

**INDUSTRIAL
POLICY IN
EUROPE
AFTER 1945**

**Wealth, Power and
Economic Development
in the Cold War**

Edited by
**CHRISTIAN GRABAS and
ALEXANDER NÜTZENADEL**



Industrial Policy in Europe after 1945

Industrial Policy in Europe after 1945

Wealth, Power and Economic Development in the Cold War

Edited by

Christian Grabas

Research Assistant, Humboldt University Berlin, Germany

and

Alexander Nützenadel

Professor of Social and Economic History, Humboldt University Berlin, Germany

palgrave
macmillan



Editorial Matter, selection and introduction © Christian Grabas and Alexander Nützenadel 2014

Remaining chapters © Respective authors 2014

Softcover reprint of the hardcover 1st edition 2014 978-1-137-32989-9

All rights reserved. No reproduction, copy or transmission of this publication may be made without written permission.

No portion of this publication may be reproduced, copied or transmitted save with written permission or in accordance with the provisions of the Copyright, Designs and Patents Act 1988, or under the terms of any licence permitting limited copying issued by the Copyright Licensing Agency, Saffron House, 6–10 Kirby Street, London EC1N 8TS.

Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.

The authors have asserted their rights to be identified as the authors of this work in accordance with the Copyright, Designs and Patents Act 1988.

First published 2014 by

PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

Palgrave® and Macmillan® are registered trademarks in the United States, the United Kingdom, Europe and other countries.

ISBN 978-1-349-46074-8 ISBN 978-1-137-32990-5 (eBook)

DOI 10.1057/9781137329905

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

Typeset by MPS Limited, Chennai, India.

Contents

<i>List of Figures</i>	vii
<i>List of Tables</i>	ix
<i>Acknowledgements</i>	xii
<i>List of Contributors</i>	xiii
Introduction	1
<i>Christian Grabas and Alexander Nützenadel</i>	
Part I Western Europe	
1 European industrial policies in the post-war boom: 'Planning the economic miracle' <i>James Foreman-Peck</i>	13
2 The state and industrial policy in Britain, 1950–1974 <i>Martin Chick</i>	48
3 What's in a name? French industrial policy, 1950–1975 <i>William James Adams</i>	67
4 Ensuring economic growth and socioeconomic stabilization: Industrial policy in West Germany, 1950–1975 <i>Stefan Grüner</i>	86
5 Swedish industrial policy: From general policies to crisis management, 1950–1980 <i>Jan Bohlin</i>	113
6 Planning the economic miracle? Industrial policy in Italy between boom and crisis, 1950–1975 <i>Christian Grabas</i>	134
7 Was it a Spanish miracle? Development plans and regional industrialization, 1950–1975 <i>Joseba De la Torre and Mario García-Zúñiga</i>	162
Part II Transnational and Global Perspectives	
8 Towards a global history of the Marshall Plan. European post-war reconstruction and the rise of development economic expertise <i>Daniel Speich Chassé</i>	187

9	Towards a European industrial policy? The European Economic Community (EEC) debates, 1957–1975 <i>Laurent Warlouzet</i>	213
10	Entangled industrialization. The EEC and industrial development in Francophone West Africa <i>Martin Rempe</i>	236
11	The EEC and the challenge of the ACP states' industrialization, 1972–1975 <i>Guia Migani</i>	256
Part III The Soviet Bloc		
12	Industrial policy and its failure in the Soviet Bloc <i>Ivan T. Berend</i>	279
13	Planning priorities, managing shortages: Industrial policy in the German Democratic Republic, from Stalinism to welfare dictatorship <i>Ralf Ahrens</i>	300
14	Economic growth and the industrial development policy in Hungary, 1950–1975 <i>Pál Germuska</i>	321
15	Industrial performance in the USSR: Influences of state priorities, economic system, industrial policies and hidden processes, 1945–1980 <i>Christopher Mark Davis</i>	337
	<i>Index</i>	372

List of Figures

1.1	Distribution of European industrial production in relation to population, 1950 (1 = average)	18
1.2	Labour productivity in manufacturing in selected countries, 1950 (UK = 100)	19
1.3	Industrial growth and convergence in Western Europe, 1948–1962	20
1.4	European growth and convergence, 1950–1973	21
1.5	Electricity production growth in selected European countries, 1938–1962	26
1.6	Effective rates of assistance to selected West German industries, 1958–1975	28
1.7	Military commitment in industrial man years per 1000 inhabitants in selected countries, 1950 and 1951	31
1.8	Economic growth, 1950–1973 (annual percentages) and national coordination in Western Europe (Belot Index) during the ‘Economic Miracle’	37
1.9	Economic growth in Western Europe, 1950–1973 (controlled for ‘catch up’ potential and national coordination)	38
1.10	Export growth and GDP per capita growth in Western Europe, 1950–1973 (controlled for convergence)	43
5.1	The share of Swedish exports in GDP, 1920–1980 (in percentages)	116
5.2	The evolution of inter-industry wage dispersion. Coefficient of variation for male hourly wages in the Swedish manufacturing and mining industry, 1950–1980	119
5.3	Employment shares for various sectors in the Swedish manufacturing and mining industry, 1950–1980 (in percentages)	120
5.4	Labour productivity, real wages, and product wages in the Swedish manufacturing and mining industry, 1950–1980 (1950 = 100)	126

6.1	Real per capita GDP in selected Western European countries and in the United States, 1938–1990 (in 1990 US \$)	136
6.2	Periods of real per capita GDP development in Italy, 1938–1990 (in 1990 US \$)	137
7.1	Spanish industrial policy, 1959–1975	168
7.2	Spain's gross domestic product (GDP) by sector, 1930–1975 (in percentages)	170
7.3	Automobile output in the growth pole provinces in Spain, 1953–1999	177
7-A.1	Growth poles selected by the Planning Commission (light grey) and by local institutions (dark grey) in Spain	181
12.1	Soviet GDP compared with Western Europe's GDP, 1913–1950 (in percentages, Western Europe's GDP = 100)	284
12.2	European exports, 1950–2000 (in trillion US \$)	294
13.1	Shares of selected industrial sectors in overall gross investment in the GDR, 1955–1989 (in percentages)	304
13.2	East German gross investment quotas, 1949–1989 (in percentages of national income)	313
14.1	The economic growth of Hungary's NMP in current and constant prices, 1951–1975 (in percentages)	323
14.2	The distribution of industrial investments in Hungary, 1950–1975	329
15.1	Industry, the economic system and industrial performance indicators	340
15.2	Financial flows of producers (firms) in the Soviet second economy	346
15.3	Estimates of rents extracted from the Soviet oil and gas industries, 1970–1990	362

List of Tables

1.1	Sectoral distribution of R&D in manufacturing in selected Western European countries and in the United States, 1967 and 1975 (government-financed as percentage of total government R&D)	29
1.2	Defence expenditure in Western Europe, 1950–1975 (in percentages of GNP)	31
1.3	'Catch up' growth and opening up, 1950–1973	42
2.1	Gross fixed capital formation (GFCF) in the United Kingdom by industry group, 1950–1975 (in percentages)	50
2.2	Gross national product (GNP) in the United Kingdom by industry, 1950–1975 (in percentages)	51
3.1	Growth of gross domestic product (GDP) in selected countries for selected intervals, 1870–1979	68
3.2	Growth of gross domestic product (GDP) per capita in selected countries, 1950–1973	68
3.3	Relative standards of living in selected countries, 1950–1975	69
3.4	Distribution of French economic sectors by growth of employment, 1954–1975	71
3.5	Distribution of French exports by destination, 1952–1975 (in percentages)	78
5.1	Macroeconomic indicators for Sweden, 1950–1980	123
6.1	Levels and compound annual rates of growth of real per capita gross domestic product (GDP) in Western Europe, 1950–1973 (in US \$ = 1990 and in percentages per year)	135
6.2	Value added of real per capita gross domestic product (GDP) in Italy, 1861–1981 (in percentages)	135
6.3	Averaged growth rates of selected macroeconomic key indicators in Italy, 1951–1973 (in percentages)	143
6.4	Regional value added per labour unit in Southern Italy, 1951–1974 (Central–North Italy = 100)	154

7.1	Industrial employment in the growth pole provinces in Spain, 1940–1975 (in percentages; decimals rounded)	172
7.2	Spanish national and growth pole industrial gross value added (GVA) growth rates, 1935–1975 (based on 1995 constant pesetas, in percentages)	173
7.3	Results obtained by the state's growth pole policies and by the industrial development plan for Navarre, 1964–1970	175
9.1	Turnover of the most important car companies, 1965 (in million US \$)	219
10.1	Sectoral disbursement of the European Development Fund, 1958–1975	240
10.2	Loans from the European Investment Bank for industrial projects in the associated countries in Africa, 1964–1975	240
11.1	European Development Fund and contributions of the European Investment Bank to the associated states, 1958–1974 (in million US \$, units of account)	258
11.2	EEC industrial financing in the AASM (Associated African States and Madagascar) countries, 1958–1974 (in thousands of units of account)	259
11.3	Share of developing regions in world manufacturing, value added and exports, 1960–1976 (in percentages)	261
11.4	The Nine's share of ACP trade, 1966–1973 (in percentages, world = 100)	262
11.5	European Community imports from ACP by main product categories, 1976	262
11.6	European Community imports from ACP of primary and manufactured products, 1976 (in million EUA)	264
12.1	Economic growth in Central and Eastern Europe and in the Soviet Union, 1950–1989	286
12.2	Averaged rates of investment and economic growth in Hungary, 1951–1975 (in percentages)	290
12.3	Comparative economic growth in Europe, 1950–1992	297
14.1	The distribution of the newly settled factories and their workers between the regions of Hungary, 1955–1956	332

14.2	The annual growth rates of NMP, population, active employment and productivity in Hungary, 1951–1975 (based on constant 1950 prices, in percentages)	335
14.3	Average annual growth rates of NMP, investments and productivity in Hungary, 1951–1975 (based on constant 1950 prices, in percentages)	336
15.1	Priority status of Soviet defence and medical industries	341
15.2	Characteristics of industrial firms in the Soviet shortage economy	344
15.3	Developments in the Soviet defence industry, 1965–1980 (in number of pieces)	354
15.4	Soviet medical industry production, 1965–1980	356
15.5	Developments in Soviet hard currency trade, 1970–1980 (in million US \$)	358
15-A.1	Features of industry in the USSR, 1945–1980	364
15-A.2	Production of industrial commodities in the USSR, 1945–1980	365
15-A.3	International comparisons of industrialization in the USSR in 1939, 1970 and 1980	366

Acknowledgements

This book examines the role of industrial policy in Europe during the post-war era. It explores historical legacies, political implications and economic outcomes of state intervention in the industrial sector within a comparative framework. During the Cold War, industrial policy gained tremendous importance, representing a key arena of economic competition between East and West. While governments reduced the role of the state in industry since the 1970s due to neo-liberal reforms and the growing impact of services, the financial crisis since 2007 has brought industrial policy back to the fore of economic policy.

The present volume brings together experts from different countries and scholarly backgrounds. Earlier versions of most of the chapters were presented at the conference 'Planning the Economic Miracle? Industrial Policy in Europe between Boom and Crisis (1950–1975)' organized in September 2011 at Humboldt University, Berlin. The book owes a great deal to the number of scholars who contributed to this conference: Karl Aiginger, Jack Hayward, Ivo Bicanic, Jürgen Kocka, Sandrine Kott, Mathias Mutz, Kim C. Priemel, Laura Rischbieter and Wolfram Schrettl. Also, we would like to thank Ulrike Stief, Raphael Ferres and Stefanie Borgmann for administrative and logistical assistance. The German Research Foundation generously funded the organization of the conference and the copy-editing of this volume. We are grateful to Roland Bell, Juliane Hißner, Martin Münzel and Mala Loth for their help with preparing the final manuscript. Finally, we should thank the anonymous reviewer and everyone at Palgrave Macmillan.

Christian Grabas and Alexander Nützenadel

List of Contributors

William James Adams, University of Michigan, USA

Ralf Ahrens, Centre for Contemporary History, Potsdam, Germany

Ivan T. Berend, University of California, Los Angeles, USA

Jan Bohlin, University of Gothenburg, Sweden

Martin Chick, University of Edinburgh, UK

Christopher Mark Davis, University of Oxford, UK

James Foreman-Peck, Cardiff University, UK

Mario García-Zúñiga, University of the Basque Country, UPV/EHU, Spain

Pál Germuska, Military History Institute and Museum of the Hungarian Ministry of Defence, Budapest, Hungary

Christian Grabas, Humboldt University Berlin, Germany

Stefan Grüner, University of Augsburg, Germany

Guia Migani, François Rabelais University, Tours, France

Alexander Nützenadel, Humboldt University Berlin, Germany

Martin Rempe, University of Konstanz, Germany

Daniel Speich Chassé, University of Lucerne, Switzerland

Joseba de la Torre, Public University of Navarre, Spain

Laurent Warloutzet, University of Artois, France/London School of Economics, UK

Introduction

Christian Grabas and Alexander Nützenadel
Humboldt University Berlin

In May 2012, the European Commission hosted a Conference in Brussels with the programmatic title: ‘Mission Growth: Europe at the Lead of the New Industrial Revolution’. While in his opening address President Barroso emphasized that ‘an integrated industrial policy for the globalization era is at the heart of our growth strategy’,¹ the American economist and policy advisor Jeremy Rifkin presented his concept of a ‘Third Industrial Revolution’ and its potential for creating competitive industries, sustainable growth and economic stability in the coming decades.² Behind the usual exercises in rhetoric, a more consistent policy agenda emerged. In October 2010, the European Commission launched a ‘flagship initiative’ in order to boost industrial development within an ambitious ‘Europe 2020 strategy’. The initiative included a program of industrial standardization, measures to facilitate credit access for small and medium enterprises (SMEs), more efficient transport, energy and communication infrastructures and sector-specific innovation strategies; all specifically for advanced manufacturing technologies.³

¹José Manuel Durão Barroso, ‘Mission Growth. Ensuring Europe’s Future Through Growth and Stability’, SPEECH/12/394, 29 May 2012, p. 5, http://europa.eu/rapid/press-release_SPEECH-12-394_en.htm, (date accessed 27 December 2012).

²Jeremy Rifkin, ‘Beyond Austerity. A Sustainable Third Industrial Revolution Economic Growth Plan for the European Union’, Keynote Speech for the Mission Growth Summit: Europe at the Lead of the New Industrial Revolution, hosted by The European Commission, 29 May 2012, http://ec.europa.eu/enterprise/policies/innovation/files/mg-speech-rifkin_en.pdf (date accessed 27 December 2012).

³European Commission, ‘An Integrated Industrial Policy for the Globalization Era. Putting Competitiveness and Sustainability at Centre Stage’, Communication from the Commission to the European Parliament, the Council, the

Furthermore there is a true renaissance of industrial policy, not only in Europe, but also in other parts of the world. Nearly all of the new economic powerhouses of the past decade, including Brazil, China, South Korea and India, have implemented comprehensive strategies to promote the growth of the domestic manufacturing sector. Even countries such as Great Britain or the United States, which in the past rejected any form of state involvement in industrial development, are beginning to reconsider their economic philosophy.

Indeed, for a long time industrial policy appeared old-fashioned, something that belonged to a distant past when mercantilism ruled economic philosophy in Europe. The industrial sector seemed to fade away, marginalized by the Internet boom, the financial sector and other expanding branches of the knowledge economy. Moreover, the liberal reforms implemented in many countries since the 1980s strongly limited state intervention in the economy to the private sector. According to this view, the market is a more efficient mechanism for deciding which sector should succeed. Industrial policy, in this view, was mainly an instrument used to protect the old manufacturing sectors, which under market conditions were unable to survive.

However, in the wake of the global financial turmoil, many of these assumptions have been thrown into question. The present crisis provides evidence that economies based mainly upon services – such as those of Great Britain, Ireland or the United States – are more heavily under pressure than economies in countries with a sound industrial fundament, such as Germany or France. Even for the progress of knowledge-based economies, a complementary industrial development is crucial. Also the belief in the overall efficiency of market allocation has been shattered. The collapse of the financial sector has demonstrated that market economies require a certain level of regulation and coordination. Finally, the economic problems of Southern Europe have brought industrial policy back to the fore. There are reasons to assume that the foreign debt crisis is also the consequence of more severe and structural deficiencies of the real economy in these countries, such as weak infrastructures, backward technologies and an underdeveloped manufacturing sector. Experts therefore claim the need for a ‘New Marshall Plan’ which – beyond

European Economic and Social Committee and the Committee of the Regions (COM(2010) 614), Brussels, 28 October 2010 http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/files/communication_on_industrial_policy_en.pdf (date accessed 27 December 2012).

short-term financial support – is supposed to implement long-term strategies of industrial growth in Greece, Spain or Italy.⁴

There are thus good reasons to reconsider the historical trajectories of industrial policy in Europe in a long-term perspective. Europe experienced a period of extensive interventions in the industrial sector after the Second World War. Even though prominent intellectuals and scholars, such as Jean Fourastié, Allan Fisher or Colin Clark, had already published their ideas of a new post-industrial age,⁵ economic policy continued to foster industrial production. Nevertheless, there was no specific pattern, or overall strategy, adopted in the same way by all countries. Rather, industrial policy was based on a variety of mechanisms and was directed towards different fields, ranging from the promotion of specific technologies, the creation of infrastructures, energy policies or a distinctive protection of certain branches of industry. Instruments ranged from tax incentives to direct subsidies or financial credits conceded by public developmental banks. While in some countries (like France and Italy, for example), powerful and centralized agencies were created, in other countries (Germany), regional or local initiatives were far more important. In general, industrial policy is a rather unspectacular arena of economic policy, usually based on long-term decisions with a time horizon of 10 or 20 years, where it is often difficult to assess their effects. The diversity of approaches, institutions and fields of industrial policy, and their specific outcomes, makes every general definition obsolete. Instead, industrial policy has to be assessed within its specific historical context. For post-war Europe, four distinctive features of industrial policy can be identified:

Firstly, the renaissance of industrial policy after 1945 was closely linked to the successful experience of European reconstruction and the growing impact of the Cold War. The Marshall Plan, as well as many similar national programs of reconstruction, focused on the industrial sector. For economic, political and military reasons, both super-powers – the United States and the Soviet Union – had a vital interest to promote industrial development in their respective zones of influence. Cold war competition moved industrial policy to the heart of economic policy in both East

⁴ Charles S. Maier, 'Europe Needs a German Marshall Plan', *The New York Times Sunday Review*, 10 June 2012, p. 4.

⁵ Allan G. B. Fisher, *The Clash of Progress and Security*, London: Macmillan (1935); Colin Clark, *The Conditions of Economic Progress*, London: Macmillan (1940); Jean Fourastié, *Le Grand Espoir du XXe siècle. Progrès technique, progrès économique, progrès social*, Paris: Presses Universitaires de France (1949).

and West. While in the socialist countries, economic planning strongly focused on the enlargement of the industrial sector, this issue gained increasing importance in the capitalist world as well. Western economic experts and political leaders were alarmed by the programmes of forced industrialization and militarization in Eastern Europe. For this reason, the Sputnik crisis of 1957 marked a watershed for industrial policy in the Western World. The fact that the Soviet Union launched the first artificial Earth satellite seemed to prove that Western powers had lost their technological and industrial supremacy, and they, as a consequence, launched new programs in Research and Development (R&D).

Secondly, industrial policy was an important field of West European integration. Historical research on the foundation of the European Economic Community (EEC) has dedicated much attention to the Common Agricultural Policy (CAP), which, in fact, played an important role in this process of economic integration during the 1950s and 1960s.⁶ However, since 1951, the European Coal and Steel Community (ECSC) has regulated two of the most important sectors of European industry. Since the late 1950s, the French government, under Charles De Gaulle, aimed at transferring its own model of industrial planning to the European level.⁷ Moreover, the idea of a balanced economic development between the different regions played an important role in the EEC during the 1960s. The question of how to raise the industrial production in the backward zones of Europe became a growing concern of European policy. After the first enlargement of the EEC (Denmark, Ireland and the United Kingdom), European governments decided, in October 1972, to create a Regional Development Fund. Since then, regional (or 'cohesion') policy has moved to the core of economic action. Finally, the rising influence of the European Communities in the field of competition regulation concerned one of the key aspects of industrial policy.

Thirdly, industrial policy was closely intertwined with the international development discourse of the 1950s and 1960s. These debates were characterized by a widespread optimism that the experience of European industrialization could be used as a model for economic

⁶Kiran Patel and Johan Schot, 'Twisted Paths to European Integration. Comparing Agriculture and Transport in a Transnational Perspective', *Contemporary European History* 20 (2011), pp. 383–403; Guido Thiemeier, *Vom 'Pool Vert' zur Europäischen Wirtschaftsgemeinschaft. Europäische Integration, Kalter Krieg und die Anfänge der Gemeinsamen Europäischen Agrarpolitik 1950–1957*, Munich: Oldenbourg (1999).

⁷Alexander Nützenadel, 'Die Bundesrepublik Deutschland. Frankreich und die Debatte über eine europäische Wirtschaftspolitik 1958–65', *Francia* 30, no. 3 (2003), pp. 73–98.

change in the poor countries of the 'Third World'. Historical and comparative research on the process of industrialization inspired not only modernization theory in general, but also many programmes of international development aid. These programmes were often characterized by a fairly naïve belief that the model of European industrialization could be applied to every other society, without considering fundamental social, cultural and economic differences.

Fourthly, the boom of industrial policy during the post-war decades was closely connected to the idea that state intervention and planning were beneficial for economic development. Countries such as France or Italy implemented far-reaching programmes of industrial planning. In other countries, Keynesianism reconciled the ideas of free markets and economic planning, while new technologies of macroeconomic forecast and industrial programming were implemented in the political process. Often, industrial policy was a side-effect of public investment, as, for example, in the military sector or in publicly funded research institutes and universities.

Even though industrial policy has played a distinctive role in the course of European economic development after 1945, this topic has been fairly neglected by historical research. While there are several case studies based on national and regional experiences, there are hardly any attempts to measure the impact of industrial policy on the European level. One reason for the lack of comprehensive studies might be the definitional vagueness of this particular subarea of economic policy, since 'definition and scope of industrial policy differs not only between European countries but also within their boundaries'.⁸ On the other hand, a quantitative assessment has turned out to be rather difficult, not only because data bases are often insufficient, difficult to compare or simply inexistent, but also because 'industrial policy interplays with other governmental policies'.⁹ Moreover, for the period under consideration, many archival sources are still not open to the public or have been made accessible only in recent years.

Recent studies have demonstrated that European governments coped differently with the transnational challenges of post-war economic development. Historical legacies, cultural traditions and path-dependencies were often responsible for national variations. At the

⁸James Foreman-Peck and Giovanni Federico, 'Preface', in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999), p. v.

⁹Pierre-André Buigues and Khalid Sekkat, *Industrial Policy in Europe, Japan and the USA. Amounts, Mechanisms and Effectiveness*, Basingstoke, Hampshire and New York: Palgrave Macmillan (2009), p. 28.

same time, the variations have to be interpreted within the larger context of European and global economic trends. This is highlighted by the volume edited by Giovanni Federico and James Foreman-Peck on industrial policy in Europe in the twentieth century¹⁰ – a pioneering work in this field. The aim of the editors was ‘to contribute to an understanding of European industrial policy, broadly interpreted, by introducing a historical perspective’,¹¹ which they have definitely managed to do. However, there are some weak points that justify a reconsideration of this issue. Firstly, Foreman-Peck and Federico address mainly long-term trends over the entire twentieth century. The post-1945 era, considered to be the heyday of industrial policy in Europe, is analysed as one aspect only. Moreover, since the 1990s, new archival material has been made available and new debates and methods have brought fresh insights into the history of economic policy and industrial development in Europe. Finally, and most importantly, the book does not address the historical experiences in Eastern Europe, except for one chapter on the Soviet Union. This ‘Western bias’ of research is a general feature of the existing literature in this field. For example, a recently published paper entitled ‘Industrial policy in Europe since the Second World War: What has been learnt?’¹² is limited almost exclusively to the three largest economies in Europe: the UK, France and Germany. Both Eastern Europe and the supranational policy of the EEC and the Comecon remain entirely excluded. Other publications lack a true historical perspective. This goes not only for the books of Pierre-André Buigues and Khalid Sekkat¹³ or Keith Cowling,¹⁴ but also for the collected volume edited by Thomas C. Lawton,¹⁵ all of which provide a broad overview of different approaches of industrial policy from the 1980s to the present.

The purpose of this collection of essays is to provide a fresh and nuanced picture of European industrial policy after the Second World War. Unlike previous publications, it explores developments in East

¹⁰James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999).

¹¹Foreman-Peck and Federico (1999), ‘Preface’, p. v.

¹²Geoffrey Owen, ‘Industrial policy in Europe since the Second World War. What has been learnt?’, *ECIPE Occasional paper*, no. 1/2012, The European Centre for International Political Economy, Brussels (2012).

¹³Buigues and Sekkat (2009), *Industrial Policy in Europe*.

¹⁴Keith Cowling (ed.), *Industrial Policy in Europe. Theoretical Perspectives and Practical Proposals*, London and New York: Routledge (1999).

¹⁵Thomas C. Lawton (ed.), *European Industrial Policy and Competitiveness. Concepts and Instruments*, Basingstoke, Hampshire/New York: Palgrave Macmillan (1999).

and West Europe in a comparative and transnational perspective. This means that the book not only reaches beyond an additive collection of national histories: it inquires into differences and similarities, looks at transfers across national borders and locates industrial policy in the context of the Cold War. Moreover, the volume analyses the impact and power of supra-national institutions on industrial policy. Another innovative feature is that it considers the global dimension of European industrial policy, exploring how European industrial policy served as a model for development strategies in the Third World.

Even though historical analysis is at the core of this book, it has a distinctive interdisciplinary character. It combines historical research with methods from economics, political sciences, sociology and European studies. While some chapters have a more qualitative approach, focusing on case studies or political decision-making, others analyse industrial policy with a quantitative framework.

Owing to the decision not to restrict the historical analysis of industrial policies in the selected European countries by any narrow superordinated definitions of 'industry' and 'industrial policy', the individual chapters focus on quite different characteristics and fields of national and/or supra-national industrial policy. Each analysis is always based on the contemporary definitions of industrial policy, which vary over time and from one country to another. Moreover, because even the priorities of policy-makers to influence the sectoral structural change in the respective European countries have often been quite different, all chapters focus on a changing diversity of approaches, institutions and instruments of industrial policy, and their specific outcomes: in some countries infrastructure projects were the main focus, in other countries state intervention concentrated on basic industries and/or the manufacturing industries; in some countries governments set support policies for crisis-ridden 'old' industries at the center of their political agenda, while others favoured the massive support of modern 'new' industries and investments in research and development. Therefore, this volume provides no complete standardized analysis of industrial policy in Europe, but rather an historical analysis of most important selected dimensions of industrial policy, with many details and case studies, making it a very useful source for anyone interested in economic policy in twentieth-century Europe.

The volume is structured into three parts: the first part is dedicated to national histories of state industrial policy in Western Europe (Britain, France, West Germany, Sweden, Italy and Spain). The second part of the volume is dedicated to supra-national approaches

and institutions: it analyses, firstly, industrial policy of the EEC, and secondly, the impact of European experiences on the elaboration of specific supra-national development programmes to promote industrialization in the Third World. The third and final part of the book is dedicated, again, to national histories, namely in the Soviet bloc and Eastern Europe (East Germany, Hungary and Soviet Union). Two comparative chapters on industrial policy in Western and Eastern Europe explore overall trends, common patterns and fundamental differences in the post-war era.

While every chapter presents new insights in the history of economic policy and industrial development from a different angle, there are some overall results that can be drawn from this volume. Firstly, in all European countries, governments considered industrial policy as a pivot of economic policy in general, with positive effects on competition, structural change and long-term economic growth. However, there was no overall and coherent strategy of industrial development. Rather, industrial policy was highly controversial and, in most cases, the result of political compromises balancing different social and economic interests. Secondly, industrial policy was not a novel phenomenon of the post-war era. Beyond the immediate goals, it was part of what can be considered the economic culture of every country. National traditions, historical legacies and path-dependencies did play an important role and may explain the enormous differences between nations and regions in Europe, even when they had to face similar challenges. Thirdly, there is historical evidence that industrial policy often serves as a short-term measure to avert and manage crises. This might explain the failure of many programmes in this field. Many European governments subsidized declining industries, which often led to an inefficient allocation of economic resources in the long run and hampered innovations and structural change. Fourthly, horizontal industrial policy interventions targeted at legal frameworks or research and development to foster competition and technological innovations have been more efficient than any selective vertical policies that intervene directly in markets or industries. This can serve as a conclusive explanation for why – in addition to institutional difficulties – many supra-national industrialization projects of the EEC for the promotion of selective industries in the Third World often remained without any sustained longer-term impact. Moreover, this inferior effectiveness of vertical industrial policies was a prime reason why the centrally planned economies of the Soviet bloc generally performed more poorly than Western Europe in the long run. Fifth, in Western Europe – not

exclusively, but for the most part within the framework of European integration – policies encouraging openness to trade and investment, by creating an environment favorable to competition and technology transfer, enhanced industrial productivity. Therefore, increasing international trade liberalization and investment openness had probably the most significant impact for this unique economic growth in Europe after 1945.

The respective case studies collected in this book provide unequivocal evidence that state industrial policy in Europe after 1945 has been always one of the most controversial policy fields, and that its scope and instruments differed much between countries and changed over time. However, one last result, as a by-product of the present volume, is that still more research on the economic impact of industrial policy is needed. This volume thus provides a starting point for further promising research in order to ‘rethink industrial policy’.¹⁶ Further historical research, to which the present study will hopefully give a fresh impetus, will be, if not essential, then certainly more than helpful in achieving a better understanding of the tumultuous past and diversity of Europe. Last, but not least, it will also be helpful to understand any current and future attempts of government interventions for sustainable economic growth and recovery in Europe and beyond.¹⁷

¹⁶See the homonymous policy brief by Philippe Aghion, Julian Boulanger and Elie Cohen, ‘Rethinking Industrial Policy’, *Bruegel Policy Brief* 2011/04, June 2011. [Policy Paper], <http://www.bruegel.org/publications/publication-detail/publication/566-rethinking-industrial-policy/> (date accessed 24 February 2013).

¹⁷See, in addition to the already mentioned European Commission’s communication, ‘An Integrated Industrial Policy for the Globalization Era. Putting Competitiveness and Sustainability at Centre Stage’ and both speeches by José Manuel Durão Barroso and Jeremy Rifkin: European Commission, ‘A Stronger European Industry for Growth and Economic Recovery. Industrial Policy Communication Update’, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM (2012) 582 final, Brussels, 10 October 2012, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0582:FIN:EN:PDF> (date accessed 24 February 2013). See also the ambitious European research project, ‘Welfare, Wealth and Work for Europe – WWWforEurope’, which brings together researchers from 33 scientific institutions in 12 European countries with interdisciplinary expertise from economics and ecology to history, demography, political science and gender research. The objective of this project, which is coordinated by the Austrian Institute of Economic Research (WIFO), is to strengthen the analytical foundation of the Europe 2020 strategy, <http://www.foreurope.eu/index.php?id=56> (date accessed 24 February 2013).

References

- Aghion, Philippe, Julian Boulanger and Elie Cohen, 'Rethinking Industrial Policy', *Bruegel Policy Brief* 2011/04 (June 2011).
- Barroso, José Manuel Durão, 'Mission Growth. Ensuring Europe's Future through Growth and Stability', *SPEECH/12/394* (29 May 2012).
- Buigues, Pierre-André and Khalid Sekkat, *Industrial Policy in Europe, Japan and the USA. Amounts, Mechanisms and Effectiveness*, Basingstoke/New York: Palgrave Macmillan (2009).
- Clark, Colin, *The Conditions of Economic Progress*, London: Macmillan (1940).
- Cowling, Keith, (ed.), *Industrial Policy in Europe. Theoretical Perspectives and Practical Proposals*, London/New York: Routledge (1999).
- European Commission, 'An Integrated Industrial Policy for the Globalization Era. Putting Competitiveness and Sustainability at Centre Stage', Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM (2010), 614, Brussels (28 October 2010).
- Fisher, Allan G. B., *The Clash of Progress and Security*, London: Macmillan (1935).
- Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999).
- Fourastié, Jean, *Le Grand Espoir du XXe siècle. Progrès technique, progrès économique, progrès social*, Paris: Presses Universitaires de France (1949).
- Lawton, Thomas C., *European Industrial Policy and Competitiveness. Concepts and Instruments*, Basingstoke/New York: Palgrave Macmillan (1999).
- Maier, Charles S., 'Europe Needs a German Marshall Plan', *The New York Times Sunday Review* (10 June 2012).
- Nützenadel, Alexander, 'Die Bundesrepublik Deutschland. Frankreich und die Debatte über eine Europäische Wirtschaftspolitik 1958–65', *Francia* 30, no. 3 (2003), pp. 73–98.
- Owen, Geoffrey, 'Industrial Policy in Europe Since the Second World War. What Has Been Learnt?', *ECIPE Occasional paper*, no. 1/2012, The European Centre for International Political Economy, Brussels (2012).
- Patel, Kiran and Johan Schot, 'Twisted Paths to European Integration. Comparing Agriculture and Transport in a Transnational Perspective', *Contemporary European History* 20 (2011), pp. 383–403.
- Rifkin, Jeremy, 'Beyond Austerity. A Sustainable Third Industrial Revolution Economic Growth Plan for the European Union', Keynote Speech for the Mission Growth Summit: Europe at the Lead of the New Industrial Revolution, hosted by The European Commission (29 May 2012).
- Thiemeyer, Guido, *Vom 'Pool Vert' zur Europäischen Wirtschaftsgemeinschaft. Europäische Integration, Kalter Krieg und die Anfänge der Gemeinsamen Europäischen Agrarpolitik 1950–1957*, Munich: Oldenbourg (1999).

Part I
Western Europe

1

European industrial policies in the post-war boom: ‘Planning the economic miracle’

James Foreman-Peck
Cardiff University

1.1 European industrial policies in the post-war boom: Planning the economic miracle

The ‘Thirty Glorious Years’ of 1945–75 saw unprecedented European prosperity on the back of unique economic growth. Was it the result of good luck, fortuitously benign international relations or carefully planned policies? ‘Planning’ was fashionable for much of the period and is definitely not now. What exactly is or was this ‘planning’? Was it simply intellectual fashion, or was planning a major contribution to the boom, a key component of industrial policy? Industrial policy covers a broad range of policies and there are different understandings of what the term means. So first some definitions are set out – before a broad conception is chosen. Then the pattern of European industrial production at the beginning of the period is described, together with the enormous scope for ‘catch up’ growth. Germany and Britain dominated European industrial production in 1950, but outside Europe, the United States had been extending its productivity lead for three decades. The opportunities for rapid European economic growth and industrial development lay in absorbing the techniques and organizations behind this lead.

Europe’s pattern of growth and convergence between 1950 and 1975 shows the extent to which these opportunities were exploited. This configuration is a key to the drivers of the post-war boom. Lower-income economies had more opportunity to grow faster if they pursued the right policies – essentially being open to absorb the technologies and ideas that had proved themselves elsewhere. The distribution of countries around the average convergence line distinguishes the more from the less successful. How closely the Western European economies cluster

indicates either the principal importance of supranational policies that affect them all, or the successful pursuit of similar policies, or both.

National styles of industrial policy differed more in presentation than in practice – the contrast between France and West Germany is instructive in this respect. Different concerns with defence, along with state support for R&D, also closely related to security in many countries, were a greater source of industrial policy divergence. Thanks to the apparent successes of the Soviet Union in the 1930s, and the perceived superiority of state resource allocation compared to the market, boosted by wartime experiences, planning was in vogue throughout Europe. Planning by direct controls on market participants, such as rationing, gave way to the indicative planning of the 1960s, with new challenges of plan implementation, particularly depending on whether or not state industries were involved. Nowadays, competition policy is the most intellectually popular industrial policy, so an attempt is made in this chapter to assess the actual and potential importance for the post-war boom.

The conclusion is that the most important factor in this remarkable period for Western Europe was not planning, but a general industrial policy, as defined here (though not always accepted as one): the drive for increasing trade and investment openness, largely, but not exclusively, under the heading of ‘European integration’. Behind this striking contrast to the 1920s and the 1930s, lay the United States’ commitment to a non-communist Western Europe and a willingness to tolerate otherwise ideologically unacceptable deviations from their preferred international economic order. On the other side of the Iron Curtain, Soviet perceived defence needs were served by an economically integrated Eastern Europe, with similar, though less successful, convergence and ‘catch up’.

1.2 What is industrial policy?

Here, industrial policy is an analytical concept rather than a historical one (i.e., used by agents at the time). Industrial policy is concerned with an aspect of industry as an objective, and sometimes as an instrument. Nowadays, the central aspect is widely assumed to be productivity or ‘competitiveness’. Traditionally, industrial policy includes ‘catch up’ or industrialization policies. But ‘stability’, especially of employment, is also of great importance, as was ‘security’ through the national ability to supply military high-technology goods – nuclear, aerospace, computers, plus increasingly ‘health and safety’ of

industrial products. In addition, wider concerns about the efficacy of market allocations or the competence of business elites may, or should, promote industrial policies in pursuit of 'equity' or wider 'community interests'.¹

A common distinction (though in practice a somewhat slippery one) is between 'vertical' sector- or firm-specific policies on the one hand and, on the other, 'horizontal' general policies. Horizontal policies can be divided into those influencing the legal and institutional framework – competition policy or general trade liberalization, for instance – and those modifying technology and markets for inputs and outputs – investment subsidies, education loans and grants, even sales taxes.

Vertical policies are structural. They are intended to alter the relative importance of industries and firms (some definitions of industrial policy are restricted to vertical policies).² Health and safety legislation and procurement policies generally have obvious structural effects even when nominally they are horizontal policies. Supporting 'national champions' or 'picking winners', a feature of French industrial policy is a vertical policy,³ as is 'helping losers', such as Rolls Royce in 1971, or VW at the end of 1974.⁴

¹Keith Cowling, 'Introduction', in: Keith Cowling (ed.), *Industrial Policy in Europe Theoretical Perspectives and Practical Proposals*, London: Routledge, (1999), pp. 3–16.

²An industrial policy is 'any type of selective intervention or government policy that attempts to alter the sectoral structure of production toward sectors that are expected to offer better prospects for economic growth' for Howard Pack and Kamal Saggi, *The Case for Industrial Policy. A Critical Survey*, World Bank Research Working Paper, No. 3839 (February 2006). Both these authors and Jan Pelksman 'European Industrial Policy', in: Patrizio Bianchi and Sandrine Labory (eds.), *International Handbook of Industrial Policy*, Cheltenham: Edward Elgar (2006), pp. 45–78, exclude unintended policy effects. Pelksman distinguishes two types of policy which influence industry, yet are not part of industrial policy, namely, 'policies not for industry which affect industry' and 'policies which directly help or constrain industry but are not meant (only) for industry'. Omitting the second type from the definition can be problematic for a historical understanding of industrial policy, as we discuss below.

³Henri Aujac, 'An Introduction to French Industrial Policy', in: William J. Adams and Christian Stoffaes (eds.), *French Industrial Policy*, Washington, DC: Brookings Institute (1986), pp. 3–8.

⁴Direct intervention was by the largest shareholder, the Federal government (Steven Tolliday, 'Enterprise and State in the West German Wirtschaftswunder. Volkswagen and the Automobile Industry, 1939–1962', *Business History Review* 69, no.3 (1995a), pp. 273–350; Steven Tolliday, 'From "Beetle Monoculture" to the "German Model": The Transformation of Volkswagen, 1967–1991', *Business and Economic History* 24, no. 2 (1995b), pp. 111–132. This 'rescue' took the

Instruments of industrial policy traditionally have included tariffs and trade controls, which are worth noting because of the extraordinary reversal in their use over the period of interest – especially with the formation of the European Steel and Coal Community (ECSC) and the Common Market, but also with the Kennedy Round of the General Agreement on Tariffs and Trade (GATT). State ownership of industry – required to pursue the ‘public interest’ and break even – was a popular institution of the mixed economy and pervasive in Eastern Europe. Italy’s Mezzogiorno policy was to be implemented by these organizations, as was much of French ‘planning’. ‘Guidance’ or information provided by indicative planning became popular in the early 1960s after the direct allocation, rationing and physical controls of the later 1940s and early 1950s. Other instruments were tax incentives for R&D, for savings or investment, and low-interest loans. Subsidies for, or direct supply of, education and training increased skills and lowered their ‘price’ (if effective). In both the cases of capital and labour market policies, reducing the input price to industry was intended to increase output (they also unintentionally encouraged factor substitution). To reduce output, discriminatory taxes on goods with negative externalities (‘sin taxes’ on cigarettes, alcohol and perhaps even petrol) might be imposed. Controls on the price of other inputs, such as energy and water, were supposed to support industry at the expense of utility companies, of taxpayers or of private consumers, or to subsidize consumers or voters by burdening industry. Legal remedies for the exercise of monopoly power – discouraging or forcing abandonment of restrictive practices (the UK’s 1956 legislation) and prohibiting mergers – were not especially popular policy instruments in this period.

Explaining why particular industrial policies were pursued can require different concepts from those necessary to understand which policies should have been followed. The 30 or 40 years after the Second World War marked the high tide of belief in effectiveness of state intervention. Supposed failures of the market in 1930s, the apparent success of the Soviet system and state hubris – reinforced by the ability to ensure failures were ‘official secrets’ in war or emergencies – explain some part of this popularity of state initiatives. Economic crises and slumps – threats

unusual form of increasing the power of the supervisory board on which the union, IG Metall, is represented. In marked contrast to the British experience, with a different union structure, the German union proved accommodating at a difficult time for the company.

to order from concentrated mass unemployment – were always reasons why states have bailed out, nationalized or reorganized major employers or important defence contractors, in attempts to prevent their closure. European integration and the associated industrial policies undoubtedly owed something to the Cold War and US policy, as the contrast with the inter-war years makes clear. Another driver of industrial policy was when one state learned, or at least copied, from others deemed to have been more successful. Spain duplicated Italy's state holding company and Britain attempted to imitate French indicative planning with the National Economic Development Council.

Government's greater share in national income provided industry lobbies and trade unions – rational self-interested agents – with more scope for their activities. 'Regulatory capture' was a payoff to firms when government departments or agencies regulated in the interest of firms rather than, as they should, in the interests of users of firms' outputs. National security (supported by industry lobbies) provides a reason for the magnitude of British and French spending on the nuclear and aerospace industries (as well as a justification).

1.3 Initial conditions

By the end of 1947, Europe's working population and productive capital had returned to pre-war levels, though it was differently distributed.⁵ The UN Relief and Rehabilitation Agency ceased work at that point, but in June, the US Secretary of State announced the Marshall Plan (European Recovery Program). Despite the onset of the Cold War with the Soviet Union's Berlin Blockade in 1948, the plan maintained the impetus of Western European recovery. The same year as the Berlin Blockade, the Organization for European Economic Cooperation (OEEC) was created to manage Marshall Aid. In turn the OEEC established the European Payments Union (EPU) in 1950. Europe's external position was less favourable than before the war; international trade and investment were dislocated. Hence, the contribution of the EPU, replacing bilateral trade with multilateral trade (that nonetheless discriminated against the dollar), was vital. While the EPU was gradually unlocking trade, there were bottlenecks, power cuts, and shortages. Direct controls, rationing, quotas and administered prices were both policy responses and contributors to these problems.

⁵United Nations, *Economic Survey of Europe since the War. Reappraisal of Problems and Prospects*, Geneva: UN Department of Economic Affairs (1953).

German recovery was sufficient that by 1950, had Germany been united it would have been the largest industrial producer in Europe (excluding the USSR from Europe). As it was, the UK, with about one-quarter of total industrial production, was the biggest, while France produced less than one-half of the UK's industrial output. Italy and East Germany were the only other intermediate-size industrial powers. West Berlin's industrial production alone was greater than the combined total for Greece, Hungary and Ireland.

Dividing the distribution of industrial production by national population yields an index of relative industrial development (Figure 1.1). Sweden was close behind the two Germanies, followed by Belgium. France was on a par with Denmark.

The productivity gap with the US for West Germany and the UK was no less striking than for the rest of Europe. Manufacturing labour productivity was more than 160 per cent greater in the US than in the two largest European industrial economies (Figure 1.2). The gap

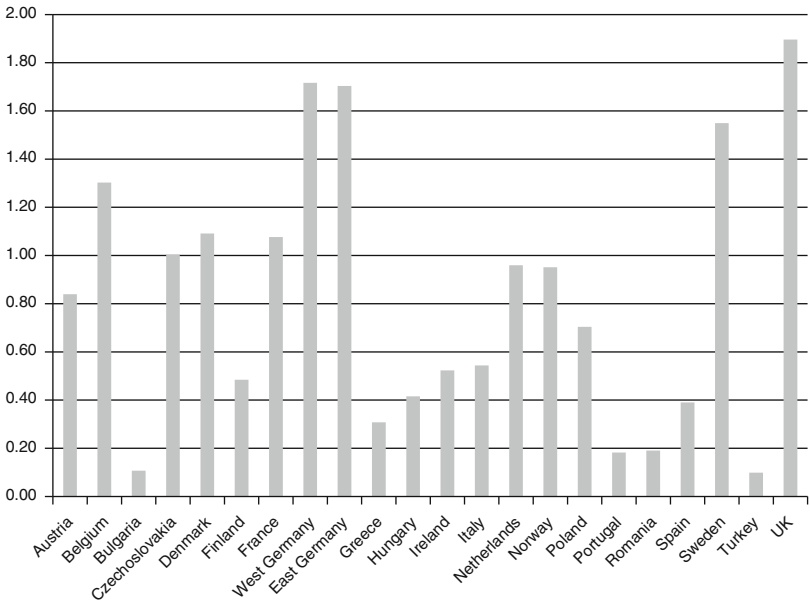


Figure 1.1 Distribution of European industrial production in relation to population, 1950 (1 = average)

Source: Calculated from United Nations (1953); and Maddison (1995), table A3, population estimates.

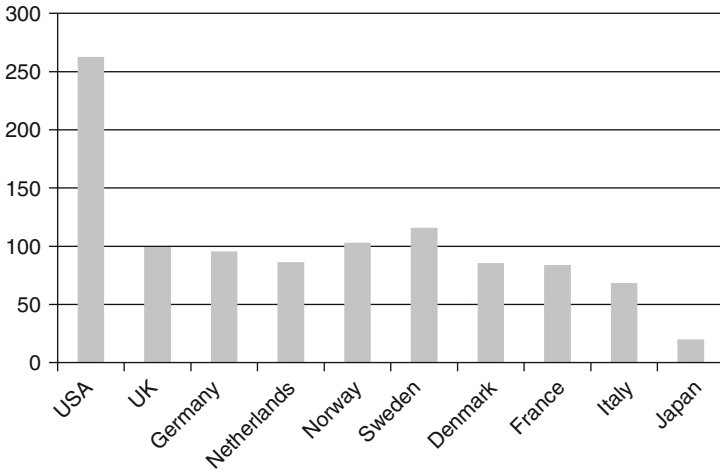


Figure 1.2 Labour productivity in manufacturing in selected countries, 1950 (UK = 100)

Source: Broadberry (1997), tables 4.3, 4.4, 4.5 and 4.6.

was even larger in utilities, transport and communication and mineral extraction.⁶ The scope for catching up was, therefore, enormous.

