  
 on cost price, 17, 29n, 168–71, 197, 201–3, 204, 228–9, 398, 472  
 on credit and profit-rate formation, 296  
 defended against List, 190  
 on demand pattern and income distribution, 45, 47  
 on demand-supply analysis, 13, 15, 170, 196, 198–9, 200, 398  
 and endogeneity of agricultural margin, 15, 189, 193, 204–5, 497  
 on factor substitution, 95n  
 on falling profit-rate, 145, 252, 306, 311  
 and general equilibrium, 196, 398  
 “On Gross and Net Revenue”, 177–8, 179–80, 192  
 identifies  $s/v$  and  $s/(c+v)$ , 41, 128, 143, 236, 252, 260n, 311–12, 325, 473  
 on international trade, 180, 227  
 on labor as commodity, 206–7, 229  
 his labor theory of value, 197–201, 203–4, 294–5, 299, 387, 487  
 his land-based growth model, 128–9, 175, 176, 189–90, 191, 225–6, 229, 231, 477  
 and law of markets, 130, 182–4, 280–1, 338, 340, 342  
 on luxury sector and profit-rate determination, 41, 311–12, 473  
 “On Machinery”, 89, 95, 361, 363–7  
 on materials and profit-rate determination, 40–1, 311–12, 473  
 his measure of value opposed to Smith’s, 199  
 on motive to accumulation, 67–8, 311, 336–8  
 his national income accounting, 59, 327, 336–8  
 his neglect of “labor power”, 265  
 on population growth, 176, 251, 376  
 and prediction, 477  
 on private-property system, 176–82  
 and random technical change, 251  
 and rent, 31, 189, 204–5, 229, 495–7  
 and surplus value, 260–5, 474  
 and social reform, 106  
 and subsistence wage, 175–6  
 and synchronized activity, 470  
 on value and distribution, 11–12, 196  
 on wage differentials, 203–4, 265  
*see also*: canonical classical economics, inverse wage-profit relation
- risk  
 and falling interest rate, 311, 346  
 and insurance, 429–30, 435, 467  
*see also*: entrepreneurship
- Robbins, L.C., 3, 250n  
 Robertson, D.H., 160n, 484  
 Robinson, J.V., 71, 76n, 77, 100, 112–13, 119, 131–2n, 157–8, 463n, 480n, 484–5, 487, 495  
 Rodbertus-Jagetzow, J.K., 149, 194, 241, 259–60, 294, 300, 302, 304, 394n, 398–9, 400, 409  
 Roemer, J.E., 463n  
 Romani, P.M., 410n  
 Roncaglia, A., 11n, 12n, 485  
 Roscher, W., 418n  
 Rosdolsky, R., 4n, 85, 88, 98, 118, 123n, 166  
 Rosenberg, N., 128, 410, 419n, 422n, 420, 426n, 440, 468, 471n, 488  
 Rossi, P.L.E., 207, 413  
 Rubel, M., 2–5, 124n, 165n, 169n, 178–9, 184n, 186n, 187n, 194, 195n, 208n, 211n, 214n, 218n, 221n, 224n, 229, 235, 389n, 390n, 495
- Saint-Simon, C.H., de, 185, 186  
 Salvadori, N., 11n  
 Samuelson, L., 100  
 Samuelson, P.A., 2, 13, 22n, 31n, 47n, 53–4, 168n, 465n, 479, 483n, 484, 487n, 495  
 Sardoni, C., 132n  
 Sari, O., 22n  
 Say, J.B., 15, 16, 57, 62n, 66n, 165, 181, 188, 191, 192, 206, 445  
 on abstinence, 172  
 on cost price as “chimerical”, 169–70, 185, 192, 197, 200  
 and general equilibrium, 196  
 on international trade, 180–1  
 and knowledge creation, 477  
 his law of markets, 130, 182–4, 192, 281–2, 338, 340  
 on land ownership as “plunder”, 178–9  
 his objections to Ricardian political economy, 179–81  
 and private property axiom, 185  
 on Ricardo’s gross-net revenue distinction, 177–8, 192  
 on Ricardo’s rent doctrine, 497n  
 and surplus value, 168, 191–2  
 Say’s Law *see* law of markets  
 Schefold, B., 128, 487n