1.4 Integration and convergence

Comparing initial relative industrialization in 1950 with subsequent industrial growth rates suggests a common European process of convergence or ‘catch up’ (Figure 1.3), with two exceptions.⁷ Generally the most industrialized economies (UK, Sweden, Belgium) showed the slowest growth of industrial production and the least industrialized (Greece, Italy, Austria) expanded their industry most rapidly. This process ensured that at the end of the period (in Figure 1.3, 1962) industrial production was more equally distributed across Europe than at the beginning.

⁶Stephen Broadberry, *Market Services and the Productivity Race 1850–2000: British Performance in International Perspective*, Cambridge: Cambridge University Press, (2006), tables 4.1, 4.2, and 4.4. By 1990 the manufacturing productivity gap for the UK had narrowed to 75 percent, approximately what it was in 1880.

⁷Industrial production growth rates are calculated from OECD, *Industrial Statistics 1900–1962*, OECD (1964).

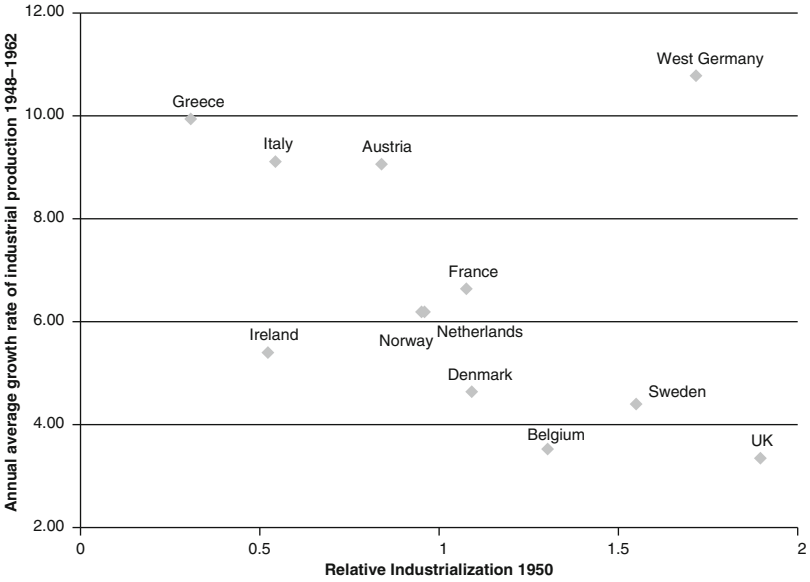


Figure 1.3 Industrial growth and convergence in Western Europe, 1948–1962
 Source: Calculated from Figure 1.1 and OECD (1964).

The two outliers in this sample were West Germany and Ireland. West Germany appears to have been consolidating its position as the industrial base of Western Europe with a colossal growth of industrial output that began with monetary reform and price decontrol in June 1948.⁸ Ireland, by contrast, should have grown at the same pace as Italy if it had followed the Western European pattern, but instead lagged behind the Netherlands and Norway, with only one-half of their levels of industrialization. The reason would seem to be that Ireland experienced ‘a fairly typical conclusion to a process of import-substituting industrialization in which rather indiscriminate protectionism was the main policy instrument’.⁹

⁸This is consistent with Eichengreen and Ritschl’s judgement that during the 1950s the British economy grew along a steady state established between the wars, whereas the West German economy experienced a very pronounced rebound from the war shock. Barry J. Eichengreen and Albrecht Ritschl, ‘Understanding West German Economic Growth in the 1950s’, *Cliometrica* 3, no. 3 (2009), pp. 200–201.

⁹Eoin O’Malley, ‘Ireland. From Inward to Outward Policies’, in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth-Century Experience*, Oxford: Oxford University Press (1999), pp. 215–232.

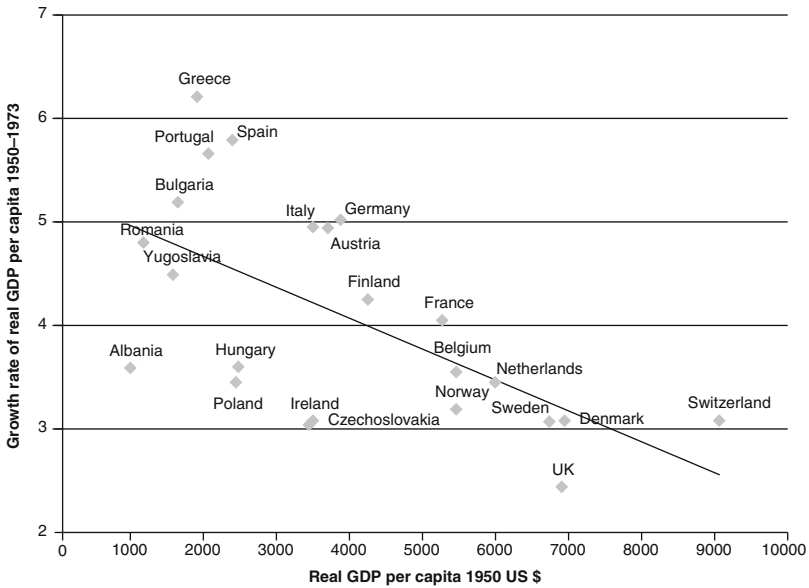


Figure 1.4 European growth and convergence, 1950–1973

Source: Maddison (2001), table A 1-d. Germany with 1991 frontiers.

Turning to the broader measure of total national output per head from 1950–1975, a similar picture emerges.¹⁰ The UK economy was the slowest grower, even though it was expanding faster than at any previous period in history. Given their initial incomes, France, Germany and Italy broadly performed in a similar fashion. Centrally planned economies grew less rapidly than market economies on average, considering their starting outputs, but Bulgaria and Ireland seem to have been exceptions on either side of the Iron Curtain (Figure 1.4). Subject to this last caveat, Figure 1.4 presents quite compelling evidence for the shortcomings of the Soviet economic empire, even where catching up is concerned. This is so despite the outstanding measurement questions for all economies concerning the extent to which GDP/GNP per capita or per hour reflected well-being. These questions are particularly acute for the centrally planned economies that set prices arbitrarily and did not recognize the value of services.

¹⁰ Angus Maddison, *Monitoring the World Economy 1820–1992*, Paris: OECD (1995).

Over the period, Greece and Spain were star performers (Greek income was depressed in 1950 by a civil war). Left-wing parties in Greece believed in Soviet style planning and support for heavy industry, whereas the Right advocated free enterprise and support for the US. The Right won and the Greek boom seems to have been helped by substantial Marshall Aid – for infrastructure rather than for manufacturing industry. Aid planners believed that allocating capital to industry would be a waste, in view of the economy's backwardness.¹¹ State ownership of industry was limited to utilities and a few refining and fertilizer plants. While policy formally favoured trade liberalization, non-tariff barriers held down imports and import competition. Nonetheless the direction of the economy was towards greater liberalization.

The same could be said of Spain from the end of the 1950s, although there electricity, steel and coal were the sectors favoured for expansion by policy. By 1959 the state holding company INI (copied from Mussolini's IRI) controlled 56 firms in more than 20 industrial sectors.¹² Autarky began to give way to liberalization thereafter. Even at its peak, unlike Britain for instance, state-owned industry in Spain was responsible for less than half of steel output and never more than one-third of electricity and one-half of coal output (in 1970). The possibility of a public sector competitive stimulus to the private sector and vice versa was always present.

1.5 Policy and convergence

An early attempt to offer a policy-free explanation for the great European boom identified flows of labour from low-productivity agriculture to high-productivity industry as a driver of industrial growth. Countries without a backward agricultural sector (especially the UK) would grow more slowly.¹³ Leaving aside the quantitative importance of this migration, the explanation does not address the trigger for the movement, which must have come from the industry side. A second,

¹¹Ioanna Pepelasis, 'Greece: From Rent-Seeking Protectionism to Direct Intervention', in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth-Century Experience*, Oxford: Oxford University Press (1999), pp. 295–318.

¹²Pedro Fraile Balbin, 'Spain: Industrial Policy under Authoritarian Politics', in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth-Century Experience*, Oxford: Oxford University Press (1999), pp. 233–267.

¹³Charles P. Kindleberger, *Europe's Post-War Growth. The Role of Labour Supply*, Oxford: Oxford University Press (1967).

largely policy-free explanation for the 'economic miracle' appeals to institutional change caused by the upheavals of war.¹⁴ While measuring institutional change is problematic, as discussed below, it seems that there was a surprising degree of continuity in institutions and attitudes between the 1930s and 1950s. Convergence and conditional convergence models today often appeal to the diminishing returns of the closed economy neoclassical production function as explanation.¹⁵ But this conception does not do justice to the prominent role for European industry, in the period of concern, in taking the opportunity to import and utilize ideas, products and resources from more advanced economies.

Economic pilgrimages to the US were *de rigueur* in the early part of the period.¹⁶ The British Anglo-American productivity councils supposedly achieved only mixed results,¹⁷ and more generally, case studies of transfer of US knowhow tend to focus on the resistance or the difficulties of transfer. Or, in the case of the Italian public sector steel maker, Finsider, on how the successful transfer of US technology was not associated with success.¹⁸ However, there is statistical evidence that economies catching up the most with the US were those that also adopted new technologies more rapidly. This acceleration was associated with the incidence of US

¹⁴Mancur Olson, *The Rise and Decline of Nations*, New Haven: Yale University Press (1982); Mancur Olson, 'The Varieties of Eurosclerosis. The Rise and Fall of Nations since 1982', in: Nicholas F. Crafts and Gianni Toniolo (eds.), *Economic Growth in Europe since 1945*, Cambridge: Cambridge University Press (1996), pp. 73–94.

¹⁵Robert Barro and Xavier Sala-i-Martin, *Economic Growth*, New York: McGraw-Hill (1995).

¹⁶For France, see Elodie Gombert, 'La vision du CNPF sur l'envoi de missions françaises de productivité aux Etats-Unis au début des années 1950', in: Dominique Barjot and Christophe Reveillard (eds.), *L'américanisation de l'Europe occidentale au XXe siècle*, Paris: PUPS (2002) and Robert Kuisel, *Capitalism and the State in Modern France*, Cambridge: Cambridge University Press (1981), p. 328, fn. 48–49.

¹⁷James Tomlinson, 'The Failure of the Anglo-American Council on Productivity', *Business History* 33, no. 1 (1991), pp. 82–92.

¹⁸The vast literature on the Americanization of Europe in this period includes Dominique Barjot, *Catching up with America. Productivity Missions and the Diffusion of American Economic and Technological Influence after the Second World War*, Paris: Sorbonne (2002); Barry Machado, *In Search of a Usable Past. The Marshall Plan and Postwar Reconstruction Today*, Lexington: George C. Marshall Foundation (2007); Harm G. Schröter, 'Americanization in Europe in the Twentieth Century', special edition of *European Review of History* 15, no. 4 (2009); Matthias Kipping and Ove Bjarnar, *The Americanisation of European Business. The Marshall Plan and the Transfer of US Management Models*, London: Routledge (1998).

economic aid and technical assistance, so providing a *prima facie* case in which the support contributed to convergence.¹⁹

Shared supra-national policies and institutions must have played a role in the common 'catch up' of the European economies; developments such as the Bretton Woods system, the EPU, the formation of the ECSC, the Common Market and the European Free Trade Area (EFTA) – even the Soviet Council for Mutual Economic Assistance – certainly facilitated this process. These were instances of mutual national policies achieving a shared effect. European integration, beginning with the establishment of the ECSC, could be an alternative to competition from domestic sources. Intra-Community trade in steel nearly doubled in the four years after 1953, whereas production rose by only one-half.²⁰ Trade within the Community of products not covered by the coal and steel treaty increased by almost as much as trade in steel, however, which at first sight suggests the ECSC had little effect. Yet such a conclusion gives too small a weight to the resolution of 80 years of international wrangling over the coal and steel resources that was achieved through the ECSC (and implicitly to postulate too optimistic a counterfactual).

Unlike the ECSC, the 1957 Treaty of Rome, creating the European Economic Community (EEC), unambiguously embraced economic liberalism. Underlying the treaty is the doctrine that free movement of goods, services and factors of production will enhance competitiveness. Industrial policy was not mentioned explicitly. Reducing formal trade barriers between members (initially the 'Six') was the major achievement of the early years of the EEC (though national transport pricing policy was sometimes used to offset trade barrier reductions).²¹

One of the surprises of European integration was that the international trade and specialization encouraged was within industries, rather than between them.²² How much of this was due to industrial policy leaning against winds of competition, and how much was a consequence of market forces is not entirely clear.²³ Production of steel

¹⁹Diego Comin and Bart Hobijn, 'Technology Diffusion and Postwar Growth', Harvard Economics Working Paper 11–027 (2010).

²⁰Dirk Spierenberg and Raymond Poidevin, *The History of the High Authority of the European Coal and Steel Community*, London: Weidenfeld and Nicolson (1994).

²¹James R. Nelson, 'Transport Policies for European Economic Integration', *American Economic Review* 58, no. 2 (1968), pp. 278–393.

²²Hubert G. Grubel and Peter J. Lloyd, *Intra-Industry Trade*, London: Macmillan (1975).

²³Paul Krugman, *Geography and Trade*, Cambridge, MA: MIT Press (1991) contends that the main influence was national policy, for otherwise European economic

in the Six more than tripled between 1952 and 1974.²⁴ Between 1952 and 1966, there was a marked increase in European intra-industry trade in intermediate steel products, some of which stemmed from greater intra-industry specialization.²⁵ Exports and production of ten steel commodities showed no tendency for any country to specialize in all products, but probable specialization by each ECSC member in one or two products showed at least a partly market-driven outcome.

Differential international diffusion of cost-reducing techniques was critical to the pattern of specialization. Austria introduced the cost-reducing Basic Oxygen Furnace for steel making in 1952, originally for low phosphorous, alkaline ores, and suitable for flat, pressable steel products. The Dutch quickly took advantage of the new process, importing the ore and scrap through Rotterdam.²⁶ Dutch and German specialization in stamped and coated flat products, and the French and Belgian focus on long products, can be traced to ore characteristics and changes in smelting methods. Italy's low costs of labour and raw materials should have triggered more specialization in ECSC products, but failure to adopt new techniques ensured a concentration on products that used (cheap) hydro-electricity intensively.

Where electricity was concerned, the development of long distance transmission capabilities had not triggered any reduction in national electricity price differences between 1930 and 1950. Instead, countries with cheap water-power promoted the use of domestic electricity, as with Italian steel noted above, or by manufacturing aluminium, rather than exporting electricity. Norway was the extreme example, with far more generation per head even than its nearest rival, Switzerland. In Norway, hydro-generated electricity sold at \$2 per MWh in 1950, whereas Denmark imported coal to produce electricity at about \$20 per MWh.²⁷

activity and population would be as geographically concentrated as it is in the United States. However, if 'history matters', the spatial distribution of industrial activity is path dependent. But this conclusion is not self-evident as European economic history is very different from that of the United States.

²⁴Loukas Tsoukalis and Robert Strauss, 'Crisis and Adjustment in European Steel. Beyond Laissez-Faire', *Journal of Common Market Studies* 23, no. 3 (1985), pp. 207–228.

²⁵Michael Adler, 'Specialization in the European Coal and Steel Community', *Journal of Common Market Studies* 8, no. 3 (1970), pp. 175–191.

²⁶Matthias Kipping, Ruggero Ranieri and Joost Dankers, 'The Emergence of New Competitor Nations in the European Steel Industry. Italy and the Netherlands, 1945–65', *Business History* 43, no. 1 (2001), pp. 69–96.

²⁷United Nations, 'Long Range Transport of Electricity in Europe', *UN Economic Bulletin for Europe* 4, no. 3 (1952).

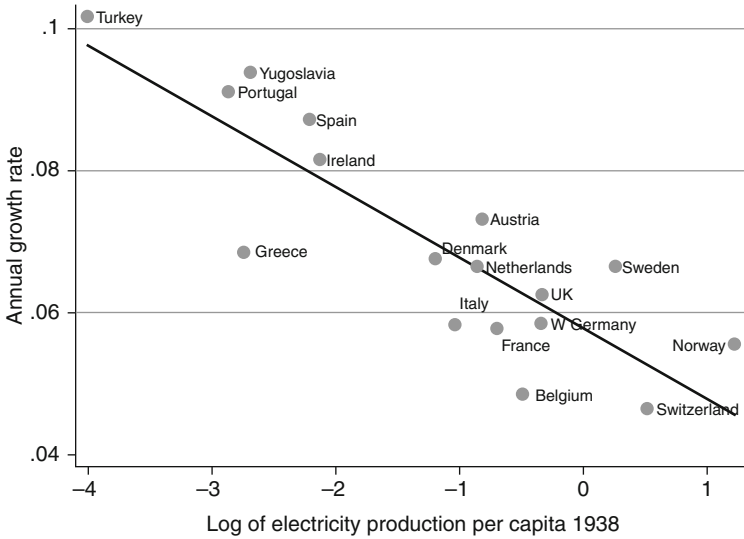


Figure 1.5 Electricity production growth in selected European countries, 1938–1962

Source: Constructed from OECD (1964).

Over the next 12 years, there was a great deal of catching up and convergence in European electricity production and consumption. The most intensive producers in 1938 expanded electricity generation in 1962 by the least, and those countries with initially lower electricity output per head increased production by much more (Figure 1.5). It is as if most European economies were on a common technological trajectory with ‘catching up’. For instance, the UK and Germany started from a very similar position in 1938 and had increased electricity production by similar proportions 24 years later.

Trade in electricity that might have caused such convergence by equalizing prices was minimal; government/nationalized industry pricing policies differed, and so did the fuel mix in electricity generation. Yet, between 1960 and 1973, Western European electricity prices exclusive and inclusive of taxes became closer (the inter-country variance declined).²⁸ Rather than reflecting deliberate policy towards the electricity industry, common domestic fuel price-trends in other markets and common technological developments drove this convergence.

²⁸ Alan S. Duncan and John A. Hassan, ‘Energy Price Convergence in the European Community 1960–1982’, *Applied Economics* 20, no. 1 (1988), pp. 73–79.

1.6 National styles of industrial policy

One of the ironies of industrial policy in this period is that West Germany advanced itself as an apostle of free competition, at least in product markets. But West German railway freight rates promoted amongst the greatest cross-subsidization ever, supported by external subsidies and tight controls upon road haulage to exclude inter-modal competition.²⁹ On German waterways, such flexibility as there was in freight rates and entry conditions was achieved by international competition on the Rhine. Under the 1868 Act of Mannheim, Rhine navigation was free and, therefore, cheaper than transport between (regulated) German ports.³⁰ The Rhine was a critical European transport facility, for the Rhine fleet accounted for one-fifth of freight transported within the European Economic Community. Rotterdam, on one of the mouths of the Rhine, was the world's largest port in terms of tonnage. The vast majority of Rotterdam's tonnage was trans-shipped, and most of this involved transfers between ocean-going vessels and the Rhine fleet. The Netherlands advocated a free transport market, but entry was controlled by the government. France allowed rail freight flexibility in between the Dutch and the Germans, but inland water freight was more constrained than in other countries.

This clash of transport policies had consequences for the operation of the ECSC. In 1952–61, the products subject to ECSC (coal, ore, scrap, iron and steel products) accounted for more than one-half of Common Market rail freight tonnage and one-fifth of water tonnage. Coal and steel transport policy achieved a new international base point pricing system for steel products and some raw materials. This partly explains why the ECSC never managed to dismantle the Ruhr coal cartel under Article 65 of the Treaty, and why it was unable to end collusive practices in the steel industries.³¹

While industrial development converged, stated national positions on industrial policy remained very different;³² compare France and

²⁹James R. Nelson, 'Transport Policies for European Economic Integration', *American Economic Review* 58, no. 2 (1968), pp. 378–393.

³⁰Created in 1815 at the Congress of Vienna, the Central Commission for Rhine Navigation enforced and interpreted the Act of Mannheim in the period of interest, and was sometimes in conflict with the ECSC and the European Commission.

³¹Spierenberg and Poidevin (1994), *History of the High Authority*.

³²Christopher Wilkinson contended that national policies differed more in their language than in their practice – Christopher Wilkinson, 'Trends in Industrial Policy in the EC. Theory and Practice', in: Alex Jacquemin (ed.), *European*

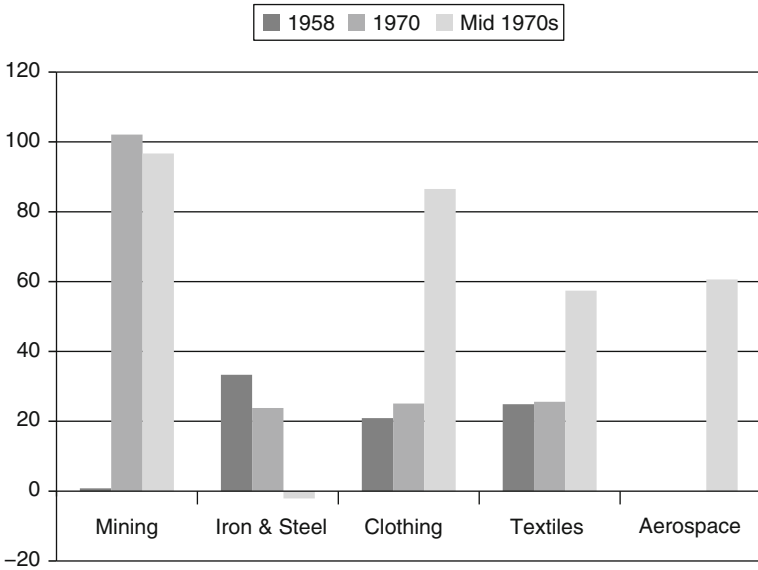


Figure 1.6 Effective rates of assistance to selected West German industries, 1958–1975

Source: Calculated from Giersch, Paqué and Schmieding (1992), pp. 228–229, table 26.

Germany. An official West German statement in 1969 stated ‘The free market order constitutes the basis of all economic policy in the Federal Republic’. On the other hand, the French maintained that ‘industry is the key to a balanced national economic development [...] The activities of Government in this regard are accordingly factors of major importance’.³³ Yet both countries were spending about the same proportion of output on industrial support by the beginning of the 1970s (around 2 per cent).³⁴ Even in 1958 the West German effective subsidy rate for iron and steel was more than 30 per cent and by 1970, for coal mining, it was 100 per cent (Figure 1.6).³⁵

Industry. Public Policy and Corporate Strategy, Oxford: Clarendon Press (1984), pp. 39–83.

³³OECD, *The Industrial Policies of 14 Member Countries*, Paris: OECD (1971).

³⁴William J. Adams, ‘Introduction’, in: William J. Adams and Christian Stoffaes (eds.), *French Industrial Policy*, Washington, DC: Brookings Institute (1986), pp. 3–8.

³⁵Herbert Giersch, Karl-Heinz Paqué and Holger Schmieding, ‘The Fading Miracle. Four Decades of Market Economy in Germany’, Cambridge: Cambridge University Press (1992).

Table 1.1 Sectoral distribution of R&D in manufacturing in selected Western European countries and in the United States, 1967 and 1975 (government-financed as percentage of total government R&D)

		France	West Germany	UK	US
Electrical/Electronics	1967	25.6	29.8	27.9	28.8
	1975	35.7	31	34.5	30.4
Aerospace	1967	66.1	24.9	61	56.3
	1975	57.8	40.9	58.8	54.7
Machinery	1967	2.4	37.1	7.4	6.4
	1975	1.4	20.7	1.9	6.7

Source: Economic Commission for Europe (1981), pp. 345–433.

Britain did not submit a paper to the OECD industrial policy enquiry where these statements were published, but the distribution of state R&D spending and support was, in 1967, broadly similar in Britain and France as well as the US (all focusing mainly on aerospace) (Table 1.1). Differences in ideologies and rhetoric were largely over-ridden in practice by the industrial demands of maintaining global military aspirations. Germany was unusual in the proportionate extent of support for mechanical engineering – reflecting existing comparative advantage and lower ‘defence’ commitments compared with the other three countries.³⁶

1.7 National security and industrial policy

‘Market failure’ is a strong theoretical justification for state R&D support as an element of industrial policy.³⁷ But in practice, much of this state spending was tied to security objectives or ‘*grands projets*’. For Britain and France, the supersonic passenger aircraft Concorde absorbed a huge proportion of national R&D budgets. West Germany initiated a nuclear programme in 1956, and later spent around DM 1 billion on the VFW 614 jet aircraft; both projects were ultimately cancelled, however. But the really big spenders on R&D were the centrally planned economies of Eastern Europe. The Soviet Sputnik of 1957 was a product of this type of resource allocation, yet it is doubtful that such outlays raised living

³⁶United Nations, ‘Exploration of Growth Determinants and Patterns’, *UN Economic Bulletin for Europe* 33, no. 3 (1981).

³⁷Market failures are particularly liable to arise in the generation and utilization of knowledge. Those who do not invest in research and development (R&D) may often nonetheless gain knowledge from others’ investment. In this case, there is likely to be underinvestment in R&D, because the ‘free riders’ do not pay.

standards very much. The conventional wisdom at the time, however, emphasized the 'spillovers', or unexpected beneficial consequences of R&D spending; a UN survey asserted that it was generally recognized that R&D during the Second World War was responsible for the economic acceleration of the late 1950s and 1960s.³⁸

By contrast with state-dominated technology advancement in much of Europe, more than three-quarters of Swiss R&D came from private sources in 1967, and therefore sought a return in greater market sales.³⁹ Most likely, the affluent Swiss, not the West Germans, pursued the industrial policy that they claimed when they stated; 'the Swiss economy is based on the principle of private initiative and freedom of trade and industry'.⁴⁰

Did security objectives crowd out productive investments more generally? In view of the importance placed on national security by some industrial policies, it is worth looking at military spending while recognizing that this is only an approximate method of capturing what is required, namely, the opportunity cost of resources diverted over the whole period. A 'man years as a proportion of the population' measure indicates a substantial rise in the military effort before and immediately after the outbreak of the Korean War. The UK was spending proportionately more than the US, the USSR and every (other) European country (Figure 1.7). This must have diverted resources from valuable civilian uses.

The potential of military outlays crowding out productive investment was also substantial for France and the Netherlands. West Germany and Austria were affected differently, being obliged to pay occupation costs, rather than diverting industry for military purposes. For most West European economies subsequently, the proportionate spending trend was downwards, but across countries the 1950/51 defence spending pattern persisted throughout our period (Table 1.2). Britain always spent at least 1 per cent more of GDP than any other West European country (with the partial exception of Portugal and Greece).⁴¹ During the Korean War year of 1951, the UK allocated almost 4 per cent of GNP more than the next highest spending Western European country (and a total of more than one-eighth of GNP).

³⁸United Nations (1981) 'Exploration of Growth Determinants and Patterns', p. 389.

³⁹OECD (1971), *Industrial Policies*.

⁴⁰OECD (1971), *Industrial Policies*, p. 328.

⁴¹The great political mistake of the Salazarist regime in Portugal, the failure to withdraw from Africa, led to the percentage of military expenditure rising to exceed that of the UK in 1975, when the regime fell.

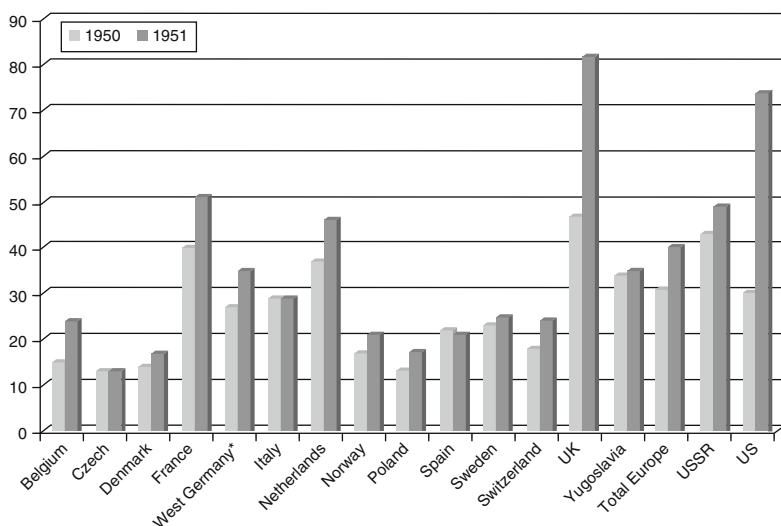


Figure 1.7 Military commitment in industrial man years per 1000 inhabitants in selected countries, 1950 and 1951

Source: United Nations (1952), p. 138, table 67.

Table 1.2 Defence expenditure in Western Europe, 1950–1975 (in percentages of GNP)

	1950/51	1951/52	1966	1975
Austria	1.2	0.9	n.a.	1
Belgium	2.7	4.6	3.5	3
Luxembourg	n.a.	n.a.	1.4	n.a.
Denmark	2.1	2.9	2.6	2.6
France	6.4	9.3	4.8	4
W. Germany	6.4	9.5	5.7	3.6
Greece	n.a.	n.a.	3.6	6.3
Ireland	1.1	n.a.	n.a.	n.a.
Italy	6.4	7	3.3	2.8
Netherlands	7	9.7	4.3	3.5
Norway	3.6	4.9	3.9	3.3
Portugal	n.a.	n.a.	6.5	7.6
Spain	4.3	4.4	2.4	3
Sweden	3.4	4.1	4.6	3.2
Switzerland	3	4.1	2.5	1.9
Turkey	6.2	n.a.	4.3	4.5
U.K.	7.6	13.4	6.8	5

Sources: Year 1950 and 1951: United Nations (1953), p. 136, table 66; year 1966 and 1975: US Annual Abstracts of Statistics.

A study of military spending between 1954 and 1973 in fourteen large OECD economies concluded that the data were consistent with one-for-one crowding out of investment.⁴² If this result is accepted, then Western European growth would have accelerated in the 1960s compared to the 1950s (as it did) because of the reduction of ‘wasteful’ defence spending as a proportion of GNP. Moreover, defence spending emerges as a possible contributory explanation for relatively slow British economic growth. Even 1 per cent of GNP lower investment, because of ‘excessive’ defence spending, with an incremental capital-output ratio of 3, might reduce the long-term growth rate by one-third of 1 per cent, a significant proportion of the actual UK growth rate in this period.⁴³

1.8 Markets, plans and policy

Across Europe, with the exception of Switzerland, ‘planning’ was initially considered a vital element of industrial policy, but planning is not necessarily an alternative to the market; it may be a complement. Planning involves distinguishing means, ends and constraints, and taking a view about what the future will hold. There are no future markets for most factors of production, goods and services, and hence there may be a coordination problem that might be addressed by managing expectations. Planning may be undertaken centrally, as it was in Eastern Europe, or at the level of the household and by the firm. A distinction can be drawn between firms that planned for the market and firms that used monopoly to control the market, arranging target prices and costs.⁴⁴ In the second category fall enterprises belonging to

⁴²Ronald P. Smith, ‘Military Expenditure and Investment in OECD Countries 1954–1973’, *Journal of Comparative Economics* 4, no. 1 (1980). There is a very substantial academic literature in recent years attempting to estimate the impact of defence spending on economic growth; for example Hsin-Chen Chang *et al.*, ‘Military Expenditure and Economic Growth across Different Groups. A Dynamic Panel Granger-Causality Approach’, *Economic Modelling* 28, no. 6 (2011), pp. 2416–2423. But these almost invariably cover a later period when expenditure components and levels differed from those of concern here.

⁴³For simplicity ignoring depreciation, the ratio of investment to GDP (Y) is the ratio to GDP of the increase in the capital stock (ΔK). The incremental capital-output ratio ($\Delta K/\Delta Y$) shows the increase in capital necessary to produce a given increase in output or GDP. A fall of 1 per cent in the investment ratio means ($\Delta K/Y$) falls by 0.01. The effect of this reduction of investment on output growth is found by dividing by the incremental capital output ratio; $(\Delta K/Y)/(\Delta K/\Delta Y) = \Delta Y/Y = 0.01/3 = 0.0033$ or one-third of 1 per cent.

⁴⁴J.K. Galbraith, *The New Industrial State*, 2nd ed., Gretna, LA: Pelican (1974).

the 'military-industrial complexes' that share goals, and in effect, are decision-makers along with the procuring defence ministries.

Central planning can set the framework (by establishing institutions such as the Bretton Woods System), or directly determine where resources will go, what is to be produced and who is to be rewarded. In 1939 the only country in Europe with an entirely 'planned economy' was the Soviet Union. By the end of 1949, political *coups* in eight other European countries led to state ownership of production. France, the Netherlands and Norway implemented reconstruction plans around the same time.⁴⁵

In Western Europe, the reasons for 'planning' included, first, the convergence of theoretical 'advances' in macroeconomics, national income accounting and input-output analysis that encouraged a global view of the economy. Second, a more active role for government, a legacy of the 1930s Depression and of war, appeared to be a remedy for supposed inadequacies of the price mechanism, especially to ensure a high level of economic activity and adequate long-term investment. Hence, in most countries, the greater size of the public sector was a consequence of more pervasive state control. A third reason was a growing preoccupation with long-term objectives – in particular economic growth. A fourth was widening participation in the shaping of policies. Svernilson noted that this opening was a consequence of the formation in the inter-war years of national-level lobbies that believed they had a right to determine their share of national income.⁴⁶

It is important to distinguish between the immediate post-war planning for reconstruction with direct controls in Western Europe and the later phase of 1960s planning. Plan implementation was problematic in this second case, even in cases where large sectors of industry were state owned. Selective policy instruments were taxation and credit planning, but at its peak, planning was largely indicative in France, the UK, Netherlands, Norway, Sweden and Belgium. Germany, with its 'social market economy', remained ideologically opposed (although in 1967 West Germany passed a 'Law for Promoting Stability and Growth in the Economy' to permit five-year planning and deficit spending).

⁴⁵ United Nations, 'Long Term Plans in Western Europe', *UN Economic Bulletin for Europe* 14 (1962); United Nations, 'Economic Planning in Europe', *Economic Survey of Europe in 1962*, Geneva: UN (1965).

⁴⁶ Ingmar Svernilson, *Growth and Stagnation in the European Economy*, Geneva: UN EC for Europe (1954).

The majority of long-term plans of the early 1960s in Western Europe did not contain much detail on specific policy measures. However, when the documents were made official, they suggested at a minimum the guidelines for ensuring that policies be consistent with plan objectives.⁴⁷ These plans were mainly concerned with macroeconomics and regions; prices and incomes policies were favoured, wherein wage and price increases were supposed to be limited to some target figures.

Governments were not obliged to implement the plans in Finland, the Netherlands and Sweden. They were nominally committed in France, Greece (but not subject to parliamentary ratification), Turkey, Portugal and Norway. Italy appointed a planning commission in 1962. Spain prepared economic development plans, while Ireland restricted itself to public expenditure projections for the years 1958–64. Being concerned about slow economic growth, and impressed by French performance, the UK established the National Economic Development Council in 1961 to mimic the consultation process of French indicative planning. France encouraged private-interest participation in plan formation; in the first four year plan, the Commissariat had informally consulted several thousand leading figures from business, labour and agriculture. Norway on the other hand, involved public authorities only.⁴⁸

Perhaps the most forceful advocate nowadays of the view that markets alone were insufficient to coordinate economic activity in the great European boom is Barry Eichengreen.⁴⁹ He contends that institutions are necessary to stabilize and link expectations and ensure commitment; they provide a level of planning. This was certainly a view taken by firms that formed cartels and other restrictive practices. Eichengreen places great emphasis on corporatist institutions affecting labour markets favourably during ‘catch up’ growth. He identifies the UK and Ireland as especially inept or unfortunate in failing to develop appropriate domestic institutions. France and Italy managed to do so, but only with a delay. He maintains that these different institutional responses contribute substantially to the explanation for variations across countries in growth performance. If workers could be convinced of the value

⁴⁷United Nations, ‘Long-term Plans in Western Europe’, *UN Economic Bulletin for Europe* 14 (1962), pp. 57–88.

⁴⁸United Nations (1962), ‘Long-term Plans’, p. 72.

⁴⁹Barry J. Eichengreen, ‘Institutions and Economic Growth. Europe after World War II’, in: Nicholas F. Crafts and Gianni Toniolo (eds.), *Economic Growth in Europe since 1945*, Cambridge: Cambridge University Press (1996); Barry J. Eichengreen, *The European Economy since 1945. Coordinated Capitalism and Beyond*, Princeton, NJ: Princeton University Press (2007).

of pay-restraint now for their future incomes, firms would be left with more resources for investment. This would boost economic growth and workers' future living standards.

Germany exemplifies successful institutions – and the contribution of a competitive environment.⁵⁰ The Deutscher Gewerkschaftsbund umbrella organization for industrial unions enabled the metal workers (as leader union) to pick a level of wage increases appropriate to the growth of the economy, and other unions followed. The Netherlands also possessed neo-corporatist institutions developed in the 1930s and 1940s, culminating after the war in the Labour Foundation, where unions, employers and experts could discuss wages, investment and social policy.

France, on the other hand, had fragmented industrial relations. The major unions possessed different ideological orientations and histories of hostility towards each other. But in 1924, a consultative body of labour management and consumers had been established and, under Vichy, an agency for allocating industrial products based on industry-level committees was created, which became a precedent for De Gaulle's Planning Commissariat of 1946. Britain also inherited a decentralized industrial relations system. The Trades Union Congress had little control over affiliated unions, and the position was similar for the employers' organizations, the FBI and the BEC, who could not guarantee the loyalty of their corporate members.

There are some similarities and some differences between Eichengreen's approach and Van der Wee's threefold classification of the institutions of the mixed economy.⁵¹ Van der Wee's 'central consultation' category includes Sweden, the Netherlands, Austria and Belgium. These countries institutionalized cooperation, advice and discussion between the 'social partners', that is workers and employers. His second group of economies, those with 'neo-free market' institutions, are exemplified by West Germany, where the Freiberg School and Walter Eucken were intellectually influential. After the war, some cartels were dismantled, some firms were privatized or broken up, the big banks were split up, and support was provided for SMEs as *Mittelstandspolitik* (discriminatory, and not horizontal policies). To this pro-competitive market orientation was added worker participation in management. Less obviously pro-competitive, the BDI grouped 39 national industry federations as an information centre and negotiating organization in

⁵⁰ Eichengreen (2007), *The European Economy*, pp. 93–97.

⁵¹ Herman van der Wee, *Prosperity and Upheaval. The World Economy, 1945–1980*, New York: Viking (1986).

1949. Also by the 1960s, the federal government owned 40 per cent of coal and iron, 62 per cent of electrical power, 62 per cent of banks and 72 per cent of the aluminium industry, while regulation of coal and steel was undertaken by mutually agreed long-term investment plans. In fact West Germany was very much a 'mixed economy'.

Van der Wee's third category was the 'Neo-collectivists' that included France, Italy and the UK. Whereas Eichengreen's institutional account distinguishes somewhat the UK from France and Italy, in line with van der Wee, these three score similarly on Michèle Belot's national 'coordination index'.⁵² This index ranges from 1 (fragmented company/plant bargaining with little or no coordination by upper level associations) to 3 (informal coordination of industry level bargaining by an encompassing union confederation; coordinated bargaining by high-level associations or government imposition of a wage schedule/freeze, with a peace obligation). The UK scores 1.5 between 1960 and 1979, the US scores 1 and West Germany 3 (consistent with Eichengreen). Switzerland's wage bargaining institutional arrangements (2.25) were moderately corporatist (especially compared with France, Italy and the UK),⁵³ and accompanied high R&D spending. Nevertheless, as already noted, the Swiss vigorously denied possessing any industrial policy.

A plot of the Belot index against economic growth shows only a weak positive association among national economies in Western Europe. Inspection of Figure 1.8 suggests that Spain reduces the⁵⁴ chance of identifying a positive relation. Spain has a coordination index number of 2, the same as Belgium and the Netherlands, but a much more rapid pace of growth. The obvious reason for this, is that Spain had a far wider scope for 'catch up' growth. Similarly, a relatively backward Italy had the same coordination index value as the UK, but grew much faster. Switzerland's coordination index is higher than either that of Spain or Italy, but economic growth was little better than the UK's. It could be argued that coordination was the reason for 'catch up' growth, and therefore they cannot be separated from each other. But if we do try to separate them, that is we control for 'backwardness' and include 'coordination', the 'catch up' term is statistically significant, but

⁵²Cited in table 10 Stephen Nickell, 'Labour Market Institutions and Unemployment in OECD Countries', *CEifo DICE Report 2* (2003).

⁵³Nickell (2003), 'Labour Market Institutions'.

⁵⁴However, robust regression, which reduces the weight on 'outlier observations', does not establish a statistically significant relationship either.

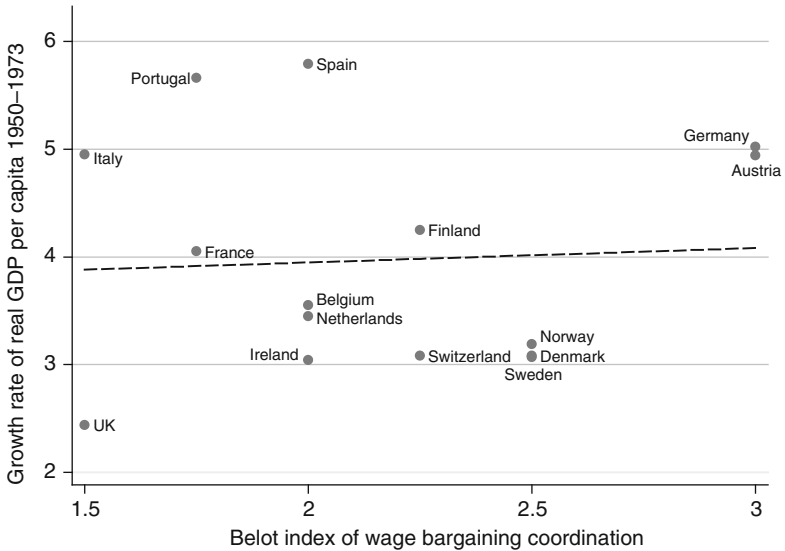


Figure 1.8 Economic growth, 1950–1973 (annual percentages) and national coordination in Western Europe (Belot Index) during the ‘Economic Miracle’
 Source: Constructed from Nickell (2003), table 10; and Maddison (2001), table A1–d.

coordination is not. This is illustrated in Figure 1.9, where the catch up effect is added to growth performance and plotted against coordination. There is slight evidence of an upward-sloping relation, but it is very faint. Spain and Ireland contrast with the same coordination index, but vastly different growth rates. Italy, with about the same initial value of GDP per capita as Ireland, and a lower coordination index, grows much faster.⁵⁵ The estimated relationship implies that if the UK had West Germany’s level of coordination, the UK growth rate would have been higher by one-half of 1 per cent, although the hypothesis that the true line actually has a zero gradient cannot be rejected. Admittedly, this is an unsophisticated test, but some approach is needed to compare the considerable number of European countries systematically. At first sight then, the case for ‘planning’ by labour market institutions is hardly decisive in explaining growth differences and policy success.

⁵⁵ If a high-growth Greece, with low coordination institutions, was added in to the scatter, the chances would be reduced that the true line of best fit would have a positive gradient.

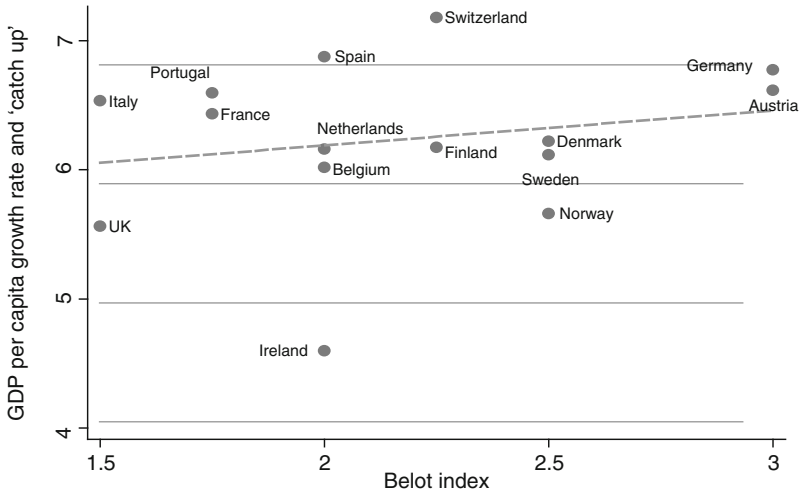


Figure 1.9 Economic growth in Western Europe, 1950–1973 (controlled for ‘catch up’ potential and national coordination).

Source: Constructed from Nickell (2003), table 10; and Maddison (2001), table A1–d.

1.9 State industries

Important elements of industrial policy were, in many cases, nationalization and nationalized industries. State ownership of industry was encouraged by private firm bankruptcy in the 1930s, by wartime needs, and by ‘rationalization’ for scale economies. Theoretically, it provided a means for direct state control of the economy, exercised in Britain during the late 1940s by holding domestic electricity prices well below costs on grounds of fairness.⁵⁶ The pervasive effects of coal shortages on industry can be traced to the politically fixed low price of coal. Hence the unusual use of electric fires for heating and electricity cuts. The first French Plan from 1946 to 1952 was focused on heavy industry, which was largely state-owned anyway, so plan implementation merely required directives. One-fifth of total industrial production, 32 insurance companies and the four largest banks came under state control. By 1950, the Italian state controlled 80 per cent of shipbuilding, 40 per cent of rolling stock production, 60 per cent

⁵⁶Martin Chick, *Industrial Policy in Britain 1945–51*, Cambridge: Cambridge University Press (1998).

of pig iron, and 43 per cent of steel, mainly as an interwar period inheritance.

Most other Western European states also had nationalized substantial proportions of industry, especially those with supposed 'natural monopoly' characteristics, like the utilities. In 1971, more than half of Italian investment and 17 per cent of output was attributable to public enterprise. Sweden was at the other end of the spectrum, with 9.5 per cent of investment and 6.5 per cent of output. Germany, France and Britain were close together in this respect, and in between the polar opposites of Sweden and Italy. By the end of the 1970s, the high tide of interventionism, in most of Western Europe, electricity, gas, coal, airlines, and steel were likely to be owned by the state. Moreover, governments held stakes in the motor industries in Austria, France, Britain, Italy, the Netherlands and West Germany. State ownership of railways and the postal service was complete in Europe, and only Spain broke the otherwise 100 per cent nationalization of the telecommunications sector.

State ownership could prove expensive. Subsidies to state railways in 1977 (percentage of current and capital expenditure not covered by traffic receipts) were 46 per cent for Germany, 44 per cent for France, 69 per cent for Italy, 28 per cent for Britain and 16 per cent for Sweden. Although on average state enterprises failed to break even between 1948 and 1980, telecoms and electricity supply were typically profitable until the 1970s, as were airlines, with the exception of Lufthansa. All were damaged by state-determined anti-inflation policies in the form of price squeezes that were enacted around 1970. Nonetheless, between 1950 and 1973, productivity growth was faster than in comparable US industries thanks to 'catch up'.⁵⁷

Perhaps 'catch up' would have been quicker under different ownership and control structures, as the absence of external competition reduced incentives for efficiency and yardsticks. Britain's 'Morrisonian corporations' were established as industry monopolies, deliberately designed so as not to be in competition with the private sector or anybody else.⁵⁸ By contrast, Italy's state enterprises were run as if they were separate private businesses and priced accordingly. French nationalized companies continued to operate under existing management. In principle, a corporate structure could be imagined where the state is the only

⁵⁷ Robert Millward, *Private and Public Enterprise in Europe. Energy Telecommunications and Transport 1830–1990*, Cambridge: Cambridge University Press (2005).