- Schulz, W., 182n, 214n
- Schumpeter, J.A., 23–4n, 196n, 406n, 409–11, 428, 439, 441, 466n, 469, 477, 484, 488
- Scrope, G.P., 63
- science
- and agriculture, 396, 495–6
  - applied, 419–20, 421, 466
  - funding, 420–2
  - and knowledge creation, 420–3, 430–1, 440, 466, 477
  - and limited liability, 499
  - and market expansion, 277, 290
  - modern planning of, 466
  - and population, 248, 489
  - and uncertainty, 423–4, 466
- Seccombe, W., 86
- sectoral analysis *see*: reproduction schemes
- Semmler, W., 12n, 38n
- Senior, N., 63, 414, 450, 469, 477, 485
- Service, R., 497
- Seton, F., 22n
- Shannon, H.A., 498n
- Sieber, N., 476n
- Sinha, A., 3n, 22n, 45n, 87, 90n, 91n, 104n
- Sismondi, J.C.L., Simonde de, 56, 62n, 78n, 81, 150, 151n, 165, 181, 186, 188, 192, 200n, 201, 228, 271n, 281, 285, 349–51, 357, 378n, 475–6
- Smith, A., 11, 14n, 56, 165, 180–2, 188, 203n, 212, 260–1, 296, 320n, 354, 414, 416n, 439n, 445, 494n
- and accumulation, 61, 337–8
  - his “competition”, 16, 36, 196–7
  - on “competition of capitals” and falling profit-rate trend, 140n, 173–5, 176, 191, 195, 215, 224, 231, 266, 307, 348, 352
  - on cost price, 16, 17, 166–7, 170, 191, 296, 472
  - on demise of rentier, 173
  - on division of labor, 428n
  - and falling wage trend, 173, 175, 176, 191
  - and industrial organization, 411, 412–13
  - on interest and risk of default, 429n
  - on labor’s claims, 177–8
  - his labor theory of value, 197
  - on land use, 303
  - his measure of value, 199, 260–1, 264
  - his national-income accounting, 5, 55, 178, 179, 326–7, 331, 337–8, 351–2, 493–5
  - and Physiocracy, 167, 185
  - and population growth, 103, 370
  - on rent as monopoly price, 304
  - on rent-free land, 168, 191
  - and subsistence wage, 172, 185–6, 191
  - on usury laws, 468n
  - his wage structure, 58, 223, 394
- social reform, 7–8, 106
- and collapse of capitalism, 482, 490–1
  - and *Communist Manifesto*, 461
  - and cooperation, 451, 457–8
- Engels and, 490–1
- and factory legislation, 447–8, 449, 450–1, 452–7, 462, 481
  - and free trade, 445–6, 461
- M. opposed to Proudhon regarding, 459–60
- principles of, 444–6, 447–55, 459, 461–2
  - and “revisionism”, 444, 461, 479–83, 497–8
  - and trade unions, 446–7, 458–60, 461, 481
  - and wage trends, 451–2, 459–60, 461, 481–2
  - and working-class suffrage, 456, 461
- socialism
- as first stage of communism, 385
  - “vulgar”, 293, 313, 317–18
- Source and Remedy of the National Difficulties* (1821), 258
- Sowell, T., 4, 85, 142n, 151n, 256n, 398n, 409, 470, 472n, 484n
- Sraffa, P., 2, 8, 11, 485–8, 495
- Steedman, L., 2, 41n, 112, 487n
- Steuart, Sir James, 363
- Stigler, G.J., 16
- Storch, H., 272n, 494n
- surplus value, as unpaid labor time, 17–18, 20–1, 48, 56, 169, 210–12, 230, 236, 239–40, 241, 242, 261, 263, 265, 269, 296, 313, 323, 470, 474
- and abstinence, 477
  - absolute *vs.* relative, 121, 242, 247, 261, 276–8, 429
- Bray on, 210, 212, 229–30
- as class prerogative, 414
  - and commercial capital, 318–24
  - disintegration of doctrine, 463, 482–3
  - and just income distribution, 386–7
  - M’s defense of, 271–3, 289–90, 320–4, 411, 414, 418, 426–8, 432–3, 435, 441, 466–8
  - Mill on, 414, 474–7
  - as motive of capitalist production, 336