⁵⁸ James Foreman-Peck and Robert Millward, *Public and Private Ownership of British Industry 1820–1990*, Oxford: Oxford University Press (1994).

shareholder, with a self-denying ordinance neither to interfere in day to day operations nor to provide subsidies, but to expect a reasonable return on equity. If enterprises in this position were then subject to market competition, there seems little reason to expect them to perform better or worse than privately owned corporations. But to the extent that any of the postulated conditions was not met, there is a case for expecting a poorer performance.

1.10 Competition and competition policy

'Planning' by the private sector, often supported by the state, included the formation of cartels and restrictive collective agreements, usually as a response to stagnant or contracting markets. During the 1930s there were more than 3,000 cartel agreements in Germany. International cartels, too, were widespread then. The largest chemical company in the world, IG Farben, was legally broken up only in 1950.⁵⁹ And in the UK, as late as 1952, two-thirds of industrial raw materials were still covered by war-time material allocations devised by trade associations. Competition was not in fashion in the early years of the great boom.

In principle, competition should have been increased by the General Agreement on Tariffs and Trade (GATT) of 1947. All Western European countries were signatories to this agreement, by which import quotas that had been so destructive between the world wars, were forbidden. But currency restrictions rendered the agreement ineffective for many years.

West Germany adopted anti-trust legislation in 1957, in response to US pressure and the passage of the legislation met little resistance because of the rapid pace of economic expansion. On the other hand, US pressure on Italy was ineffective (partly because of concern about communism). The Italian government was always about to present to parliament the law to eliminate restrictive business practices, but the draft never reached the assembly. In 1952–53 the government assigned the monopoly of oil and gas drillings in Italy to a new state-owned company, ENI, despite the efforts of American oil companies.

The earliest restrictive practices legislation in the UK (1948) was largely ignored, while later legislation (1956, 1965, 1968, 1973) was not enthusiastically enforced. In short, for much of the great boom,

⁵⁹ Luciano Segreto and Ben Wubs, 'Adoption or Adaptation? German and Italian Big Business and the American Anti-Trust policy, 1945–57', in: European Business History Association Conference, Athens (2011).

competition policy was not in itself a major driver, but rather lack of competition in the UK was a reason for its lagging behind the European economies. The agreements registered in compliance with the 1956 Act show that little more than one-quarter of manufacturing was free of price-fixing and more than one-third was cartelized.⁶⁰ Cartelization was strongly negatively related to productivity growth in manufacturing industries for the decade after 1954.⁶¹ Also, price–cost margins in British manufacturing, for most of the period being examined were almost double those in West Germany.⁶² However, there is evidence of greater competitive pressure and efficiency towards the end of the period in the UK, some of which may have stemmed from legislation (Symeonidis finds an acceleration of productivity growth in formerly cartelized sectors after the 1956 Act),⁶³ though most is likely to have stemmed from greater international openness and competition.

International competition was promoted by the reduction of trade barriers either within customs-unions, free trade areas, or across the board. Britain and some small economies remained outside the Common Market customs union and formed a free trade area (EFTA) in 1960, without a common external tariff and the supranational elements of the 1957 Rome Treaty.⁶⁴ Effectiveness is demonstrated by intra-European trade – both among the ‘Six’ and larger groupings of European states, such as the twelve subsequent members of the EU – growing faster than total European trade. Purely supply-driven trade-growth should have boosted the trade of the Six and all European trade, equally. Although the original economic theory of customs unions predicts only small gains from this liberalization, models based on different assumptions – scale economies and imperfect competition – generate larger benefits that are more consistent with the strong industrial growth of the period.

⁶⁰Stephen Broadberry and Nicholas F. Crafts, ‘Competition and Innovation in 1950s Britain’, *Business History* 43, no. 1 (2001), pp. 97–118.

⁶¹Stephen Broadberry and Nicholas F. Crafts, ‘British Economic Policy and Industrial Performance in the Early Post-War Period’, *Business History* 38, no. 4 (1996), pp. 65–91.

⁶²Nicholas F. Crafts and Terence C. Mills, ‘TFP growth in British and German Manufacturing, 1950–1996’, *Economic Journal* 115, no. 505 (2005), pp. 649–670.

⁶³George Symeonidis, ‘The Effects of Competition on Wages and Productivity. Evidence from the United Kingdom’, *Review of Economics and Statistics* 90, no. 1 (2008), pp. 134–146.

⁶⁴The original EFTA partners with Britain were Norway, Sweden, Denmark, Switzerland, Portugal and Austria.

Table 1.3 'Catch up' growth and opening up, 1950–1973

	Growth p.a. GDP per hour worked	Vol. export growth p.a.
Western Europe (12)	4.7	8.6
Common Market (5)	5.2	10.4
Portugal, Italy, Greece, Spain	5.8	8.4
Eastern Europe (7 incl. USSR)	4.5	9.3
USSR	3.4	9.5
Latin America (7)	3.3	4
Japan	7.7	15.4
United States	2.7	6.3

Note: Arithmetic averages of countries.

Source: Calculated from Angus Maddison (1995), table 3-10, 1-2 (USSR) and I-1 (Eastern Europe assuming a similar price deflator to the USSR's).

Overall export growth of the original Common Market countries (especially Germany) was spectacular (Table 1.3), exceeding the average for Western Europe as a whole and, more interestingly, the average for Portugal, Ireland Greece and Spain. This latter group of countries had low incomes, and so might be expected to benefit considerably from 'catch up' growth, as they did. However, their export growth was lower than the (higher-income) Common Market countries. A plausible corollary is that, had the low-income group opened up to large markets as much as the Common Market, their growth would have been faster.

A related test case is Eastern Europe and the USSR (subject to some measurement questions); their export growth (raw material-based in the case of the USSR) was not far behind the Common Market's. But despite their low incomes, their productivity growth was low. The shortcomings of central planning compared with the 'mixed economy' is the obvious explanation for this poor performance.

Adding export growth into the GDP per capita convergence model leaves exports as a significant contributor to overall economic growth (Figure 1.10).⁶⁵ As with Figure 1.9, the vertical axis is the actual growth rate plus any boost from starting the period with low productivity, thereby creating a greater margin for 'catching up'. In contrast to Figure 1.9, the

⁶⁵This is a robust result for most of the world from 1960. See: Kevin D. Hoover and Stephen J. Perez, 'Truth and Robustness in Cross-Country Growth Regressions', *Oxford Bulletin of Economics and Statistics* 66, no. 5 (2004), pp. 765–798.

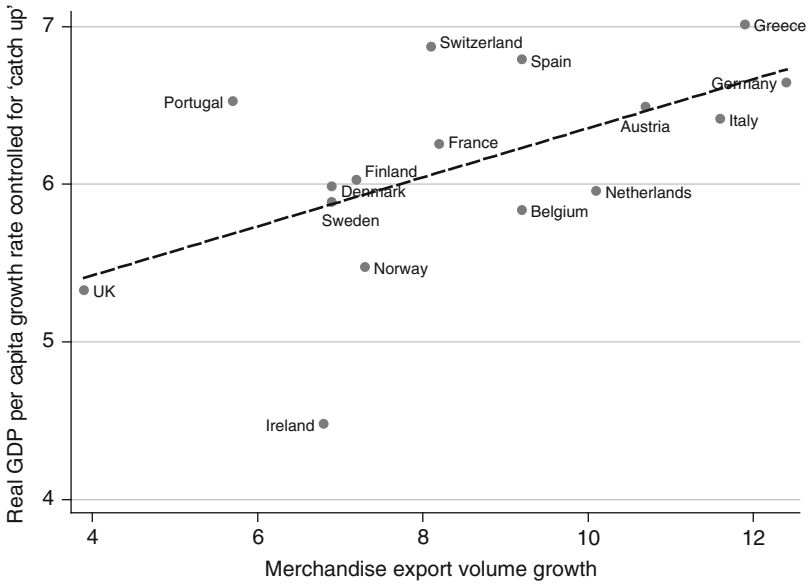


Figure 1.10 Export growth and GDP per capita growth in Western Europe, 1950–1973 (controlled for convergence)

country scatter of Figure 1.10 clusters more closely around the line of best fit. If the UK had Germany's export growth, according to this (very simple) model British GDP per capita growth would have been 1.3 per cent higher – an increase of almost two-thirds. Of course it is the policies necessary to achieve such export growth that are fundamental; among these policies, joining the Common Market in 1957 may have been critical for the UK. It might be contended that high growth rates of exports are a reflection of a more dynamic economy rather than a contributor, but the evidence from the fast growing economies supports the view that opening up to foreign competition and opportunities underpinned both export growth and rising incomes.

1.11 Conclusion

The 30 years after the Second World War was a uniquely successful period in European economic and industrial history. This success stemmed from the reconfiguration of international relations and the generally constructive economic policies of the great powers. Within

Europe, the ideological non-planners, Switzerland and West Germany, did well (staying ahead in per capita incomes and output). On the other hand, the ideology may not have been essential, for West Germany had a large state-controlled sector and dispensed substantial industrial subsidies. The central planners (Eastern Europe) generally performed more poorly than the 'mixed economies' of Western Europe.

Spain and Greece were stars in the industrial productivity growth firmament. Yet the lower growth of exports to GDP in these southern European economies may have reflected under-performance. They started from a low base, and therefore had even more scope for 'catch up' than they actually exploited. Ireland was an extreme case that demonstrated how much could be lost in this period, by failing to open up to the world economy. Institutions for the coordination of labour bargaining do not seem to be decisive for the most rapidly growing economies.

State industries appear to have been satisfactory performers until or unless they were required to fulfil macroeconomic or equity objectives (with their prices, employment and/or investment). Even so, like Spain and Greece, it is not easy to refute definitely the claim that they could have achieved more than they did. Competition policies conflicted with a desire for scale in state industries and were not pursued enthusiastically. But increasing international trade and investment openness had a similar type of impact that was greater in magnitude. Greater openness was a response to policy that had learned the lessons taught by history (of the 1920s and 1930s), and perhaps helped by the Cold War. Such strategies are not conventionally thought of as industrial policy, but they are consistent with the present definition.

Investment in defence and in '*grands projets*' almost certainly diverted R&D resources from more socially valuable activities in many countries – in Britain and France especially. Support for declining industries was widespread by the end of the period, even in West Germany. This reflected the concern of industrial policy not only with productivity and competitiveness, but also with 'stability' or maintaining the support of influential groups – be they miners or aerospace industrialists – for the social market economy.

Acknowledgements

Thanks to participants in the 'Planning the Economic Miracle' conference Berlin September 2011 and to Jean-Pierre Dormois and Pier Angelo Toninelli for comments and suggestions.

References

- Adams, William J., 'Introduction', in: Adams, William J. and Christian Stoffaes (eds.), *French Industrial Policy*, Washington, DC: Brookings Institute Washington (1986), pp. 3–10.
- Adler, Michael, 'Specialization in the European Coal and Steel Community', *Journal of Common Market Studies* 8, no. 3 (1970), pp. 175–191.
- Aujac, Henri, 'An Introduction to French Industrial Policy', in: Adams, William J. and Christian Stoffaes (eds.), *French Industrial Policy*, Washington, DC: Brookings Institute Washington (1986), pp. 13–36.
- Barjot, Dominique, *Catching up with America. Productivity Missions and the Diffusion of American Economic and Technological Influence after the Second World War*, Paris: Sorbonne (2002).
- Barro, Robert and Xavier Sala-i-Martin, *Economic Growth*, New York: McGraw-Hill (1995).
- Broadberry, Stephen and Nicholas F. Crafts, 'British Economic Policy and Industrial Performance in the Early Post-War Period', *Business History* 38, no. 4 (1996), pp. 65–91.
- Broadberry, Stephen and Nicholas F. Crafts, 'Competition and Innovation in 1950s Britain', *Business History* 43, no. 1 (2001), pp. 97–118.
- Broadberry, Stephen, *The Productivity Race: British Manufacturing in International Perspective 1850–1990*, Cambridge: Cambridge University Press (1997).
- Chang, Hsin-Chen, Bwo-Nung Huang and Chin Wei Yang, 'Military Expenditure and Economic Growth across Different Groups: A Dynamic Panel Granger-Causality Approach', *Economic Modelling* 28, no. 6 (2011), pp. 2416–2423.
- Chick, Martin, *Industrial Policy in Britain 1945–1951*, Cambridge: Cambridge University Press (1998).
- Comin, Diego and Bart Hobijn, *Technology Diffusion and Postwar Growth*, Harvard Economics Working Paper 11-027 (2010).
- Cowling, Keith, 'Introduction', in: Keith Cowling (ed.), *Industrial Policy in Europe. Theoretical Perspectives and Practical Proposals*, London/New York: Routledge (1999), pp. 3–16.
- Crafts, Nicholas F. and Terence C. Mills, 'TFP Growth in British and German Manufacturing, 1950–1996', *Economic Journal* 115 (2005), pp. 649–670.
- Duncan, Alan S. and John A. Hassan, 'Energy Price Convergence in the European Community 1960–1982', *Applied Economics* 20 (1988), pp. 73–79.
- Eichengreen, Barry J., 'Institutions and Economic Growth: Europe after World War II', in: Crafts, Nicholas F. and Gianni Toniolo (eds.), *Economic Growth in Europe since 1945*, Cambridge: Cambridge University Press (1996), pp. 38–72.
- Eichengreen, Barry J., *The European Economy since 1945*, Princeton, NJ: Princeton University Press, (2007).
- Eichengreen, Barry J. and Albrecht Ritschl, 'Understanding West German Economic Growth in the 1950s', *Cliometrica* 3, 3 (2009), pp. 191–219.
- Foreman-Peck, James and Robert Millward, *Public and Private Ownership of British Industry 1820–1990*, Oxford: Clarendon Press (1994).
- Fraile Balbin, Pedro, 'Spain: Industrial Policy under Authoritarian Politics', in: Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth Century Experience*, Oxford: Oxford University Press (1999), pp. 233–267.

- Galbraith, J.K., *The New Industrial State*, 2nd ed., Harmondsworth: Penguin (1974).
- Giersch, Herbert, Karl-Heinz Paqué and Holger Schmieding, *The Fading Miracle: Four Decades of Market Economy in Germany*, Cambridge: Cambridge University Press (1992).
- Gombert, Elodie, 'La Vision Du CNPF Sur L'envoi De Missions Françaises De Productivité Aux Etats-Unis Au Début Des Années 1950', in: Barjot, Dominique and Christophe Reveillard (eds.), *L'américanisation de l'europe occidentale au XXe siècle*, Paris: PUPS (2002), pp. 73–88.
- Grubel, Hubert G. and Peter J. Lloyd, *Intra-Industry Trade*, London: Macmillan, (1975).
- Hoover, Kevin D. and Stephen J. Perez, 'Truth and Robustness in Cross-Country Growth Regressions', *Oxford Bulletin of Economics and Statistics* 66, no. 5 (2004), pp. 765–798.
- Kindleberger, Charles P., *Europe's Post War Growth; the Role of Labour Supply*, Oxford: Oxford University Press (1967).
- Kipping, Mathias and Ove Bjarnar, *The Americanisation of European Business: The Marshall Plan and the Transfer of US Management Models*, London/New York: Routledge (1998).
- Kipping, Matthias, Ruggero Ranieri and Joost Dankers, 'The Emergence of New Competitor Nations in the European Steel Industry: Italy and the Netherlands, 1945–65', *Business History* 43, no. 1 (2001), pp. 69–96.
- Krugman, Paul R., *Geography and Trade*, Cambridge, MA: MIT Press (1991).
- Kuisel, Robert, *Capitalism and the State in Modern France*, Cambridge: Cambridge University Press (1981).
- Machado, Barry, *In Search of a Usable Past: The Marshall Plan and Postwar Reconstruction Today*, Lexington, VA: The George C. Marshall Foundation (2007).
- Maddison, Angus, *Monitoring the World Economy 1820–1992*, Paris: OECD (1995).
- Millward, Robert, *Private and Public Enterprise in Europe: Energy Telecommunications and Transport 1830–1990*, Cambridge: Cambridge University Press (2005).
- Nelson, James R., 'Transport Policies for European Economic Integration', *American Economic Review* 58, no. 2 (1968), pp. 378–393.
- Nickell, Stephen, *Labour Market Institutions and Unemployment in OECD Countries*, CESifo DICE Report (2003).
- OECD, *Industrial Statistics 1900–1962*, Paris: OECD (1964).
- OECD, *The Industrial Policies of 14 Member Countries*, Paris: OECD (1971).
- Olson, Mancur, *The Rise and Decline of Nations*, New Haven, CT: Yale University Press (1982).
- Olson, Mancur, 'The Varieties of Eurosclerosis: The Rise and Fall of Nations since 1982', in: Crafts, Nicholas F. and Gianni Toniolo (eds.), *Economic Growth in Europe since 1945*, Cambridge: Cambridge University Press (1996), pp. 73–94.
- O'Malley, Eoin, 'Ireland: From Inward to Outward Policies', in: Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth-Century Experience*, Oxford: Oxford University Press (1999), pp. 215–232.
- Pack, Howard and Kamal Saggi, *The Case for Industrial Policy: A Critical Survey*, World Bank Research Working Paper 3839 (February 2006).
- Pelksman, Jan, 'European Industrial Policy', in: Bianchi, Patrizio and Sandrine Labory (eds.), *International Handbook of Industrial Policy*, Cheltenham (UK): Edward Elgar (2006), pp. 45–78.

- Pepelasis, Ioanna, 'Greece: From Rent-Seeking Protectionism to Direct Intervention', in: Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth-Century Experience*, Oxford: Oxford University Press (1999), pp. 295–318.
- Schröter, Harm. G., 'Americanization in Europe in the Twentieth Century', *European Review of History* 15, no. 4, Special edition (2009).
- Segreto, Luciano and Ben Wubs, 'Adoption or Adaptation? German and Italian Big Business and the American Anti-Trust Policy, 1945–57', European Business History Association Conference, Athens, 2011.
- Shonfield, Andrew, *Modern Capitalism: The Changing Balance of Public and Private Power*, New York/London: Oxford University Press (1965).
- Smith, Ronald P., 'Military Expenditure and Investment in OECD Countries 1954–1973', *Journal of Comparative Economics* 4, no. 1 (1980), pp. 19–32.
- Spierenberg, Dirk and Raymond Poidevin, *The History of the High Authority of the European Coal and Steel Community*, London: Weidenfeld and Nicolson (1994).
- Svennilson, Ingmar, *Growth and Stagnation in the European Economy*, Geneva: United Nations Economic Commission for Europe (1954).
- Symeonidis, George, 'The Effects of Competition on Wages and Productivity: Evidence from the United Kingdom', *Review of Economics and Statistics* 90 (2008), pp. 134–146.
- Tolliday, Steven, 'Enterprise and State in the West German *Wirtschaftswunder*: Volkswagen and the Automobile Industry, 1939–1962', *Business History Review*, vol. 69, Nr. 3 (1995a), pp. 273–350.
- Tolliday, Steven, 'From "Beetle Monoculture" to the "German Model": The Transformation of Volkswagen, 1967–1991', *Business and Economic History* 24 (1995b), pp. 111–132.
- Tomlinson, Jim, 'The Failure of the Anglo-American Council on Productivity', *Business History* 33, no. 1 (1991), pp. 82–92.
- Tsoukalis, Loukas and Robert Strauss, 'Crisis and Adjustment in European Steel: Beyond Laissez-Faire', *Journal of Common Market Studies* 23, no. 3 (1985), pp. 207–228.
- UN, 'Long Range Transport of Electricity in Europe', *UN Economic Bulletin for Europe* 4, no. 3 (1952), pp. 22–33.
- UN, 'Long Term Plans in Western Europe', *UN Economic Bulletin for Europe* 14 (1962), pp. 57–88.
- UN, 'Exploration of Growth Determinants and Patterns', *UN Economic Bulletin for Europe* 33, no. 3 (1981), pp. 345–433.
- UN-ECE, 'Economic Planning in Europe', in: *Economic Survey of Europe in 1962*, Part 2, Geneva: UN Department of Economic Affairs (1965), pp. 43–47.
- UN-ECE, *Economic Survey of Europe since the War. A Reappraisal of Problems and Prospects*, Geneva: UN Department of Economic Affairs (1953).
- van der Wee, Herman, *Prosperity and Upheaval: The World Economy, 1945–1980*, Hamondsworth/New York: Viking, (1986).
- Wilkinson, Christopher, 'Trends in Industrial Policy in the EC; Theory and Practice', in: Jacquemin, Alex (ed.), *European Industry: Public Policy and Corporate Strategy*, Oxford: Clarendon, (1984), pp. 39–83.

2

The state and industrial policy in Britain, 1950–1974

Martin Chick

University of Edinburgh

2.1 Introduction

An industrial policy is commonly a blend of normative ambitions allied to scepticism as to the positive efficiency of market mechanisms in achieving those sought outcomes. Those ends are often unsurprising: increased rates of productivity and economic growth are familiarly stated objectives. It is the means to the ends which are often more contentious. The 1945–1951 Attlee governments had sought to maximize production from existing capacity and to effect improvements in the performance of industries sometimes by means which sought to compensate for perceived market failings. The restructuring of major industries such as coal, textiles, and iron and steel was sought respectively through nationalization, subsidies for the withdrawal of excess capacity and the implementation of federation-planned restructuring of the industry. Where development was thought to be stifled by an absence of capital, then, in the case of small-and-medium-sized firms, this ‘Macmillan Gap’ was sought to be filled by the establishment of the Industrial and Commercial Finance Corporation in 1945. For larger companies whose projects were deemed often to be too politically or technologically risky for conventional markets the Finance Corporation for Industry was created, also in 1945, to provide long-term development capital.

These concerns with industrial restructuring, modernization and developing new industries persisted throughout the 1951–1975 period. So, too, did an interest in improving upon processes and outcomes identified with the envisaged free operation of the market. Indicative economic planning between 1965 and 1967 was designed in part to improve expectations, to draw forth further capital investment and in

general to improve the quality and quantity of the flow of information. Meeting points between government, unions and industrialists, whether in the National Economic Development Office (known as 'Neddy') or its regional counterpart (the 'little Neddies'), served a similar purpose, while, along with MinTech and other specialist bodies, also providing expertise where it was required. Where industrial restructuring was thought to be obstructed by vested interests in the market, and/or where any process of market clearing was held to be too slow or likely to produce outcomes which were politically unacceptable, then restructuring agencies were established. One such was the Industrial Reorganisation Corporation (IRC) which was established in January 1966. Another was the National Enterprise Board (NEB) which was established in 1975. While the IRC had access to £150million with which to finance acquisitions in the interest of industrial restructuring and modernization, the NEB had a more pronounced interest in acquiring partial or total ownership of companies. This reflected a wider political debate within the Labour Party, government and elsewhere concerning the broader social function of capitalist industries. In one sense, it marked a continuation of the political-economic arguments which had attended the nationalization programme of the Attlee governments. Whereas the Attlee governments had mainly nationalized enterprises in the fuel and power, transport and communication and coal-mining sectors of the economy and had, with the quarrelsome exception of iron and steel, left manufacturing alone, industrial policy between 1951 and 1975 concentrated mainly on manufacturing industries.

Looking at Table 2.1, it could be argued that while nationalization covered much of the 38 per cent of gross fixed capital formation in 1950 accounted for by mining and quarrying, gas, electricity and water and transport and communication, subsequent industrial policy occupied itself with the 25 per cent represented by manufacturing. That the capital investment represented by these industries should bulk proportionately larger than the contribution of their output to GNP – as illustrated in Table 2.2 – is reflective of the tendency of industrial policy to gravitate towards a concern with the restructuring and modernization of sunk and often lumpy capital investment. By the 1970s such concerns had gained in anxiety as manufacturing's contribution to GNP fell.

In Britain, between 1950 and 1975, arguments over the appropriate mix of public and private ownership of industry, over the costs and benefits of competition, and over the merits of protecting infant and ailing industries, became increasingly lively. Post-war assumptions, such as the primacy of the manufacturing sector of industry and the placing

Table 2.1 Gross fixed capital formation (GFCF) in the United Kingdom by industry group, 1950–1975 (in percentages)

	1950	1955	1960	1965	1970	1975
Agriculture, forestry and fishery	5.4	3.9	3.8	2.9	2.7	3.0
Petroleum and natural gas	n.a.	n.a.	n.a.	n.a.	n.a.	6.6
Mining and quarrying	1.9	3.0	2.3	1.7	1.6	1.0 ¹
Manufacturing	25.6	23.8	25.1	22.5	24.0	17.1
Construction	1.4	1.8	1.7	2.3	1.7	1.9
Gas, electricity and water	11.3	12.1	10.3	13.0	8.7	6.0
Transport and communication ²	12.4	10.0	13.1	8.7	11.7	11.4
Distribution and other services ³	12.3	15.1	6.2	5.6	5.1	5.0
Other service industries	n.a.	n.a.	8.4	9.5	11.0	10.1
Dwellings	19.1	21.6	18.2	20.2	16.5	20.2
Social services	4.6	4.2	4.8	6.2	6.8	5.7
Other public services	3.1	3.1	4.6	6.4	9.2	8.9
Legal fees, stamp duties etc.	2.9	1.6	n.a.	n.a.	n.a.	n.a.
Transfer cost of land and buildings	n.a.	n.a.	1.3	0.9	0.9	3.0
GFCF as % of GNP	14.8	16.8	18.1	20.1	20.8	19.8
Total GFCF (£. million)	£1,733	£2,849	£4,120	£6,315	£8,886	£20,545

¹ 1975 data excludes petroleum and natural gas. It was included in all previous years.

² For 1950 and 1955, transport and communication data excludes road goods transports but includes them thereafter. In 1950 and 1955, road goods transports are included in distribution and other services but not thereafter.

³ The data for 1950 and 1955 for distribution and other services. From 1955, the categories become distributive trades and, as shown separately, other service industries.

Sources: For the years 1950 and 1955: Central Statistical Office (1960), table 52. For the years 1960, 1965 and 1970: Central Statistical Office (1971), table 55. For 1975: Central Statistical Office (1979), table 10.6.

of greater emphasis on demand-side, often macro-economic, measures as a means of raising productivity, were increasingly and publicly questioned. Instead, industrial policy in the 1980s shifted towards emphasizing the importance of supply-side, micro-economic incentives and the benefits of competition, and looked increasingly for economic growth and income from the non-manufacturing sectors of the economy. Of interest in its own right, industrial policy in Britain between 1950 and

Table 2.2 Gross national product (GNP) in the United Kingdom by industry, 1950–1975 (in percentages)

	1950	1955	1960	1965	1970	1975
Agriculture, forestry and fishery	5.8	4.7	4.0	3.4	3.1	2.7
Mining and quarrying	3.5	3.4	3.0	2.3	1.7	1.6
Manufacturing	35.5	36.2	36.1	34.6	34.0	27.9
Construction	5.5	5.8	6.0	7.0	6.2	7.2
Gas, electricity and water	2.1	2.4	2.7	3.2	3.1	3.2
Transport and communication	8.3	8.2	8.6	8.4	8.3	8.6
Distributive trade	14.1	12.8	12.1	11.4	10.6	10.0
Industry, banking and finance (including real estate)	2.8	2.9	3.0	3.1	3.6	7.1 ¹
Other services	11.1	10.5	11.2	12.2	13.7	12.7
Total production and trade	88.7	86.8	86.6	85.6	84.3	80.9
GNP at factor cost (in £million)	11,695	16,936	22,816	31,407	42,819	94,264

¹This includes business services.

Sources: For the years 1950 and 1955: Central Statistical Office (1960), table 10. For the years 1960, 1965 and 1970: Central Statistical Office (1971), table 11. For 1975: Central Statistical Office (1979), table 1.10.

1975 also provides a fascinating contrast with the industrial policy of the 1980s and after. With that in mind, this analysis will focus on what are seen as the guiding principles of industrial policy in Britain from 1950 to 1970: scepticism as to the efficiency of market mechanisms and equilibrium theory; the prioritization of investment in the manufacturing industry as a source of productivity growth; the favouring of export-led growth; and the allowance of a potential role for the state in protecting developing industries and in improving the diffusion of information and best practice in modern and modernizing industries. As a means of organizing the analysis, the chapter will focus on the contribution made in government by two Hungarian economists, Nicholas Kaldor and Thomas Balogh, both practically, in government, and theoretically, in their writing.

In 1964, Nicholas Kaldor and his fellow Hungarian economist, Thomas Balogh, were appointed as advisors to the newly-elected Labour

government. Kaldor also acted as economic advisor to the Labour government between 1974 and 1976.¹ Some of Kaldor's fundamental misgivings with equilibrium economics were expressed in his 1975 article, with the question-mark-free title 'What is wrong with economic theory', in which he argued that it was:

The concentration on the substitution aspect, which makes 'pure' equilibrium theory so lifeless and motionless: it purports to 'explain' a system of market-clearing prices that are the resultant of various interactions: it cannot therefore deal with the problem of prices as signals or incentives to change. Attempts have been made to graft growth and development to equilibrium theory, but they have not succeeded in transforming it into a sequence analysis in which the course of development is dependent on the path of evolution.²

2.2 Manufacturing

Kaldor's concern with the static quality of equilibrium theory informed, in part, his prioritization within industrial policy of the needs of the manufacturing industry. Essentially, Kaldor argued that the faster the rate of growth of the manufacturing sector of the economy, then the faster the rate of growth of total output, arising from induced productivity gains inside and outside manufacturing. Manufacturing was the sector where the major labour-saving advances in technology occurred, and the sector most subject to increasing returns (both static and dynamic). As productivity in manufacturing increased, so, too, did labour shift from services into manufacturing, thereby increasing total productivity. In viewing manufacturing as a greater source of static and dynamic economies of scale, Kaldor drew on the earlier teachings of Allyn Young and on the observed relationship between productivity growth and output growth in the manufacturing industry, which became known as Verdoorn's Law after Kaldor's popularization

¹ Anthony Thirlwall, *Nicholas Kaldor*, Brighton: Wheatsheaf (1987), p. 230. Balogh was appointed as Advisor on Economic Affairs to the Cabinet and Kaldor as Special Advisor to the Chancellor, James Callaghan (1964–1967). Kaldor was to perform a similar role for two other Labour Chancellors, Roy Jenkins (1967–1968) and Denis Healey (1974–1976).

² Nicholas Kaldor, 'What Is Wrong With Economic Theory', *The Quarterly Journal of Economics* 89, no. 3 (1975), pp. 347–357, 348.

of Verdoorn's 1949 paper.³ The Selective Employment Tax (SET), which came into effect on September 5 1966, was one policy outcome of this thinking.⁴ This tax on labour was designed to encourage the substitution of capital for labour and, because it could be reclaimed by the transport and public sectors, it was effectively a subsidy to the manufacturing industry and a tax on services of about 7 per cent of labour costs.⁵

In pursuing presumed economies of scale and technologically-based productivity growth, attention was focused on industrial structure. While in both Wilson governments, Kaldor was to emphasize the dynamic needs and advantages of the manufacturing industry, Thomas Balogh laid greater emphasis on the need to alter the structure of important manufacturing industries so as to maximize available economies of scale. As Balogh informed Chancellor Callaghan in 1965, the government should welcome and encourage the elimination of inefficient small firms, since 'inefficiency typically is due to wrong size, to the consequential lack of research and development, to wrong (too short) runs in production due mainly to the multifariousness of products again due mainly to the multifariousness of the firms'.⁶ However, Balogh also stressed the inadequacy of allowing any such restructuring to be effected solely by market forces, a view which was shared by sympathetic industrialists. In 1965 Mr B. R. Cant of the Powell Duffryn Group, in making his case for a National Corporation for Company Reconstruction and Development (NATCORD), argued that not only would it promote 'more purposeful concentrations and re-alignments of the Nation's productive resources', but also that NATCORD was necessary since 'in many cases, existing forces and sectional interests cannot be relied upon to bring about the desired changes either in the time likely to be available to achieve our national economic rehabilitation

³Thirlwall (1987), *Kaldor*, pp. 184–185, 189. Anthony Thirlwall, 'Rowthorn's Interpretation of Verdoorn's Law', *The Economic Journal* 90, no. 358 (1980), pp. 386–388. Petrus J. Verdoorn, 'Fattori che regolano lo sviluppo della produttività del lavoro', *L'Industria* 1 (1949), pp. 3–10.

⁴Selective Employment Tax, (Cmnd. 2986, 1966).

⁵Andrew Graham, 'Industrial Policy', in: Wilfred Beckerman (ed.), *The Labour Government's Economic Record*, London: Duckworth (1975), p. 188. J. D. Whitley and George D. N. Worswick, 'The Productivity Effects of Selective Employment Tax', *National Institute Economic Review* 56, no. 1 (1971), pp. 36–40. William B. Reddaway, 'The Productivity Effects of Selective Employment Tax. A Reply', *National Institute Economic Review* 57 (1971), pp. 62–68.

⁶The National Archives, Kew, London (henceforth TNA) PREM 13/401, Note on 'The Monopolies Bill', by T. Balogh, 23 February 1965.

or in the most productive order of priority'.⁷ Or again, as Balogh told Callaghan, 'the government cannot stand by to see the large firms finish off the small ones in a completely unplanned fashion'.⁸

2.3 Restructuring

In promoting industrial restructuring, a number of means were available to government. One was financial, the suggestion from Balogh being that 'orderly rationalization should be not merely not opposed or only tolerated but stimulated and its financing helped through reactivating the Finance Corporation for Industry'.⁹ The Finance Corporation for Industry (FCI) was partially likened to a Rooseveltian Reconstruction Finance Corporation (RFC), and it was hoped that it 'would enable industries who are willing to rationalize' in the less concentrated industries. As Balogh informed the Prime Minister, Harold Wilson, while this had been attempted in the textile industry, it had:

only got[ten] going when gigantic chemical firms took a hand. In machine tools and other vital industries there are no Courtaulds or ICI. The ICFC [Industrial and Finance Corporation] and the FCI are dormant from this point of view. I feel very strongly that a new attempt ought to be made either industry-wide or nationwide to organize industrial reconstruction finance companies or development companies with sufficient financial backing, so that plans worked out by little Neddies and DEA in conjunction with the Ministry of Technology could be implemented.¹⁰

As well as reviving the FCI, Balogh also reminded Callaghan of the Industrial Guarantee Corporation (IGC), which the Radcliffe Committee recommended, but which was never established. Financial assistance for restructuring might also come from the private sector. One suggestion that Balogh made to Callaghan was that financial consortia be formed of and led by 'forward-looking bankers', and City figures such as

⁷TNA PREM 13/410, Proposal for the formation of a 'National Corporation for Company Reconstruction and Development', by B. R. Cant, 16 August 1965.

⁸TNA PREM 13/401, Note on 'The Monopolies Bill', by T. Balogh, 23 February 1965.

⁹TNA PREM 13/401, Note on 'The Monopolies Bill', by T. Balogh, 23 February 1965.

¹⁰TNA PREM 13/400, 'The Reorganization of Industry', Note from T. Balogh to Prime Minister, 8 September 1965.

Kenneth Keith who, while maintaining contact with government and Treasury officials, would pursue the 'rationalization and the streamlining of the pattern of industry'.¹¹

An alternative and/or concomitant approach to effecting industrial restructuring was for the government to buy out existing capacity. Nationalization, for example, was viewed by some economists as a necessary prelude to the restructuring and modernization of key industries. By the mid 1960s, nationalization was less fashionable and the suggestion by the Minister of Technology, Tony Benn, to bring shipbuilding and airframes into public ownership as the necessary prelude to their restructuring did not attract much political support.¹² Earlier variants on the theme of nationalization were revisited. One was Douglas Jay's suggestion, in 1952, that the state buy into part of an industry in the hope of raising the standards, disseminating best practice and providing the government with information on cost structures and profit margins.¹³ In 1965, Michael Posner and Richard Pryke advanced similar arguments in their 1965 Fabian pamphlet, *New Public Enterprise*.¹⁴ Again, without assuming ownership of part or all of an industry, the government might also effectively buy out excess capacity and invest in modern equipment, as it had for the cotton-spinning industry in the 1959 Cotton Industry Act. Or, as it did in January 1966, it could establish and charge a body, such as the Industrial Reorganization Corporation (IRC), with overseeing the reorganization or development of an industry when this was deemed desirable by the indicatively planning Department of Economic Affairs. In its short life, the IRC supported the merger of British Motor Holdings (Austin-Morris-MG and Jaguar) and Leyland Motors (Leyland and Standard), and subsequently lent the resulting British Leyland £10 million to help it buy tools.¹⁵ The IRC was the direct institutional antecedent of the National Enterprise Board.

¹¹TNA PREM 13/401, Note from T. Balogh to Chancellor of the Exchequer, 17 February 1965.

¹²Jim Tomlinson, *The Labour Governments 1964–1970*, Manchester: Manchester University Press (2004), p. 106; using TNA T334/12, I. Bancroft, 'The airframe industry', 11 December 1967.

¹³Martin Chick, *Industrial Policy in Britain, 1945–1951*, Cambridge: Cambridge University Press (1998), p. 101.

¹⁴Tomlinson (2004), *Labour Governments*, p. 110.

¹⁵Daniel Kramer, *State Capital and Private Enterprise. The Case of the UK National Enterprise Board*, London: Routledge (1988), p. 3; Douglas Hague and Geoffrey Wilkinson, *The IRC. An Experiment in Industrial Intervention*, London: Allen and Unwin (1983).

2.4 Modernization

While restructuring was commonly presented as a prelude to the modernization of older industries, the pursuit of 'modernization' in its own right formed an important leitmotif of the Labour Party's 1964 election manifesto. The incoming Labour government subsequently established the Ministry of Technology (MinTech), with its early interest in computers, electronics and telecommunications. One alleged benefit of MinTech was in improving the flow of information and providing benchmark standards for selected industries. One means of achieving this was through the establishment of 'scientific neddies' staffed by experts in R&D, science, engineering, computing, management, business organization and methods, who would be drawn from industry and universities. These 'scientific neddies' would determine the best techniques and recommend them appropriately to one or more of the 'little neddies', which were established for sections of industry. In turn, the 'little neddy' would undertake a strictly economic assessment, aided (and supervised) by the representative of the Technological Committee. Once MinTech had established what constituted minimum acceptable and available standards of performance on the basis of testing machines and processes, then tax advantages, government guarantees and subsidies would only be offered to investments meeting these standards, not least 'so as to ensure longer runs and advantages of large-scale production'.¹⁶

Thus, there often existed a close relationship between the pursuit of modernization and the necessary achievement of economies of scale in production. In part, it was thought that in an industry like engineering, and especially in machine tools, the restructuring of the industry would allow both modernization, not least through automation, and economies of scale to be achieved.¹⁷ Yet, economies of scale were also sought in the most modern industries. So, while MinTech would sponsor industrial research schemes through the National Research Development Corporation and seek to improve the flow of knowledge regarding computing, it also encouraged various UK computer manufacturers to merge into what became International Computers Limited (ICL) in 1968. The state took a 10 per cent shareholding in the new company and provided

¹⁶TNA PREM 13/401, Note from T. Balogh to Chancellor of the Exchequer, 17 February 1965.

¹⁷Tomlinson (2004), *Labour Governments*, p. 103.

£50 million funding for research and development.¹⁸ In time, during the 1964–70 Labour governments, MinTech's area of responsibility widened to take in engineering, shipbuilding and, following its amalgamation with the Ministry of Aviation in February 1967, seemingly almost all government research and development as well as large parts of its industrial procurement.¹⁹ As its ambit widened to include industries for which structural issues were central to productivity, so, too, did the concerns of MinTech overlap those of the IRC. This Venn diagram of responsibility also began to approximate to a similarity of approach, as MinTech, under Benn, began to push for greater powers of industrial intervention, which it gained in the Industrial Expansion Act of 1968, and which enabled it to fund selected projects without recourse back to parliament.²⁰ The provisions of the 1968 Industrial Expansion Act were first used by the government in March 1968 to effect a merger between the computer business of ICT, English Electric and Plessey.²¹ Neither the Treasury nor the CBI liked the 1968 Industrial Expansion Act, the former having been concerned with its potential implications for public expenditure and the latter with further government intervention in industry. However, the Industrial Expansion Act's bark proved worse than its bite. In practice, it did not unleash a new expansion of industrial spending, and no new industrial boards were ever established. Ultimately in 1968, with the abolition of the Ministry of Power and the DEA, MinTech, being nearly the last man standing, was to take in the steel and fuel industries and the IRC.

2.5 Monopoly

The pursuit of economies of scale through increased industrial concentration raised issues concerning the trade off between any efficiency gains made and the potentially muted incentives for efficiency arising from the increased market power of incumbents. This tension of the trade-off between the costs and benefits of increased industrial concentration was evident in Balogh's apprehension about the Board of Trade

¹⁸Kramer (1988), *State Capital*, p. 3.

¹⁹Tomlinson (2004), *Labour Governments*, pp. 105–106; using TNA PREM 13/1550, H. Wilson to D. Healey, 'The future of the Ministry of Aviation', 11 November 1966. TNA T325/145, 'The Ministry of Technology', 11 November 1967.

²⁰Industrial Expansion, (Cmnd. 3509, 1968). Graham (1975), 'Industrial Policy', p. 195.

²¹Industrial Investment: The Computers Mergers Project (Cmnd. 3660, 1968).

Bill on Monopolies and Mergers (passed in 1965). Balogh wanted the Monopolies Commission to change from its present 'negative' approach to a 'positive' one, and to be given 'powers to recommend merger and standardization: oligopolistic tactics are our main enemy'.²² Recognizing that monopoly abuse was undesirable, especially if it increased 'prices by protecting the small and inefficient firm through restrictions on production, mainly through price rings',²³ Balogh's preference was for the DEA to collaborate with the big firms and encourage them to pursue sensible pricing policies.²⁴ In part, Balogh worried less about the reduction of competition in the machine tool, computer, motor-car, aircraft, general engineering, heavy electricity and electronics industries, precisely in part because he saw this as a necessary prelude to their becoming more competitive with their international, and especially American, competitors.²⁵ These shades of thinking, here in the 1960s, are ones which were to characterize and anticipated the Cambridge School later in the 1970s, and with which Kaldor is more commonly associated than Balogh. Also, it was only a little later that more concern arose that the greatest abuse of market power came not so much in the restriction of output, but more generally in the enjoyment of the 'quiet life'. Anticipating later criticisms of monopolies opting for 'the quiet life', Tony Crosland, the minister responsible for merger policy during 1967–69, thought that 'the threat from these giant concerns is not usually that they will be too ruthless or too little public spirited; rather for psychological and sociological reasons which I explained in *The Conservative Enemy* this is most unlikely. It is rather that they will become complacent, un-dynamic and un-enterprising with the passage of time (like, for example, ICI).'²⁶ In contrast, in 1965, Balogh's concern was with the 'psychological effect' of monopolies, mergers and restrictive practices legislation such that they 'may well hamper the efforts of

²²TNA PREM 13/400, 'The Reorganization of Industry', Note from T. Balogh to Prime Minister, 8 September 1965.

²³TNA PREM 13/401, Note on 'The Monopolies Bill', by T. Balogh, 23 February 1965.

²⁴TNA PREM 13/400, 'Technology', Note to Prime Minister from T. Balogh, 4 February 1965.

²⁵TNA PREM 13/401, Note on 'The Monopolies Bill', by T. Balogh, 23 February 1965. Stephen Broadberry, *The Productivity Race. British Manufacturing in International Perspective, 1850–1990*, Cambridge: Cambridge University Press (1997), p. 326.

²⁶Tomlinson *Labour Governments*, p. 114; using TNA BT 258/2658, A. Crosland to H. Wilson, 24 September 1968; TNA PREM 13/2795, R. McIntosh to H. Wilson, 'Industrial policy and the Monopolies Commission', 25 April 1969.

the DEA and Minister of Technology to bring about a rationalization of these-called growth industries'.²⁷ Furthermore, as Balogh informed Wilson, it was 'as true of the Monopolies Commission aspect of the situation as the Restrictive Practices Registrar end' that:

Both have been conceived [...] in the pure dogma of perfect competition, which is completely irrelevant; and unless a detailed public statement is made about reorganization, mergers and so on I do not believe that the willingness will exist to explore these vitally urgent matters on the part of a number of industries where further concentration is desperately needed.²⁸

To his oft-repeated distrust of the Monopolies Bill 'as being based on the philosophy of efficiency through greater competition',²⁹ Balogh added his view that the reduction of inefficiencies arising from the structure of industries was of more concern than problems arising from monopoly: that he did 'not think that it is the abuse of monopoly power that we are suffering from in the main so much as the inefficiency of the small firm'.³⁰

2.6 Disputing policy

Reflecting both a change in the political hue of government and the start of a general shift in public attitudes towards state industrial intervention, the Conservative Heath government elected in 1970 abolished the IRC and MinTech, withdrew investment grants, repealed the Industrial Development Act and created a giant Department of Trade and Industry. However, policy reversals were subsumed by economic events as Rolls Royce and a substantial portion of the shipbuilding industry (including UCS and Harland & Wolff) were effectively nationalized and investment grants (made over as regional development grants) were reintroduced.³¹ By the mid 1970s, with Labour

²⁷TNA PREM 13/401, Note on 'The Monopolies Bill', by T. Balogh, 23 February 1965.

²⁸TNA PREM 13/400, 'The Reorganization of Industry', Note from T. Balogh to Prime Minister, 8 September 1965.

²⁹TNA PREM 13/401, Note on 'The Monopolies Bill', by T. Balogh, 23 February 1965.

³⁰TNA PREM 13/401, Note from T. Balogh to Chancellor of the Exchequer, 17 February 1965.

³¹TNA T342/429, 'Industrial Policy', paper by L. Pliatzky, 30 June 1975, para. 8.

having been returned to government in 1974, these fluctuations in policy-making had given way to something akin to a national seminar on the principles and boundaries of industrial policy. In public, contributions were made by opposition politicians like Keith Joseph and journalists like Samuel Brittan in the *Financial Times*; within the Labour Party, Shirley Williams, with help from Dr Joan Mitchell, submitted a paper to the party's Industrial Policy Sub-Committee, which was itself a response to an earlier paper by Tony Benn on 'A Ten-Year Industrial Strategy for Britain'.³² The Labour Party's Industrial Policy Sub-Committee also gave a new edge to the traditional urging for higher investment in (manufacturing) industry, arguing in 'A Note on Investment Problems' in November 1974, that not only did 'the free market in Britain [...] produce a bias against investment in manufacturing', but that the 'provision of funds for "investment" in an unqualified way' favoured investment in finance, property and the service sector in the hope of quick and substantial profits. This was without much benefit to economic growth or regional development, however. As one response to this perceived problem, the sub-committee suggested increasing controls over the investment policies of large firms through the system of planning agreements and through the National Enterprise Board (NEB).³³ The tenor of such thinking was continued by Tony Benn, the Secretary of State for Industry, in the green paper on the 'The Regeneration of British Industry', which proposed that a NEB be established to channel investment into priority sections of manufacturing industry. Such priorities included participation in companies so as to 'create a better social atmosphere in industry', to 'improve management-labour relations', 'to assist regional policy' and 'to increase accountability to society'. As Benn acknowledged, the green paper was 'really an argument', which he subsequently decided to 'underplay', but Treasury officials criticized its pervasive 'sense of populism', its 'lack of any apparent limitation envisaged on the degree of dirigisme' and Benn's seeking of a statutory limit on the capital of the NEB of £750 million, which could be raised, by order, to £1,500 million. The Treasury preferred a statutory limit of £300 million

³²TNA PREM 16/363, Paper, 'The Role of Manufacturing Industry in Britain's Economic Future', by Nicholas Kaldor, 30 June 1975, para 1.