  - obscured by market, 241, 244, 252, 255, 301, 313, 315, 437–8
  - origins of idea, 192, 194–5, 208–9, 210–12, 229–30, 258–60, 260–5, 265, 471–7
  - and “profits of enterprise”, 430–4
  - Proudhon on, 168–9, 171, 187, 192, 209–11, 229–30, 243–4, 387–8
  - realization of, 5, 6–7, 19, 59, 129, 236, 268, 273, 275, 276–7, 320, 322, 324, 325, 339, 346, 352, 465–6, 483

- and return to management, 434
- Ricardo on, 260–5, 472, 474
- Sraffa on, 485–8
- and uncertainty, 418, 441, 466, 468
- see also*: Engels, labor power
- surplus value, rate of ( $s/v$ )
  - defined, 23
  - as endogenous variable, 13, 43–5, 52
  - limits to increase, 253, 308–9, 325
  - vs.* profit rate, 236, 252, 325
  - and profit-rate decline, 111–14, 118–20, 120–3, 236, 253, 266, 325
  - and Sraffa, 486–7
  - uniformity, 42–3
- Sweezy, P.M., 24n, 41, 71n, 85n, 86n, 87n, 96n, 109, 113, 114, 128n, 410, 411, 440, 466, 487
- synchronized activity *vs.* advances, 6, 56–7, 208, 268–73, 316, 352, 353–60, 470
  - and working-class consumption, 285–7, 290, 352, 357–9, 470
- technical change
  - and aggregate labor demand, 96, 107, 360–8, 381
  - capital-saving, 128
  - and cost-price reduction, 37–8, 96, 215–16, 471
  - exogenous, 89, 95
  - and falling profit-rate, 115, 123–7, 127–9
  - and industrial organization, 439
  - and innovatory investment, 425–8
  - and limited liability, 499
  - and minor improvements, 341, 428–9
  - and overproduction, 341
  - and population growth, 248, 372, 378–80, 380–1
  - and realization problem, 277
  - and substitution against labor, 95, 108, 381
  - random, 251
  - and scale, 250, 251, 310
  - and science, 120, 248, 430, 440
  - speculative, 140–1
  - and technological determinism, 128, 410, 426, 429
  - and trade cycles, 346–7
  - and transitory innovatory profits, 427–8
  - and uncertainty, 440–2, 499
  - and working-class conditions, 89
  - see also*: agriculture, capital, science
- technological determinism, 410, 429, 466
  - see also*: historical materialism
- Theories of Surplus Value see Economic Manuscripts*
- Thompson, W., 210, 240n, 241n, 485
- Thünen, J.H. von, 430n
- Times*, 453n
- Tinbergen, J., 484
- Tomass, M., 403n
- Tooke, T., 154–5, 211n, 285, 345n, 469n, 476
- Torrens, R., 346, 371n, 485
- trade cycles
  - and capitalists' consumption, 145, 149, 343–4
  - chronology, 135–9, 145, 152–3, 154–5, 442–3, 491
  - corrective mechanisms, 347–9, 443
  - and credit system, 134, 149, 150–6, 278, 283–4, 347, 438–9, 442, 499
  - crises and falling profit rate, 132–3, 139–43, 306–7, 471
  - and departmental analysis, 147–8, 157–9, 161
  - echo effect, 159–60, 161
  - and entrepreneurship, 417
  - and labor shortage, 149–50
  - and material shortage, 143–5, 344–5
  - Mill's approach silently followed, 134, 139, 142–3, 150–1, 349
  - and Reserve Army of Unemployed, 100–2, 102–3, 147, 221–2, 230, 250, 266–7, 353, 373–4, 488–9
  - and secular trend, 139–43, 144, 158, 160, 341–3, 351, 352, 484, 491
  - and secular underconsumption, 223–4, 231
  - and sources of instability summarized, 344–7
  - and tendency to monopoly, 471
  - underconsumptionist explanations rejected, 134, 145–50, 160–1, 343–4
  - worsening, 220, 223–4, 231, 489, 495
  - see also*: overproduction (cyclical)