³³TNA PREM16/179, Labour Party RE 12, Industrial Policy Sub-Committee, 'A Note On Investment Problems', November 1974, Document RE: 198-June 1975.

with the option to increase, by order, to £500 million.³⁴ In his own department, some officials were concerned by what were seen as the pursuit of personal political objectives by a minister. Benn's argument that government was elected to implement its election manifesto cut little ice with Prime Minister Wilson. As Benn noted: 'The real issue between Harold and me is the right of a minister to be political'. More than once, departmental officials were to have sections of the Labour Party manifesto read to them. In a meeting to discuss the green paper, Benn's Departmental Permanent Secretary, Antony Part, commented that 'NEB would be highly controversial in Whitehall' and that 'other Departments were already saying at an official level that it was a Marxist document'. The response of Benn's fellow MP, Eric Heffer, was: 'Well the policy is in the Manifesto.' Just over two weeks later, on Friday June 27 1974, during another discussion with Antony Part, Benn recalled that: 'I went over and opened the manifesto. The first objective of the manifesto is about a fundamental and irreversible shift in the balance of wealth and power in favour of working people and their families, I read.'³⁵

Relations between Treasury officials and Benn steadily deteriorated, not least as Benn sought financial support for *Scottish Daily News*, IPD, Meriden and Aston Martin, all of which had previously been refused support as being commercially unviable. Treasury officials complained that Benn, 'in blatant disregard of all the rules', was 'pursuing his personal political line',³⁶ and that the projects which he backed reflected his political priorities rather than the Treasury's concern with the financial viability of each project. Furthermore, the general need to avoid wasting taxpayers' money, were all 'apparently considerations which he (Benn) genuinely finds irrelevant'.³⁷ Worried that it was continuously being placed on the back foot by the initiatives and backing of individual projects by Benn, the Treasury moved to defend itself by better defining what the main criteria for industrial policy might be, since there was 'no

³⁴TNA T342/340, 'Financial Implications of New Government Programmes', IDV (74)38, paper by L. Pliatzky, 18 November 1974. TNA T342/344, 'Industrial Policy Green Paper', Note by L. Pliatzky, 20 June 1974, para. 4.

³⁵Tony Benn, *Against the Tide. Diaries 1973–1976*, London: Hutchinson (1989), entries for 7 and 11 June 1974.

³⁶TNA T342/338, 'Enterprise and Wealth', Note from Douglas Henley to Mr Wass, 11 June 1974.

³⁷TNA T342/340, 'How to Deal with Mr Benn', Note from W. S. Ryrice to L. Pliatzky, 1 November 1974, para. 3.

one definition' of 'industrial policy' which could embrace 'a great many things', for example 'competition policy or worker participation'.³⁸ One proposal, advanced in a paper entitled 'How to deal with Mr Benn', was for 'a renewed examination by officials, under Treasury chairmanship, of the criteria for assistance to industry'. Ryrie at the Treasury saw Benn's principal concern as being with the prevention of further unemployment, and that indeed '(Benn's) department tells me that he has expressed the view that the main criterion should be avoiding any redundancy'.³⁹ Given Benn's willingness to 'use public ownership in the first instance as an ambulance for failed firms – because British Leyland and one or two other firms are in serious difficulties',⁴⁰ it was likely that 'lame ducks' would drop into the NEB's lap. The most important of these were: British Leyland; Rolls Royce (the aero-engine maker); Alfred Herbert, a major machine tool manufacturer; and Ferranti, which, like Rolls Royce, did much work for the Ministry of Defence.⁴¹ Nor did Benn's interest in assisting worker cooperatives arouse much sympathy at the Treasury. In seeking £3.9 million of assistance for IPD, Benn's argument that insufficient weight had been given 'to the fact that the business will be run by workers for workers with the will to succeed', was opposed by Ryrie's view that 'if we really were talking about "co-operatives" in which the workers had a genuine stake in the firm of their own money, there might be something to be said for such arguments. But the label "co-operative" conveys no kind of assurance that the workers will behave as Mr Benn expects.'⁴²

The differences of opinion over the aims of the Labour government's economic and industrial policy went beyond the ranks of the civil service and into the heart of government itself. Stung by public attacks from Keith Joseph on over-manning arising from the 'narrow, illusory job security in one place propped up by public funds', Michael Meacher sent a paper entitled: 'How far can we save jobs?' to Joel Barnett at the Treasury.⁴³ Citing examples varying from five engineering firms in Woolwich, who had made 7,000 employees redundant between

³⁸TNA T342/339, Letter from L. Pliatzky to Sir Douglas Henley, 17 June 1974.

³⁹TNA T342/340, 'How to Deal with Mr Benn', Note from W. S. Ryrie to L. Pliatzky, 1 November 1974, paras. 2–4.

⁴⁰Benn (1989), *Against the Tide*.

⁴¹Kramer (1988), *State Capital*, p. 10. Benn (1989), *Against the Tide*. John Redwood, *Going for Broke*, Oxford: Blackwell (1984).

⁴²TNA T233/2692, Note from W. S. Ryrie, 23 October 1974, para. 2. Benn (1989), *Against the Tide*, entry, June 10 1974.

⁴³TNA T342/429, letter from Michael Meacher to Joel Barnett, 15 January 1975.

1968–70, the 2,000 workers sacked by UCS in 1969–70 and the 4,400 Rolls Royce workers made redundant in March 1971, Meacher pointed out that between 7 and 10 per cent never found jobs again, and that 12 per cent (Woolwich engineering), 17 per cent (UCS) and 22 per cent (Rolls Royce) were unemployed for over six months.⁴⁴ While Ryrie thought that ‘the best point in Mr Meacher’s paper is the argument that sacking people ruthlessly will produce a reaction amongst working people which will make redeployment and increases more difficult’, neither he nor Joel Barnett accepted Meacher’s conclusion that ‘the need today is for stabilization’, preferring instead ‘regeneration’⁴⁵ and concluding, ‘not that less redeployment is desirable – but that we must do everything we can, within reason, to assist the processes of redeployment’.⁴⁶

Within government, there were also arguments about the relative importance that should be given to manufacturing industry. In June 1975, both Nicholas Kaldor and Harold Lever sent papers to the Prime Minister arguing over the comparative importance of the manufacturing and service sectors of the economy.⁴⁷ Responding to Lever’s arguments concerning the rising importance of the service sector, Kaldor thought that ‘however creditable’ the City’s performance had been, it would be ‘futile’ to rely on ‘services earnings’ as providing the way out of our economic difficulties: ‘assuming we need an extra £3,000 million of foreign earnings this could be obtained by a 320 per cent increase in our manufactured exports. But it would require a six-fold increase in our income from financial services etc’. Kaldor was sceptical as to how ‘the export of services could provide the employment opportunities which would be lost if we abandoned our role as a major exporter of manufactured goods’, or take up the 7.5 million workers in the manufacturing sector.⁴⁸ When Lever questioned the priority shown to the manufacturing industry, Kaldor returned to his export-led growth hypothesis, accusing Lever of ‘ignoring the very important empirical relationship

⁴⁴TNA T342/429, ‘How Far Can We Save Jobs?’, paper, Michael Meacher to Joel Barnett, 15 January 1975.

⁴⁵TNA T342/429, ‘Ossification and Regeneration’, letter from M. C. Scholar to Ryrie, 20 January 1975.

⁴⁶TNA T342/429, Ryrie, Comments on Meacher’s Paper, 21 January 1975, para 2.

⁴⁷TNA PREM 16/363, Note from S. A. Robson to F. E. R. Butler, 21 July 1975. Graham (1975), ‘Industrial Policy’, p. 210. M. Hall, ‘Are Goods and Services Different?’, *Westminster Bank Review* (August 1968).

⁴⁸TNA PREM 16/363, ‘The Role of Manufacturing Industry in Britain’s Economic Future’, paper by Kaldor, 30 June 1975, paras. 7–8.

between a country's performance as an exporter of manufactured goods and its general rate of economic growth'.⁴⁹ In Kaldor's view, 'all fast growing advanced countries are characterized by a rate of growth of manufacturing output which is in excess of the rate of growth of the GDP as a whole; and in all such countries the rate of growth of exports of manufactures was considerably in excess of the rate of growth of the total output of manufactures'.⁵⁰ This emphasis on exports marked some shift in Kaldor's own position, since he had earlier emphasized, in his inaugural lecture at Cambridge in 1966,⁵¹ labour as the main constraint on productivity improvement in the manufacturing industry. In time, and in response to academic criticism, Kaldor substituted exports for labour as the main constraint;⁵² by the early 1970s, he was in full cry on the virtues of export-led growth. In turn, Kaldor's work and Verdoorn's Law and the criticisms made by Bob Rowthorn were discussed in the Treasury during the mid 1970s. This was done in the light of the economist Stanislaw Gomulka's 1976 work on the importance of technological innovation and diffusion. Essentially, the Treasury was itself re-evaluating its understanding of the sources of long-run economic growth.⁵³

2.7 Conclusion

The debate that erupted in the 1970s over the role of industrial policy, the social uses of industry and the relative importance of manufacturing occurred at a time when the collapse of the Bretton Woods system of fixed exchange rates, the rise in RPI inflation to 24.1 per cent in 1975, the steady upward creep in the unemployment rate (2.6 per cent in 1970, 5.1 per cent in 1980) and the entry of the UK into the European Economic Community in 1973 subjected the UK economy to a series of shocks, for which politicians and economists at times groped for explanations. During the de-industrialization of the late

⁴⁹TNA PREM 16/503, letter from Harold Lever (Chancellor of the Duchy of Lancaster) to Denis Healey, 8 August 1975.

⁵⁰TNA PREM 16/363, Kaldor, 'The Role of Manufacturing Industry', para. 9.

⁵¹Thirlwall (1987), *Kaldor*, p. 184.

⁵²Nicholas Kaldor, 'Productivity and Growth in Manufacturing Industry. A Reply', *Economica* 35, no. 140, (1968), pp. 385–391.

⁵³C56 PRO 30/87/156, CES WN 447, Working Note, paper, 'Ramifications of Gomulka's Refutation of the Verdoorn-Kaldor Laws', by G. Hyman, January 1977, p. 8.

1970s onwards, the assumptions and ambitions of the industrial policy of the first three post-war decades became a popular target of derision. Talk of planning and of picking winners was treated with benevolent disdain at best. The emphasis switched away from macro-demand management, industrial concentration and the pursuit of export-led economies of scale, and shifted towards promoting competition and improving the availability and quality of supply-side inputs (notably labour). While the performance of manufacturing industry between 1950 and 1975 was often used as a proxy for the weaker relative performance of the entire economy, the gap in labour productivity between Britain and the United States remained much as it had been since 1870. However, the level of German manufacturing productivity had gone from being 60 per cent of Britain's in 1870, to catching up and then overtaking Britain during the period from 1950 to 1979.⁵⁴ Broadberry has identified an important cause of this deterioration in Britain's comparative labour productivity with Germany and other European economies as being, in large part, due to the difficult experience of introducing standardized mass-production techniques in manufacturing industries utilized in Britain between 1950 and 1979. Others have pointed to a high level of industrial concentration and the disappointing marriages that were made in many mergers in the manufacturing industry.⁵⁵ In moving to emphasize the benefits of competition through the market, later governments broke with the assumptions that had underpinned the thinking and approach of the likes of Kaldor and Balogh.

This chapter does not attempt to answer the question of whether industrial policy hindered or helped economic growth between 1950 and 1975; any such question necessitates a counterfactual from which industrial policy is absent. Instead, it attempts to shed some light on the thinking about the capabilities of markets and competition that informed thinking on industrial policy in the period from 1950 to 1975. Even then, that industrial policy gains considerable definition and interest, as much in comparison with what was to follow as from its own sense of identity.

⁵⁴Broadberry (1997), *Productivity Race*, p. 15.

⁵⁵Keith Cowling *et al.*, *Mergers and Economic Performance*, Cambridge: Cambridge University Press (1980), p. 114. S. J. Prais, *Productivity and Industrial Structure. A Statistical Study of Manufacturing Industry in Britain, Germany and the United States*, Cambridge: Cambridge University Press (1981), p. 179.

References

- Benn, Tony, *Against the Tide: Diaries 1973–1976*, London: Hutchinson (1989).
- Broadberry, Stephen, *The Productivity Race: British Manufacturing in International Perspective, 1850–1990*, Cambridge: Cambridge University Press (1997).
- Chick, Martin, *Industrial Policy in Britain, 1945–1951*, Cambridge: Cambridge University Press (1998).
- Cowling, Keith *et al.*, *Mergers and Economic Performance*, Cambridge: Cambridge University Press (1980).
- Graham, Andrew, 'Industrial Policy', in: Beckerman, Wilfred (ed.), *The Labour Government's Economic Record*, London: Duckworth (1975), pp. 178–217.
- Hague, Douglas and Geoffrey Wilkinson, *The IRC: An Experiment in Industrial Intervention*, London: Allen and Unwin (1983).
- Hall, Margaret, 'Are Goods and Services Different?', *Westminster Bank Review*, August (1968).
- Kaldor, Nicholas, 'Productivity and Growth in Manufacturing Industry: A Reply', *Economica* 35, vol. 35, Nr.140 (1968), pp. 385–391.
- Kaldor, Nicholas, 'What Is Wrong With Economic Theory', *The Quarterly Journal of Economics* 89, Nr. 3 (1975), pp. 347–357.
- Kramer, Daniel C., *State Capital and Private Enterprise: The Case of the UK National Enterprise Board*, London: Routledge (1988).
- Prais, S. J., *Productivity and Industrial Structure: A Statistical Study of Manufacturing Industry in Britain, Germany and the United States*, Cambridge: Cambridge University Press (1981).
- Reddaway, William B., 'The Productivity Effects of Selective Employment Tax, a Reply', *National Institute Economic Review*, 57 (1971), pp. 62–68.
- Redwood, John, *Going for Broke*, Oxford: Blackwell (1984).
- Thirlwall, Anthony P., 'Rowthorn's Interpretation of Verdoorn's Law', *The Economic Journal*, 90, 358 (1980), pp. 386–388.
- Thirlwall, Anthony P., *Nicholas Kaldor*, Brighton: Wheatsheaf (1987).
- Tomlinson, Jim, *The Labour Governments 1964–1970*, Manchester: Manchester University Press (2004).
- Verdoorn, Petrus J., 'Fattori che regolano lo sviluppo della produttività del lavoro', *L'Industria*, 1 (1949), pp. 3–10.
- Whitley, J. D. and George D. N. Worswick, 'The Productivity Effects of Selective Employment Tax', *National Institute Economic Review*, 56 (May 1971), pp. 36–40.

3

What's in a name? French industrial policy, 1950–1975

William James Adams
University of Michigan

3.1 Introduction

At the end of the Second World War, few people predicted that the French economy would grow rapidly for the next quarter-century. Those who anticipated economic stagnation did not rely on generic fears, common at the time, of inadequate aggregate demand. Rather, they believed that specific and durable features of French culture are incompatible with rapid growth.

In a growing economy, companies, industries and regions expand at different rates, entailing fundamental changes in the composition of economic activity. In the case of France, many observers worried that economic resources did not flow freely among economic activities and geographic places. Market signals are distorted by the restrictive practices of government and business; and responses to market signals are muted by the hyper-conservative behaviour of most households and companies. This hyper-conservative behaviour results (allegedly) from a culture in which people take tremendous satisfaction from their regional and occupational identities, from being self-employed and from living traditional lifestyles. In such a culture, opportunities to earn extra income do not induce economic actors to modify their behaviour. From the actor's standpoint, hyper-conservatism is not irrational per se. Nevertheless, if households and companies do not respond sensitively to unsuppressed market opportunities, resources will not flow to their most productive commercial uses; and the rapid growth of market output will not be sustainable.

Despite the alleged incompatibility between French economic culture and sustained economic growth, the French economy grew rapidly after the Second World War (Table 3.1). In comparison with other rich market

Table 3.1 Growth of gross domestic product (GDP) in selected countries for selected intervals, 1870–1979

	Change in the volume of GDP in %				
	1870–1899	1900–1929	1950–1979	1950–1958	1958–1973
France	60	57	278	41	123
Germany	116	77	342	84	108
Italy	22	87	299	54	122
United Kingdom	86	36	111	20	63
Japan	98	146	966	89	352
United States	240	170	173	27	81

Note: Primary sources control for changes in national boundaries.

Source: William J. Adams (1989), tables A-1, A-2, p. 269.

Table 3.2 Growth of gross domestic product (GDP) per capita in selected countries, 1950–1973

	Change in the volume of GDP per capita in %	
	1950–1958	1960–1973
France	33	77
Germany	65	56
Italy	47	79
United Kingdom	15	39
Japan	n.a.	184
United States	13	39

Note: n.a. = not available.

Source: William J. Adams (1989), table A-1, p. 269.

economies, it grew especially rapidly between 1958 and 1973 (Table 3.1). The standard of living (GDP per capita) also grew rapidly (Table 3.2). In 1950, the French standard of living was 23 per cent lower than the British (Table 3.3). By 1975, it was 22 per cent higher. Reversals of this magnitude, between rich countries, during a single generation, do not occur frequently.

Why did the French economy grow rapidly for 25 years, even though most experts believed initially that such growth was impossible? How does one reconcile the alleged lethargy of the French economy before the Second World War with its apparent dynamism thereafter? Three broad hypotheses come to mind.

Table 3.3 Relative standards of living in selected countries, 1950–1975

	GDP per capita, France=100					
	1950	1955	1960	1965	1970	1975
France	100	100	100	100	100	100
Germany	85	107	115	111	106	101
Italy	57	63	65	66	67	66
United Kingdom	123	119	108	100	87	78
Japan	35	42	50	62	81	84
United States	207	200	169	160	139	122

Source: William J. Adams (1989), table A-2, p. 269.

Hypothesis 1

Rigidity and growth were compatible in post-war France. To the individual worker or machine, changes in the composition of economic activity manifest themselves in two distinct ways: in the first, the worker (or the machine) passes his (or its) entire working life in the same activity. When the worker (or machine) retires, the new worker (or machine) is deployed differently from the departing worker (or machine). In the second type of structural change, growth occurs so rapidly that specific people and machines must change situations during their working lives. The first type of structural change can be deemed *marginal*, the second *radical*. Rigidity in the allocation of resources is more compatible with marginal structural change than it is with radical structural change. Insofar as French growth required only marginal changes in economic structure, the allegedly hyper-conservative behaviour of French economic actors would not have impeded sustained growth.

The pace of growth is an obvious determinant of the need for radical structural change. Another is the size of the gap between the initial composition of activity and the evolution of optimal composition after growth takes hold. At the end of the Second World War, France devoted more of its resources to agriculture and artisanal production than did many of its trading partners. If French growth entailed continued emphasis on such activities, only marginal reallocation of resources would have been required.

During the 1950s, while the Original Six¹ were negotiating the creation of the European Economic Community (EEC), many experts believed

¹Belgium, France, West Germany, Italy, Luxembourg and the Netherlands.

that, inside the EEC, France would export agricultural and luxury products to Germany in return for heavy manufactures. Economic integration would stimulate growth throughout Europe, and agriculture would decline in the EEC as a whole. For France, however, the growth induced by integration would result in continued reliance on activities in which it already specialized, limiting the need for radical structural change.

Hypothesis 2

Government initiative compensated for private-sector conservatism. After the Second World War, the French government implemented a variety of policies designed to promote structural change. Some aimed to channel resources to specific activities. Others tried simply to reduce the risk, or increase the expected net reward associated with mobility. Perhaps these policies succeeded in sharpening market signals and/or the responses of economic actors thereto.

Hypothesis 3

Economic actors responded (unexpectedly) flexibly to new opportunities. After the Second World War, French households, companies and governmental actors found themselves in a new economic environment. On the one hand, the French economy was growing rapidly. On the other hand, France was de-colonizing and working actively to launch the European Union (EU).² In a rapidly growing economy, unemployment is low and consumers are spending. So workers tend not to worry about leaving one job for another, and companies tend not to worry about investing in new technologies and products. In countries submitting voluntarily and quasi-irrevocably to free trade, it is understood by most economic actors that their governments will not protect them from foreign competition. Perhaps the conservative behaviours of the past should be attributed not to the *preferences* of French households and firms but rather to the *opportunities* available to them at the time.

In the next three parts of this chapter, I discuss each of these hypotheses in turn. In the last part of the chapter, I offer some brief conclusions. Suffice it to say that the French economy did restructure fundamentally after the Second World War, and a critical source of that restructuring was France's credibly durable commitment to altering the nature and extent of its economic connections to the outside world. Although this

²Henceforth, I use 'European Union' and 'EU' to denote the European Economic Community, the European Communities, the European Community and the European Union.

Table 3.4 Distribution of French economic sectors by growth of employment, 1954–1975

Growth of sector employment 1954–1975 (in %)	Number of sectors	Combined share of total employment		Change in employment 1954–1975	
		1954	1975	Volume	%
Less than 0	8	41	18	–4,024,910	–52
0 to 49	10	22	25	1,063,380	26
50 or more	14	37	57	4,959,130	71
All sectors	32	100	100	1,997,600	11

Source: William J. Adams (1989), table A-6, p. 271.

kind of commitment is not usually considered to be an industrial policy, it may have had at least as much impact on French economic growth and structure as did policies that carry the industrial name.

3.2 The extent of structural change between 1950 and 1975

The French economy was larger in 1975 than it was in 1950, but did it differ much in structure? How altered were the distribution of output among industries, the distribution of employment among industries, the distribution of employment between self-employed and salaried workers, the distribution of plants by size and the distribution of population among regions? I provide detailed answers to each of these questions elsewhere.³ Given its particular relevance to hypothesis 1, I focus here on the industrial composition of employment.

Between 1954 and 1975 (the two relevant census years), employment increased by 11 per cent in the aggregate and by 22 per cent in manufacturing. At the industry level, however, rates of growth varied widely around these weighted means (Table 3.4). With economic activity separated into 32 sectors, employment fell absolutely in eight. These eight suffered a combined net loss of over four million jobs, representing over 50 per cent of their combined employment in 1954. Agriculture suffered the greatest loss of jobs — over three million, or 60 per cent of agricultural employment in 1954. But agriculture was not the only sector

³William J. Adams, *Restructuring the French Economy. Government and the Rise of Market Competition since World War II*, Washington D.C.: The Brookings Institution (1989).

from which employment haemorrhaged: apparel, coal, textiles and domestic service each lost more than 100,000 jobs. In coal, employment declined by two-thirds.

Did these changes in employment structure require individual workers to change occupations? Or was it possible to effect the change in employment structure via retirements from and entries to the labour force? The Institut National de la Statistique et des Etudes Economiques (INSEE) has studied the labour-market status of individual workers at five-year intervals. The best of these studies (in terms of study design) pertains to 1972 and 1977. Among males self-employed as farmers in 1972, 81 per cent were still self-employed farmers in 1977. In contrast, only 50 per cent of men employed as miners in 1972 were still working as miners in 1977. Among both male farm-owners and male miners, retirements outnumbered occupational migrations. Among male agricultural labourers, male small shopkeepers and male domestic servants, migrations outnumbered retirements. Among women, exits from the labour force outnumbered changes of occupation. Nevertheless, more than 25 per cent of the female agricultural labourers in 1972 had other occupations five years later; and 17 per cent of the female domestic servants in 1972 had migrated to other occupations by 1977. In short, between 1972 and 1977, for men and women both, only the self-employed in agriculture displayed low occupational mobility: less than 5 per cent of such men and women were employed in different occupations five years later. Although exceptional, this pattern is important because agriculture accounted for most of the absolute decline in employment.

France's economic structure changed pervasively during the quarter-century following the Second World War. Employment in agriculture contracted absolutely as well as relatively. Mining and textiles also contracted sharply, as did self-employment. Until 1975, small plants accounted for decreasing shares of employment. Given the profundity of structural change, it is surprising to find that much of it is marginal in nature. Nevertheless, personal mobility was far from rare. Although not devoid of merit, the first broad hypothesis – that the post-war French experience demonstrates the compatibility of rigidity and growth – is not terribly persuasive.

3.3 Restructuring by government design

France collapsed so swiftly and completely in 1940 that few people blamed the military alone. Underneath the weak national defence was thought to

lie a weak economy. The post-war economy would require more than reconstruction and more than sustained growth. It would require structural modernization. If France failed to modernize (people thought), it might lose its territorial integrity and its national independence.

Could this task of economic modernization be left to the private sector? In 1945, the very question seemed silly to many. France's experience with geo-political industrial policy can be traced back to the seventeenth century. The largely laissez-faire environment of the late nineteenth and early twentieth centuries had failed to deliver growth and modernization. During the Second World War, some elements of the business community were suspected of unseemly collaboration with the occupying power. Since neither the economic nor the political judgements of the old elite could be trusted, new leaders would have to be identified. The public sector seemed like the right place to look for them.

Government had several means to manage the economy. Some had been used for centuries, others were innovations of the post-war period. Some involved direct action by government, others relied on incentives offered by government to private actors. In effect, the 'government' was really a collection of institutions, each with its own goals, constraints and powers. Four of these institutional actors merit our attention here: (1) The Commissariat Général au Plan (CGP), (2) state-owned enterprises (SOEs), (3) the Ministry of Industry⁴ and (4) the Ministry of Finance.

The Commissariat Général au Plan (CGP)

In 1947, to promote economic modernization generally, and to oversee the allocation of Marshall-Plan money specifically, the CGP was created. It comprised one commissioner and a small permanent staff. Every five years or so, the CGP formed a bevy of specialized committees, each one composed of civil servants and members of the business, labour and consumer communities. Some of the committees focused on individual sectors of the economy, others addressed issues cutting across sectoral boundaries. The committees set micro- and macroeconomic targets for the medium term, and they devised practical ways to overcome anticipated impediments. An important task of these specialized committees was to secure buy-in – to develop in participants a conviction that even ambitious targets could and would be realized. The institutionally

⁴By 'Ministry of Industry' I mean all of the 'technical' ministries with responsibilities to oversee specific firms and industries in the industrial sector.

innovative and informal organization of the CGP enabled it to recruit and develop an excellent staff. From its birth until the 1970s, the CGP enjoyed considerable credibility.

State-Owned Enterprises (SOEs)

At the end of the Second World War, the French state owned a few important enterprises, including SNCF (rail transport), PTT (postal service, telegraphy, telephony, retail banking), *Crédit Agricole* (retail banking) and *Caisse des Dépôts et Consignations* (an important financial intermediary). By 1946, however, the state's portfolio had grown dramatically. SOEs now dominated the domestic supply of coal, electricity, gas, insurance and commercial banking. The state also controlled important enterprises engaged in air transport, nuclear power generation, petroleum discovery and refining and chemical production. Renault, a leading domestic producer of automobiles, was in state hands. The post-war phase of nationalization ended in 1948, when the state took control of *Compagnie Générale Transatlantique* and *Messageries Maritimes* (maritime shipping). Between 1948 and 1975, the state expanded and restructured its portfolio of enterprises; but the imprint of its ownership was established when the CGP developed its first economic plan (1947–52).

In principle, SOEs can be used in various ways to implement government policy. Directly, they can be told what to produce, how to produce, where to produce and how much to innovate. They can be told the terms on which they should buy and sell, and even whether or not to deal at all with specific clients and suppliers. Indirectly, via their pricing policies, SOEs can be used to encourage or restrain individual customers or suppliers, or even whole sectors of economic activity. Also indirectly, SOEs can serve as model enterprises—that point private ventures toward better performance.

The Ministry of Industry

At the end of the Second World War, structural change meant industrialization. If France was going to enjoy both a high standard of living and a strong national defence, it would have to industrialize. In particular, it would have to develop heavy industry. Fifteen years later, industrial modernization and national defence appeared to require promotion of such important emerging sectors as electronics and telecommunications. Therefore, in industrial policy circles, structural change meant less agriculture, less crafting of luxury products and more industry (initially, more 'smokestack' industry; subsequently, more 'high-tech'

industry). The Ministry of Industry oversees industry; so it is the natural place to look for policies promoting industry.

During the early 1980s, at the beginning of François Mitterrand's first term as president, the Ministry of Industry played a major role in French industrial policy.⁵ Not only was it responsible for overseeing and restructuring the newly nationalized industrial enterprises, but it enjoyed direct control of budget attached to the Fonds Industriel de Modernisation (FIM). Between 1950 and 1975, however, the Ministry of Industry depended on the Ministry of Finance for money. Insofar as it enjoyed influence, that influence depended heavily on France's famous networks of individuals who studied together in elite institutions of higher education, started their professional careers together in key civil service positions and migrated later to key positions in the industrial and financial sectors. These networks could be mobilized to support policies favoured by the Ministry. In France, however, as in Japan, most key decisions were probably made by those who allocated the money, not by those who spent it.

The Ministry of Finance

The Ministry of Finance – in particular the Treasury arm of the Ministry – promoted growth and modernization in two key ways. Firstly, it prevented deficits in the balance of international payments from slowing growth. Secondly, it attempted to steer domestic saving toward investments in plant, equipment and knowledge.

Until the 1970s, countries like France played mostly by the rules of Bretton Woods. In principle, they managed their domestic economies to ensure that their international payments balanced at official exchange rates. If they experienced chronic balance-of-payments deficits, member countries could seek permission from the International Monetary Fund (IMF) to devalue. The IMF would grant such permission only after it became satisfied that the country was adopting structural measures to restore balance.

In many IMF countries, including France, the path to rapid economic growth, and to the structural change that accompanies it, encountered a serious obstacle: the faster the pace of economic growth, the more negative the balance of payments. Achievement of external balance could entail sub-optimal growth and sub-optimal employment.

⁵Vivien A. Schmidt, *From State to Market? The Transformation of French Business and Government*, Cambridge: Cambridge University Press (1996).

The French Treasury managed to avoid this balance-of-payments constraint.⁶ Between 1950 and 1975, aggregate demand sufficed to deliver rapid growth and low unemployment. The inflation that accompanied the growth was perceptible but controlled. In practice, by easing debts, this slight amount of inflation encouraged investment in plant, equipment and research. When France's unit costs of production became too high in relation to those of its trading partners, the Treasury was able to manage timely and effective devaluations within the Bretton Woods framework. These devaluations kept French products competitive in foreign markets and sustained the vigour of French growth and employment.⁷

Mitigation of the external constraint on growth was not the only achievement of the Treasury. The other involved the allocation of credit. During the period from 1950 to 1975, the Treasury used its ownership of many financial institutions, but also its authority to implement rules for the entire financial sector to ensure that saving flowed to uses preferred by the state. Between 1950 and 1975, the allocation of credit by direct and indirect governmental action was surely the most important expression of nominal industrial policy.

Undeniably, the governments of the Fourth and early Fifth Republics endeavored actively to restructure the domestic economy. Also undeniable are the quality of the human resources and the quantity of the financial resources that these governments allocated to the task. It remains, however, to determine the *impact* of these efforts. I discuss impact in section 3.5.

3.4 The new market environment at home and abroad

Largely dormant after Napoleon III, active industrial policy awoke in France after the Second World War. So did rapid growth and structural change. It is tempting, therefore, to attribute the rapid growth and structural change to the nominal industrial policies described in section 3.3. But the return of industrial policy is just one of several important post-war ruptures in the economic environment of French firms and households. Before evaluating the impact of industrial policies on the

⁶Michael Loriaux, *France after Hegemony. International Change and Financial Reform*, Ithaca: Cornell University Press (1991). On the British experience during this period, see Richard E. Caves (ed.), *Britain's Economic Prospects*, Washington: Brookings Institution (1968).

⁷Jacques Mistral, 'Vingt Ans de Redéploiement du Commerce Extérieur', *Economie et Statistique*, no. 71 (1975), pp. 23–40; Loriaux (1991), *France after Hegemony*.

post-war performance of the French economy, we must consider the other ruptures. Two of these – decolonization and formation of the EU – are critical. Another – domestic competition policy – is also relevant, but its effects become especially significant only after 1975.

Let us return for a moment to the framework introduced in section 3.1. At the end of the Second World War, many observers feared that the hyper-conservatism of French economic actors would prevent them from responding to market signals in a manner that sustains economic growth and structural change. The passive version of this failure would be to maintain one's ways of living and working even though more money could be earned by changing one's market behaviour. The active version – the one stressed by Olson⁸ – would be to lobby government to soften unwelcome market signals, protecting thereby the socioeconomic status of traditional behaviour.

Not all policy innovations can be reversed easily. Especially difficult to reverse are those imposed by external forces or actors and those that seem absolutely necessary for preservation of the country. In such situations, Olson-style lobbying is (and is perceived to be) prohibitively expensive. In effect, firms and households recognize the likely futility of attempting to reverse change. They invest instead in adaptation to the new environment.

For French firms and households, decolonization and European integration were irreversible events. The impetus for decolonization was insurrection. After several years of fighting in Indochina and Algeria, most French citizens understood that decolonization was inevitable. Meanwhile, the impetus for European integration transcended economic calculation. Unlike the United Kingdom, France opted for European integration in order to break the cycle of war. No matter how much business or labour might complain – no matter how compelling the demonstration of *economic* costs to France – France would join and advance European integration. During the 1950s, most market actors realized that protected markets in developing countries were on their way out, and competitive markets in rich countries were on their way in. No amount of interest-group activity would change those realities.

Decolonization

In 1931, a century after its first expedition to Algeria, France could claim an empire of 12.4 million square kilometers and 64.3 million people. In

⁸ Mancur Olson, *The Rise and Decline of Nations. Economic Growth, Stagflation, and Social Rigidities*, New Haven: Yale University Press (1982).

comparison, metropolitan France comprised only 544 thousand square kilometers and 41.8 million people. Before 1930, the empire accounted for modest shares of French exports, foreign investment and imports. To certain industries, however, especially cotton textiles and food, the empire constituted a major market. At the end of the Second World War, the geographic composition of French exports returned to the pattern established during the 1930s. Shortly thereafter, however, France fought major colonial wars in Indochina and Algeria. With less bloodshed, but still incomplete amity, it granted independence to Tunisia and Morocco in 1956. Most of its other African holdings became independent a few years later. In the eight years between 1954 and 1962, the formal content of French colonialism had all but disappeared.

The importance of France's colonial trade peaked in 1952 (Table 3.5) when 42 per cent of all French exports went to the French Overseas Union (OU) – half to North Africa, one-quarter to the rest of French Africa and one-fifth to Indochina. The remainder flowed to French territories in the Americas and Oceania. Algeria alone accounted for 13 per cent of French exports in 1952. The combined importance of continuing *and departed* members of the OU, as destinations for French exports, then declined – its share shrinking by 50 per cent between 1952 and 1962 and by another 50 per cent between 1962 and 1972. In just two decades, its share thus plummeted from 42 per cent to 9 per cent. In 1975 the whole of the original OU absorbed a smaller share of French exports than had Algeria alone in 1952 (Table 3.5).

As colonial markets declined, competitive world markets took over. In 1952, France exported almost as much to the OU as it did to countries now comprising the Organization for Economic Cooperation

Table 3.5 Distribution of French exports by destination, 1952–1975 (in percentages)

	1952	1959	1975
French Overseas Union	42.2	31.8	11.5
French North Africa	22.4	21.6	6.0
Algeria	12.6	17.0	3.6
Other French Africa	9.9	7.1	4.2
Indochina	8.2	0.6	0.1
OECD	43.2	53.5	66.8
Europe	38.0	43.4	61.0
EEC	15.9	27.2	41.0

Source: William James Adams (1989), table 22.

and Development (OECD). North Africa's three members of the OU imported 140 per cent as much from France as did the five countries joining France to form the European Coal and Steel Community (ECSC). Germany bought less than half as much from France as Algeria. After 1961, however, France exported more to charter members of the EU than it did to charter members of the OU. It also sent more to Germany than to Algeria. European members of today's OECD buy twice as much from France as do the original members of the OU.

European integration

In 1951, France joined West Germany, Italy, the Netherlands, Belgium and Luxembourg on the road to European integration. The stated goal of the travellers was 'ever closer union'. Economically, at least, ever closer union is exactly what occurred.

The integration that occurred in 1951 was the creation of the ECSC. Viewed narrowly, the ECSC was simply a free-trade area covering six countries and four economic sectors. Viewed broadly, the ECSC was also authorized to conduct competition policy and to manage crisis-cartels. Viewed retrospectively, however, the birth of the ECSC marked the creation of a rich set of supra-national governmental institutions: a judicial branch (the European Court of Justice), an executive branch (the Commission) and a legislative branch (the Council of Ministers). These institutions were already functioning smoothly in 1958, when the EEC and the European Atomic Energy Community (EAEC) were launched.

Before the EEC was ten years old, the European Court of Justice had announced, and the member countries had accepted, the fundamental constitutional principles of supremacy and judicial review. Henceforth, member countries understood that when their constitutions, laws, regulations and administrative practices conflicted with their EU counterparts, the national rules had to be modified. Similarly, the other institutions of EU governance – in particular the Council of Ministers – understood that the Court, not the Council, would be the ultimate interpreter of the primary and secondary legislation of the EU. Considerable economic sovereignty had passed *de facto* from member countries to a supra-national body whose primary operational goal was to ensure the free movement of goods, services, capital and workers inside the EU.

By 1962, virtually all internal tariffs and quotas had disappeared. Between the mid 1960s and the mid 1970s, an active competition policy was launched. By 1975, a common agricultural policy had been implemented and the Commission had begun to challenge those national

product standards (such as Germany's purity requirements for beer and Italy's purity requirements for pasta⁹), and those domestic taxes (such as France's annual tax on operating an automobile), that effectively prevented goods produced in one member country from competing in another member country.

Before 1975, most member countries were experiencing rapid growth and low unemployment, so the EU had no occasion to demonstrate the intolerance it would later exhibit toward national subsidy schemes.¹⁰ And, despite the Werner Report of 1970, monetary union would not occur for another quarter-century. Nor would the EU's challenge of 'golden shares' – the device used by member countries to retain control of decision-making in newly-privatized enterprises.¹¹ Nevertheless,

⁹Commission v Germany (Purity Requirements for Beer), European Court of Justice, Case 178/84, Judgment of 12 March 1987, [1987] ECR 1227; 3. Glocken and Another v USL Centro-Sud and Another (Pasta Products), European Court of Justice, Case 407/85, Judgment of 14 July 1988, [1988] ECR 04233; Criminal Proceedings against Zoni, European Court of Justice, Case 90/86, Judgment of 14 July 1988, [1988] ECR 04285.

¹⁰Since the slowdown of the mid-1970s, the European Commission has worked diligently to keep distorting subsidies in check. It challenged individual aid programs and obliged not only their termination or modification but also the recoupment by member countries of aid illegally granted. (An example of the tough EU stand on recoupment is Commission v France, European Court of Justice, Case 52/83, Judgment of 15 November 1983, [1983] ECR 3707.) Where the elimination of all distorting aid would be impossible politically (for example, certain aid to distressed industries, to distressed regions and/or to innovative activities), the Commission developed subsidy codes. These codes signalled which aids would be tolerated and which would be challenged. Hoping to avoid 'subsidy races' (akin to 'armament races') between member countries, the EU also developed Union-level policies for helping troubled firms and sensitive industries. A current example, involving French aid to the large French automobile firm, PSA Peugeot Citroën, is the Decision of the European Parliament and of the Council of 25 October 2012, on the mobilization of the European Globalization Adjustment Fund, in accordance with point 28 of the Interinstitutional Agreement of 17 May 2006 between the European Parliament, the Council and the commission on budgetary discipline and sound financial management (application EGF/2010/015 FR/Peugeot from France), 2012/680/EU, OJ L 307/74, 7 November 2012.

¹¹The first Commission challenge of the special shareholder rights claimed by a member country involved Italy (Commission v Italy (Special Powers), the European Court of Justice, Case C-58/99, the Judgment of 23 May 2000, [2000] ECR I-03811). The important early case against France involved special rights for the state in a major petroleum firm, Elf-Aquitaine (Commission v France (Golden Share), the European Court of Justice, Case C-483/99, Judgment of 4 June 2002, [2002] ECR I-04781).

with the possible exception of those who worked in economic sectors that remained sheltered from European competition, no French firm or household could believe that any French government, however willing, could reverse the actor's new exposure to market competition.

The new domestic environment

For several decades now, France's competition authorities have been challenging domestic restraints of trade, abuses of dominant position and anti-competitive mergers. Between 1950 and 1975, however, they lacked the authority and the inclination to do so. During the immediate post-war period, competition policy was viewed as a tool of anti-inflation policy. Thereafter, cases were filed infrequently, convictions were obtained rarely and effective punishments were largely non-existent. Between 1950 and 1975, domestic competition policy is probably not the place to look for irreversible French commitments to a competitive market environment.¹²

Nevertheless, competition did grow, even in sectors normally sheltered from international trade. A good example is retail trade. Despite the considerable political power of small shopkeepers, despite the restrictive legislation enacted by the elected officials they controlled and despite the high-end/high-price orientation of the traditional department stores, no-frills/low-price retailing did come to France after the Second World War. The pioneer among the aggressive retailers was Edouard Leclerc.¹³ Leclerc opened his first store in 1949, but soon he was allowing others to open stores using his name – provided they pledged adherence to his no-frills/low-price philosophy. In 1954, there were 25 Leclerc stores in France. By 1974, there were 350, including 30 in the Paris area.

Leclerc's memoirs make it clear that, without the backing of France's Ministry of Finance (and of President Charles de Gaulle himself), Leclerc might have failed in his effort to upset the stagnant environment in French retailing. His conservative rivals removed their advertising from newspapers that endorsed his practices. They also induced their contacts in the civil service to threaten Leclerc with scrutiny of his tax returns – unless he raised his prices. Most importantly, often at the request of his rivals, Leclerc's suppliers refused to sell him merchandise until he raised his prices to the levels desired by those rivals. Fortunately, worried about inflation, the Ministry of Finance usually responded favourably

¹²Frédéric Jenny and André-Paul Weber, 'French Antitrust Legislation. An Exercise in Futility?', *Antitrust Bulletin* 20 (1975), pp. 597–639.

¹³See Leclerc's professional memoirs, Edouard Leclerc, *Ma Vie pour un Combat*, Paris: Belfond (1974).

to his requests for help. In 1962, in an important case involving resale price maintenance, so did the French courts.

3.5 Conclusion

Between 1950 and 1975, the French economy grew rapidly and changed structurally. In this felicitous performance, what role was played by classic industrial policies, and what role was played by the market forces associated with de-colonization and European integration?

Unfortunately (but unsurprisingly), such a question is impossible to answer definitively. The levers of traditional industrial policy are numerous and diverse. To measure policy impact, one would have to: (1) ascertain the aid element in every policy, (2) identify the ultimate beneficiary of each aid and (3) take account of the myriad interactions among aids. One would also have to (4) compare the impact of the policy-package actually chosen to the impacts of alternative policy-packages. These steps are always challenging, but some are especially delicate in the French policy environment after the Second World War.

Aid element

When aid takes the form of cash grants, subsidized loans and loan guarantees, it is possible to calculate relatively easily the aid element in a government policy. But an important form of policy-making in post-war France does not involve policies like these. When governments are unable to raise enough tax revenue to finance their desired policies, they introduce a thicket of rules and mandates – a thicket so dense that every economic actor fails inevitably to comply with all of its requirements. In principle, violation of the rules entails stiff penalties; but the state enjoys prosecutorial discretion. Rather than prosecute, convict and punish every transgressor, the government bargains with most defendants: those who agree to do something desired by the government – often something unrelated to the alleged transgression but highly relevant to (say) the government’s industrial policy – will not be prosecuted (or will suffer only light punishments). When policy-implementation takes this form, aid elements are virtually impossible to calculate.

Ultimate beneficiary

Between 1950 and 1975, the nominal recipients of much French aid were state-owned public utilities and state-owned financial enterprises. These firms passed on the benefits of such aid to other firms, in the form of lower prices. The price-reductions of the SOEs were selective: only targeted (categories of) firms received them.

In the case of aid given to financial enterprises, it is possible, in principle, to calculate aid elements, because it is possible to calculate the degree to which each specific loan carries a below-market rate of interest. In practice, however, it would be impossible for the observer to review all loans extended by all of the subsidized financial institutions.

In the case of aid given nominally to public utilities (SNCF, EDF, GDF and France Télécom, for example), but ultimately to their customers and suppliers, it is difficult even in principle to calculate aid elements. Most public utilities are natural monopolies, and economic efficiency requires many natural monopolies to engage in price discrimination. As a result, there is no single 'market' price to which the price actually charged by the subsidized public utility can be compared.

Policy interaction

At the same time that the Ministry of Industry was promoting industry, the Ministry of Agriculture was promoting agriculture. It is the net effect of these promotions that shapes the effects of government policy on industry. For example, suppose the government wishes to promote the cookie industry, so it subsidizes the production of cookies. At the same time, however, the government may be promoting the domestic sugar-beet industry. It does so partly by offering cash subsidies to domestic producers but partly by imposing tariffs on imported sugar. If the domestic price of sugar is well above the world market price, the nominal subsidy received by domestic manufacturers of cookies may not be large enough to confer a net subsidy on them.¹⁴

Counterfactual

The evaluation of any policy package is inherently a comparative exercise. What policies would have been chosen had the industrial policies of the post-war period not been adopted? And how would the recipient of a government favour have behaved if the subsidy had not been offered? One cannot always assume safely that no other policies would have been adopted. Without a plausible specification of the most likely alternative scenario to what actually happened, it is impossible to assess the impact of an implemented policy.

For all of these reasons (and others), it would be foolhardy to draw strong and precise conclusions about the efficacy of French industrial policy between 1950 and 1975. Nevertheless, the expert judgements of

¹⁴This concept (i.e., effective protection) is emphasized in the context of Wilhelmine Germany in Alexander Gerschenkron, *Bread and Democracy in Germany*, Berkeley: University of California Press (1943).

several observers do ring true. Indicative planning probably worked best during its early years, when it focused on industries with mature technologies, homogeneous products and somewhat-protected domestic markets.¹⁵ Industrial policies are easier to design than to implement.¹⁶ For the purposes of policy-implementation, the distinction between public and private enterprise may not be that important: profitable public enterprises (like Renault during certain periods) operated essentially like private enterprises, and unprofitable private enterprises (such as the large steel companies during certain periods) were utterly dependent on the state. The state was probably more effective at mobilizing national saving than at allocating that saving productively among industrial activities.¹⁷ Macroeconomic policies – in particular, the management of exchange rates and inflation – may have played as important a role in French growth performance, and hence in French restructuring, as did industrial policy itself.¹⁸ Decolonization and European integration may well have contributed to French performance at least as much as did French industrial policy itself.¹⁹

The rationale for this chapter's title should now be clear. European integration, decolonization, exchange-rate management, inflation management and competition policy are not usually considered to be industrial policies. And yet, they can impact economic structure just as fundamentally as can any set of policies that meets the traditional definition of industrial policy. In fact, the most important lesson of the post-war French experience may be this: if nominal industrial policy worked well, it did so because it was implemented in an environment characterized by credibly durable commitment to foreign competition. And if competition worked well, it did so because nominal industrial policy facilitated the inevitable reallocations of resources. Without such softening and slowing, the political reaction to market change might well have prevented competition from taking its course.²⁰ Even so, without France's credible commitment to European economic integration, French economic actors, public as well as private, would not have had

¹⁵ John Zysman, *Political Strategies for Industrial Order. State, Market, and Industry in France*, Berkeley: University of California Press (1977).

¹⁶ Schmidt (1996), *From State to Market*.

¹⁷ Christian Stoffaës, *La Grande Menace Industrielle*, Paris: Calmann-Lévy (1978).

¹⁸ Mistral (1975), 'Vingt Ans de Redéploiement du Commerce Extérieur'; Loriaux (1991), *France after Hegemony*.

¹⁹ Adams (1989), *Restructuring the French Economy*.

²⁰ In other words, the counterfactual to an active industrial policy might not have been unrestrained growth of market competition.

the incentive to shed the allegedly hyper-conservative market behaviour that preoccupied an earlier generation of observers. In the France of 1950 to 1975, as in other places and other times, one should never confuse *laissez-faire* and competition.

References

- Adams, William J., *Restructuring the French Economy: Government and the Rise of Market Competition since World War II*, Washington: Brookings Institution (1989).
- Baum, Warren, *The French Economy and the State*, Princeton: Princeton University Press (1958).
- Caves, Richard E. (ed.), *Britain's Economic Prospects*, Washington: Brookings Institution (1968).
- Ehrmann, Henry, *Organized Business in France*, Princeton: Princeton University Press (1957).
- Gerschenkron, Alexander, *Bread and Democracy in Germany*, Berkeley: University of California Press (1943).
- Jenny, Frédéric and André-Paul Weber, 'French Antitrust Legislation: An Exercise in Futility?', *Antitrust Bulletin* 20 (Fall 1975), pp. 597–639.
- Kuisel, Richard F., *Capitalism and the State in Modern France: Renovation and Economic Management in the Twentieth Century*, Cambridge: Cambridge University Press (1981).
- Leclerc, Edouard, *Ma Vie pour un Combat*, Paris: Belfond (1974).
- Loriaux, Michael, *France after Hegemony: International Change and Financial Reform*, Ithaca: Cornell University Press (1991).
- Mistral, Jacques, 'Vingt Ans de Redéploiement du Commerce Extérieur', *Economie et Statistique*, no. 71 (October 1975), pp. 23–40.
- Olson, Mancur, *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities*, New Haven: Yale University Press (1982).
- Schmidt, Vivien A., *From State to Market? The Transformation of French Business and Government*, Cambridge: Cambridge University Press (1996).
- Sheahan, John, *Promotion and Control of Industry in Postwar France*, Cambridge: Harvard University Press (1963).
- Stoffaës, Christian, *La Grande Menace Industrielle*, Paris: Calmann-Lévy (1978).
- Zysman, John, *Governments, Markets and Growth: Financial Systems and the Politics of Industrial Change*, Ithaca: Cornell University Press (1983).
- Zysman, John, *Political Strategies for Industrial Order: State, Market, and Industry in France*, Berkeley: University of California Press (1977).

4

Ensuring economic growth and socioeconomic stabilization: Industrial policy in West Germany, 1950–1975

Stefan Grüner

University of Augsburg

4.1 Introduction

'Industrial policy has one thing in common with other varieties of modern politics: it can be described, even conducted, without having been properly defined.' These were the words with which a director of a department of the Federal Ministry of Economics characterized her job in the summer of 1979.¹ And indeed, before the year 1968 no West German federal government had ever bothered to publically and officially define their principles of sectoral structural policy.² Industrial policy was, and still is, very difficult to put into words properly, and it is a matter of constant political debate, not only in Germany. These two facts may well be considered important reasons for the delayed attempts at the definition mentioned above.

In the Federal Republic of Germany, industrial policy has always been positioned within an area of noticeable tension: on the one hand, it had to abide by regulatory policies requiring the complete integration into the federal governments' guiding principles of economic policy. On the other hand, however, it is noticeable, even early on, that the practice of industrial policy was influenced by more pragmatic considerations regarding

¹Melitta Büchner-Schöpf, 'Deutsche und europäische Industriepolitik', *Ifo-Schnelldienst* 28 (1979), pp. 5–13 (citation 5).

²Unterlagen zu der Beantwortung der Bundesregierung zur Großen Anfrage der Fraktion CDU/CSU betr. sektorale und regionale Strukturpolitik (Drucksache V/1988), in: 'Verhandlungen des Deutschen Bundestages. 5. Wahlperiode. Anlagen zu den stenographischen Berichten', Band 118, Drucksache V/2469, Bonn (1968), pp. 2–6.

economic effectiveness, political appropriateness and social justice. By the late 1960s, discussions regarding these aspects intensified amongst experts and in the public political debate; arguments centered on the compatibility of a more active role of the state in matters of industrial policy and the regulatory orientation of the German federal market economy. Since then, the discussion has been refueled in an almost cyclical manner. The discussion was also spurred by a recognition of structural weaknesses in the West German economy that were much more noticeable during times of weak economic development, which have been repeatedly apparent since the early 1970s. Following German reunification, it was necessary to decide on political treatment of industrial zones in the former East German states. In 1992, goals of an industrial policy were included in the Maastricht treaty, which resulted in a whole new turn in the debate, as finally the advantages and risks of a European industrial policy entered the stage and were recognized by politicians and economists.³

This chapter focuses on the basic lines of West Germany's industrial policy during the years between 1950 and 1975, and will shed light onto those aspects of sectoral structural policy that are relevant for branches of industries or parts thereof. It must be mentioned in advance that the concepts and measures of sectoral structural policy aimed at industries can not always be clearly separated from regionally oriented structural policies. Usually, interventions through industrial policy by the federal government have regional effects, just as initiatives with a regional orientation have their effects on the sectoral structure of the West German economy on the other side. Here, the focus is on the essential features of sectoral industrial policy by the federal governments within the period under consideration. Regional structural policy will be mentioned where necessary; however, industrial policies as pursued by the Länder cannot be examined here.⁴ The same holds true for the role of

³See Fritz Rahmeyer, *Sektorale Strukturpolitik. Konzeption und Realität*, Augsburg: Institut für Volkswirtschaftslehre der Universität Augsburg (1986), p. 1; Reiner Holzem, *Industriepolitik und Wirtschaftsordnung. Ordnungstheoretische Bewertung von Schwerpunkten der europäischen Industriepolitik und der deutschen Forschungs- und Technologiepolitik*, Frankfurt a. M.: Lang, (1995), p. 1 f.; Johann Eekhoff, 'Die ordnungspolitische Problematik der Industriepolitik', in: Peter Oberender (ed.), *Industriepolitik im Widerstreit mit der Wettbewerbspolitik*, Berlin: Duncker & Humblot (1994), pp. 69–77.

⁴Ulrich Jürgens and Wolfgang Krumbein (eds.), *Industriepolitische Strategien. Bundesländer im Vergleich*, Berlin: Sigma (1991); Stefan Goch, *Eine Region im Kampf mit dem Strukturwandel. Bewältigung von Strukturwandel und Strukturpolitik im Ruhrgebiet*, Essen: Klartext (2002); Stefan Grüner, *Geplantes 'Wirtschaftswunder'?*

associations, unions and other social groups, for which, in the time period under consideration in this chapter, historical research has barely taken a source-oriented or systematic approach.⁵

So far, a complete and source-researched study of this topic has not been presented for the Federal Republic of Germany. Besides studies that take the perspective of system theory and present a rather contemporary approach, which includes historical aspects only partially,⁶ a number of smaller studies document the English-speaking world's strong interest in the industrial development of Federal Germany since the early 1970s⁷ and the attempts to place it in an international context.⁸

Industrie- und Strukturpolitik in Bayern 1945 bis 1973, München: Oldenbourg (2009).

⁵Peter Jansen and Ulrich Jürgens, 'Gewerkschaften und Industriepolitik', in: Wolfgang Schroeder and Bernhard Weßels (eds.), *Die Gewerkschaften in Politik und Gesellschaft der Bundesrepublik Deutschland. Ein Handbuch*, Wiesbaden: Westdeutscher Verlag (2003), pp. 429–450; Jürgen Kädtler and Hans-Hermann Hertle, *Sozialpartnerschaft und Industriepolitik. Strukturwandel im Organisationsbereich der IG Chemie-Papier-Keramik*, Opladen: Westdeutscher Verlag (1997).

⁶See Peter Oberender and Frank Daumann, *Industriepolitik*, München: Vahlen (1995); Ulrich Brösse, *Industriepolitik*, 2nd ed., München/Wien: Oldenbourg (1999); Michael J. Seitz, *Staatliche Industriepolitik. Begründungen, Instrumente und Probleme*, Baden-Baden: Nomos (2000).

⁷See, for example: Jürgen B. Donges, 'Industrial Policies in West Germany's Not so Market-Oriented Economy', *The World Economy* 3, no. 2 (1980), pp. 185–204; Wyn Grant, *The Political Economy of Industrial Policy*, London: Butterworth (1982), pp. 74–100; Gerhard Wagenhals, 'Industrial Policy in the Federal Republic of Germany. A Survey', in: Gerard F. Adams and Lawrence R. Klein (eds.), *Industrial Policies for Growth and Competitiveness. An Economic Perspective*, Lexington, MA/Toronto: Lexington Books (1985), pp. 247–262; Peter J. Katzenstein (ed.), *Industry and Politics in West Germany. Toward the Third Republic*, Ithaca, NY/London: Cornell University Press (1989); Heidrun Abromeit, 'Government-Industry Relations in West Germany', in: Martin Chick (ed.), *Governments, Industries and Markets. Aspects of Government-Industry Relations in the UK, Japan, West Germany and the USA since 1945*, Aldershot: Elgar (1990), pp. 61–83.

⁸Guy de Carmoy, 'Subsidy Policies in Britain, France and West Germany. An Overview', in: Steven J. Warnecke (ed.), *International Trade and Industrial Policies. Government Intervention and an Open World Economy*, London/Basingstoke: Macmillan (1978), pp. 35–57; Wolfgang Neumann and Henrik Uterwedde, *Industriepolitik. Ein deutsch-französischer Vergleich*, Opladen: Leske & Budrich (1986); Ljuba Kokalj and Horst Albach, *Industriepolitik in der Marktwirtschaft. Ein internationaler Vergleich*, Stuttgart: Poeschel (1987); Uwe Blaurock, Fernand Hörner and Klaus Mangold (eds.), *Schutz vo(r)m Staat. Industriepolitik in Deutschland und Frankreich*, Freiburg i. Br.: Frankreich-Zentrum der Albert-Ludwigs-Universität Freiburg (2010).

This overview will first describe the conceptional and normative basic conditions for West German industrial policy (section 4.2). Section 4.3 will then look at the practices of industrial policy in the 1950s and the 'long' 1960s. Illustrated by a selection of examples, the Federal German industrial policy will be analysed according to its character as a policy of crisis management that had to deal with structural changes in severely affected economic sectors; another chapter will shed light on the field of research and technology policy and its claim of being an effective measure for industrial policy. A final conclusion will balance the various perspectives presented (4.4).

4.2 The conceptional framework

The German Federal government did not explicitly state or define a clear concept of aims for their industrial policy before 1968. Until the mid 1960s, the government's publicized ideas for economic policy were determined by a regulatory approach and the desire to stabilize the economy. They were dominated by the basic assumptions that are well known for West Germany: any industrial policy had to be integrated into the regulatory principles of the 'social-market economy'. Its basic and defining principles were private ownership, entrepreneurial freedom, free-market economy and the coordination of economic developments through the market. A social component is included via the state's obligation to soften social disadvantages and discrepancies that might arise for certain social groups from the developments of the market. In succession of the economic and currency reform in 1948, a normative frame for this economic order was defined step-by-step through the 'Bill Against Restraints of Competition' (Gesetz gegen Wettbewerbsbeschränkungen) in 1957, the establishment of an independent central bank, also in 1957, and a slow return to liberalized foreign trade until the year 1961.⁹

Industrial policy must not interfere with market forces, instead, it was supposed to enhance the conditions of production as they appear in a market economy by increasing the mobility of productive factors and supporting structural development and change. This led to a decision against any imperative planning of economic sectors.¹⁰ In this approach, it was the task of business to react to processes of structural

⁹Kokalj and Albach (1987), *Industriepolitik*, pp. 244–246.

¹⁰Hans-Rudolf Peters, 'Konzeption und Wirklichkeit der sektoralen Strukturpolitik in der Bundesrepublik Deutschland', in: Gottfried Bombach, Bernhard Gahlen

change. Political authorities, on the other hand, had to refrain from any kind of intervention that would have been an obstruction to structural change. In the case that intervention was necessary, it was supposed to be temporary and effective only within a limited area of influence. These two requisites were even more important because recent German history and its consequences strongly influenced the public's perception of a state interventional policy. Thus, experiences with the Third Reich's state control of the economy, its ensuing war-time economy and the perception that a planned economy was beginning in the German Democratic Republic may be an explanation for why West German politicians responsible for the economy were so adamant about refraining from any intervention through industrial policy for such a long time.¹¹

This was even more influential than the fact that the 'fathers' of the Federal Republic's social market economy had not strictly rejected a necessity to take action on a structural and industrial political level. Ludwig Erhard, for example, was of the opinion that control measures and interventions by the state were compatible with his view of a market economy. This was particularly the case if interventions promoted small and medium-sized companies or eased the adjustments to structural changes. In agriculture, heavy industry or hard coal mining, Erhard fully accepted state intervention, which he also saw happening in other countries through subsidization, or in accordance with certain national economic necessities.¹²

The conditions during the recession crisis of 1966/67 finally led the Federal Ministry of Economy to develop the 'Principles of a structural policy for economic sectors' (*Grundsätze der sektoralen Strukturpolitik*); they were approved by the economic committee of the cabinet during the fall of 1966 and were published in an altered version in 1968. These principles proclaimed a policy of flexible structural adjustments. They were not aimed at a preservation of industrial structures, while attempts at slowing down or even increasing the rate of processes of industrial adjustment were acceptable. This concept included an encompassing claim of management of processes as well as the definition of

and Alfred E. Ott (eds.), *Probleme des Strukturwandels und der Strukturpolitik*, Tübingen: Mohr (1977), pp. 119–162, here p. 129.

¹¹ Donges (1980), 'Industrial Policies', p. 189.

¹² Joachim Starbatty, 'Strukturpolitik im Konzept der Sozialen Marktwirtschaft?', in: Knut Wolfgang Nörr and Joachim Starbatty (eds.), *Soll und Haben – 50 Jahre Soziale Marktwirtschaft*, Stuttgart: Lucius und Lucius (1999), pp. 169–193, here pp. 171–175; specifically with relation to Eucken: Holzem (1995), *Industriepolitik und Wirtschaftsordnung*, pp. 17–40.

conditions that needed to be fulfilled before the application of a measure of structural policy would even be considered. Only in cases where a self-regulated process of adjustment was likely to result in unreasonable social hardships or unwanted economic consequences was the application of measures of industrial policy considered appropriate. These expected difficulties would have to be proven to effect the entire economic sector, or be expected to be long-lasting or of such gravity that they could not be remedied by 'self-help' programmes implemented by the companies themselves.¹³

An active and anticipatory forming of industrial and economic structures through state intervention was not yet explicitly mentioned in the 'Grundsätze der sektoralen Strukturpolitik' from 1968. It was only at the beginning of the 1970s that such interventions were conceptualized, aimed at giving encouragement for adjustments in certain sectors that were considered especially promising in their future development.¹⁴ Later federal governments added to their aims of industrial policy by including the advancement of environmental protection programmes, research based in companies and basic research, the supply of raw materials and the introduction of productive processes using minimal resources.¹⁵

The reasons for this conceptual hardening of West German industrial policy were multifold: since the mid 1960s, a weakening of German economic growth had become noticeable. Employers faced an increasing scarcity of labour that could not be met by additional measures of rationalization in production processes. In order to maintain a satisfying growth rate in the future, the Federal Ministry of Economy increasingly hoped for a migration of labour and capital into economic sectors that would yield good returns. Problems of adjustment in certain sectors had to be expected, as was already well-known from agriculture, hard coalmining, the shipbuilding industry and the textile industry. In

¹³'Verhandlungen des Deutschen Bundestages, Anlagen zu den stenographischen Berichten, 5. Wahlperiode', Band 118, Bonn (1968), Drucksache V/2469, pp. 1–4 (Grundsätze der sektoralen Strukturpolitik – Neufassung).

¹⁴*Jahreswirtschaftsbericht 1971 der Bundesregierung*, Stuttgart: Metzler-Poeschel (1971), pp. 33–36 (Ziff. 85–92), especially p. 35 (Ziff. 90).

¹⁵*Jahreswirtschaftsbericht 1971 der Bundesregierung* (1971), p. 31 (Ziff. 77), p. 34 (Ziff. 86); *Jahreswirtschaftsbericht 1972 der Bundesregierung*, Stuttgart: Metzler-Poeschel (1972), p. 34 (Ziff. 69); *Jahreswirtschaftsbericht 1974 der Bundesregierung*, Stuttgart: Metzler-Poeschel (1974), p. 17 (Ziff. 41); *Jahreswirtschaftsbericht 1975 der Bundesregierung*, Stuttgart: Metzler-Poeschel (1975), p. 16 (Ziff. 31) (citation).

this situation, the ‘principles of a structural policy for economic sectors’ were certainly meant to offer an encompassing concept for action.¹⁶

This kind of laying-down of new measures in the field of industrial policy can, of course, only be understood when looking at the entire context of a change of strategies that had been initiated by Karl Schiller (Social Democratic Party), Minister of Economics in the Grand Coalition, for West German economic policy since 1966.¹⁷ He was determined to give the state a more active and influential guiding role in economic processes, and to prepare the necessary instruments for this. In order to achieve this goal, it was necessary to do more than follow the anti-cyclical policy of spending, as had become popular in the newly coined ‘Globalsteuerung’. Because of the (very limited) economic downslope in 1966/67 and the crisis in West German coalmining, the federal government felt compelled to intervene on the level of structural policy as well. A conceptual frame was intended as a guideline for state agencies that provided help and orientation with regard to industrial policy, and it was supposed to prevent an uncoordinated overflow of structural aid programs.¹⁸

Especially those parts of Germany with a less well-developed infrastructure had proven to be susceptible to the effects of economic recession, so the sectoral guidelines mentioned above found a logical counterpart in ‘principles of a structural policy for regions’ (Grundsätze der regionalen Strukturpolitik). Enforcement of the principles was intended to increase coordination and planning, and also to concentrate measures of industrial policies at both the federal and the Länder level, such that economic growth would be possible in a similar manner throughout the various regions of the entire country.¹⁹

It was quickly evident that these goals could be met only in part. The interests of the various federal authorities involved with industrial and structural policy were too diverse when it came to a concentration of

¹⁶Peters (1977), ‘Konzeption und Wirklichkeit’, pp. 125–127.

¹⁷Alexander Nützenadel, *Stunde der Ökonomen. Wissenschaft, Politik und Expertenkultur in der Bundesrepublik 1949–1974*, Göttingen: Vandenhoeck & Ruprecht (2005), pp. 308–316.

¹⁸‘Verhandlungen des Deutschen Bundestages, Anlagen zu den stenographischen Berichten, 5. Wahlperiode’, Band 118, Bonn (1968), Drucksache V/2469, p. 1–4 (Grundsätze der sektoralen Strukturpolitik – Neufassung).

¹⁹‘Verhandlungen des Deutschen Bundestages, Anlagen zu den stenographischen Berichten, 5. Wahlperiode’, Band 118, Bonn (1968), Drucksache V/2469, p. 5 f. (Grundsätze der regionalen Strukturpolitik). See: Grüner (2009), *Geplantes ‘Wirtschaftswunder?’*, pp. 353–364.

sectoral measures, and political constraints proved too forceful to allow for definite regulations. Overall, the conceptual formulations were kept so wide and open to interpretation that it was impossible to justify a thorough downsizing of already existing subsidies on these principles, to mention nothing of a strict enforcement of such measures.²⁰

4.3 Practices of industrial policy (1950–1975)

It has already correctly been pointed out by contemporary observers that the Federal Republic of Germany's economic policy did not really adhere to the principles of what could be called a 'textbook model' of a market economy.²¹ Despite all official statements claiming the opposite, both federal authorities and authorities of the *Länder* exerted an influence on the extent and structure of the secondary sector; this had been happening since the late 1940s. These interventions were direct reactions to shortages – for example in heavy industry – or to regional emergencies, and were at first implemented in a case by case manner only. In the early Federal Republic, the extension of the basis of industrial production was at the centre of attention. Only in the late 1950s did another need arise and take centre stage, namely the need to react to processes of decline in the 'old' industries that were struck heavily by structural change.

The 1950s

Even in the 1950s, interventions through measures of industrial policy by the federal government bore the character of ad hoc measures; these, however, often displayed a strong tendency to turn into permanent measures. The following three significant examples will serve as illustration.

Firstly, industrial policy frequently aimed for control and possibly rectification of shortages in areas of raw material extraction, or in transportation. In 1952 the 'Law on Investment Aid for Industrial Economy' (*Gesetz über die Investitionshilfe der gewerblichen Wirtschaft*) required West German industrialists to supply the sum of one billion Deutschmarks. This sum was intended to cover necessary investments in basic and key industries, as well as the most important providers of transportation. Recipients of this transfer of capital were the mining industry, iron industry, the energy and water industries and the German railways. From the perspective of the governing coalition of

²⁰ Peters (1977), 'Konzeption und Wirklichkeit', p. 126, 134.

²¹ Donges (1980), 'Industrial Policies', p. 185.

Christian Democrats and Liberals and the employers' association, this kind of temporary guidance of investments was easily justifiable: even after the economic and currency reform in the year 1948, certain kinds of economic control were still present in mining and basic industries. This resulted in fixed prices, prohibition of production and mandatory exports, all of which were reasons why, for example, coalmining was not cost-effective at that time. Owing to this inefficiency the 'spectacular' intervention by the state was considered necessary.²²

Secondly, already in the 1950s the federal authorities and the Länder actively prepared the pre-conditions for a policy of research and technology that would prove relevant in economics as well. Until the mid 1960s, economic concerns were not yet at the centre of attention: state funding of research was mainly guided by general maxims of science and put the establishment and extension of scientific institutions first. Furthermore, state authorities were not seriously interested in the applicability of research results.²³ The varied history of the Fraunhofer-Gesellschaft for Applied Research (FhG), however, may well serve as an illustrative example for the kind of innovative potential in industrial and structural policy already being constructed at that time. The FhG was founded in 1949 and had to find its position alongside large research institutions such as the German Research Foundation (Deutsche Forschungsgemeinschaft – DFG) and the Max Planck Society (Max-Planck-Gesellschaft zur Förderung der Wissenschaften) (1948). During the decade between 1955 and 1965, the FhG developed rapidly from a small institution promoted mostly from Bavaria, where it was located, into an organization for application-oriented research in close proximity to the economy that was active throughout the entire Federal Republic. In addition, federal state funding for research after the mid 1950s concentrated on areas that would later take a central position in

²²Werner Abelshäuser, *Deutsche Wirtschaftsgeschichte. Von 1945 bis zur Gegenwart*, 2nd ed., München: Beck (2011), p. 163 (citation).

²³Jutta Gerjets, *Forschungspolitik in der Bundesrepublik Deutschland. Kritische Analyse ihrer Zielsetzungen und Instrumente*, Köln: Bundesverband der Deutschen Industrie (1982); Otto Keck, 'The National System for Technical Innovation in Germany', in: Richard R. Nelson (ed.), *National Innovation Systems. A Comparative Analysis*, New York/Oxford: Oxford University Press (1993), pp. 115–157. See also: Kokalj and Albach (1987), *Industriepolitik*, p. 248. For a single Bundesland: Helmuth Trischler, 'Nationales Innovationssystem und regionale Innovationspolitik. Forschung in Bayern im westdeutschen Vergleich 1945 bis 1980', in: Thomas Schlemmer and Hans Woller (eds.), *Politik und Kultur im föderativen Staat 1949 bis 1973*, München: Oldenbourg (2004), pp. 117–194.

national innovative systems and acquire importance within industrial-technological policy. These areas included the re-establishment of research usable for military purposes as well as aeronautics and atomic research.²⁴

Thirdly, Federal economic policymakers decided early on that material resources and labour should be directed into structurally weak regions within West Germany that had been particularly hard hit by the social and economic aftermath of the war. In the early 1950s, these recipients included large areas in Schleswig-Holstein, Hesse, Lower-Saxony, the Rhineland-Palatinate, Badenia and Bavaria. At first, the core of this initiative was determined by concerns that impoverishment in these deprived areas might seriously endanger the economic balance of the newly aspiring West German economy, and, in consequence, might lead to unwanted political effects. With regard to industrial policy, this policy of reconstruction and support is relevant in that it was mostly aimed at commerce and industry until the early 1970s; the tertiary sector was included in terms of support programmes for tourism. Focal points of support measures were the strengthening of infrastructure as well as regional establishments of industry. In the late 1950s, another aspect had to be addressed, namely the establishment of substitute industries in declining former industrial areas.

This kind of industrial and structural policy has not been at the centre of historic research, but effectively it constituted the nucleus of what later came to be called the 'vertical equalization arrangement' (vertikaler Finanzausgleich) in the Federal Republic of Germany. Between 1951 and 1974, the federal government transferred the sum of almost three billion Deutschmarks to the Länder. First among the recipients of supportive transfers was Bavaria, which profited highly, followed by Lower Saxony and Schleswig-Holstein; the final position was filled by North Rhine-Westphalia.²⁵ It was the federal government which thus first created the financial conditions which allowed the Länder to begin a controlled policy of industrial establishment and strengthening of infrastructure. Originally, these financial transfers were meant as a kind of 'help to help themselves', and were hardly spectacular on the outside, but, in effect, they developed into a very efficient tool of the federal government for maintaining influence in structural policy on the organizational level of

²⁴Helmuth Trischler and Rüdiger vom Bruch, *Forschung für den Markt. Geschichte der Fraunhofer-Gesellschaft*, München: Beck (1999), pp. 40–69; Trischler (2004), 'Nationales Innovationssystem', pp. 123–164.

²⁵Grüner (2009), *Geplantes 'Wirtschaftswunder'?*, p. 362.

the Länder, ensuring that the precept of 'similarity of living conditions' (Art. 72 Basic Law) be realized within state boundaries. This regionally oriented industrial policy experienced a latent crisis when the number of projects receiving supportive financial transfer increased significantly due to the effects of structural problems in coalmining, effectively causing a severe imbalance in the system during the 1960s.²⁶

The 'long' 1960s

The 'long' decade of the 1960s, which is understood as the years encompassing the late 1950s until the end of the post-war economic boom in 1973/74, was, in effect, a period of transition and transformation in the practice of West German industrial policy. An early phase of 'incubation' was – after the beginning of the limited recession of 1966/67 – followed by a time of rapid changes that were accompanied by the development of new tools and the tentative integration of a paradigm of planning into the concept of industrial policy. Crises of adaptation in the old industries had, indeed, demanded special attention by economic policy even before that. Apart from the sectors of hard coalmining, shipbuilding and the textile industry, all of which were most severely hit, a total of 12 out of 19 branches of industry were affected, in that they had to reduce the number of jobs between 1960 and 1970.²⁷

'Old' industries in crisis: Three examples

It has already been mentioned above that a paradigm shift in federal economic policy and the effects of a collective perception of economic crisis must be considered highly influential in the conceptual formulation of industrial policy by the federal government. The suction caused by industrial practice, however, must be considered similarly influential. The crisis of adaptation in West German hard coalmining, that was taking the centre of the political stage in the late 1950s, represents, therefore, the most illustrative example.

After 1945, West German hard coalmining had been excluded from economic competition. In order to supply low-priced energy resources for reconstruction after the war, the state had regulated the market and fixed prices for hard coal on a very high level; this remained unchanged

²⁶Helmut Karl and Helmut Krämer-Eis, 'Entwicklung der regionalen Wirtschaftspolitik in Deutschland', in: Hans H. Eberstein and Helmut Karl (eds.), *Handbuch der regionalen Wirtschaftsförderung*, Loseblattsammlung, Teil A, Abschnitt II, 3rd ed., Köln: Dr. Otto Schmidt (1996), pp. 1–58.

²⁷Neumann and Uterwedde (1986), *Industriepolitik*, p. 50.

until the year 1956. Release of prices in that year caused the beginning of a developing sales crisis that led to the first dismissals after 1958. The federal government intervened, with the aims of keeping West German hard coal a valid competitor in comparison to mineral oil and cheaper hard coal imports, initiating measures for the necessary rationalizations in coalmining and maintaining the sales levels of coal, especially in the production of electric power. For this, the federal government granted subsidies for transport and sales, tax privileges, financial aid for workers and import restrictions for cheaper coal imports. These measures, however, did not prove successful: hard coal continuously lost its ground in energy production. This effected a further cascade of industrial policy measures in the second half of the 1960s. While federal governments had attempted to set only the economic frame in which companies were supposed to find their own ways out of the crises, the increasing complexity of the problem demanded more sophisticated strategies. In the end, it was a combination of measures in the areas of energy, social and regional economic policies that took centre stage amongst state interventions under the new federal minister of economy, Schiller.²⁸ Between 1958 and 1967 hard coalmining was subsidized with a total sum of 16.7 billion Deutschmarks; an additional 400 million Deutschmarks were paid out of the funds from North Rhine-Westphalia. From 1970 to 1981, the state and end-consumers paid another 13.4 billion Deutschmarks for the West German hard coalmining industry.²⁹

The first international oil crisis in 1973/74 created new sales potentials for a brief time only. The structural crisis of the West German steel industry, which began to be felt in 1975, resulted in a dramatic reduction of demand for hard coal. Around the mid 1970s, the principle of 'Verstromung', namely turning hard coal into electricity, was at the centre of attention. Nevertheless, the continued decline in demand could not be reversed. Despite a wide array of financial aid, the

²⁸ 'Gesetz zur Anpassung und Gesundung des deutschen Steinkohlenbergbaus und der deutschen Steinkohlenbergbaubetriebe vom 15. Mai 1968', in: *Bundesgesetzblatt* I/1968, Nr. 29, Bonn (1968), p. 365–384; see Kokalj and Albach (1987), *Industriepolitik*, p. 260–264; Abelshäuser (2011), *Deutsche Wirtschaftsgeschichte*, pp. 199–212; Werner Abelshäuser, *Der Ruhrkohlenbergbau seit 1945. Wiederaufbau, Krise, Anpassung*, München: Beck (1984), pp. 87–164; Christoph Nonn, *Die Ruhrbergbaukrise. Entindustrialisierung und Politik 1958–1969*, Göttingen: Vandenhoeck & Ruprecht (2001).

²⁹ Zoltán Jákl, *Vom Marshallplan zum Kohlepfennig. Grundrisse der Subventionspolitik in der Bundesrepublik Deutschland 1948–1982*, Opladen: Westdeutscher Verlag (1990), p. 109; Abelshäuser (1984), *Ruhrkohlenbergbau*, p. 161 f.

competitiveness of West German hard coalmining within an international context has not been recaptured to this day.

Any attempt at evaluation of federal German initiatives on the field of industrial policy in the realm of hard coal has to take a differentiated look. If the criterium of growth encouragement is taken as the most important aspect, a negative evaluation is called for: without a doubt, repeated state interventions presented a burden for the process of growth due to higher energy prices and the resulting costs that had to be shouldered by public budgets and consumers. If social and regional aspects are included into the calculation as well, however, one can well talk of a positive result. For one thing, it was possible to stabilize the economic productivity of an industrial segment prone to crises on a lower level, while at the same time accomplishing an immense process of adaptation and rationalization. In addition, a whole region could be saved from a crash that might well have turned into an economic and social disaster: the process of structural re-organization took place in an 'orderly manner'. The final decision whether a survival of the still-existing coalmining industry in Germany is indeed desirable for reasons of supply-security on a national level is up to the politicians. The joint decision of the federal and Länder governments of February 2007, which will end subsidization of hard coalmining in 2018, however, constitutes an important fact in this field of industrial policy.³⁰

Other than measures of federal industrial policy that benefited the German steel industry, of which most took place outside the area under consideration here,³¹ another relevant subsidization, that of the West German shipbuilding industry, began in the early 1960s. This was a reaction to the structural crisis that had reached this industry and was manifest in terms of a reduced participation in the world shipbuilding market and a decrease in competitiveness of German shipyards. Due to the fact that the world market was still expanding until the mid 1970s, thus offering sufficient sale possibilities, this structural crisis was only latent. However, the number of employees in German shipyards had been sinking continuously from 113,000 in the year 1958, to 81,000 in 1967, to a mere 55,000 in 1982. The crisis first became apparent in

³⁰ Abelshausen (1984), *Ruhrkohlenbergbau*, p. 163 f. (citation 164); Rahmeyer (1986), *Sektorale Strukturpolitik*, pp. 7–11; Kokalj and Albach (1987), *Industriepolitik*, pp. 260–270.

³¹ As a general overview: Peter Oberender and Georg Rüter, 'Stahlindustrie', in: Peter Oberender (ed.), *Marktökonomie. Marktstruktur und Wettbewerb in ausgewählten Branchen der Bundesrepublik Deutschland*, München: Vahlen (1989), pp. 29–77.

1975, and various companies were closed down. In order to resist the Japanese shipbuilders' advancement on the international market, and to balance 'distortions' in international competition, federal policies favoured a combination of measures: for a limited period the local shipyards would receive subsidies, while at the same time negotiations towards a reduction of subsidization of shipbuilding on an international level were carried out.³²

Thus, the federal government offered a series of differently accentuated financial aid programs (Werfthilfeprogramme) for the benefit of the German shipbuilding industry. Apart from easy credits to aid exports, these included the subsidization of investments, subsidization of building costs for shipyards, financial aid for shipowners and investment aid for the German Federal Marine. In contrast to the international competitors, the German shipbuilding industry could not count on aid programs such as import restrictions, additional customs fees or tax reductions.³³ From 1966 to 1990, a total sum of approximately 9.9 billion Deutschmarks were allotted to the German shipbuilding industry by the federal government – for the period under consideration here, namely until the year 1975, the sum amounted to almost 2.5 billion Deutschmarks. During these years, the shipbuilding industry could rely on a relatively continuous flow of state subsidies. At the same time, the industrial sectors' net increase was on a constant decline, therefore the amount of subsidization in relation to production value more than doubled. Subsidies did, however, remain below the maximum levels of subsidization for shipbuilding that had been agreed on internationally in the EEC in 1969. And the rate of subsidization in Germany was constantly lower than in other countries of the common market.³⁴

³²Bundesminister für Wirtschaft (ed.), *Die wirtschaftliche Lage und die Strukturverhältnisse der Schiffbauindustrie in der BRD im internationalen Wettbewerb. Eine volkswirtschaftliche, betriebswirtschaftliche und produktionstechnische Untersuchung*, Bonn: self-published (1964), p. 16; *Jahreswirtschaftsbericht 1970 der Bundesregierung*, Stuttgart: Metzler-Poeschel (1970), p. 27 (Ziff. 73).

³³Götz Albert, *Wettbewerbsfähigkeit und Krise der deutschen Schiffbauindustrie 1945–1990*, Frankfurt a. M.: Lang (1998); Götz Albert, 'Eine Branche im Stützkorsett. Subventionen in der deutschen Schiffbauindustrie in der Nachkriegszeit', *Jahrbuch für Wirtschaftsgeschichte* 2 (1998), p. 199–217, especially 203–215; Jürgen Langer, *Subventionierung der deutschen Werftindustrie. Ziele und Auswirkungen*, Hamburg: Weltarchiv (1974); *Jahreswirtschaftsbericht 1975 der Bundesregierung*, Stuttgart: Metzler-Poeschel (1975), p. 17 (Ziff. 34).

³⁴Up until 1975, subsidization of the shipbuilding industry in West Germany totalled nominally 2.44 billion Deutschmarks, calculated in real prices of the

If one judges the federal government's policy of subsidization towards the West German shipbuilding industry in relation to the original goals, one conclusion is possible: during the period under consideration here, it was not possible to reach an international agreement and to follow a joint line of policies within the common market with regards to a standardization and noticeable reduction of subsidization for the shipbuilding industry. Whenever such an agreement was reached, as it was in the years 1972 and 1975, it faltered during the following years of crisis due to political pressures exerted by the affected companies, workers or regions. West Germany's measures must, therefore, also be considered as a reaction to the 'shattered protectionism' by Western European nations, which prevented a common policy of shipbuilding for the entire EU.³⁵

However, in hindsight it is clearly recognizable that the practice of West German policy of subsidization and support was sometimes guided by severe misjudgements. Certainly, there would have been chances to initiate structural changes and adaptations in the German shipbuilding industry during the 1970s, but it seems that these chances were not taken up soon enough, or in the right manner. The shift of policy towards a focus on state subsidization, aiming for the preservation of a German shipbuilding industry, as was apparent in West German shipyard policy after the mid 1970s, must therefore be considered a result of prior failures to introduce measures for the restructuring of this particular branch of industry.³⁶

Similar to West German hard coalmining and shipbuilding, the textile industry entered a latent state of crisis in the late 1950s. The number of jobs in this field peaked in 1957 and steadily declined after that. A total of

year 1985 they totalled at 4.86 billion Deutschmarks (Albert (1998), 'Branche im Stützkorsett', pp. 205–214).

³⁵ Detlef Rother, 'Strukturwandel im Weltschiffbau – Auswirkungen auf die westeuropäische Schiffbauindustrie, dargestellt an den Beispielen der Schiffbauindustrien der Bundesrepublik, Japans und Schwedens. Erfolge und Mißerfolge sektoraler Strukturpolitik', in: Arbeitsgemeinschaft Deutscher Wirtschaftswissenschaftlicher Forschungsinstitute e.V. (ed.), 'Erfolg und Mißerfolg sektoraler Strukturpolitik. Bericht über den wissenschaftlichen Teil der 47. Mitgliederversammlung deutscher wirtschaftswissenschaftlicher Forschungsinstitute in Bonn am 10. und 11. Mai 1984', *Beihefte der Konjunkturpolitik. Zeitschrift für angewandte Wirtschaftsforschung* 31, Berlin: Duncker & Humblot (1985), pp. 131–154 (citation 146); Albert (1998), 'Branche im Stützkorsett', pp. 213–215.

³⁶ Langer (1974), *Subventionierung*, pp. 263–277; Albert (1998), 'Branche im Stützkorsett', p. 215 f.; Rother (1985), 'Strukturwandel im Weltschiffbau', pp. 145–152.

60,000 jobs were lost in 1958 in reaction to declining sales possibilities, which were caused by growing international competition and changes in West Germans' consuming behaviour. During the 1960s, further problematic factors arose, such as the effects of full employment and the resulting competition for qualified workers, or the relatively high level of wages in Germany in comparison to other countries.³⁷

Unlike hard coalmining and the shipbuilding industry, the West German textile industry did not benefit from a systematic national policy of subsidization. This was different in other European countries. Indeed, inspired by federal aid to the miners in the Ruhr region, and worried by increasingly liberalized European markets, textile producers had demanded such state programs since the late 1950s. However, the Federal Ministry of Economics pursued a different strategy. Ludwig Erhard was willing to help the textile producers by negotiating import quotas in the context of international trade agreements. A special regulation, which had originally been initiated as a measure of temporary relief, became permanent over the following years: just as the other industrial nations did, the Federal Republic of Germany upheld quotas for the import of textile goods over decades, even after becoming a member of GATT and WTO. After 1962, West Germany was a partner in negotiating agreements on quota restrictions for the protection of national textile industries against foreign competition, such as the 'Agreement on International Trade in Cotton Textiles', the 'Multifibre Arrangement' (1974) or the 'Agreement on Textiles and Clothing' (1995). Throughout the period under consideration here, and even beyond, the textile industry, therefore, was one of the branches of industry best-protected against competition through foreign imports. Taking this as a backdrop, the federal government assumed that this high degree of protectionism should allow the companies sufficient leeway to initiate structural adaptations. Even as late as the end of the 1970s, the degree of subsidization in the textile industry, which amounted to 1.3 per cent of net product, lay well below that of the average of the entire production industries (2.1 per cent).³⁸

³⁷Michael Breitenacher, *Textilindustrie im Wandel*, Frankfurt a. M.: Gesamtverband der Textilindustrie in der Bundesrepublik Deutschland (1989), pp. 29–121; Stephan H. Lindner, *Den Faden verloren. Die westdeutsche und die französische Textilindustrie auf dem Rückzug (1930/45–1990)*, München: Beck (2001), pp. 53–109.

³⁸Breitenacher (1989), *Textilindustrie*, pp. 67–121; Christoph Buchheim, *Die Wiedereingliederung Westdeutschlands in die Weltwirtschaft 1945–1958*, München: Oldenbourg (1990), pp. 155–158. On the GATT agreement, see: Bettina

Reasons for the unequal treatment of branches of industry affected by crises were manifold, and reached far beyond economic factors. Without doubt, the textile industry's largely decentralized status, its organization in small companies and its differentiation into several sub-branches had an effect on the policy of the federal government. Unlike in hard coalmining or shipbuilding, the signals of crisis were never visible in a similar regional or temporal concentration. The need to take action was further diminished by the fact that both the employers' association for the entire textile industry, 'Gesamttextil', and the unions believed in a positive future economic development: during the 1960s, they were open to measures for rationalization as required within the industry, as well as to the reduction of numbers of jobs, so long as these took place in a socially acceptable manner. In addition, the textile unions were very diverse and dissipated, and could not muster the same amount of protest and public attention as could their colleagues in the case of coalmining in the Ruhr region.³⁹

Even after 1969, this strategy of the federal governments towards the textile industry did not change noticeably. This holds true despite the fact that German development policy was very successful in terms of speeding up industrialization of fast-developing countries with a significant increase in their potential for export, which resulted in additional pressure of competition for West German textile producers. This was most effective in the textile and clothing industries, which are often the start-up industries in many developing countries' process of industrialization. Instead, West German economic policy favoured an international division of labour, in which the national industries were allotted the role of exporter of investment goods to developing and fast-developing countries. Within this scenario, the West German textile industry's reduction of jobs, in combination with efforts at technical modernization and an increase in output were the only and inescapable options within the superordinate frame of a world market.⁴⁰

Strube, 'Entwicklung der Textil- und Bekleidungsindustrie. Entwicklungen und Tendenzen der nationalen und internationalen Textil- und Bekleidungsbranche, unter Berücksichtigung des Welttextilabkommens im Rahmen des GATT bzw. der WTO', PhD, Berlin (1999); Lindner (2001), *Den Faden verloren*, pp. 109–145; Konrad Lammers, 'Subventionen und Strukturwandel. Zu den Chancen eines Abbaus staatlicher Hilfen', *Wirtschaftsdienst* 60 (1980), pp. 539–546, here p. 541.

³⁹Lindner (2001), *Den Faden verloren*, pp. 114–120; Jansen and Jürgens (2003), 'Gewerkschaften und Industriepolitik', pp. 436–439.

⁴⁰Dieter Schumacher, 'Arbeitsteilung mit Entwicklungsländern und Strukturwandel in der Bundesrepublik Deutschland', *Konjunkturpolitik* 28 (1982), pp. 298–323;

An encompassing evaluation must also take into consideration that – due to the federal organizational system of Germany – the Länder governments more and more frequently had the obligation to support companies facing bankruptcy. Despite the fact that there was no such thing as a national programme for the subsidization of the sector of textile and clothing industry, the companies affected nevertheless participated in what could be considered less spectacular ‘low level structural policies’. On the level of the Länder, and frequently in cooperation with federal authorities, this usually took place in the shape of securities granted by the federal government, additional financial subsidies or easy credit procedures, supplemented through regional subsidization, such as the ‘Zonenrandförderung’ (subsidization of areas along the German–German border). Nevertheless, even these additional measures from public sources did not have a significant influence on the lower-than-average degree of subsidization in this branch of industry.⁴¹

Research and technology policy

Between 1960 and 1971, the West German state’s annual expenses for research and development tripled, which constitutes a faster increase than any other state expense during that period. This expansion of subsidization clearly indicates a change in outlook: research and technology policy gradually advanced to become an important tool within the policies of industry and structure. While federal and Länder governments had concentrated on financing state research agencies and large-scale projects during the 1950s, the following decades also saw a distribution of subsidization and financial support to production companies. This aimed at closing the ‘technological gap’, which was perceived to exist between Germany and the technologically leading USA. Accordingly,

Jürgen Engel, *Internationale Wirtschaftsbeziehungen und Strukturwandel am Beispiel der bundesdeutschen Textil- und Bekleidungsindustrie*, Bremen: Skarabäus- (1985); Ahmad Naini, ‘Bundesrepublik Deutschland’, in: Manfred Holthus and Dietrich Kepschull (eds.), *Die Entwicklungspolitik wichtiger OECD-Länder. Eine Untersuchung der Systeme und ihrer außenwirtschaftlichen Implikationen*, vol. 1, Hamburg: Weltarchiv (1985), pp. 503–637, here: pp. 613–617, 624–626.

⁴¹Carsten Rohde, ‘Strukturwandel und staatliche Sanierungspolitik in der Textilindustrie’, *Wirtschaftsdienst* 59 (1979), pp. 238–242; Engel (1985), *Internationale Wirtschaftsbeziehungen*, pp. 139–141; Breitenacher (1989), *Textilindustrie*, pp. 78–82; Karl Lauschke, ‘Strategien ökonomischer Krisenbewältigung. Die Textilindustrie im Westmünsterland und in Oberfranken 1945 bis 1975’, in: Thomas Schlemmer and Hans Woller (eds.), *Politik und Kultur im föderativen Staat 1949 bis 1973*, München: Oldenbourg (2004), pp. 195–279.

support programmes aimed at certain areas of research which were attributed with a particularly promising future: apart from computer technologies (1967), these included bio-technology, subsidized through the 'new technologies' programme in 1970. Recipients for these newly-oriented federal research policies were large companies which, at the same time, functioned as advisors to the state agencies for research funding. In 1973 the 50 largest industrial companies eligible for research and development aid received a total of 93 per cent of the expenses; in 1977, the figure still amounted to 76 per cent. The thematic focus of subsidization around 1979 concentrated on the fields of energy- and information-technologies, traffic technology and space research.⁴²

Extension of subsidiary structures also increasingly encompassed the claim that research and development were to be included conceptually in the economy policy. Following the recessions of 1966/67 and 1973/74, the idea asserted itself that it was the obligation of the state to utilize research and development policy as leverage for advancing structural change between various industries: the support of structures of production with a larger technological importance was meant to add growth incentives on a larger economical level and thus to increase international competitiveness of German industries. This strongly technology-oriented policy, aimed at structural adaptation, pushed the development of more efficient modes of production in the capital goods industry, the advancement of environmental protection and pure research in the health sciences and the military.⁴³ The federal government met growing criticism of this concentration of supportive payments only as late as in the end of the 1970s by spreading out the subsidization of research and development towards small and medium-sized companies.⁴⁴

⁴²Thomas Wieland, 'Neue Technik auf alten Pfaden. Biotechnologieförderung in der Bundesrepublik Deutschland', in: Christian Kehrt, Peter Schüssler and Marc-Denis Weitze (eds.), *Neue Technologien in der Gesellschaft. Akteure, Erwartungen, Kontroversen und Konjunkturen*, Bielefeld: Transcript (2011), pp. 249–263; Thomas Wieland, *Neue Technik auf alten Pfaden? Forschungs- und Technologiepolitik in der Bonner Republik. Eine Studie zur Pfadabhängigkeit des technischen Fortschritts*, Bielefeld: Transcript (2009); as a general overview: Margit Szöllösi-Janze and Helmuth Trischler, 'Entwicklungslinien der Großforschung in der Bundesrepublik Deutschland', in: Margit Szöllösi-Janze and Helmuth Trischler (eds.), *Großforschung in Deutschland*, Frankfurt a. M.: Campus (1990), pp. 13–20. For a presentation of the general view: Kokalj and Albach (1987), *Industriepolitik*, pp. 282–294.