- trade unions, 222–3, 446–7, 458–60, 481, 482
  - and limited wage effects, 460, 490
  - New Union movement, 490
  - political effects of, 447, 458
- Transformation of values into prices, 4, 12, 17–22, 112, 254–6, 266, 293, 293–4, 300–2, 305, 314, 470
- aborted, 297–302, 305
- and allocative mechanism, 12, 23–8, 254, 293–4, 470–1
- Baumol-Samuelson exchange, 13, 53–4
- historical, 25, 28, 302–3
- noetical, 25–6, 28
- see also*: agriculture, competition, profit-rate formation, value
- Tucker, G.S.L., 86
- Tucker, Josiah, 412

- Tucker, R.C., 386n, 444n  
 Turgot, A.R.J., 313  
 Tuttle, C.A., 430n
- Uebel, T.E., 400n  
 uncertainty *see*: entrepreneurship, risk  
 underconsumption *see*: law of markets, Malthus,  
   profit-rate trend, trade cycles  
 United States, 86, 90, 137, 200, 452  
 Ure, A., 89, 104, 220, 367–8, 412–13, 428n, 435,  
   440, 441, 442, 450
- value  
   and cost price, 15, 17, 31–8, 166–7, 168,  
     169–71, 185, 191, 200, 200–1, 201–3, 204,  
     228–9, 295–6, 472  
   and demand-supply analysis, 12, 13–17, 170,  
     195–6, 199, 200, 200–1, 204, 227–8,  
     293–4, 295, 397–8  
   early analysis, 190, 191, 166–71  
   and general equilibrium, 11–13, 19, 195–6,  
     199, 227, 293–4, 316, 487–8  
   irrelevant under communism, 399  
   and “market” value, 31–8  
   “reply” to Böhm-Bawerk, 5, 256–7, 266  
   *see also*: competition, inverse wage-profit  
     relation, labor theory of value, market  
     value, surplus value, Transformation  
*Value, Price and Profit* (1865), 88–9, 90, 100,  
   145–6, 147, 450  
 Vaughn, K., 405  
*Verbal Disputes* (1821), 14–15n
- Wade, J., 222n, 223n  
*Wage Labour and Capital* (1849), 6, 58, 194, 197,  
   200, 207, 211, 213, 214, 217, 218, 223,  
   226, 230, 258
- wage rate  
   downward trend, 6, 85–8, 88–90, 94–100, 106,  
     191, 214–21, 230, 266, 353, 367–8, 377–8,  
     380, 381, 447, 451–2, 477–9, 480–3, 488,  
     489  
   as endogenous variable, 13, 43–5, 52,  
     488  
   early analysis, 166, 172–3, 175–6  
   and final demand, 13, 46–7, 50–1  
   and free trade, 224–7, 231, 445–6  
   labor mobility as detriment, 223  
   managerial, 415, 431, 434, 437–8  
   and population growth, 6, 86–7, 94–100, 106  
     230, 246–7, 266, 334, 352, 371, 464, 478  
   precludes working-class saving, 288  
   and relative immizeration, 213–14  
   structure, 28, 58, 41–3, 203–4, 223, 265,  
     394–5  
   subsistence, 88, 90–4, 172, 206, 229, 238–9,  
     246, 266, 287, 464, 489  
   and substitution of machinery, 108, 381, 424,  
     447, 489  
   and trade cycles, 100–2, 145–50  
   and trade unions, 222–3, 447, 458–60,  
     481–2  
   *see also*: labor market, labor power, social  
     reform, surplus value, synchronized  
     activity  
*Wages* (1847), 6, 194, 218, 224, 230  
 wages fund *see*: synchronized activity  
 Wagner, A., 386  
 Wakefield, E., 278n, 423  
 Waterman, A.M.C., 465  
 Walras, L., 11, 12n, 196, 295  
 Weintraub, E.R., 1  
 Weitling, W., 165  
 West, Sir Edward, 477  
 West, E.G., 42n, 450n, 453  
 Whitaker, J.K., 469  
 Wicksell, K., 401n  
 Williams, P.L., 470n  
 Winternitz, J., 21–2n  
 Wolff, E.N., 112  
 Wolfson, M., 55n, 100, 166, 480n, 482  
 Wright, T., 283n
- Young Hegelians, 184n