⁴³Lothar Scholz, 'Forschungs- und Technologiepolitik und Wirtschaftsstruktur', in: Arbeitsgemeinschaft Deutscher Wirtschaftswissenschaftlicher Forschungsinstitute e.V. (1985), *Erfolg und Mißerfolg*, pp. 108–114.

⁴⁴Abromeit (1990), 'Government-Industry Relations', pp. 68–71; Rahmeyer (1986), *Sektorale Strukturpolitik*, pp. 20–27.

4.4 Conclusion

In the Federal Republic of Germany, intervention through industrial political measures played a smaller role between 1950 and 1975 than in other European countries, such as France or Great Britain. At the same time, they became a more intensively used tool than would have been covered by the intention and content of the 'Grundsätze der sektoralen Strukturpolitik' of 1968. Throughout the period under consideration here, federal German industrial policy presented itself with a two-fold approach: on the one hand, it was a combination of measures for the general support and regulation of industrial development; on the other hand, it followed these principles by selectively intervening in these processes.⁴⁵ This corresponded with the fact that the goals of industrial policy, as they were presented in public, resulted in, at best, a relatively out-of-focus picture. A unified concept of and strategy for industrial policy, as it was pronounced in France in their 'Planification', would have raised suspicion that the initiators intended to introduce methods of structural dirigism, thus fundamentally endangering the structures of a market-oriented economy.

A brief comparison of the differing international approaches to industrial policy in European countries can thus demonstrate that the variations in profiles result from a multitude of factors. Aspects of political culture play as important a role as traditions in administration, historical experiences or diverging economic developments. Without doubt, for a long time the Federal Republic's basic regulative decision for a social market economy, experiences with a controlled economy during the Nazi regime and the German Democratic Republic's competing model of a planned economy led to a low rate of acceptance for any measures that gave the impression of a controlled economy. Any policy of large-scale nationalization was simply discredited. However, it must also be noted that West Germany's industry was in a position that required a – by comparison – lower degree of regulative industrial political activity. Other than in France, the processes of economic and structural change had already developed further before 1945, the secondary sector had a larger share in national value creation and industrial structures were more modern. This structural advantage could be taken up even after war-time destruction and dismantling. In comparison to Great Britain, the structural and mono-cultural regional concentration of the 'old'

⁴⁵ Wagenhals (1985), 'Industrial Policy', p. 254; Abromeit (1990), 'Government-Industry Relations', p. 62.

branches of industry was less pronounced after 1945, thus, pressures to intervene in a soon-booming economy seem to have been less intense.⁴⁶

More archival and comparative research needs to be done on the effects that the planning paradigm has had on the shaping and the institutional basis of industrial policy in West Germany since the mid 1960s. Obviously, essential elements of political planning⁴⁷ 'diffused' into this political field: the passing of the Federal Act on regional planning (Bundesraumordnungsgesetz) in 1965, the introduction of 'Subventionsberichte' in 1967 and the creation of the 'Joint task for the improvement of the regional economic structure' (Gemeinschaftsaufgabe zur Verbesserung der regionalen Wirtschaftsstruktur) in 1969 aimed at broadening the 'informational and steering capacities' of politics, at improving coordination of federal and Länder policies and integrating scientific expertise into political processes.⁴⁸ It seems, however, that West German industrial policy never lost its main characteristic mentioned above: even around 1975 there was not one 'explicit, coordinated', but, rather, an 'implicit' policy, shaped by ad hoc interventions.⁴⁹

The total amount of subsidization in the Federal Republic of Germany experienced two phases of significant increase after 1950: a first phase, in the mid 1950s, due to an increase in aid programmes for agriculture, and a second phase at the end of the 1960s. Up until the early 1980s, subsidization increased by total numbers, but at the same time another trend experienced a reversal: rates for financial aid and tax privileges were left behind those of the federal budget and tax revenues. During the years between 1966 and 1970, financial aid programmes constituted

⁴⁶Neumann and Uterwedde (1986), *Industriepolitik*, p. 35, 41; Abelshauer (2011), *Deutsche Wirtschaftsgeschichte*, pp. 66–82.

⁴⁷An excellent definition can be found in: Hans Günter Hockerts, 'Einführung', in: Matthias Frese, Julia Paulus and Karl Teppe (eds.), *Demokratisierung und gesellschaftlicher Aufbruch. Die sechziger Jahre als Wendezeit der Bundesrepublik*, Paderborn: Ferdinand Schöningh (2003), pp. 249–257 (citation 249).

⁴⁸Paul Klemmer, 'Die Gemeinschaftsaufgabe "Verbesserung der regionalen Wirtschaftsstruktur". Zwischenbilanz einer Erscheinungsform des kooperativen Föderalismus', in: Franz Schuster (ed.), *Dezentralisierung des politischen Handelns (III). Konzeption und Handlungsfelder*, Melle: Knoth (1987), pp. 299–349. For a general overview, see: Nützenadel (2005), *Stunde der Ökonomen*; Tim Schanetzky, *Die große Ernüchterung. Wirtschaftspolitik, Expertise und Gesellschaft in der Bundesrepublik 1966 bis 1982*, Berlin: Akademie (2007); Heinz Gerhard Haupt and Jörg Requate (eds.), *Aufbruch in die Zukunft. Die 1960er Jahre zwischen Planungseuphorie und kulturellem Wandel. DDR, CSSR und Bundesrepublik im Vergleich*, Weilerswist: Velbrück Wissenschaft (2004).

⁴⁹Neumann and Uterwedde (1986), *Industriepolitik*, p. 25, 112.

an average of 9 per cent of the federal budget; in the years between 1976 and 1980, this figure had decreased to 6.9 per cent.⁵⁰

The federal government's financial aid programmes for the industrial economy did not participate in this trend, however. While their share in the total amount of the entire federal financial aid programmes between 1966 and 1975 (14.8 per cent) was clearly lower than that allotted to aid programmes for agriculture (38.6 per cent), the industrial economy took centre stage in the policy of subsidization by federal governments after the mid 1970s: from 1976 until 1982, their share increased to an average of 26 per cent as compared to agriculture's 19.9 per cent, and a similar development could be observed with regard to financial aid programmes by the Länder. The need for subsidization of the West German mining industry played a decisive role here, as it was the recipient of a maximum of 78 per cent (in 1968) of all the financial aid allotted to industrial economy between 1966 and 1982. In total numbers, the industrial economy benefitted by almost 35.4 billion Deutschmarks during this period. Of these, more than 18.4 billion Deutschmarks (52 per cent) went to the mining industry, approximately 3 billion Deutschmarks (8.5 per cent) to the area of energy and commodities, more than 4.2 billion (11.9 per cent) to subsidization of innovation and technological aid, almost 3.6 billion (10.2 per cent) to selected areas of industry such as civil aeroplane construction and more than 3.2 billion (9 per cent) to regional structural measures; approximately 3.0 billion (8.5 per cent) was directed towards 'other' support initiatives.⁵¹ Categorized by branches of industry, the most noteworthy recipients of subsidization in 1970 and 1977 were to be found – besides the mining and shipbuilding industry mentioned above – amongst the food industry, machine engineering, the chemical industry, electrical engineering, the iron producing industry and airplane construction and aeronautics. Concentration of subsidization, which has already been mentioned in connection with research and technology policy, thus had in a similar tendency with regards to the federal subsidization policy for all of industry. The majority of branches of industry received a relatively small amount of state subsidization.⁵²

⁵⁰Jákli (1990), *Vom Marshallplan zum Kohlepfennig*, pp. 41–3, 50 f.; Jürgen B. Donges and Klaus Werner Schatz, *Staatliche Interventionen in der Bundesrepublik Deutschland. Umfang, Struktur, Wirkungen*, Kiel: Institut für Weltwirtschaft (1986), pp. 18–23.

⁵¹Calculated according to figures in: Jákli (1990), *Vom Marshallplan zum Kohlepfennig*, pp. 43–47 (Tables II/5, II/6 and II/7).

⁵²Ulla Schwarze, 'Subventionen – Spürbare Beeinflussung des Wirtschaftsgefüges? Die sektorale Verteilung der Subventionen in der Bundesrepublik im Zeitraum 1970

This is not the right place to evaluate in detail or judge on the effectiveness of the measures taken; evaluative statements on the intensity of effects are faced with severe methodological difficulties anyway.⁵³ However, there remains no doubt that it is inappropriate to judge federal and Länder industrial policies strictly with regards to an economic evaluation of efficiency. Instead, a historical analysis may well be able to present the importance and legitimacy of temporary measures aiming towards a slowing down of economic structural changes in West Germany. Of course, social and regional effects of sectoral support programmes are extremely difficult to quantify. Their effects in terms of a socioeconomic stabilization of regions in crisis, or in the maintenance of social peace, cannot be overestimated, however.⁵⁴ In addition, industrial policy of the 'boom years' between 1950 and 1975 initiated and furthered a collective process of learning which has been accompanied by a broad scientific debate concerning the state's abilities of guidance through structural policy.⁵⁵ The possibilities and limitations of sectoral structural policy became more apparent during the following years. The history of crisis in federal German hard coalmining in the Ruhr, as well as that of the shipbuilding and textile industries, has made it apparent that the industrial policy measures taken were not sufficient to even-out existing locational advantages of international competitors in the long run. Learning-effects of federal German industrial policies since the 1960s resulted in the realization that long-term subsidization of specific branches of industry are counter-productive. In addition, since the mid 1970s, industrial political actors have increasingly refrained from allotting subsidies for the mere maintenance of industries, and instead aimed at an integration of aid programmes for adaptational processes, technological 'upgrading' and enhancement of productivity into the wide spectrum of industrial political subsidization.⁵⁶

bis 1977', *Mitteilungen des Rheinisch-Westfälischen Instituts für Wirtschaftsforschung* 31 (1980), pp. 135–156.

⁵³Schwarze (1980), 'Subventionen', p. 136.

⁵⁴With respect to North Rhine-Westphalia, compare the various contributions in: Stefan Goch (ed.), *Strukturwandel und Strukturpolitik in Nordrhein-Westfalen*, Münster: Aschendorff (2004).

⁵⁵Compare: Wolfgang Bruder and Thomas Ellwein (eds.), 'Raumordnung und staatliche Steuerungsfähigkeit', *Politische Vierteljahresschrift*, Sonderheft 10 (1980) and numerous other publications with similar topics.

⁵⁶Armin Gutowski, Eberhard Thiel and Manfred Weilepp, *Analyse der Subventionspolitik. Das Beispiel der Schiffbau-, Luft- und Raumfahrtindustrie*, Hamburg: Weltarchiv (1984), pp. 19–47; Albert (1998), 'Branche im Stützkorsett', p. 217; Rahmeyer (1986), *Sektorale Strukturpolitik*, pp. 28–30.

References

- Abelshauer, Werner, *Der Ruhrkohlenbergbau seit 1945. Wiederaufbau, Krise, Anpassung*, München: Beck (1984).
- Abelshauer, Werner, *Deutsche Wirtschaftsgeschichte. Von 1945 bis zur Gegenwart*, München: Beck (2011).
- Abromeit, Heidrun, 'Government-Industry Relations in West Germany', in: Chick, Martin (ed.), *Governments, Industries and Markets. Aspects of Government-Industry Relations in the UK, Japan, West Germany and the USA since 1945*, Aldershot: Edward Elgar (1990), pp. 61–83.
- Albert, Götz, 'Eine Branche im Stützkorsett: Subventionen in der deutschen Schiffbauindustrie in der Nachkriegszeit', *Jahrbuch für Wirtschaftsgeschichte* 2 (1998), pp. 199–217.
- Albert, Götz, *Wettbewerbsfähigkeit und Krise der deutschen Schiffbauindustrie 1945–1990*, Frankfurt a.M.: Lang (1998).
- Blaurock, Uwe, Fernand Hörner and Klaus Mangold (eds.), *Schutz vor(r)m Staat. Industriepolitik in Deutschland und Frankreich*, Freiburg: Frankreich-Zentrum der Albert-Ludwigs-Universität Freiburg (2010).
- Breitenacher, Michael, *Textilindustrie im Wandel*, Frankfurt a.M.: Gesamtverband der Textilindustrie in der Bundesrepublik Deutschland (1989).
- Brösse, Ulrich, *Industriepolitik*, 2nd ed., München/Wien: Oldenbourg (1999).
- Bruder, Wolfgang and Thomas Ellwein (eds.), *Raumordnung und staatliche Steuerungsfähigkeit*, (Politische Vierteljahresschrift, Sonderheft 10/1979), Opladen: Westdeutscher Verlag (1980).
- Buchheim, Christoph, *Die Wiedereingliederung Westdeutschlands in die Weltwirtschaft 1945–1958*, München: Oldenbourg (1990).
- Büchner-Schöpf, Melitta, 'Deutsche und europäische Industriepolitik', *Ifo-Schnelldienst* 28 (1979), pp. 5–13.
- Bundesminister für Wirtschaft (ed.), *Die wirtschaftliche Lage und die Strukturverhältnisse der Schiffbauindustrie in der BRD im internationalen Wettbewerb. Eine volkswirtschaftliche, betriebswirtschaftliche und produktionstechnische Untersuchung*, Bonn: Selbstverlag (1964).
- de Carmoy, Guy, 'Subsidy Policies in Britain, France and West Germany: An Overview', in: Warnecke, Steven J. (ed.), *International Trade and Industrial Policies. Government Intervention and an Open World Economy*, London/Basingstoke: Macmillan (1978), pp. 35–57.
- Donges, Jürgen B., 'Industrial Policies in West Germany's Not So Market-Oriented Economy', *The World Economy* 3/2 (1980), pp. 185–204.
- Donges, Jürgen B. and Klaus-Werner Schatz, *Staatliche Interventionen in der Bundesrepublik Deutschland. Umfang, Struktur, Wirkungen*, Kiel: Institut für Weltwirtschaft (1986).
- Eckhoff, Johann, 'Die ordnungspolitische Problematik der Industriepolitik', in: Oberender, Peter (ed.), *Industriepolitik im Widerstreit mit der Wettbewerbspolitik*, Berlin: Duncker & Humblot (1994), pp. 69–77.
- Engel, Jürgen, *Internationale Wirtschaftsbeziehungen und Strukturwandel am Beispiel der bundesdeutschen Textil- und Bekleidungsindustrie*, Bremen: Skarabäus (1985).
- Gerjets, Jutta, *Forschungspolitik in der Bundesrepublik Deutschland. Kritische Analyse ihrer Zielsetzungen und Instrumente*, Köln: Bundesverband der Deutschen Industrie (1982).

- Goch, Stefan, *Eine Region im Kampf mit dem Strukturwandel. Bewältigung von Strukturwandel und Strukturpolitik im Ruhrgebiet*, Essen: Klartext (2002).
- Goch, Stefan (ed.), *Strukturwandel und Strukturpolitik in Nordrhein-Westfalen*, Münster: Aschendorff (2004).
- Grant, Wyn, *The Political Economy of Industrial Policy*, London: Butterworth (1982).
- Grüner, Stefan, *Geplantes 'Wirtschaftswunder'? Industrie- und Strukturpolitik in Bayern 1945 bis 1973*, München: Oldenbourg (2009).
- Gutowski, Armin, Eberhard Thiel and Manfred Weilepp, *Analyse der Subventionspolitik. Das Beispiel der Schiffbau-, Luft- und Raumfahrtindustrie*, Hamburg: Weltarchiv (1984).
- Haupt, Heinz G. and Jörg Requate (eds.), *Aufbruch in die Zukunft. Die 1960er Jahre zwischen Planungseuphorie und kulturellem Wandel. DDR, CSSR und Bundesrepublik im Vergleich*, Weilerswist: Velbrück Wissenschaft (2004).
- Hockerts, Hans G., 'Einführung', in: Frese, Matthias, Julia Paulus and Karl Tepe (eds.), *Demokratisierung und gesellschaftlicher Aufbruch. Die sechziger Jahre als Wendezeit der Bundesrepublik*, Paderborn: Ferdinand Schöningh (2003), pp. 249–257.
- Holzem, Reiner, *Industriepolitik und Wirtschaftsordnung. Ordnungstheoretische Bewertung von Schwerpunkten der europäischen Industriepolitik und der deutschen Forschungs- und Technologiepolitik*, Frankfurt a.M.: Lang (1995).
- Jahreswirtschaftsberichte 1970–1975 der Bundesregierung*, Stuttgart: Metzler-Poeschel, (1971–1975).
- Jákli, Zoltán, *Vom Marshallplan zum Kohlepfennig. Grundrisse der Subventionspolitik in der Bundesrepublik Deutschland 1948–1982*, Opladen: Westdeutscher Verlag (1990).
- Jansen, Peter and Ulrich Jürgens, 'Gewerkschaften und Industriepolitik', in: Schroeder, Wolfgang and Bernhard Weißels (eds.), *Die Gewerkschaften in Politik und Gesellschaft der Bundesrepublik Deutschland. Ein Handbuch*, Wiesbaden: Westdeutscher Verlag (2003), pp. 429–450.
- Jürgens, Ulrich and Wolfgang Krumbein (eds.), *Industriepolitische Strategien. Bundesländer im Vergleich*, Berlin: Sigma (1991).
- Kädtler, Jürgen and Hans-Hermann Hertle, *Sozialpartnerschaft und Industriepolitik. Strukturwandel im Organisationsbereich der IG Chemie-Papier-Keramik*, Opladen: Westdeutscher Verlag (1997).
- Karl, Helmut and Helmut Krämer-Eis, 'Entwicklung der regionalen Wirtschaftspolitik in Deutschland', in: Eberstein, Hans H. and Helmut Karl (eds.), *Handbuch der regionalen Wirtschaftsförderung*, (Loseblattsammlung), Teil A, Abschnitt II, 3rd ed., Köln: Schmidt (1996), pp. 1–58.
- Katzenstein, Peter J. (ed.), *Industry and Politics in West Germany. Toward the Third Republic*, Ithaca/London: Cornell University Press (1989).
- Keck, Otto, 'The National System for Technical Innovation in Germany', in: Nelson, Richard R. (ed.), *National Innovation Systems: A Comparative Analysis*, New York/Oxford: Oxford University Press (1993), pp. 115–157.
- Klemmer, Paul, 'Die Gemeinschaftsaufgabe. Verbesserung der regionalen Wirtschaftsstruktur. Zwischenbilanz einer Erscheinungsform des kooperativen Föderalismus', in: Schuster, Franz (ed.), *Dezentralisierung des politischen Handelns (III). Konzeption und Handlungsfelder*, Melle: Knoth (1987), pp. 299–349.
- Kokalj, Ljuba and Horst Albach, *Industriepolitik in der Marktwirtschaft. Ein internationaler Vergleich*, Stuttgart: Poeschel (1987).

- Lammers, Konrad, 'Subventionen und Strukturwandel. Zu den Chancen eines Abbaus staatlicher Hilfen', *Wirtschaftsdienst* 60 (1980), pp. 539–546.
- Langer, Jürgen, *Subventionierung der deutschen Werfindustrie. Ziele und Auswirkungen*, Hamburg: Weltarchiv (1974).
- Lauschke, Karl, 'Strategien ökonomischer Krisenbewältigung. Die Textilindustrie im Westmünsterland und in Oberfranken 1945 bis 1975', in: Schlemmer, Thomas and Hans Woller (eds.), *Politik und Kultur im föderativen Staat 1949 bis 1973*, München: Oldenbourg (2004), pp. 195–279.
- Lindner, Stephan H., *Den Faden verloren. Die westdeutsche und die französische Textilindustrie auf dem Rückzug (1930/45–1990)*, München: Beck (2001).
- Naini, Ahmad, 'Bundesrepublik Deutschland', in: Holthus, Manfred and Dietrich Kepschull (eds.), *Die Entwicklungspolitik wichtiger OECD-Länder. Eine Untersuchung der Systeme und ihrer außenwirtschaftlichen Implikationen*, vol. 1, Hamburg: Weltarchiv (1985), pp. 503–637.
- Neumann, Wolfgang and Henrik Uterwedde, *Industriepolitik. Ein deutsch-französischer Vergleich*, Opladen: Leske & Budrich (1986).
- Nonn, Christoph, *Die Ruhrbergbaukrise. Entindustrialisierung und Politik 1958–1969*, Göttingen: Vandenhoeck & Ruprecht (2001).
- Nützenadel, Alexander, *Stunde der Ökonomen. Wissenschaft, Politik und Expertenkultur in der Bundesrepublik 1949–1974*, Göttingen: Vandenhoeck & Ruprecht (2005).
- Oberender, Peter and Frank Daumann, *Industriepolitik*, München: Vahlen (1995).
- Oberender, Peter and Georg Rüter, 'Stahlindustrie', in: Oberender, Peter (ed.), *Marktökonomie. Marktstruktur und Wettbewerb in ausgewählten Branchen der Bundesrepublik Deutschland*, München: Vahlen (1989), pp. 29–77.
- Peters, Hans-Rudolf, 'Konzeption und Wirklichkeit der sektoralen Strukturpolitik in der Bundesrepublik Deutschland', in: Bombach, Gottfried, Bernhard Gahlen and Alfred E. Ott (eds.), *Probleme des Strukturwandels und der Strukturpolitik*, Tübingen: Mohr (1977), pp. 119–162.
- Rahmeyer, Fritz, *Sektorale Strukturpolitik: Konzeption und Realität*, Augsburg: Institut für Volkswirtschaftslehre der Universität Augsburg (1986).
- Rohde, Carsten, 'Strukturwandel und staatliche Sanierungspolitik in der Textilindustrie', *Wirtschaftsdienst* 59 (1979), pp. 238–242.
- Rother, Detlef, 'Strukturwandel im Weltschiffbau – Auswirkungen auf die westeuropäische Schiffbauindustrie, dargestellt an den Beispielen der Schiffbauindustrien der Bundesrepublik, Japans und Schwedens. Erfolge und Mißerfolge sektoraler Strukturpolitik', *Beihefte der Konjunkturpolitik. Zeitschrift für angewandte Wirtschaftsforschung*, Heft 31, 'Erfolg und Mißerfolg sektoraler Strukturpolitik', Berlin: Duncker & Humblot (1985), pp. 131–154.
- Schanetzky, Tim, *Die große Ernüchterung. Wirtschaftspolitik, Expertise und Gesellschaft in der Bundesrepublik 1966 bis 1982*, Berlin: Akademie (2007).
- Scholz, Lothar, 'Forschungs- und Technologiepolitik und Wirtschaftsstruktur', *Beihefte der Konjunkturpolitik. Zeitschrift für angewandte Wirtschaftsforschung*, Heft 31, 'Erfolg und Mißerfolg sektoraler Strukturpolitik', Berlin: Duncker & Humblot (1985), pp. 105–125.
- Schumacher, Dieter, 'Arbeitsteilung mit Entwicklungsländern und Strukturwandel in der Bundesrepublik Deutschland', *Konjunkturpolitik* 28 (1982), pp. 298–323.
- Schwarze, Ulla, 'Subventionen – Spürbare Beeinflussung des Wirtschaftsgefüges? Die sektorale Verteilung der Subventionen in der Bundesrepublik im

- Zeitraum 1970 bis 1977', *Mitteilungen des Rheinisch-Westfälischen Instituts für Wirtschaftsforschung* 31 (1980), pp. 135–156.
- Seitz, Michael J., *Staatliche Industriepolitik. Begründungen, Instrumente und Probleme*, Baden-Baden: Nomos (2000).
- Starbatty, Joachim, 'Strukturpolitik im Konzept der Sozialen Marktwirtschaft?', in: Nörr, Knut W. and Joachim Starbatty (eds.), *Soll und Haben – 50 Jahre Soziale Marktwirtschaft*, Stuttgart: Lucius und Lucius (1999), pp. 169–193.
- Strube, Bettina, 'Entwicklung der Textil- und Bekleidungsindustrie. Entwicklungen und Tendenzen der nationalen und internationalen Textil- und Bekleidungsbranche, unter Berücksichtigung des Welttextilabkommens im Rahmen des GATT bzw. der WTO', PhD Berlin (1999).
- Szöllösi-Janze, Margit and Helmuth Trischler, 'Entwicklungslinien der Großforschung in der Bundesrepublik Deutschland', in: Szöllösi-Janze, Margit and Helmuth Trischler (eds.), *Großforschung in Deutschland*, Frankfurt a.M.: Campus (1990), pp. 13–20.
- Trischler, Helmuth and Rüdiger vom Bruch, *Forschung für den Markt. Geschichte der Fraunhofer-Gesellschaft*, München: Beck (1999).
- Trischler, Helmuth, 'Nationales Innovationssystem und regionale Innovationspolitik. Forschung in Bayern im westdeutschen Vergleich 1945 bis 1980', in: Schlemmer, Thomas and Hans Woller (eds.), *Politik und Kultur im föderativen Staat 1949 bis 1973*, München: Oldenbourg (2004), pp. 117–194.
- Wagenhals, Gerhard, 'Industrial Policy in the Federal Republic of Germany: A Survey', in: Adams, Gerard F. and Lawrence R. Klein (eds.), *Industrial Policies for Growth and Competitiveness. An Economic Perspective*, Lexington/Toronto: Lexington (1985), pp. 247–262.
- Wieland, Thomas, *Neue Technik auf alten Pfaden? Forschungs- und Technologiepolitik in der Bonner Republik. Eine Studie zur Pfadabhängigkeit des technischen Fortschritts*, Bielefeld: Transcript (2009).
- Wieland, Thomas, 'Neue Technik auf alten Pfaden. Biotechnologieförderung in der Bundesrepublik Deutschland', in: Kehrt, Christian, Peter Schüssler and Marc-Denis Weitze (eds.), *Neue Technologien in der Gesellschaft. Akteure, Erwartungen, Kontroversen und Konjunkturen*, Bielefeld: Transcript (2011), pp. 249–263.

5

Swedish industrial policy: From general policies to crisis management, 1950–1980

Jan Bohlin

University of Gothenburg

5.1 Introduction

By industrial policy we may denote every type of policy intended to influence the pace and direction of structural change in the economy. Using this definition, we refer to not only the foreseeable and unforeseeable consequences of industrial policy measures, but also the unintended consequences of other policy measures, such as those in macroeconomic policy. As such, industrial policy is an elusive concept. In their introduction to *European Industrial Policy*, James Foreman-Peck and Giovanni Federico¹ define three levels of industrial policy: a) ‘creating the landscape’, by which is meant the creation of clearly defined property rights; b) policies aiming at ‘modifying the ecological environment’, meaning growth policies which similarly affect all firms and sectors; and c) ‘changing the fauna’, that is policies aiming to further specific sectors or firms, which is often referred to as a ‘picking the winner policy’. Most policies followed in Sweden before the late 1960s fall into the second category. This does not, however, rule out that some firms or sectors benefitted from certain policies more so than did others.

¹James Foreman-Peck and Giovanni Federico, ‘Industrial Policies in Europe. Introduction’, in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999), pp. 1–17.

5.2 Historical roots of Swedish industrial policy before the Second World War

To gain a better understanding of policies developed in the 1950s and 1960s, it is useful to first give an overview of industrial policy in Sweden before the Second World War.

The rise to power of the Swedish Social Democrats in 1932 represents an important historical event in the evolution of post-war economic and industrial policies. With the exception of a few coalitions, the Social Democrats stayed in power without interruption until 1976. When they entered government in the early 1930s, the party had practically abandoned any plan to 'socialize the means of production', despite the fact that it was still a part of the party programme. For them, efficiency of production was of paramount importance. In practice, this meant support for private ownership. Very little nationalization of enterprises was carried out before the 1970s. State-owned companies in Sweden were essentially confined to the utility producing sectors, such as telephony, railways and electricity. Outside of the utility sector, the only state-owned companies in Sweden of any importance were the iron ore mining company, LKAB (nationalized in 1907), and the steel-work, NJA (founded in 1939).²

According to the Social Democrats, the lack of coordination that characterized the capitalist mode of production, and which resulted in periodic economic crises, did not call for nationalization of the means of production. Instead, economic crises could be mitigated by macroeconomic policy, if not eradicated altogether by introducing an element of planning in the capitalist economy. To better forecast future economic development, a 'business cycle investigation unit', *Konjunkturinstitutet*, was established in 1937. To better predict the need for future restructuring and rationalization within the various branches of the manufacturing industry, several 'branch investigations' were also commissioned by the government in the 1930s.

State-owned companies with regulatory positions in the utility producing sectors were the product of a massive programme of infra-structural investment initiated by the Swedish state in the late nineteenth century for the purpose of supporting industrial development and economic growth. Another legacy of late-nineteenth-century industrial policy was a protectionist trade policy. A protectionist tariff

²Lennart Waara, *Den statliga företagssektorns expansion. Orsaker till förstatliganden i ett historiskt och internationellt perspektiv*, Stockholm: Liber (1980).

scale was introduced between 1888 and 1892 and was amended several times before the First World War, of which the latest amendment was initiated in 1911.³ After 1911, the Swedish general tariff scale remained unchanged until the early 1950s. Since most tariffs were specific, the ad valorem equivalent of tariffs fell sharply during the inflation in the First World War. The harsh deflation in the early 1920s did not fully roll back price increases that had occurred during the First World War, so prices were generally higher during the inter-war period than before the war, meaning that tariff protection for Swedish manufacturing goods was generally lower in the inter-war period than before the war. Among European countries at the end of the 1930s only Denmark and the Netherlands had experienced lower tariff rates than Sweden in the inter-war period.⁴

Given the already comparatively low tariff rates, it is not surprising that Sweden became an ardent supporter of trade liberalization in the post-war period. With an export share of about 20 per cent of GDP, the Swedish economy in the inter-war period was already highly dependent on foreign trade as compared to larger countries. That trade dependency increased in the post-war period, as seen in Figure 5.1. As pointed out by Katzenstein,⁵ trade liberalization was the only option for small Western European industrialized countries in the post-war period. Modern industrial technologies were based on economies of scale. To exploit them, access to export markets was needed, since home markets were too small. By opening themselves to foreign competition, small countries also had to invent institutional set-ups and compensatory mechanisms for managing the social costs of structural transformation. According to Katzenstein, the methods employed by small Western European countries to achieve this had their roots in the inter-war period.

In Sweden, trade unions had a central role in managing the social costs of structural transformation. The Social Democrats were in close liaison with the blue-collar trade union movement, which organized the overwhelming majority of the workers in the manufacturing industry. In the 1920s, Sweden was a country known for many strikes and industrial disputes. This changed in the 1930s, in particular with

³Jan Bohlin, 'Tariff Protection in Sweden, 1885–1914', *Scandinavian Economic History Review* 53, no. 2 (2005), pp. 7–29.

⁴Bertil Ohlin, *Utrikeshandel och handelspolitik*, 8th ed., Stockholm: Natur & Kultur (1936), pp. 238–245.

⁵Peter J. Katzenstein, *Small States in World Markets. Industrial Policy in Europe*, Ithaca/London: Cornell University Press (1985).

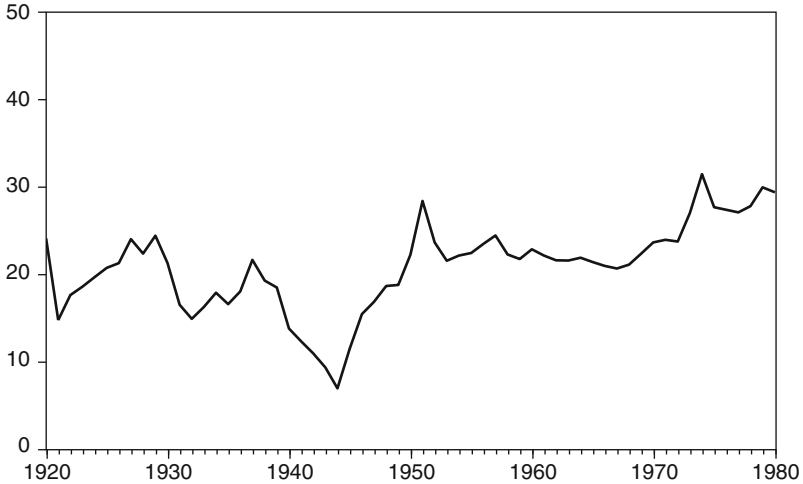


Figure 5.1 The share of Swedish exports in GDP, 1920–1980 (in percentages)
 Source: Rodney Edvinsson (2005), table F.

the Saltsjöbaden agreement of 1938 between the central organizations of the blue-collar workers (LO) and the employers (SAF). With this agreement, wage settlements occurred through central negotiations, and strikes were forbidden as long as central wage agreements endured. From that point onwards, every aspect of Swedish industrial relations became regulated through voluntary agreements between LO and SAF. A whole apparatus of institutions was created to solve industrial disputes.⁶ After the establishment of this agreement, the trade union movement, with its close cooperation with the Social Democratic party, played an important role in policy formation in the 1950s and 1960s.

5.3 Industrial policy in the 1950s and 1960s

The post-war debate on economic planning

The Second World War brought increased state interventions to the economy, through regulations and war-time planning. After the war, to facilitate the transition to a peace economy, a post-war planning commission was set up under the leadership of the well-known economist,

⁶Christer Lundh, *Spelets regler. Institutioner och lönebildning på den svenska arbetsmarknaden 1850–2010*, 2nd ed., Stockholm: SNS (2010), ch. 4.

Gunnar Myrdal. The Myrdal commission foresaw a deep post-war economic depression and advocated increased planning efforts to counter it. It did not propose nationalization of any part of manufacturing industry, however. Rather, the state should be able to steer rationalizations and restructuring of the manufacturing industry by regulating the credit market. To this end, the Myrdal commission also proposed nationalization of insurance companies and the establishment of state-owned commercial banks.

However, the proposals set forth by the Myrdal commission, as well as the post-war programme of the Social Democratic party, encountered harsh resistance from employers' organizations and the non-socialist parties in the 'debate on the planned economy'. This resistance, as well as real economic development – the fear of a post-war depression proved unfounded – put any notion of a planned economy off the political agenda. In the end, the Myrdal commission spawned state-commissioned investigations of rationalization and restructuring needs in various manufacturing industries. The proposed nationalization of insurance companies was never carried out. A small state-owned bank was introduced, however.⁷

General growth policies in the 1950s and 1960s

After the debate on post-war planning, any notion of active industrial restructuring under state guidance was off the political agenda until the late 1960s. What little industrial policy existed in the 1950s and 1960s was more general in character. As in the late nineteenth century, the state sought to promote economic growth and industrial development by means of infra-structural investments. For example, in the post-war period, the spread in the use of cars and other motor traffic was facilitated by investments in roads and highways. As in other Western European countries, the government also acknowledged the crucial role of science and research for furthering economic growth. Accordingly, enrolment in higher education expanded rapidly in the 1950s and 1960s: the number of university students in Sweden increased from 20,000 in 1950 to 120,000 in 1970. The general character of industrial policy was also underlined by policies aimed at increasing competition in the home market. To increase competition and widen the market

⁷Jan Bohlin, 'Sweden. The Rise and Fall of the Swedish Model', in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999), pp. 161–162.

for Swedish exporters, the government also supported the lowering of tariffs and other trade barriers.⁸

The general character of industrial policy did not negate the fact that some firms benefited from public investments more so than others. For example, in the case of telecommunications equipment, Ericsson had a privileged position with regard to the de facto state monopoly, Televerket (later renamed Telia), as did electrical equipment manufacturer ASEA with regard to state-owned Vattenfall, which dominated the electricity grid. Mention should also be given to the Swedish defence material industry: Sweden was a neutral country, and defence policy that furthered a national defence industry clearly benefited firms such as the military aircraft manufacturer SAAB.

The 'solidaristic wage policy' and the Rhen-Meidner model

General macroeconomic policy also had industrial policy consequences. Swedish economic policy in the 1950s and 1960s cannot be understood unless we take into account the institutional framework for wage determination and the role of the trade union movement in policy formation. In a small, open economy, wage setting is of paramount importance for firms competing in the export and import markets. As pointed out by Barry Eichengreen,⁹ one of the factors behind successful economic development in many Western European countries during the 1950s was the growth of nominal wages at or below the rise in labour productivity. This resulted in constant or even rising profit shares. Trade unions were willing to abide by orderly wage increases as long as they were reassured that profits were used to finance investment. This was achieved by different means in different countries: in the Netherlands, it was achieved through incomes policy, in Sweden by centralized wage negotiations between the central trade union organization for blue-collar workers (LO) and the central employers organization (SAF). The growth of average wages in the Swedish manufacturing industry was implicitly determined by average labour productivity growth in the sectors exposed to international competition and the growth of international inflation. This formula for wage setting, which was later expounded on in a report jointly written by economists from LO, TCO (the central organization of white-collar workers) and SAF, implied that

⁸Mats Benner, *The Politics of Growth. Economic Regulation in Sweden 1930–1994*, Lund: Arkiv förlag (1997), pp. 97–101.

⁹Barry J. Eichengreen, *The European Economy since 1945. Coordinated Capitalism and Beyond*, Princeton, NJ: Princeton University Press (2007).

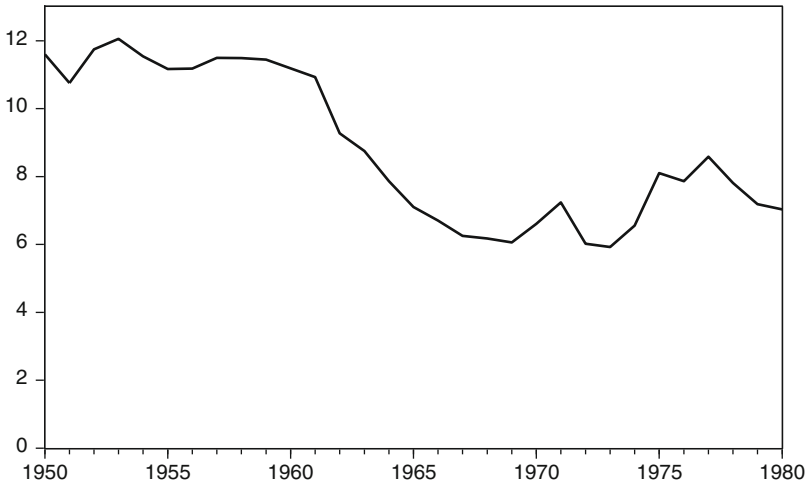


Figure 5.2 The evolution of inter-industry wage dispersion. Coefficient of variation for male hourly wages in the Swedish manufacturing and mining industry, 1950–1980

Source: Svante Prado (2010), table A.10.1.

firms with average labour productivity growth were able to maintain their profit share.¹⁰

Central wage negotiations on overall wage increases set the stage for negotiations in the various branches of manufacturing industry, and later on at the firm level. In the 1950s and 1960s, the central organization of blue-collar workers, LO, adhered to the ‘solidaristic wage policy’ doctrine, according to which equal wages should be paid for the same type of work irrespective of the firm or sector in which it was performed. In practice, this implied that trade unions aimed for higher percentage wage increases in sectors where wage levels for workers lagged behind the wages of their colleagues in other sectors. Consequently, the solidaristic wage policy led to wage compression across the labour market. A rough indicator of the evolution of wage compression within the Swedish manufacturing sector is exhibited in Figure 5.2, which shows the coefficient of variation for male hourly wages across nine main sectors of the Swedish manufacturing industry. As can be seen, wage

¹⁰Gösta Edgren, Karl-Olof Faxén and Clas-Erik Odhner, *Lönebildning och samhällsekonomi. Rapport från en expertgrupp tillsatt av SAF, LO och TCO*, Stockholm: Rabén & Sjögren (1970).

dispersion steadily declined in the 1950s and 1960s. For firms and sectors with below average productivity increases, wage compression led to shrinking profit shares or losses, while firms and sectors with above-average productivity growth enjoyed growing profit shares.

The solidaristic wage policy was part of a wider vision of economic development shared by the trade union movement and the Social Democratic party. That low-productivity firms and sectors were knocked out by wage increases they could not bear was considered a beneficial consequence, since it would enhance structural change. This can be seen in Figure 5.3, which shows the evolution of employment shares for various branches of the manufacturing and mining industry. The export-oriented metal and engineering industries steadily increased their employment share while that of the clothing, textile and leather industries, which produced mainly for the home market, steadily declined.

In a growing economy, labour released from low-productivity firms would find employment in fast-growing sectors. This idea was elaborated

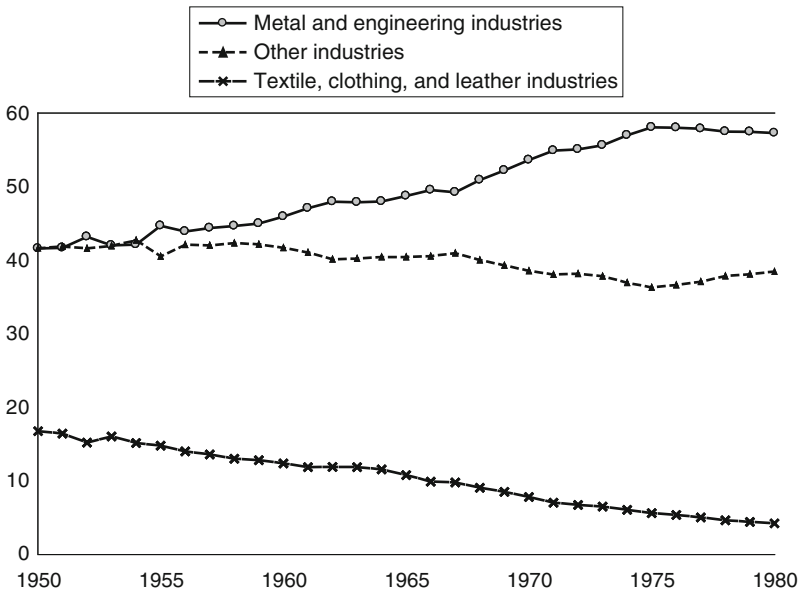


Figure 5.3 Employment shares for various sectors in the Swedish manufacturing and mining industry, 1950–1980 (in percentages)

Source: Svante Prado (2010), table A.10.3 and table A.10.4.

on in the so-called Rhen–Meidner model, named after two trade union economists, Gösta Rhen and Rudolf Meidner. To facilitate structural change and the transfer of labour from low productivity sectors to high productivity sectors, they advocated an active labour market policy. This involved increased spending on education and retraining of manpower, job matching and subsidization of geographical mobility costs. From the late 1950s onward, the outlay on labour market policy increased. In 1955, the outlay on labour market policy amounted to 1.1 per cent of the state budget. In 1960, it had already increased to 3.7 per cent of the state budget, or 1.1 per cent of national income.¹¹ From the late 1950s onward, labour market policy was also given a more ambitious interpretation to not only counter frictional unemployment resulting from structural change, but also to promote and reinforce structural change. According to Andrew Shonfield,¹² the ‘Active Manpower Policy was at the heart of Swedish economic planning’ in the 1950s and 1960s.

Investment funds and company taxation

In addition to the active labour market policy, Swedish economic policy in the post-war period also contained other innovations, of which the investment fund system is perhaps the most important. The investment fund system was initiated in 1938, but underwent a great deal of change and expansion in 1955. Firms were now allowed to deduct 40 per cent of accounted profits to special investment funds, thereby diminishing taxable profits. When the business cycle turned down, the government could decide to ‘free’ these investment funds for the financing of new investments. The firms could also decide to use investment funds without permission, but would then have to pay normal company taxes. However, after five years, 30 per cent of the funds could be used without tax payment.

The investment fund system was constructed as an instrument to even out fluctuations in the business cycle by stimulating investments in downturns and holding them back in upturns. As such, this notion was part of what was referred to in Sweden as general economic policy. However, it also had industrial policy implications, since the government had the power to decide for what purposes the investment funds could be freed. It was, for example, used explicitly for regional policy purposes in the 1960s.

¹¹ Bohlin (1999), ‘Sweden’.

¹² Andrew Shonfield, *Modern Capitalism. The Changing Balance of Public and Private Power*, London: Oxford University Press (1965), p. 92.

The investment fund system should be viewed against a background of 'excess profits' earned by highly efficient firms thanks to the solidaristic wage policy. Trade unions accepted high profits as long as they were reinvested, instead of being distributed to the shareholders. Moreover, the company taxation system in general was constructed so that the most profitable companies implicitly received the largest tax subsidies, not only through the deferrals of profits to investment funds, but also through generous rules concerning depreciation of fixed capital and inventory valuation.

The investment fund system was part of a wider regulation of the credit market in the post-war period. In the 1950s and 1960s, the goal of monetary policy was to keep interest rates low, which made for low or even negative real rates of interest. At such low rates, the demand for credit tended to rise more than available savings. To stem inflationary pressures, the credit market was regulated and rationed. The issuing of bonds by municipalities and private firms had to be approved by the Central Bank. As in the case of the investment fund system, rationing of the credit market was a means for stabilization policy to influence the timing of investments. However, it was also used to make financing available for investments in prioritized sectors, of which the most important was housing construction.

In the 1960s, investments in housing became, to a large degree, financed by the general pension funds. Originally, three such funds were established following the general pension reform in 1958. They were financed by compulsory social insurance contributions from employers. The original three general pension funds were only allowed to invest in interest bearing assets, but not in shares. Nevertheless, through them an important part of the credit market came under political control.

5.4 The Swedish model and macroeconomic performance in the 1950s and 1960s

Economic and social policies in the 1950s and 1960s have sometimes been described as the reflection of a typical 'Swedish model'. There are numerous definitions of this model, but most of them include the following: a tax-financed public welfare system, a commitment to full employment secured by demand management, an ambitious labour market policy and centralized wage bargaining involving trade unions committed to the solidaristic wage policy that would lead to wage compression across the labour market. If we evaluate the model using

Table 5.1 Macroeconomic indicators for Sweden, 1950–1980

	Yearly average compound growth rate		
	GDP per capita	Inflation	Unemployment (in %) ¹
1950–55	2.0	5.4	1.8
1955–60	3.3	3.7	1.8
1960–65	4.7	3.7	1.5
1965–70	3.3	4.4	1.8
1970–75	2.3	8.0	2.1
1975–80	0.8	10.5	1.9

¹ Arithmetic average.

Sources: GDP/capita, see Rodney Edvinsson (2005), table C. Inflation, see Rodney Edvinsson and Johan Söderberg (2010). Unemployment, see Angus Maddison (1991), tables E4 and C6.

macroeconomic data, it fared well in the 1950s and 1960s. GDP per capita typically grew by around 3 to 4 per cent per annum, with higher rates in the 1960s than the 1950s. Unemployment fluctuated between 1.5 and 2 per cent, and the inflation rate held around 4 per cent (Table 5.1). Sweden had lower GDP per capita growth rates than many other Western European countries during this period, especially in the 1950s. However, Sweden also started from a much higher level of GDP per capita than those countries. In Western Europe, only the UK had a higher level in 1950. Accordingly, the Swedish economy had a much lower potential than other economies in Western Europe for catching up on the technological frontier represented by the US economy. Taking this into account, the Swedish economy grew at the expected rate.¹³

Did economic planning and industrial policy contribute to the relatively successful economic development in Sweden in the 1950s and 1960s? Where economic planning is concerned, Sweden did not have anything as comprehensive as French indicative planning. There were, however, official investigations into future, long-term economic development (*långtidsutredningar*). The first of these initiatives was published in 1948, after a request from OECD in connection with the Marshall Plan; the next one in 1960, and every fifth year thereafter. These official, long-term forecasts delivered broad prognoses of future economic development, and tried to assess the mutual feasibility of expansion plans in the various sectors of the economy. They also made some general recommendations for economic policy

¹³Eichengreen (2007), *The European Economy*, p. 91, 118, 203.

regarding allocation of future public investments, for example. They did not, however, set any goals for output in the various sectors of the economy.¹⁴

As we have already argued, before the end of the 1960s, there was hardly any selective dirigiste industrial policy in place intended to influence industrial restructuring in Sweden. However, macroeconomic policies, as well as the solidaristic wage policy, did have industrial policy consequences. One goal of the latter policy was the enhancement of structural transformation through squeezing less efficient firms and sectors, thereby releasing labour for efficient, fast growing firms, which was further facilitated by the active labour market policy. Descriptive statistics, as well as econometric evidence, can be marshalled to show that this, in fact, happened in the 1950s and 1960s. These measures seem to have also boosted productivity growth, at least until the 1960s.¹⁵

The solidaristic wage policy implied wage restraint in high productivity firms, which, in turn, resulted in high profits for these firms. Company taxation rules and the investment fund system gave huge incentives for firms to plough profits back into new investments. These measures certainly underpinned an increase in investment rates, which was, in turn, one of the mechanisms behind fast growth rates in the 1950s and 1960s. High investment rates were induced as long as they occurred within existing firms. Critics have argued, however, that this may also have led to inflexibility and technological lock-in, where many of the fast-growing industries of the 1950s and 1960s faced deep structural problems in the 1970s.¹⁶

In the post-war period, the trade union movement wholeheartedly embraced technical change and structural adaptation. This can be seen clearly from two policy documents adopted by the blue-collar trade

¹⁴Assar Lindbeck, *Svensk ekonomisk politik. Problem och teorier*, Stockholm: BonnierFakta (1981); Benner (1997), *Politics of Growth*, pp. 96–97.

¹⁵Michelle Alexopoulos and Jon Cohen, 'Centralised Wage Bargaining and Structural Change in Sweden', *European Review of Economic History* 7, no. 3 (2003), pp. 331–363; Douglas Hibbs and Håkan Locking, 'Den solidariska lönepolitiken och produktiviteten inom industrin', in: Villy Bergström (ed.), *Arbetsmarknad och tillväxt. Tio års forskning med facket*, Stockholm: Ekerlinds, FIEF (1997), pp. 34–53; Douglas A. Hibbs Jr. and Håkan Locking, 'Wage Dispersion and Productive Efficiency. Evidence for Sweden', *Journal of Labor Economics* 18, no. 4 (2000), pp. 755–782; Håkan Locking, *Essays on Swedish Wage Formation*, Göteborg: Ekonomiska studier, nationalekonomiska institutionen (1996).

¹⁶Lennart Schön, *Sweden's Road to Modernity. An Economic History*, Stockholm: SNS (2010), p. 417 ff.

union, LO, in the 1960s.¹⁷ In these documents, labour market policy was seen as the principal means to 'free the development forces' from obstacles to technical change and structural transformation. To speed up structural transformation and technical change, LO also called for increased competition, easing of regulations and restrictions in the credit market, and a more radical implementation of free trade.

The role of industrial policy, as envisioned by LO, was to facilitate structural change created spontaneously by the market economy. But for industrial policy to accomplish this, some prognoses of economic development were needed; so that, in a somewhat contradictory move, LO also resurrected the ideas of active industrial restructuring under state guidance that originated in the 1930s and 1940s. Moreover, the policy documents also suggested the creation of 'branch rationalization funds' in the various sectors of the manufacturing industry that were to be financed by 'excessive profits' resulting from wage restraints.¹⁸ This idea was later elaborated into the controversial proposal of trade union-led 'wage earner funds', which led to a harsh debate in the 1970s where the employer's central organization, SAF, accused the Social Democrats and LO of advocating a strategy of 'creeping socialization'.

5.5 Industrial policy in the 1970s

The industrial policy offensive

At the end of the 1960s, cracks began to appear in the post-war growth regime. There were signs that labour productivity growth was lagging behind money wage growth, which led to a rise in inflation. This is illustrated in Figure 5.4, which shows the development of labour productivity, product wages and real wages for manufacturing and mining. In the 1950s, all three increased at about the same rate. From the mid 1960s, however, product wages tended to grow faster than labour productivity, which signified shrinking profit margins for firms in the manufacturing industry. On the other hand, real wages increased more slowly than labour productivity, since the typical consumer basket included goods from the 'sheltered sector' of the Swedish economy, such as food products, services and rent for lodgings. The prices for manufactured products exposed to foreign competition increased much less. The picture

¹⁷ Landsorganisationen i Sverige, *Samordnad näringspolitik*, Stockholm: LO (1961); Landsorganisationen i Sverige, *Fackföreningsrörelsen och den tekniska utvecklingen*, Stockholm: Prisma (1966).

¹⁸ Benner (1997), *Politics of Growth*, pp. 103–104.



Figure 5.4 Labour productivity, real wages, and product wages in the Swedish manufacturing and mining industry, 1950–1980 (1950 = 100)

Sources: Edvinsson (2005), table D (nominal gross value added), table V and table R (wage sums, including social benefits, for employees and self-employed), table R (working hours for employees and self-employed); Olle Krantz and Lennart Schön (2007), table 1 (price index for value added).

portrayed in Figure 5.4 indicates that the Swedish wage-setting model, the so-called EFO model,¹⁹ functioned less satisfactorily from the mid 1960s. Firms could no longer maintain their profit margins. At the same time, real wage growth tended to lag behind labour productivity growth, meaning that in order to maintain a given rate of increase in real wages, labour productivity growth needed to accelerate rather than decelerate. All of this led to increased distributional conflicts.

In many work places, unrest increased and industrial conflicts rose in the form of wildcat strikes, of which the protracted strike of the iron ore miners at the state-owned firm LKAB in 1969 was the most important. There was also a growing concern about the regional imbalance created by economic growth in the 1950s and 1960s, and increased demands for a regional policy which would subsidize regions with less favourable economic development. In response to radicalization in

¹⁹Gösta Edgren, Karl-Olof Faxén and Clas-Erik Odhner, *Lönebildning och samhällsekonomi: Rapport från en expertgrupp tillsatt av SAF, LO och TCO*, Stockholm: Rabén & Sjögren (1970).

society at large, the political rhetoric of the Social Democrats and the trade union movement became more radical in kind. The latter tended to change its interpretation of the solidaristic wage policy to include not only equal wage for equal types of work, but also an overall equalization of wage rates.²⁰

There had always been a stream of thought within the Social Democratic party advocating more economic planning and a more interventionist industrial policy. Emerging signs of faltering productivity growth in the late 1960s made those ideas more popular. In the late 1960s, the Social Democratic government made industrial policy a top priority and started what was called 'the industrial policy offensive'.

The renewed interest in industrial policy in the late 1960s was institutionalized when a separate Ministry of Industry was formed in 1969. Since the credit market had already been regulated in the 1950s and 1960s, it was no coincidence that it was among those areas singled out for the targeting of a more active industrial policy. In 1967, a state-owned bank (the so-called Investment Bank) was created for the purpose of financing large and promising projects, which were considered too risky for other banks. In keeping with the *Zeitgeist*, one sees, in 1974, the formation of a new, fourth General Pension Fund, which was financed by contributions from the general pension system. This fund, unlike the earlier pension funds, was allowed to invest in shares of manufacturing companies

Another important part of the new industrial policy was that state-owned enterprises were given a more active role. As already mentioned, state ownership was uncommon in Sweden outwith the utility sector. Now, nationalization became a tool for influencing the restructuring of the manufacturing industry. To that effect, AB Statsföretag, a new holding company for state-owned companies was formed in 1970. Somewhat contradictorily, profitability was considered to be the over-riding goal of the state enterprise holding company while it was expected, at the same time, to stimulate employment in disadvantaged regions. Among its stated objectives were the furthering of R&D, the enhancement of competition and contribution to a more efficient firm structure in the manufacturing industry. More specifically, high-tech industries, such as the pharmaceutical industry, the computer industry and the microelectronics industry, were considered appropriate targets for Statsföretag, the

²⁰Hibbs and Locking (1997), 'Den solidariska lönepolitiken'; Hibbs and Locking (2000), 'Wage Dispersion'.

belief being that in which cases they should acquire companies or enter into joint ventures with private ones.

Subsidization of crisis industries in the 1970s

In the 1970s, state ownership grew rapidly in the Swedish manufacturing industry. However, while the original objective of the state holding company was to influence industrial restructuring by acquiring technologically advanced firms in sectors with good future growth prospects, its rapid growth in the 1970s is explained by nationalization of those sectors (mainly the shipbuilding and steel industries) hit hard by structural crisis. The Swedish shipbuilding industry was heavily specialized in the building of large oil tankers. From the 1960s onwards, it met severe competition from Japanese producers. The profitability of the shipbuilding firms fell rapidly, and their balance sheets deteriorated. After the oil crisis in 1974 and 1975, they suffered huge losses.²¹ Between 1975 and 1978, all large Swedish shipbuilding firms were taken over by the state and amalgamated into the holding company AB Svenska Varv, a subsidiary of AB Statsföretag.

The steel industry was another crisis-ridden industry in the 1970s that was nationalized. In 1978, a new state-owned steel company, AB Svenska Stål, was formed when the state-owned NJA merged with the two largest private steel producers in Sweden.

The objective of nationalization in the shipbuilding and steel industries was to safeguard employment and/or alleviate the structural adaption of these industries, which were still considered viable in the mid 1970s. The shipbuilding, steel and some other industries received massive subsidies in the latter half of the 1970s. To better interpret the size of the subsidies, we may compare them with value added in the manufacturing and mining industry as a whole. In the late 1970s, industrial subsidies amounted to more than 5 per cent of value added in the manufacturing and mining industry; in the early 1980s, the corresponding figure was almost 8 per cent. Subsidization of firms and industries in crisis accounted for roughly 70 to 80 per cent of the total state subsidies to the manufacturing industry in the 1970s. Other subsidies, such as support for R&D, and regional policy measures increased as well, however.²²

²¹Jan Bohlin, 'Svensk varvsindustri 1920–1975. Lönsamhet, finansiering och arbetsmarknad', *Meddelanden från ekonomisk-historiska Institutionen vid Göteborgs universitet*, vol. 59, Göteborg: Ekonomisk-historiska institutionen vid Göteborgs universitet (1989).

²²Bohlin (1999), 'Sweden', pp. 168–169.

Industrial policy, subsidization and economic development in the 1970s

The massive subsidization of ailing industries was motivated by an analysis which viewed the economic crisis in the mid 1970s as a temporary aberration in the growth trajectory caused by a series of unfortunate events, such as the oil price increases in the aftermath of the Arab–Israeli war of 1973, and not as a fundamental turning point in economic development. Given such an analysis, it was essential to ‘overbridge’ the crisis and preserve capacities, manpower and know-how in industries considered to have good prospects for future growth. From that point of view, the industrial support policy must be considered as a great failure. The shipbuilding industry, which received the lion’s share of industrial subsidies, did not survive. In 1984, a decision was made to halt the production of merchant ships. The steel industry, the other big receiver of industrial subsidies in the 1970s, fared better. This industry was slimmed and employment fell, while the remaining units increasingly specialized in niches where they could stay competitive in the world market.²³

The industrial support policy was not only concerned with ‘overbridging the crisis’, however. It was also designed to combat unemployment, especially since the firms receiving support were quite big employers in the regions where they were situated. Industrial policy contributed to alleviation of the social costs of employment reduction for those concerned. Since unemployed persons were eligible for unemployment support or other labour market support measures, such as retraining courses, the crises of the shipbuilding and steel industries would have been costly even in the absence of industrial subsidies. In hindsight, however, we now know that the financial costs would have been smaller if politicians had recognized sooner that downsizing and plant closures were inevitable.

When the industrial policy offensive was launched in the late 1960s, state-owned enterprises were expected to play an important role in stimulating technical renewal of the manufacturing industry. Not much came of this idea, however. The retail distribution of pharmaceutical products was nationalized and the state holding company also acquired shares in industries such as pharmaceuticals and brewing. However, the most ambitious plan for new investments by the state-owned holding

²³Martin Fritz, *Svensk stålindustri under efterkrigstiden. Internationell konkurrens – marknader – försäljning*, Stockholm: EHF (1988).

company in the 1970s was a new steel plant in northern Sweden dubbed Steelwork 80 (Stålverk 80). This was intended to be a modernization and expansion of the state-owned NJA founded in 1939. It was forecasted that demand for steel products would grow rapidly in the coming decades. The project also had an obvious regional policy component, since it would stimulate employment in a region that had been depopulated during the post-war period. Again, nothing came of this plan. When crisis hit the steel industry in the mid 1970s, reduction, not expansion, of capacities was called for. The new, non-socialist government finally scrapped the Steelwork 80 project in 1976.²⁴

Of more enduring importance than the 'industrial policy offensive' for future industrial development, was the long-term collaboration between state-owned utility companies and privately owned companies that stretched back to the early twentieth century. Some of the companies later developed into successful multinational firms. One mentionable collaboration was that between the state-owned electricity distributor Vattenfall and electrical equipment manufacturer ASEA, which merged with the Swiss firm Brown-Bovery in the 1980s. Another example is the close collaboration between the state-owned telephone company Televerket (later renamed Telia) and telephone equipment manufacturer Ericsson. Telia and Ericsson worked close together in pioneering mobile telephone technologies in the 1980s.

5.6 Summary and conclusions

In Sweden, as in other Western European countries, increases in the state's involvement in the economy during the post-war period also implied increased efforts of economic planning. These efforts, however, culminated in long-term goals rather than binding policies. Swedish industrial policy in the 1950s and 1960s was of a general nature, and sought to promote economic growth through public investment in infrastructure, higher education and research. Governments in the post-war period supported the dismantling of trade barriers and promoted increased competition in the home market to, in turn, promote structural change. Sweden shared these policies with other small Western European countries. What was typical for Sweden was the institutional set-up in the labour market, the model for wage formation and the complementary labour market policy. The latter having deep historical roots

²⁴Sverker Jonsson, *Vägen mot SSAB. NJA och den svenska handelsstålsindustrin 1955–1977*, Luleå: Norrbottens museum (1990), p. 185 ff.

in the unique role of social democracy in Swedish society, and its close collaboration with the trade union movement, which gave the latter an important role in the formulation of economic policy.

In Sweden, wage-setting was based on negotiations between the central organizations of the blue-collar trade unions and the employers, without government involvement. The solidaristic wage policy implemented by the trade unions in the 1950s and 1960s implied wage compression, the squeezing of low productivity firms and the channelling of labour to the fast growing sectors of the manufacturing industry. This was facilitated by an active labour market policy, which was perhaps the most important innovation in Swedish economic policy in the 1950s; it clearly benefited large export-oriented companies, as did the company taxation rules, not least of which was the investment fund system.

When, in the late 1960s, cracks began to appear in the post-war growth regime, industrial policy became more ambitious and interventionist. A new 'industrial policy offensive' was put into place, which included a more active role for state-owned enterprises in industrial restructuring. State ownership and subsidies to the manufacturing industry did increase in the 1970s, but mainly because the state attempted to bail out ailing firms in the shipbuilding and steel industries. The resources invested in prospective industrial restructuring were comparatively meagre.

What can we say about the overall impact of industrial policy in the period between 1950 and 1980? Arguably, general growth policies in the 1950s and 1960s, as well as the solidaristic wage policy in combination with an active labour market policy, contributed to structural transformation and productivity growth in the 1950s and 1960s. As for the 'industrial policy offensive' of the late 1960s and early 1970s, it did not contribute significantly to industrial innovation. The industrial subsidization of crisis industries in the 1970s contributed to the alleviation of social costs for those employed by these industries. In hindsight, however, this could have been accomplished in a less costly way if politicians had recognized sooner that downsizing and plant closures were necessary.

References

- Alexopoulos, Michelle and Jon Cohen, 'Centralised Wage Bargaining and Structural Change in Sweden', *European Review of Economic History* 7, no. 3 (2003), pp. 331–363.
- Benner, Mats, *The Politics of Growth: Economic Regulation in Sweden 1930–1994*, Lund: Arkiv förlag (1997).

- Bohlin, Jan, 'Svensk varvsindustri 1920–1975. Lönsamhet, finansiering och arbetsmarknad', vol. 59, *Meddelanden från ekonomisk-historiska institutionen vid Göteborgs universitet*, Göteborg: Ekonomisk-historiska institutionen vid Göteborgs universitet (1989).
- Bohlin, Jan, 'Sweden: The Rise and Fall of the Swedish Model', in: Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth Century Experience*, Oxford: Oxford University Press (1999), pp. 152–176.
- Bohlin, Jan, 'Tariff Protection in Sweden, 1885–1914', *Scandinavian Economic History Review* 53, no. 2 (2005), pp. 7–29.
- Edgren, Gösta, Karl-Olof Faxén and Clas-Erik Odhner, *Lönebildning och samhällsekonomi: rapport från en expertgrupp tillsatt av SAF, LO och TCO*, Stockholm: Rabén & Sjögren (1970).
- Edvinsson, Rodney, *Growth, Accumulation, Crisis: With New Macroeconomic Data for Sweden 1800–2000*, Stockholm: Almqvist & Wiksell International (2005).
- Edvinsson, Rodney and Johan Söderberg, 'The Evolution of Swedish Consumer Prices, 1290–2008', in: Edvinsson, Rodney, Tor Jacobson and Daniel Waldenström (eds.), *Exchange Rates, Prices, and Wages, 1277–2008*, Stockholm: Sveriges Riksbank, Ekerlids förlag (2010), pp. 412–452.
- Eichengreen, Barry J., *The European Economy since 1945: Coordinated Capitalism and Beyond*, Princeton: Princeton University Press (2007).
- Foreman-Peck, James and Giovanni Federico, 'Industrial Policies in Europe: Introduction', in: Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth Century Experience*, Oxford: Oxford University Press (1999), pp. 1–17.
- Fritz, Martin, *Svensk stålindustri under efterkrigstiden: internationell konkurrens – marknader – försäljning*, Stockholm: EHF (1988).
- Hibbs, Douglas and Håkan Locking, 'Den solidariska lönepolitiken och produktiviteten inom industrin', in: Bergström, Villy (ed.), *Arbetsmarknad och tillväxt: tio års forskning med facket*, Stockholm: Ekerlinds, FIEF (1997), pp. 34–53.
- Hibbs, Douglas and Håkan Locking, 'Wage Dispersion and Productive Efficiency: Evidence for Sweden', *Journal of Labor Economics* 18, no. 4 (2000), pp. 755–782.
- Jonsson, Sverker, *Vägen mot SSAB: NJA och den svenska handelsstålsindustrin 1955–1977*, Luleå: Norrbottens museum (1990).
- Katzenstein, Peter J., *Small States in World Markets: Industrial Policy in Europe*, Ithaca/London: Cornell University Press (1985).
- Krantz, Olle and Lennart Schön, *Swedish Historical National Accounts 1800–2000*, Lund Studies in Economic History, Lund: Almqvist & Wiksell International (2007).
- Lindbeck, Assar, *Svensk ekonomisk politik: problem och teorier*, Stockholm: BonnierFakta (1981).
- LO, *Samordnad näringspolitik*, Stockholm: LO (1961).
- LO, *Fackföreningsrörelsen och den tekniska utvecklingen*, Stockholm: Prisma (1966).
- Locking, Håkan, *Essays on Swedish Wage Formation*, Göteborg: Ekonomiska studier, nationalekonomiska institutionen (1996).
- Lundh, Christer, *Spelets regler: institutioner och lönebildning på den svenska arbetsmarknaden 1850–2010*, 2nd ed., Stockholm: SNS (2010).
- Maddison, Angus, *Dynamic Forces in Capitalist Development: A Long-Run Comparative View*, Oxford: Oxford University Press (1991).

- Ohlin, Bertil, *Utrikeshandel och handelspolitik*, 8th ed., Stockholm: Natur & Kultur (1936).
- Prado, Svante, 'Nominal and Real Wages of Manufacturing Workers, 1860–2007', in: Edvinsson, Rodney, Tor Jacobson and Daniel Waldenström (eds.), *Exchange Rates, Prices, and Wages, 1277–2008, Historical Monetary and Financial Statistics for Sweden*, Stockholm: Sveriges Riksbank, Ekerlids förlag (2010), pp. 479–527.
- Schön, Lennart, *Sweden's Road to Modernity: An Economic History*, Stockholm: SNS (2010).
- Shonfield, Andrew, *Modern Capitalism: The Changing Balance of Public and Private Power*, London: Oxford University Press (1965).
- Waara, Lennart, *Den statliga företagssektorns expansion: orsaker till förstatliganden i ett historiskt och internationellt perspektiv*, Stockholm: Liber (1980).

6

Planning the economic miracle? Industrial policy in Italy between boom and crisis, 1950–1975

Christian Grabas
Humboldt University Berlin

6.1 Introduction

For a long time, most scholars, historians and economists considered Italy as a prime example of an incomplete and very difficult transition into modern industrial society.¹ Due to late industrialization and its relative backwardness compared to other Western European countries, the rise of Italy to one of the most powerful industrial nations in the world during the 1950s and 1960s is, therefore, even more impressive.² Italy, indeed, showed particularly high growth rates after 1945, higher, in fact, than those of most other Western European economies.

As Table 6.1 shows, from 1950 to 1973, the Italian GDP per capita grew at an impressive averaged rate of 4.95 per cent yearly, hence almost matching the growth dynamics of even the West German economy. A rapid expansion of exports, high growth both in private consumption and in the demand for capital goods, and a large expansion of the national infrastructure were the main features of the

¹ See, for example, Jon S. Cohen and Giovanni Federico, *The Growth of the Italian Economy, 1820–1960*, Cambridge: Cambridge University Press (2001), p. 2 f., or Fabrizio Barca, ‘Compromesso senza riforme nel capitalismo italiano’, in: Fabrizio Barca (ed.), *Storia del capitalismo italiano dal dopoguerra a oggi*, Rome: Donizelli (1997), p. 4 ff.

² It is no coincidence that the term ‘economic miracle’ was introduced first for Germany and Italy by British journalists of *The Times* newspaper and became only later a commonplace of Western European dimension. See Giorgio Mori, ‘Die italienische Wirtschaft 1945–1963. Von der Aufholjagd bis zum Ende des “Golden Age”’, in: Gian E. Rusconi and Hans Woller (eds.), *Parallele Geschichte? Italien und Deutschland 1945–2000*, Berlin: Duncker & Humblot (2006), p. 398.

Table 6.1 Levels and compound annual rates of growth of real per capita gross domestic product (GDP) in Western Europe, 1950–1973 (in US \$ = 1990 and in percentages per year)

	1950	1973	1950–1973
Switzerland	9064	18204	3.08
Denmark	6943	13945	3.08
UK	6939	12025	2.42
Sweden	6739	12494	3.06
Netherlands	5971	13081	3.45
Belgium	5462	12170	3.54
Norway	5430	11324	3.24
France	5271	13114	4.04
West Germany	4281	13153	5.02
Finland	4253	11085	4.25
Austria	3706	11235	4.94
Italy	3502	10634	4.95
Ireland	3453	6867	3.03
Spain	2189	7661	5.60
Portugal	2086	7063	5.45
Greece	1915	7655	6.21

Source: Nicholas F. Crafts and Gianni Toniolo (2010), p. 301.

Table 6.2 Value added of real per capita gross domestic product (GDP) in Italy, 1861–1981 (in percentages)

	1861	1913	1938	1963	1981
Agriculture	46.1	37.6	26.6	16.5	6.1
Industry	18.4	24.9	30.3	49.5	37.1
Services	30.4	32.0	31.7	26.0	44.8
Public Administration	5.1	5.5	11.4	8.0	12.0

Source: Rolf Petri (2001), p. 11.

‘miracolo economico italiano’, which transformed Italy – as Table 6.2 illustrates – into a fully industrialized and modern society within barely two decades.³

³For the transformation of the Italian society from the Second World War until the mid 1970s, first see Paul Ginsborg, *Storia d'Italia 1943–1996, Famiglia, società, Stato*, Turin: Giulio Einaudi (1998), pp. 3–484. See then: Guido Crainz, *Storia del miracolo italiano. Culture, identità, trasformazioni fra anni cinquanta e sessanta*, Rome: Donizelli (1996). See also, for example, Andrea Di Michele, *Storia dell'Italia Repubblicana 1948–2008*, Milan: Garzanti (2008), particularly pp. 33–266.

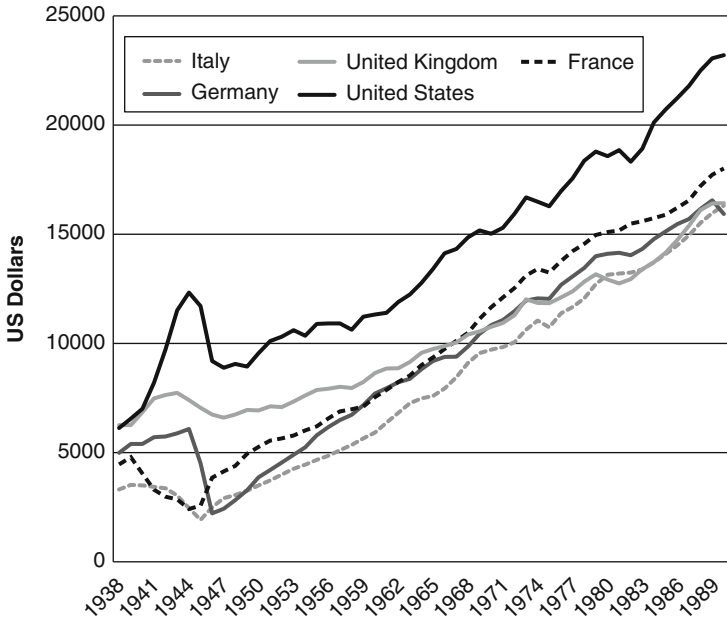


Figure 6.1 Real per capita GDP in selected Western European countries and in the United States, 1938–1990 (in 1990 US \$)

Source: Author's own calculation based on Angus Maddison (2006), tables 1 c and 2 c, pp. 439–443 and p. 466 f.

The contribution of state influence to this transformation process was of vital importance. 'The state', as Hans Woller stated, 'was omnipresent in the economy and its "model" of interventionism has been so successful that Italy during the 1970s finally managed, in fact, the impossible – rising to join the circle of other leading industrial nations'.⁴

Reducing a detailed analysis of all aspects of economic policy in Italy during the Golden Age to a short chapter in an edited volume is an impossible task, and it is not the purpose of this paper to attempt the impossible. Rather, this paper focuses on the different measures and control mechanisms of state industrial policy and discusses their efficiency and economic performance as well as their respective priorities. State industrial policy will be defined here as follows: the 'targeted influence of the sectoral production structure of an economy executed

⁴(In translation) Hans Woller, *Geschichte Italiens im 20. Jahrhundert*, Munich: Beck (2010), p. 13. For illustration, see Figure 6.1.

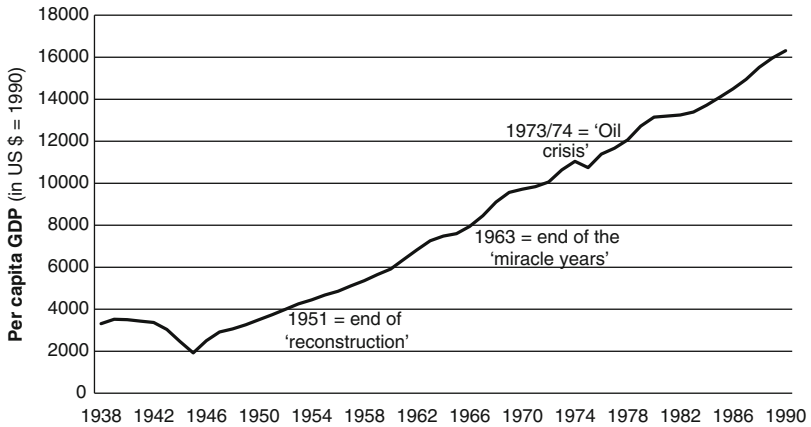


Figure 6.2 Periods of real per capita GDP development in Italy, 1938–1990 (in 1990 US \$)

Source: Author's own calculation based on Angus Maddison (2006), table 1 c, pp. 439–443.

by the legislative or executive authorities',⁵ which is in close keeping with Foreman-Peck's broad definition of 'industrial policy', as 'every form of state intervention that affects industry as a distinct part of the economy'.⁶

This chapter will illustrate that state industrial policy represented a central part of the official Italian economic policy and actually did play an important role for the rise of Italy during the Golden Age of post-war economic growth until the mid 1970s.⁷ In Italy, as both Figure 6.1 and 6.2 illustrate, this pan-European prosperity corresponds with two Juglar-cycles of economic development: a first business cycle from 1951 to 1962/63, during which the transformation of an economically more or less backward country to a fully advanced industrial one could

⁵(In translation) Michael J. Seitz, *Staatliche Industriepolitik. Begründungen, Instrumente und Probleme*, Baden-Baden: Nomos (2000), p. 38.

⁶James Foreman-Peck and Giovanni Federico, 'Industrial Policies in Europe. Introduction', in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999), p. 3.

⁷See, for example, Nicholas F. Crafts, 'The Golden Age of Economic Growth in Western Europe, 1950–1973', *The Economic History Review* 48, no. 3 (1995), pp. 429–447. See also Stephen A. Marglin and Juliet B. Schor (eds.), *The Golden Age of Capitalism. Reinterpreting the Postwar Experience*, Oxford: Oxford University Press (1992).

be completed,⁸ and a second business cycle lasting until 1973/74. The latter can be described as an ambivalent period of 'critical transition', which was characterized by an ongoing socioeconomic change, in which economic growth increasingly lost its dynamics.⁹

This chapter will first present an overview of the most important socioeconomic developments of the two periods, and will then highlight the main industrial policy measures and control mechanisms executed by the Italian governments. Finally, this chapter will critically discuss their impacts on long term growth and structural development in brief, in order to provide some answers to selected key questions: What industrial policy instruments were used in Italy when and why? Which industries were the focuses? What contribution was made by the state industrial policy to solve existing regional disparities between Northern and Southern Italy? What real effects on economic growth achieved government action? In other words, was state industrial policy in Italy successful or not? And, finally: Is it possible to identify differences and/or similarities to industrial policies of other European countries?

The thesis of this chapter is that, on the one hand, the paradigm shift towards an interventionist industrial policy implemented since the mid 1950s fostered the economic structural change and was effective in supporting the high economic growth rates during the miracle years in Italy. And that, on the other hand, the again-forced industrial policy, by the use of state-owned enterprises, public subsidies and investment control since the early 1960s, led to an inefficient allocation of national economic resources in the long run.

⁸See first: Rolf Petri, *Storia economica d'Italia. Dalla grande guerra al miracolo economico (1918–1963)*, Bologna: Il Mulino (2002), particularly chapt. V, pp. 181–220. See also: Rolf Petri, *Von der Autarkie zum Wirtschaftswunder. Wirtschaftspolitik und industrieller Wandel in Italien 1935–1963*, Tübingen: Max Niemeyer (2001), particularly chapt. X.3–6, pp. 444–480.

⁹See, for example, Patrizia Battilani and Francesca Fauri, *Mezzo secolo di economia italiana 1945–2008*, Bologna: Il Mulino (2008), chapt. III, p. 89 ff.; Michele Salvati, *Occasioni mancate. Economia e politica in Italia dagli anni '60 a oggi'*, Rome-Bari: Laterza (2000); or Augusto Graziani, *L'Economia italiana dal 1945 a oggi*, Bologna: Il Mulino (1989), p. 12 f. For the history of state industrial policies during the period of structural destabilization from 1963 to 1973/74, see also Gualberto Gualerni, *Economia aperta. Un approccio storico all' economia e politica industriale in Italia, 1860–1996*, Turin: G. Giappichelli (1999), particularly chapt. 28–31, pp. 213–245. See also Gualberto Gualerni, *Economia e politica industriale. Il caso italiano*, Volume secondo 1945–1972, Turin: G. Giappichelli (1988), p. 91 ff.

6.2 The starting point after the end of the Second World War

Before proceeding with the analysis of state industrial policy in Italy, it is necessary to make some preliminary observations regarding the initial situation immediately after the Second World War.¹⁰ For this period of reconstruction and reorganization of the Italian industry, we need to emphasize three basic decisions of the Italian government affecting long-term growth, which had already been established in the early post-war years, but which also had a far-reaching impact on all industrial policies throughout the entire period studied and beyond:

First, the final regulative decision of the Constituent Assembly in 1947 in favour of the implementation of a bourgeois-liberal and socially obligated economic system, namely a free and open market economy, but one where the state is authorized to intervene in the economic relations, particularly with regard to social welfare and justice.¹¹ Although Art. 41.1 of the Italian Constitution declares that ‘the private economic initiative is free’ and Art. 42.3 emphasizes that ‘private property is recognized and guaranteed by law, which prescribes the conditions for the acquisition, enjoyment and limitations in order to ensure its social function and make it accessible to all’, Art. 41.3 declares that ‘the Act of Parliament, so the law, determines all programmes as well as appropriate and expedient controlling tools so that both the public and private economic activity can be managed and coordinated primarily with respect of socio-political ends [...]’. Moreover, Art 42.2 prescribes that ‘to prevent public disadvantages, private property may, in the cases provided for by law, be expropriated for reasons of general interest’.¹²

¹⁰For an in-depth analysis of war damages in Italy, see Vera Zamagni, ‘Un’analisi macroeconomica degli effetti della guerra’, in: Vera Zamagni (ed.), *Come perdere la guerra e vincere la pace. L’economia italiana tra guerra e dopoguerra, 1938–1947*, Bologna: Il Mulino (1997), pp. 13–51.

¹¹In this context, see most importantly Barca (1997), ‘Compromesso senza riforme’, p. 18 f. See also, for example, Giovanni Federico, ‘Harmful or Irrelevant? Italian Industrial Policy, 1945–1973’, in: Hideaki Miyajima, Takeo Kikkawa and Takashi Hikino (eds.), *Policies for Competitiveness. Comparing Business-Government Relationships in the Golden Age of Capitalism*, Oxford: Oxford University Press (1999), p. 310 f.

¹²Quoted in translation from Il Capo Provvisorio dello Stato, ‘Costituzione della Repubblica Italiana’, in: *Gazzetta Ufficiale della Repubblica Italiana*, no. 298, edizione straordinaria del 27 dicembre 1947, Rome: Istituto Poligrafico dello Stato (1947), pp. 1–19.

Second, the Italian authorities decided, in 1948, to apply for admission to the European Recovery Programme, and thus made a decision in favour of a step-by-step, gradual and progressive liberalization of its foreign trade affairs.¹³ As a founding member both of the European Coal and Steel Community in 1951¹⁴ and the European Economic Community in 1957, Italy had committed itself to full trade liberalization.¹⁵ Trade liberalization within the Common Market was gradual, with a total abolition of duties by 1968. In the new environment, as we will see later, Italian industry thrived.¹⁶ Therefore, the Italian Research

¹³Mainly due to the disastrous economic situation of the country after the end of the Second World War, the Italian government voted for admission to the European Recovery Programme in June of 1948 only after controversial public debates as well as intense political discussions and negotiations both within and between the various parties. This affected not only the short-term economic problem-solving concepts of the country's economic reconstruction. The political 'yes' to the Marshall Plan can also be characterized in the long-term – similar to trends in other Western European countries – as a milestone for the political integration of Italy within the Western World. For Italy's admission to the European Recovery Programme in 1948, first see Francesca Fauri, 'The Marshall-Plan in Italy. Industrial Renewal and Material Reconstruction', in: Francesca Fauri and Paolo Tedeschi (eds.), *Novel Outlooks on the Marshall-Plan. American Aid and European Re-Industrialisation*, Brussels: Lang (2011), pp. 39–58, as well as Carlo Spagnolo, *La stabilizzazione incompiuta. Il piano Marshall in Italia (1947–1952)*, Rome: Carocci (2001), or John L. Harper, *L'America e la ricostruzione dell'Italia 1945–1948*, Bologna: Il Mulino (1987), as well as Elena Aga Rossi (ed.), *Il Piano Marshall e l'Europa*, Rome: Istituto dell'Enciclopedia Italiana (1983). See also: Chiarella Esposito, *America's Feeble Weapon. Funding the Marshall Plan in France and Italy, 1948–1950*, London: Greenwood Pub. Group Inc. (1994), or Christian Grabas, 'Der Marshall-Plan als Stabilisator der sozioökonomischen Entwicklung Italiens während der Nachkriegszeit (1948–1952)', *Berichte. Forschungsinstitut der Internationalen Wissenschaftlichen Vereinigung Weltwirtschaft und Weltpolitik (IWWWW) e.V.*, vol. 17, no. 176/177 (2007), pp. 145–158.

¹⁴See, for example, Enrico Serra, 'Dall'unione doganale italo-francese alla CEECA', in: Klaus Schwabe (ed.), *Die Anfänge des Schuman-Plans 1950/51*, Baden-Baden: Nomos (1988), pp. 171–195, or Ruggero Ranieri, 'Il Piano Marshall e la ricostruzione della siderurgia al ciclo integrale', *Studi Storici* 37, no. 1, *Italia, Europa, America. L'integrazione internazionale dell'economia italiana (1945–1963)*, Rome: Fondazione Istituto Gramsci (1996), pp. 145–190.

¹⁵For different aspects of Italy's integration within the Western Bloc, see for example Francesca Fauri, *L'Italia e l'integrazione economica europea, 1947–2000*, Bologna: Il Mulino (2001), or Antonio Varsori, 'Le scelte internazionali', in: Giovanni Sabbatucci and Vittorio Vidotto (eds.), *Storia d'Italia vol. 5 – La Repubblica 1943–1963*, Rome-Bari: Laterza (1997), pp. 253–312.

¹⁶See, for example, Petri (2002), *Storia economica d'Italia*, p. 197 ff., or Barca (1997), 'Compromesso senza riforme', p. 38 f., as well as Nicola Rossi and Gianni

Centre Europe together with the Institute for Social Research in Rome, in their first report on industry and industrial policy in Italy in 1986, called the application for admission to the European Recovery Programme – this pro-market, pro-trade liberalization and pro-European integration decision – ‘the most important decision of industrial policy in the last forty years’.¹⁷ In addition, however, with the adoption of the Marshall Plan conditions, the Italian government had committed itself to elaborate a so-called ‘piano a lungo termine’:¹⁸ a long-term investment-plan for national reconstruction for the years from 1949 to 1952, with the intent to obtain international economic aid.¹⁹ The task of drawing up a first preliminary draft for this plan was to be carried out by Pasquale Saraceno, who played a major role within the field of the elaboration of industrial policy strategies during the entire post-war Golden Age,²⁰ and who was the director of the economic studies office of the Institute for Industrial Recovery (Istituto per la Ricostruzione Industriale, IRI), the main public holding established in 1933.²¹ Producing an enormous amount of data on the Italian industry and, moreover, ‘suggesting the possibility to centralize and to plan the process of national economic

Toniolo, ‘Italy’, in: Nicholas F. Crafts and Gianni Toniolo (eds.), *Economic Growth in Europe since 1945*, Cambridge: Cambridge University Press (1996), p. 427 f.

¹⁷ (In translation) Centro Europa Ricerche (CER) – Istituto per la Ricerca Sociale (IRS), *Quale strategia per l’industria? Rapporto sull’industria e la politica industriale italiana*, Bologna: Il Mulino (1986), p. 141.

¹⁸ Pasquale Saraceno, *Elementi per un piano quadriennale di sviluppo dell’economia italiana*, Rome: Istituto Poligrafico dello Stato (1948).

¹⁹ For a historical appraisal of the ‘Piano a lungo termine’, first see Petri (2001), *Von der Autarkie zum Wirtschaftswunder*, p. 444 ff., as well as Vera Zamagni, *Dalla periferia al centro. La seconda rinascita economica dell’Italia 1861–1981*, Bologna: Il Mulino (1990), p. 410 ff., or Spagnolo (2001), *Il Piano Marshall in Italia*, p. 126 ff.

²⁰ For a historical tribute to the political life and work of Pasquale Saraceno, see Guido Vigna, *Pasquale Saraceno. L’uomo che voleva unificare l’Italia*, Milan: Rusconi (1997) or Diomede Ivone (ed.), *Cultura, Stato e Mezzogiorno nel pensiero di Pasquale Saraceno*, Naples: Editoriale Scientifica (2004). See also Roberto Bonuglia, ‘Tre valtelinesi al servizio dello Stato. Saraceno, Vanoni e Paronetto’, *Elite&Storia*, n.s., a. II, no. 1 (2006), pp. 44–64, or, for Saraceno’s early years, see Giuliana Arena, *Pasquale Saraceno commis d’Etat. Dagli anni giovanili alla Ricostruzione (1903–1948)*, Milan: Franco Angeli (2011).

²¹ For an overall history of the Institute for Industrial Recovery (Istituto per la Ricostruzione Industriale, IRI), see Massimo Pini, *I giorni dell’IRI – Storie e misfatti da Beneduce a Prodi*, Milan: Arnoldo Mondadori (2004). For a profound and knowledgeable overview, see Michael V. Posner and Stuart J. Woolf, *Italian Public Enterprise*, Cambridge, MA: Harvard University Press (1967).

recovery',²² the offices' technocratic structures started to again play the role of one of the most important technical consultants for the Italian government.²³ Thus, as Rolf Petri emphasized, the government helped the technocratic, regulatory forces to get the definite return to the commanding heights of the economy after that short intermezzo of liberalism during the first two or three post-war years.²⁴

And finally, a third governmental decision for an accelerated and sustained industrialization of the Mezzogiorno.²⁵ Already by the end of 1946, SVIMEZ (Associazione per lo sviluppo dell'industria nel Mezzogiorno) had been founded in Rome. The aim of SVIMEZ was to study the economic conditions of the southern parts of the peninsula and to design feasible plans to modernize those regions, in the belief that they could catch up with the more developed North only by means of an intense industrialization process.²⁶ In August 1950, the Italian government established a project to promote economic development in Southern Italy. This project, by law, provided to the Mezzogiorno enormous sums of money for social infrastructure projects and for the industrialization of this structurally weak region, which was to be administrated and managed by the (in short) Cassa per il Mezzogiorno (CASMEZ).²⁷

²²Fabio Lavista, 'Business Elites in Italy and the Failure of the National Planning Policies as a Vision of Development', in: Fredrike Sattler and Christoph Boyer (eds.), *European Economic Elites. Between a New Spirit of Capitalism and the Erosion of State Socialism*, Schriften zur Wirtschafts- und Sozialgeschichte, vol. 84, Berlin: Duncker & Humblot (2009), p. 132.

²³Woller (2010), *Geschichte Italiens*, p. 30 ff.

²⁴Petri (2001), *Von der Autarkie zum Wirtschaftswunder*, p. 434 ff.

²⁵For economic reconstruction in Southern Italy during the first post-war years, first see Ezio Ritrovato, 'Post-War Recovery in the South of Italy. Dishomogeneous Development and Regional Differences', in: Andrea Bonoldi and Andrea Leonardi (eds.), *Recovery and Development in the European Periphery (1945–1960)*, Bologna and Berlin: Il Mulino and Duncker & Humblot (2009), p. 63–86. See also, for example, Loredana Pellè, *Mezzogiorno e piano Marshall dal 1947 al 1952*, Manduria, Taranto: P. Lacaita (2009), or Vera Negri Zamagni (ed.), *Nuovo meridionalismo e intervento straordinario. La SVIMEZ dal 1946 al 1950*, Bologna: Il Mulino (1988).

²⁶Paolo Baratta, 'Pasquale Saraceno, La questione meridionale e la questione industriale in Italia secondo Pasquale Saraceno', *Quaderno di Informazioni SVIMEZ*, no. 25, Collana Pasquale Saraceno, no. 7, Lezioni sul Mezzogiorno (2004), p. 13 f.

²⁷For a history of the early years of the CASMEZ after its foundation in 1950, see Gabriele Pescatore, *L'intervento straordinario nel Mezzogiorno d'Italia*, Milan: Giuffrè (1962). See also Giancarlo Morcaldo, *Intervento pubblico e crescita economica. Un equilibrio da ricostruire*, Milan: FrancoAngeli (2007), particularly pp. 131–144.

Table 6.3 Averaged growth rates of selected macroeconomic key indicators in Italy, 1951–1973 (in percentages)

	1951–1962	1963–1973
Total fixed investment	10.36	2.47
GDP per capita	5.79	4.36
Industrial production	8.78	5.35

Source: Author's own calculation based on ISTAT (1986).

These three decisions by the Italian government marked the macroeconomic and regulatory fundamentals of Italian industrial policy. Together, they constituted perhaps the most important platform for sustained growth of Italian industrial production during the Golden Age.

6.3 The 'economic miracle years'²⁸

In fact, the growth and performance of the Italian economy were exceedingly good: from 1951 to 1963, GDP grew at an impressive 5.8 per cent in an average year. As Table 6.3 shows, industry was the strong engine of recovery, with growth rates higher than 8 per cent. The business cycle of the economic miracle from 1951 to 1962/63, during which all the basic structural characteristics and conditions of an advanced industrialized society were fully achieved, finally completed Italy's transition from an economically more or less backward country to an advanced industrial one.²⁹

The state influence on this transformation process was important and became particularly apparent within the field of industrial policies.³⁰

²⁸Mariuccia Salvati, 'The Long History of Corporatism in Italy. A Question of Culture or Economics?', *Contemporary European History* 15, no. 2 (2006), p. 237.

²⁹In summary, see Peter Hertner, 'Italien 1915–1980', in: Wolfram Fischer (ed.), *Europäische Wirtschafts- und Sozialgeschichte vom Ersten Weltkrieg bis zur Gegenwart*, Handbuch der Europäischen Wirtschafts- und Sozialgeschichte, Stuttgart: Klett-Cotta (1987), p. 1022 ff. For a more detailed analysis, see for example, Valerio Castronovo, *L'industria italiana dall'Ottocento a oggi*, Milan: Arnoldo Mondadori (1980), particularly chapt. 7, pp. 275–308.

³⁰See first of all Giovanni Federico and Renato Giannetti, 'Le politiche industriali', in: Franco Amatori et al. (eds.), *Storia d'Italia*, Annali vol. 15, *L'industria*, Turin: Giulio Einaudi (1999), p. 1145 ff. See then Romano Prodi and Daniele De Giovanni, 'Forty-Five Years of Industrial Policy in Italy. Protagonists, Objectives and Instruments', in: Mario Baldassari (ed.), *Industrial Policy in Italy, 1945–90*, Basingstoke: Palgrave Macmillan (1993), particularly pp. 36–46.

Since the early 1950s, the state itself became increasingly involved within the economy; this happened predominantly with the formation of state holdings and enterprises as well as public direct investments, but also with favourable financing of key industries in the private sector by means of contributions, soft loans or other subsidies. As Steven Tolliday put it: 'Post-war Italian governments believed that it was necessary to intervene directly to provide capital for large-scale investment (in the absence of other sources) and to balance the needs of Northern industrialization and Southern development.'³¹ For the fastest possible recovery and to close the gap with its more powerful northern and western European neighbours, it was not sufficient for the government merely to create a favourable economic environment; it seemed absolutely essential for the Italian government to take the reins into its own hands.

Industrial policy in Italy was mainly characterized by an ambivalent dual approach, which was labelled by Giuliano Amato as 'liberal protectionism'³²: on the one hand, the government protected private interests and property rights and granted private companies the maximum freedom to achieve operational growth. Furthermore, the state massively supported export-orientated industries by the gradual downsizing of trade restrictions as well as by targeted subsidies (like tax incentives or soft loans).³³ On the other hand, the state claimed for itself the orchestration of an active investment policy by means of large-scale state-owned enterprises as well as public banks. This was done in order to, above all, promote economic growth, especially in key strategic industries – metallurgy, manufacturing, chemical industries and the energy sector – and secondly, to reduce the economic gap between the North and the South.³⁴

State intervention to promote industrial development has a long tradition in Italy, in particular as various public support mechanisms

³¹ Steven W. Tolliday, 'Introduction. Enterprise and State in the Italian "Economic Miracle"', *Enterprise & Society* 1 (June 2000), p. 245.

³² (In translation) Giuliano Amato, *Il governo dell'industria in Italia*, Bologna: Il Mulino (1972), chapt. I, 2, pp. 15–17 and chapt. II, 5, pp. 27–33.

³³ For an introduction see Federico (1999), 'Italian Industrial Policy', p. 316 f. See then for an in-depth analysis Andrea Leonardi, 'Industrial Credit and Special Banks in Relaunching the Italian Banking System after World War II', in: Andrea Bonoldi and Andrea Leonardi (eds.), *Recovery and Development in the European Periphery (1945–1960)*, Bologna and Berlin: Il Mulino and Duncker & Humblot (2009), pp. 201–240.

³⁴ Rolf Petri, 'Dalla Ricostruzione al Miracolo Economico', in: Sabbatucci and Vidotto (1997), *Storia d'Italia*, particularly chapt. IV, 6, pp. 361–375.

were implemented and institutionalized during fascism.³⁵ Post-war Italy inherited a large number of state-owned enterprises,³⁶ the size of public ownership in manufacturing and utility companies, for example, was by far the largest in the Western world, and the credit sector was almost entirely under direct or indirect governmental control. In the 1950s, the Institute for Economic Recovery (IRI) and the National Hydrocarbon Agency (ENI) were the most powerful and effective state-owned companies, investing enormous sums in the modernization and structural development of the national industrial sector. Their share of

³⁵For a good introduction regarding the legacies in economic policy from fascism for the governments of the Italian Republic after the Second World War, see first: Vera Zamagni, *Lo stato italiano e l'economia. Storia dell'intervento pubblico dall'unificazione ai giorni nostri*, Florence: E. Ariani (1981). See also the fundamental work of Vera Lutz, *Italy. A Study in Economic Development*, Oxford: Oxford University Press (1962). The most important in-depth analyses are, first, Rolf Petri (2001), *Von der Autarkie zum Wirtschaftswunder*, second, Franco Amatori, Robert Millward and Pier Angelo Toninelli (eds.), *Reappraising State-Owned Enterprise. A Comparison of the UK and Italy*, New York/London: Routledge (2011), and, finally, Pier Angelo Toninelli and Michelangelo Vasta, 'State-owned enterprises (1936–83)', in: Andrea Colli and Michelangelo Vasta (eds.), *Forms of Enterprise in 20th Century Italy. Boundaries, Structures and Strategies*, Cheltenham/Northampton: Edward Elgar (2010), pp. 52–86.

³⁶There is a variety of contemporary research and literature concerning the potential role of the SOEs for economic development and a sustained industrialization in Italy. Only a few of the most important books should be mentioned here: Pasquale Saraceno, *Lo stato e l'economia*, Rome: 5 Lune (1963) as well as Pasquale Saraceno, *Il sistema delle imprese a partecipazione statale nell'industria italiana*, Milan: Giuffrè (1975). See also: Mario Ferrari Aggradi, *Le partecipazioni statali nella politica di sviluppo*, Rome: Istituto Poligrafico dello Stato (1959). Even in the field of economic history research, there are a vast variety of research activities. However, most articles or monographs terminate their period of investigation with the end of the boom period in Italy after 1962/63. In addition, most of the research is not based on archival sources, which is a great overall desideratum of the Italian economic history research. Only a few titles should be mentioned here: Fabrizio Barca and Sandro Trento, 'La parabola delle partecipazioni statali. Una missione tradita', in: Fabrizio Barca (ed.), *Storia del capitalismo italiano dal dopoguerra a oggi*, Rome: Donizelli (1997), pp. 186–236. See also: Nico Perrone, *Il dissesto programmato. Le partecipazioni statali nel sistema di consenso democristiano*, Bari: Dedalo (1992), as well as Posner and Woolf (1967), *Italian Public Enterprise*, or Centro di ricerca e documentazione Luigi Einaudi (ed.), *Le baronie di Stato*, Turin: Centro Luigi Einaudi (1968). Apart from that, see, for a rare example of first hand research in this field of study, the first issue of the economic history journal *Enterprise & Society* (2000), with highly interesting contributions by Steven W. Tolliday, Francesca Fauri and Francesca Carnevali, *Enterprise & Society* 1 (June 2000), pp. 241–314.

total investments in industry increased from almost 16 per cent in 1951 to 27 per cent in 1962.³⁷

The IRI had been taken over by the Italian Republic from fascism. Created in 1933 as a response to the serious banking crisis,³⁸ its main task after the end of the war was to support failing private industrial companies and, if necessary, take them over in order to promote and sustain the economic reconstruction of the national industry.³⁹ In doing so, IRI, without expropriations and nationalizations, had taken over entire industries during the 1950s and had a massive influence on the future development of the national industrial system.

The state-holding IRI invested large sums in the modernization of infrastructure – notably the transport- and road systems, and the telephone networks – but particularly in manufacturing and metallurgical industries. Perhaps the best-known success story is the steel industry,⁴⁰ where Oscar Sinigaglia, the president of FINSIDER – the steel sub-holding of IRI – against fierce opposition from the private sector, re-activated the older autarkic steel plan that had been conceived by the same Sinigaglia during fascism in the late 1930s. Its cornerstones were the rebuilding of the IRI steel factories, seriously damaged during the war, as well as the construction of a new steel plant near Cornigliano that was equipped with American technology.⁴¹ In spite of the scepticism expressed by the private producers and of the American mistrust of state-owned enterprises in general, the New Steel Plan was approved by the Italian government and funded by Marshall Plan loans. And Sinigaglia's strategy proved to be right. After the completion in 1952 of the new factory in Cornigliano, Italy had, for the first time, 'a large,

³⁷ C.f. Table IX b) in Posner and Woolf (1967), *Italian Public Enterprise*, p. 147.

³⁸ Rapporto Marsan, *L'Istituto per la Ricostruzione Industriale – I.R.I. – Elementi per la sua storia dalle origini al 1982*, Rome: Documento interno (unpublished) (1992), chapt. I, pp. 9–27.

³⁹ Marsan (1992), *L'Istituto per la Ricostruzione Industriale*, chapt. III, pp. 113–223.

⁴⁰ For the history of the steel industry in Italy under public control, see most importantly Margherita Balconi, *La siderurgia italiana (1945–1990). Tra controllo pubblico ed incentivi del mercato*, Bologna: Il Mulino (1991). See also Gian Lupo Osti, *L'industria di stato dall'ascesa al degrado. Trent'anni nel gruppo Finsider. Conversazioni con Ruggero Ranieri*, Bologna: Il Mulino (1993).

⁴¹ See, for an in-depth analysis of FINSIDER, Ruggero Ranieri, 'Storia delle acciaierie di Cornigliano dal 1929 ad oggi', in: Istituto Franco Momigliano (ICSIM), *Steelmaster* (2007). See also Ulrike Wachtler, 'Il Piano Sinigaglia. Il progetto di rifondazione e ristrutturazione dell'industria siderurgica italiana nel periodo 1948–1952', in: Istituto Franco Momigliano (ICSIM), *Steelmaster* (1999).

modern, and competitive steel industry'.⁴² FINSIDER acquired an undisputed price-leadership in the national steel production and forced the private sector to modernize. FINSIDER decided to bet on the future and went on investing in the steel industry. In 1960, it decided to build another new, large, fully-integrated plant in Taranto in southern Apulia. Again, the gamble succeeded and Italy even became a net exporter of steel for some time. In other words, Sinigaglia's strategy was a resounding success. And it was not until the late 1960s and particularly during the 1970s and 1980s, that the story changed and the state-owned steel industry in Italy generated enormous public deficits.⁴³

In the 1950s, however, another public holding assumed a leading role in the energy industry under the guidance of its first president, Enrico Mattei. The National Hydrocarbon Agency (Ente Nazionale Idrocarburi, ENI) was a post-war creation established in 1953, but it had incorporated different state-owned companies from the energy sector, like the AGIP, which had been established under the fascist regime.⁴⁴ Its dual mission was, first, to break up existing monopolies of private companies (like the Montecatini) in the market for chemical production, especially for fertilizers. Second, it was to provide the Italian economy with low-cost energy by the efficient exploitation and distribution of recently discovered natural gas fields in the Po Valley, as well as by negotiations of direct trade agreements with oil producers such as Libya and Iran. ENI expanded within a few years and became the most successful industrial state holding in Italy. Under the leadership of its first president, Enrico Mattei, by means of his strategy of expanding in the areas of energy supply, the national refinery sector and the petrochemical industry, the state holding ENI developed into an internationally established

⁴² As Giovanni Federico put it: 'For the first time Italy had a large, modern, and competitive steel industry. This was largely due to the aggressive strategy pursued by Finsider, which acquired an undisputed price leadership and forced private firms to modernize.' Quoted from Federico (1999), 'Italian Industrial Policy', p. 324.

⁴³ Osti (1993), *L'industria di stato*, particularly chapt. V–VII, pp. 191–278.

⁴⁴ For ENI's history, see most important Giovanni Bucciante, *Enrico Mattei. Assalto al potere petrolifero mondiale*, Milan: Giuffrè (2005), or Marcello Colitti, *ENI – Cronache dall'interno di un'azienda*, Milan: EGEA (2008). See also Marcello Colitti, *Energia e sviluppo in Italia. La vicenda di Enrico Mattei*, Bari: De Donato Editore (1979), as well as Daniele Pozzi, 'Techno-Managerial Competences in Enrico Mattei's AGIP. A Prolonged Accumulation Process in an International Network, 1936–1965', *Business and Economic History Online* 1 (2003), pp. 1–32, or Francesca Carnevali, 'State Enterprise and Italy's "Economic Miracle". The Ente Nazionale Idrocarburi, 1945–1962', *Enterprise & Society* 1 (June 2000), pp. 249–278.

and highly successful industrial group, which could claim a decisive role in the whole strong economic growth period in Italy that began in the mid 1950s. The energy state holding benefited equally strongly from Italy's economic boom, especially in industry. As the energy and fuel demands of the country's industrial enterprises were continuously increasing, ENI could invest heavily in new prospecting and exploration work. Secured by the state monopoly law, more and more new gas fields were developed for exploitation, and the national gas pipeline network could be extended to all areas nationwide.

It seems undeniable that the state-owned industrial holdings IRI and ENI, through a sustained modernization of the industry sector, the creation of new jobs and a successful policy of energy and raw material supply, made an important contribution to stabilizing and strengthening the Italian economy.⁴⁵ But increasingly after the mid 1950s, the Italian government, due to the outstanding performance of state-owned enterprises, had to face fierce opposition from the majority of private industrialists, in particular the industrialists' association, Confindustria, which considered IRI and ENI to represent improper interference by the state in the free market economy.⁴⁶ After the Italian Parliament, in December 1957, passed a law on future industrialization of the Mezzogiorno that obliged all state companies to locate at least 40 per cent of their annual total investment and at least 60 per cent of their new investment in Southern Italy,⁴⁷ Confindustria's opposition

⁴⁵As Steven Tolliday put it: 'Along with Finsider in the steel industry it (ENI) presented, for a time at least, the putative model of Italian state enterprise. [...] The key institutional feature of such enterprises was that, while they were owned by the state, operational control was decentralized to the hands of managers, and technocrats, or "public entrepreneurs". In the 1940s and 1950s, these independent managers were widely perceived to be pulling the state enterprise away from its prewar vices of nepotism, corruption, and politicized control. [...] Mattei, Sinigaglia, and others succeeded in several imaginative and ambitious projects in the 1950s, even though there was never much overall coordination and direction of their strategy by the state'. Quoted from Tolliday (2000), 'Introduction', p. 245.

⁴⁶For a description of the negative attitude of Confindustria, see for example: Franco Amatori and Andrea Colli, *Impresa e industria in Italia dall'unità a oggi*, Venice: Marsilio (1999), p. 244 ff.

⁴⁷Legge 29 luglio 1957, no. 634. 'Provvedimenti per il Mezzogiorno', in: *Gazzetta Ufficiale della Repubblica Italiana*, 3 agosto 1957, no. 193, Rome: Istituto Poligrafico dello Stato (1957). In 1971 these ratios were raised to 60 and 80 per cent, respectively. Michael Kreile, 'Public Enterprise and the Pursuit of Strategic Management. Italy', in: Kenneth Dyson and Stephen Wilks (eds.), *Industrial Crisis. A Comparative Study of the State and Industry*, Oxford: Martin Robertson (1983), p. 193.

became a literal blockade of all government economic policy, probably for fear that the ever-growing state regulation could be extended to private industry.

6.4 The period of economic planning

The economic slowdown in 1963/64 finally terminated the boom period of the so-called Italian economic miracle, after which Italy passed through a long lasting period of structural destabilization.⁴⁸ From the point of view of an aggregate performance analysis, the years from 1963 to 1973 did not mark a sharp break with the previous period. The slowdown in output and productivity was anything but dramatic. However, although the averaged annual growth rate of GDP of 4.4 per cent was more than respectable compared to most Western European countries, the first signs of structural failure were already evident in the 1960s.

Both the regional North–South gap as well as income differences between public and private employees could at best only be insufficiently reduced. The national labour market had absorbed labour resources to full capacity utilization during the strong growth period of the 1950s, and labour productivity also had been reduced drastically due to increased wage costs.⁴⁹ In 1963, the monetary system became dangerously unbalanced. Simultaneously, unemployment rose from full employment in 1962, to 3.8 per cent in 1965,⁵⁰ and social distribution conflicts of a previously unknown acrimony broke out. As a consequence, for fear of further social unrest and instability, private entrepreneurs reacted with a capital flight of an extraordinary magnitude, which additionally weakened the national production system.⁵¹

Therefore, the Italian government set itself the ambitious task of solving these problems with a massive dose of macroeconomic planning. Planning appeared to be the right solution and, after long discussions,

⁴⁸ Salvati (2000), *Occasioni mancate*, p. 116 ff.

⁴⁹ Augusto Graziani (ed.), *Crisi e ristrutturazione nell'economia italiana*, Turin: Giulio Einaudi (1975). Additionally, see, for example: Augusto Graziani, *L'Economia italiana dal 1945 a oggi*, Bologna: Il Mulino (1989), pp. 97–110; and also Crainz (1996), *Storia del miracolo italiano*, particularly chapt. V.5, pp. 188–210.

⁵⁰ Rossi and Toniolo (1996), 'Italy', p. 442 f.

⁵¹ Michele Salvati, *Economia e politica in Italia dal dopoguerra a oggi*, Milan: Garzanti (1984), chapt. 4.2, pp. 89–96.

it was officially adopted as the cornerstone of the economic policy of the new Centre-Left government.⁵²

The famous starting point of all later plans and programmes was the added memorandum to the 1962 budget, presented to parliament in May of 1962 by the State Budget Minister, Ugo La Malfa.⁵³ From La Malfa's point of view, the main tool of economic planning was to be an intensified industrialization policy backed by capital-intensive industry support. This was to be implemented, especially in the South of the country, by means of public shareholdings in private industrial companies, and by subsidies to private investors in the industrial sector with the aim of reducing structural deficits and regional differences, and reflatting the market.⁵⁴ In this planning approach, the new subsidized industrial enterprises in the Mezzogiorno – both private and state-owned – were to assume the roles of attracting other private manufacturing enterprises – small and medium – to facilitate the development of regional infrastructures that would stimulate the labour market.⁵⁵

⁵²For a detailed analysis of all macroeconomic planning approaches, all public plans and programmes, see first of all Fabio Lavista, *La stagione della programmazione. Grandi imprese e Stato dal dopoguerra agli anni Settanta*, Bologna: Il Mulino (2010). See also Riccardo Faucci (ed.), *Economic Policy during the Planning Era in Italy. Theory, History, and Documents*, Pisa: Fabrizio Serra (2009) or Carlo Cristiano, 'Come si fa una politica di programmazione. Pasquale Saraceno e i lavori della Commissione Nazionale per la Programmazione Economica', *Rivista Italiana degli Economisti* 11 (2006), pp. 297–308. The most important official government documents are edited in: Antonella Crescenza (ed.), *I Documenti di Programmazione. Una lettura della politica economica in Italia dal Piano Marshall al DPEF 2008–2011*, Rome: LIUSS University Press (2007). In addition, see another highly interesting book of one participating actor in the theoretical elaboration and practical implementation of several political plans and programmes: cf. Manin Carabba, *Un ventennio di programmazione 1954–1974*, Rome: Laterza (1977).

⁵³Obviously, the already mentioned 'Piano a lungo termine', and also the famous 10-year-investment-plan elaborated under the guidance of the State Budget Minister, Ezio Vanoni, in 1954 – the so-called 'Schema Vanoni' – are both other important starting points or archetypes of all later governmental plans and programmes within the framework of the 'Programmazione Economica' in Italy. For the following explanations, 'La Nota La Malfa' is considered to be the more important 'model' because of its broad effects. See: Ugo La Malfa, 'Nota aggiuntiva su problemi e prospettive dello sviluppo economico e della programmazione in Italia', nota presentata al parlamento dal ministro del bilancio Ugo La Malfa il 22 maggio 1962, Rome: Janus (1973).

⁵⁴La Malfa (1973), 'Nota aggiuntiva su problemi', p. 34 f. and p. 60 ff.

⁵⁵La Malfa (1973), 'Nota aggiuntiva su problemi', p. 85 ff.

The first outline of a five-year-plan – the so called ‘Saraceno Report’ – was drafted in January 1964.⁵⁶ But the worsening of economic performance from 1963 onwards caused endless discussions within the governing coalition, and finally led to a delay in its implementation.⁵⁷ The law was submitted to parliament only in January 1965 and, after several years of delay, the first national economic programme for the years 1966 to 1970⁵⁸ – the so-called ‘Piano Pieraccini’ – was finally approved only in July 1967.⁵⁹ The short-term economic goals of the programme were: first, an annual increase of GDP by an average of 5 per cent yearly to achieve full employment; second, the improvement and modernization of the national traffic and transport system; and, third, the placement of at least 45 per cent of the new workforce in Southern Italy, particularly in the industrial sector. Based on the achievement of these industrial planning policies, the most important long-term goals were comprehensive tax and health care reform, secondary school reform, city planning reform and, finally, an administrative decentralization through the establishment of regional and local governments.⁶⁰ The total investment for the following five years should have been about 44 trillion lire (about 63 billion US dollars), of which 24.5 billion US dollars would be spent on social investments, the other 38.5 billion US dollars to be spent directly in industrial capital investments.⁶¹ Nevertheless, although adopted by law, the first national five year plan – which Giovanni Federico and Renato Gianetti called ‘possibly the most ambitious [...] in the whole of Europe’⁶² – was never reworked into any form of operational programme. None of the ambitious reforms were implemented, partly because of opposition from outside and inside the ruling coalition, and partly owing to the plan’s technical shortcomings.

⁵⁶Italia. Ministero del bilancio, ‘Rapporto del vicepresidente della Commissione nazionale per la programmazione economica (Cnpe)’, Servizio Informazioni della Presidenza del Consiglio, Rome: Istituto Poligrafico dello Stato (1964).

⁵⁷Carabba (1977), *Programmazione*, chapt. II, pp. 27–78.

⁵⁸Italia. Ministero del bilancio, ‘Programma Economico nazionale per il quinquennio 1966–70’, approvato con legge 27 luglio 1967, no. 685, in: *Gazzetta ufficiale* no. 203 del 14 Agosto 1967.

⁵⁹Carabba (1977), *Programmazione*, chapt. III.5, pp. 90–93.

⁶⁰Lavista (2010), *La stagione della Programmazione*, p. 385 ff., or Carabba (1977), *Programmazione*, chapt. III.2, pp. 80–86.

⁶¹Carabba (1977), *Programmazione*, p. 82.

⁶²Giovanni Federico and Renato Gianetti, ‘Italy. Stalling and Surpassing’, in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999), p. 138.

The second national plan, for the years 1971 to 1975, was, in fact, published in January 1970, but only in a preliminary version, and has never been debated in the Italian parliament. 'In the end, it was transformed into a mere forecasting analysis.'⁶³ At the beginning of the 1970s, however, a significant increase in economic and social instability forced the Italian government to abandon long-term planning.⁶⁴ The different plans, which dealt with practically every aspect of economic and social life, were transformed into a variety of development models, 'with the aim to achieve full employment, to expand the social uses of national income and to boost industrialization of the Southern regions', but, as Fabio Lavista put it, 'loosing in the meanwhile any direct link with the contemporaneous economic policies'.⁶⁵ Therefore, Michele Salvati defined the 'planning era' in Italy since the mid 1960s as a 'missed opportunity'.⁶⁶

But, although economic planning failed, the centre-left governments, from 1963 to 1973, 'did adopt some important measures', and achieved some part of their initial planning goals. As Giovanni Federico and Renato Gianetti put it: 'possibly the most important single [achievement] was the nationalization of the electrical industry',⁶⁷ implemented to break up the traditional monopoly of electrical power supply, which was headed by the Edison Group.⁶⁸ Through nationalizing the generation and distribution of electrical power and the creation of a new agency – Ente Nazionale per l'Energia Elettrica, ENEL – in 1962, the Italian government succeeded in increasing productivity and expanding the distribution network, within only a few years, to all areas, including rural ones. ENEL connected the different regional networks into a unified national one and rationalized the production and distribution of energy, thereby achieving economies of scale and lowering consumer energy prices. Although from a technical point of view, nationalization was an undeniable success, the government's decision to reduce tariffs

⁶³Lavista (2009), 'Business Elites in Italy', p. 149. For the short and medium term goals of the Plan, see, for example, Carabba (1977), *Programmazione*, chapt. V.1–14, pp. 177–215.

⁶⁴Carabba (1977), *Programmazione*, p. 205 ff.

⁶⁵Lavista (2009), 'Business Elites in Italy', p. 147.

⁶⁶(In translation), cf. the homonymous book by Michele Salvati, *Occasioni mancate. Economia e politica in Italia dagli anni '60 a oggi*, Rome: Laterza (2000).

⁶⁷Federico and Giannetti (1999), 'Italy', p. 138.

⁶⁸For a detailed analysis of the nationalization of the Italian electrical industry and the foundation of ENEL, see most importantly, Gian G. Schiavi, *La rivoluzione elettrica. Enel, storia di una nazionalizzazione*, Rome: Adnkronos (1989).

generated a constant deficit in the ENEL budget beginning in the late 1960s; a deficit which was shouldered by the state. In short, cheap energy supply for private households as well as for industry was strongly subsidized.⁶⁹

From a micro-perspective, the main tools of industrial policy in Italy during the 1960s and 1970s were, first and foremost, the subsidization of investment – either with grants or soft loans – and secondly, bail-outs and take-overs of loss-making private industrial enterprises into large state-owned companies in order to protect employment. In other words, a kind of mixture of ‘picking the winner’ as well as ‘helping the loser’ strategies. But this system was not very innovative. Since the late 1940s, the state had already established a proper network of public financial institutions for medium- and long-term credit to promote industries like the *Mediocredito Centrale* and its regional branch offices and subsidiaries, or the *Irfis*, *ISVEIMER* and various other banks.⁷⁰ During the strong growth period up to the early 1960s, the demand for subsidized grants and loans by private industrial enterprises had been relatively low. By contrast, the 1960s and 1970s marked their zenith, and state subsidies accounted for about one-quarter of total fixed investment, and for more than two-thirds of the long-term credits for investments.⁷¹ It is very important to emphasize that ‘financial investment conditions were very favourable’,⁷² especially for investments in Southern Italy. Additionally, other types of subsidies like the partial exemption from welfare payments for southern firms – the *fiscalizzazione degli oneri sociali* – or the subsidies for the temporary laying-off of redundant workers by wage continuation paid by the state – the *cassa integrazione guadagni* – subsequently became more prominent among all industrial firms in crisis throughout the whole country.⁷³

All in all, the territorial direction of the impact that these measures had was quiet clear: more than 80 per cent of the industrial subsidies to investment during this period were distributed to southern projects.⁷⁴ However, when compared to the initial intention, it were the largest private industrial groups of Northern Italy – such as Fiat and Montedison – which collected the lion’s share of subsidized loans and set up giant industrial

⁶⁹Federico and Giannetti (1999), ‘Italy’, p. 139.

⁷⁰Leonardi (2009), ‘Industrial Credit and Special Banks’.

⁷¹Federico and Gianetti (1999), ‘Italy’, p. 139 f.

⁷²Federico (1999), ‘Italian Industrial Policy’, p. 317.

⁷³Kreile (1983), ‘Public Enterprise’, p. 193 f.

⁷⁴Federico (1999), ‘Italian Industrial Policy’, p. 318, see table 11.1 (6).

Table 6.4 Regional value added per labour unit in Southern Italy, 1951–1974 (Central–North Italy = 100)

	1951	1963	1974
Agriculture	108.7	92.6	80.0
Industry	87.0	77.7	86.2
Services	79.7	86.8	92.4
Public administration	97.7	97.8	105.9
Total	82.1	79.5	81.9

Source: Author's own calculation based on ISTAT (1986).

plants in the South with the support of public funds, though often with limited success. Moreover, these large-scale projects, which focused their investments largely on the capital-intensive industries, attracted further local small-and medium-sized processing enterprises only in very few cases. This meant that their settlement had little or no diffusion effect on local entrepreneurship and, therefore, only inadequately stimulated modernization and development of industrial infrastructure in Southern Italy as had been originally intended by the state. Hence, the large chemical or steel plants were often nicknamed 'cathedrals in the desert'.

However, these subsidies for the development of regional industrial structures in South Italy did seem to have a positive impact, especially on the tense labour market situation: during the post-war era, up until the mid 1970s, the number of industrial workers in the southern regions increased significantly⁷⁵ and the per capita GDP in the South rose by an average 4.8 per cent yearly, a rate of growth that nearly equalled the national rate.⁷⁶

6.5 Conclusion

As with many other European countries, but with some differences in emphasis, during the boom period of strong economic growth until 1963, the Italian state intervened directly in the economy, focusing on industry. Even though there was no general, overarching, homogeneous

⁷⁵From 5,803,000 in 1951 up to 8,230,000 workers in 1976. See SVIMEZ, *Un quarto di secolo nelle statistiche Nord-Sud, 1951–1976*, Milan: Giuffrè (1978), p. 530, table 155.

⁷⁶SVIMEZ (1978), *Un Quarto di Secolo*, pp. 575–577, table 164.

long-or medium-term industrial policy strategy, there was, as Stephen Tolliday put it, 'also a quiet coherent macroeconomic logic in the policy of state enterprise in this period'.⁷⁷ As a supplement to private investment in the absence of other capital sources, the state provided capital for large-scale investment in key industries. The main goal of the Italian government was the redistribution of limited national resources for an enhancement of industrial investments selected for and targeted to the improvement of industrial production and the stabilization of national economic growth. Additionally, the primacy of a finally completed industrialization remained valid. The main tools of industrial policy were state-owned enterprises, export subsidies and credit and tax incentives for investments in Southern Italy. The most important sectors were the steel industry, followed by manufacturing industry, the entire energy sector and petroleum industry, and finally chemical industry. After an initial focus of incentives and investments in the northern regions during the immediate post-war years to promote economic recovery, the territorial focuses of state investment and industrial policy during the 1950s were further moved into the regions of the Mezzogiorno.

During the period of incipient structural destabilization in Italy from 1963 to 1973, the Italian government favoured a paradigm shift towards more state interventionism, and set macroeconomic planning at the centre of their political agenda. 'Italy was surely not alone in Europe in adopting macroeconomic planning'. But it was only in Italy, as Giovanni Federico put it, that macroeconomic planning 'acquired the role of panacea for all shortcomings and distortions'.⁷⁸ Within the framework of national economic planning, industrial policies should assume key positions. The fierce political opposition and the conceptual weakness of policy design, as well as the vast difficulties of its implementation, finally led to the failure of all long-term macroeconomic planning in Italy.

Industrial policy was increasingly used as a short-term means to avert and manage crises. The main tools of industrial policy were the subsidization of investments and bailouts. The government made enormous investments in the industrial sector, but with deep negative effects on the state accounts. Even more than in the 1950s, the territorial focus of public investment had been on the south of Italy. All in all – as in the 1950s – heavy industry as well as the chemical sector and the energy sector remained at the centre of industrial policy.

⁷⁷ Tolliday (2000), 'Introduction', p. 245.

⁷⁸ Federico (1999), 'Italian Industrial Policy', p. 313.

To sum up, Giovanni Federico's thesis that state industrial policy had 'very little' impact in size or was 'not at all' significant,⁷⁹ must be revised at least partially. On the one hand, the paradigm shift towards a more interventionist industrial policy that began in the mid 1950s, fostered economic structural change and was effective in supporting high economic growth during the miracle years, in particular by the outstanding performance of the state-owned enterprises. On the other hand, during the long 1960s, the short-term measures of industrial policy in the form of the take-overs of loss-making private firms and their incorporation into industrial state-holdings, transformed them – as Ruggero Ranieri put it – from 'the spearhead of expansion [...] into a sick-bed for inefficient loss-making firms'.⁸⁰ The bailouts and public subsidies led to an inefficient allocation of national economic resources in the long run. This massive waste of public resources, largely inspired by purely political interests, was a very costly failure, and created not only a continuously increasing public deficit, but also a very heavy burden for future economic development as well as for future attempts by Italian governments to implement an efficient industrial policy.

References

- Aga Rossi, Elena (ed.), *Il Piano Marshall e l'Europa*, Rome: Istituto dell'Enciclopedia Italiana (1983).
- Amato, Giuliano, *Il governo dell'industria in Italia*, Bologna: Il Mulino (1972).
- Amatori, Franco, Robert Millward and Pier Angelo Toninelli (eds.), *Reappraising State-Owned Enterprise. A Comparison of the UK and Italy*, New York/London: Routledge (2011).
- Amatori, Franco and Andrea Colli, *Impresa e industria in Italia dall'unità a oggi*, Venice: Marsilio (1999).
- Arena, Giuliana, *Pasquale Saraceno commis d'Etat. Dagli anni giovanili alla Ricostruzione (1903–1948)*, Milan: FrancoAngeli (2011).
- Balconi, Margherita, *La siderurgia italiana (1945–1990). Tra controllo pubblico ed incentivi del mercato*, Bologna: Il Mulino (1991).
- Baratta, Paolo, 'Pasquale Saraceno, La questione meridionale e la questione industriale in Italia secondo Pasquale Saraceno', *Quaderno di Informazioni SVIMEZ*, n.25, Collana Pasquale Saraceno, n. 7. Lezioni sul Mezzogiorno (May 2004).
- Barca, Fabrizio, 'Compromesso senza riforme nel capitalismo italiano', in: Barca, Fabrizio (ed.), *Storia del capitalismo italiano dal dopoguerra a oggi*, Rome: Donizelli (1997), pp. 3–117.

⁷⁹Federico (1999), 'Italian Industrial Policy', p. 331.

⁸⁰Ruggero Ranieri, 'Italy. After the Rewards of Growth, the Penalty of Debt', in: Bernard J. Foley (ed.), *European Economies since the Second World War*, London/New York: Macmillan Press and St. Martin's Press (1998), p. 82.

- Barca, Fabrizio and Sandro Trento, 'La parabola delle partecipazioni statali: una missione tradita', in: Barca, Fabrizio (ed.), *Storia del capitalismo italiano dal dopoguerra a oggi*, Rome: Donizelli (1997), pp. 186–236.
- Battilani, Patrizia and Francesca Fauri, *Mezzo secolo di economia italiana 1945–2008*, Bologna: Il Mulino, (2008).
- Bonuglia, Roberto, 'Tre valtelinesi al servizio dello Stato: Saraceno, Vanoni e Paronetto', *Elite & Storia*, n.s., a. II, n. 1 (gennaio 2006), pp. 44–64.
- Buccianti, Giovanni, *Enrico Mattei: assalto al potere petrolifero mondiale*, Milan: Giuffrè (2005).
- Carabba, Manin, *Un ventennio di programmazione 1954–1974*, Rome: Laterza (1977).
- Carnevali, Francesca, 'State Enterprise and Italy's "Economic Miracle": The Ente Nazionale Idrocarburi, 1945–1962', *Enterprise & Society* 1 (June 2000), pp. 249–278.
- Castronovo, Valerio, *L'industria italiana dall'Ottocento a oggi*, Milan: Arnoldo Mondadori (1980).
- Centro Europa Ricerche (CER) – Istituto per la Ricerca Sociale (IRS), *Quale strategia per l'industria? Rapporto sull'industria e la politica industriale italiana*, Bologna: Il Mulino (1986).
- Centro di ricerca e documentazione 'Luigi Einaudi' (ed.), *Le baronie di Stato*, Turin: Centro Luigi Einaudi (1968).
- Cohen, Jon S. and Giovanni Federico, *The Growth of the Italian Economy, 1820–1960*, Cambridge: Cambridge University Press (2001).
- Colitti, Marcello, *ENI – Cronache dall'interno di un'azienda*, Milan: EGEE (2008).
- Coltti, Marcello, *Energia e sviluppo in Italia. La vicenda di Enrico Mattei*, Bari: De Donato (1979).
- Crafts, Nicholas F. and Terence C. Mills, 'Europe's Golden Age: An Econometric Investigation of Changing Trend Rates of Growth', in: van Ark, Bart and Nicholas F. Crafts (eds.), *Quantitative Aspects of Post-War European Economic Growth*, Cambridge: Cambridge University Press (1996), pp. 415–431.
- Crafts, Nicholas F., 'The Golden Age of Economic Growth in Western Europe, 1950–1973', *The Economic History Review. New Series*, Vol. 48, No. 3 (Aug. 1995), pp. 429–447.
- Crainz, Guido, *Storia del Miracolo Italiano. Culture, identità, trasformazioni fra anni cinquanta e sessanta*, Rome: Donizelli (1996).
- Crescenza, Antonella (ed.), *I Documenti di Programmazione. Una lettura della politica economica in Italia dal Piano Marshall al DPEF 2008–2011*, Rome: LIUSS University Press (2007).
- Cristiano, Carlo, 'Come si fa una politica di programmazione. Pasquale Saraceno e i lavori della Commissione Nazionale per la Programmazione Economica', *Rivista Italiana degli Economisti*, vol. 11 (2006), pp. 297–308.
- Di Michele, Andrea, *Storia dell'Italia Repubblicana 1948–2008*, Milan: Garzanti (2008).
- Esposito, Chiarella, *America's Feeble Weapon. Funding the Marshall Plan in France and Italy. 1948–1950*, London: Greenwood Pub. Group Inc. (1994).
- Faucci, Riccardo (ed.), *Economic Policy during the Planning Era in Italy. Theory, History, and Documents*, Pisa: Fabrizio Serra (2009).
- Fauri, Francesca, *L'Italia e l'integrazione economica europea. 1947–2000*, Bologna: Il Mulino (2001).

- Fauri, Francesca, 'The Marshall-Plan in Italy. Industrial Renewal and Material Reconstruction', in: Fauri, Francesca and Paolo Tedeschi (eds.), *Novel Outlooks on the Marshall-Plan. American Aid and European Re-Industrialisation*, Brussels: Lang (2011), pp. 39–58.
- Federico, Giovanni, 'Harmful or Irrelevant? Italian Industrial Policy, 1945–1973', in: Miyajima, Hideaki, Takeo Kikkawa and Takashi Hikino (eds.), *Policies for Competitiveness. Comparing Business-Government Relationships in the Golden Age of Capitalism*, Oxford: Oxford University Press (1999), pp. 309–335.
- Federico, Giovanni and Renato Giannetti, 'Le politiche industriali', in: Amatori, Franco et al. (eds.), *Storia d'Italia. Annali. L'industria*, Turin: Giulio Einaudi (1999), pp. 1127–1162.
- Federico, Giovanni and Renato Gianetti, 'Italy: Stalling and Surpassing', in: Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth Century Experience*, Oxford: Oxford University Press (1999), pp. 124–151.
- Ferrari Aggradi, Mario, *Le partecipazioni statali nella politica di sviluppo*, Rome: Istituto Poligrafico dello Stato (1959).
- Foreman-Peck, James and Giovanni Federico, 'Industrial Policies in Europe: Introduction', in: Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth Century Experience*, Oxford: Oxford University Press (1999), pp. 1–17.
- Gazzetta Ufficiale della Repubblica Italiana* (various numbers/years).
- Ginsborg, Paul, *Storia d'Italia 1943–1996, Famiglia, società, Stato*, Turin: Giulio Einaudi (1998).
- Grabas, Christian, 'Der Marshall-Plan als Stabilisator der sozioökonomischen Entwicklung Italiens während der Nachkriegszeit (1948–1952)', *Berichte. Forschungsinstitut der Internationalen Wissenschaftlichen Vereinigung Weltwirtschaft und Weltpolitik (IWWWW) e.V.*, 17. Jg., Nr.176/177 (Juli/August 2007), pp. 145–158.
- Graziani, Augusto (ed.), *Crisi e ristrutturazione nell'economia italiana*, Turin: Giulio Einaudi (1975).
- Graziani, Augusto, *L'Economia italiana dal 1945 a oggi*, Bologna: Il Mulino (1989).
- Gualerni, Gualberto, *Economia e Politica Industriale: Il Caso Italiano, volume secondo 1945–1972*, Turin: G. Giappichelli (1988).
- Gualerni, Gualberto, *Economia Aperta. Un Approccio Storico all'Economia e Politica Industriale in Italia: 1860–1996*, Turin: G. Giappichelli (1999).
- Harper, John L., *L'America e la ricostruzione dell'Italia 1945–1948*, Bologna: Il Mulino (1987).
- Hertner, Peter, 'Italien 1915–1980', in: Fischer, Wolfram (ed.), *Europäische Wirtschafts- und Sozialgeschichte vom Ersten Weltkrieg bis zur Gegenwart. Handbuch der Europäischen Wirtschafts- und Sozialgeschichte*, Stuttgart: Klett-Cotta (1987), pp. 998–1047.
- ISTAT, *Sommario di statistiche storiche 1926–1985*, Rome: Gratiche Chicca & C. s.n.c. (1986).
- Italia. Ministero del bilancio, 'Rapporto del vicepresidente della Commissione nazionale per la programmazione economica (Cnpe)', Servizio Informazioni della Presidenza del Consiglio, Rome: Istituto Poligrafico dello Stato (1964).
- Ivone, Diomede (ed.), *Cultura, Stato e Mezzogiorno nel pensiero di Pasquale Saraceno*, Napels: Editoriale Scientifica (2004).

- Kreile, Michael, 'Public Enterprise and the Pursuit of Strategic Management: Italy', in: Dyson, Kenneth and Stephen Wilks (eds.), *Industrial Crisis. A Comparative Study of the State and Industry*, Oxford: Martin Robertson (1983), pp. 193–219.
- La Malfa, Ugo, *Nota aggiuntiva su problemi e prospettive dello sviluppo economico e della programmazione in Italia, nota presentata al parlamento dal ministro del bilancio Ugo La Malfa il 22 maggio 1962*, Rome: Janus (1973).
- Lavista, Fabio, 'Business Elites in Italy and the Failure of the National Planning Policies as a Vision of Development', in: Sattler, Friederike und Christoph Boyer (eds.), *European Economic Elites. Between a New Spirit of Capitalism and the Erosion of State Socialism*, Schriften zur Wirtschafts- und Sozialgeschichte, Bd. 84, Berlin: Duncker & Humblot (2009), pp. 129–152.
- Lavista, Fabio, *La stagione della programmazione. Grandi imprese e Stato dal dopoguerra agli anni Settanta*, Bologna: Il Mulino (2010).
- Leonardi, Andrea, 'Industrial Credit and Special Banks in Relaunching the Italian Banking System after World War II', in: Bonoldi, Andrea and Andrea Leonardi (eds.), *Recovery and Development in the European Periphery (1945–1960)*, Bologna/Berlin: Il Mulino/Duncker & Humblot (2009), pp. 201–240.
- Lutz, Vera, *Italy. A Study in Economic Development*, Oxford: Oxford University Press (1962).
- Maddison, Angus, *Monitoring the World Economy 1820–1992*, Paris: OECD (1995).
- Marglin, Stephen A. and Juliet B. Schor (eds.), *The Golden Age of Capitalism. Reinterpreting the Postwar Experience*, Oxford: Oxford University Press (1992).
- Morcaldo, Giancarlo, *Intervento pubblico e crescita economica: un equilibrio da ricostruire*, Milan: FrancoAngeli (2007).
- Mori, Giorgio, 'Die italienische Wirtschaft 1945–1963. Von der Aufholjagd bis zum Ende des "Golden Age"', in: Rusconi, Gian E. and Hans Woller (eds.), *Parallele Geschichte? Italien und Deutschland 1945–2000*, Berlin: Duncker & Humblot (2006), pp. 375–412.
- Osti, Gian L., *L'industria di stato dall'ascesa al degrado. Trent'anni nel gruppo Finsider. Conversazioni con Ruggero Ranieri*, Bologna: Il Mulino (1993).
- Pellè, Loredana, *Mezzogiorno e piano Marshall dal 1947 al 1952*, Manduria (Taranto): P. Lacaita (2009).
- Perrone, Nico, *Il dissesto programmato. Le partecipazioni statali nel sistema di consenso democristiano*, Bari: Dedalo (1992).
- Pescatore, Gabriele, *L'intervento straordinario nel Mezzogiorno d'Italia*, Milan: Giuffrè (1962).
- Petri, Rolf, 'Dalla ricostruzione al miracolo economico', in: Sabbatucci, Giovanni and Vittorio Vidotto (eds.), *Storia d'Italia, vol. 5, La Repubblica 1943–1963*, Rome-Bari: Laterza (1997), pp. 313–440.
- Petri, Rolf, *Von der Autarkie zum Wirtschaftswunder. Wirtschaftspolitik und industrieller Wandel in Italien 1935–1963*, Tübingen: Max Niemeyer (2001).
- Petri, Rolf, *Storia economica d'Italia. Dalla grande guerra al miracolo economico (1918–1963)*, Bologna: Il Mulino (2002).
- Pini, Massimo, *I giorni dell'IRI – Storie e misfatti da Beneduce a Prodi*, Milan: Arnoldo Mondadori (2004).
- Posner, Michael V. and Stuart J. Woolf, *Italian Public Enterprise*, Cambridge, MA: Harvard University Press (1967).

- Pozzi, Daniele, 'Techno-Managerial Competences in Enrico Mattei's AGIP: A Prolonged Accumulation Process in an International Network, 1936–1965', *Business and Economic History Online* (2003), vol. 1, pp. 1–32.
- Prodi, Romano and Daniele De Giovanni, 'Forty-Five Years of Industrial Policy in Italy: Protagonists, Objectives and Instruments', in: Baldassari, Mario (ed.), *Industrial Policy in Italy, 1945–90*, Basingstoke: Palgrave Macmillan (1993), pp. 31–55.
- Ranieri, Ruggero, 'Il Piano Marshall e la ricostruzione della siderurgia al ciclo integrale', *Studi Storici*, Anno 37, Nr.1, 'Italia, Europa, America. L'integrazione internazionale dell'economia italiana (1945–1963)', (1996), pp. 171–182.
- Ranieri, Ruggero, 'Italy: After the Rewards of Growth, the Penalty of Debt', in: Foley, Bernard J. (ed.), *European Economies since the Second World War*, London/New York: Macmillan Press/St. Martin's Press (1998), pp. 75–101.
- Ranieri, Ruggero, 'Storia delle acciaierie di Cornigliano dal 1929 ad oggi', in: Istituto Franco Momigliano (ICSIM), *Steelmaster*, Edizione 2007 (2007).
- Rapporto Marsan, 'L'Istituto per la Ricostruzione Industriale – I.R.I. – Elementi per la sua storia dalle origini al 1982', Documento interno, Rome (unpublished) (1992).
- Ritrovato, Ezio, 'Post-War Recovery in the South of Italy. Dishomogeneous Development and Regional Differences', in: Bonoldi, Andrea and Andrea Leonardi (eds.), *Recovery and Development in the European Periphery (1945–1960)*, Bologna/Berlin: Il Mulino/Duncker & Humblot (2009), pp. 63–86.
- Rossi, Nicola and Gianni Toniolo, 'Italy', in: Crafts, Nicholas F. and Gianni Toniolo (eds.), *Economic Growth in Europe since 1945*, Cambridge: Cambridge University Press (1996), pp. 427–454.
- Salvati, Mariuccia, 'The Long History of Corporatism in Italy: A Question of Culture or Economics?', *Contemporary European History*, 15, 2 (2006), pp. 223–244.
- Salvati, Michele, *Economia e politica in Italia dal dopoguerra a oggi*, Milan: Garzanti (1984).
- Salvati, Michele, *Occasioni mancate. Economia e politica in Italia dagli anni '60 a oggi*, Rome-Bari: Laterza (2000).
- Saraceno, Pasquale, *Elementi per un piano quadriennale di sviluppo dell'economia italiana*, Rome: Istituto Poligrafico dello Stato (1948).
- Saraceno, Pasquale, *Lo stato e l'economia*, Rome: 5 Lune (1963).
- Saraceno, Pasquale, *Il sistema delle imprese a partecipazione statale nell'industria italiana*, Milan: Giuffrè (1975).
- Schiavi, Gian G., *La rivoluzione elettrica: Enel, storia di una nazionalizzazione*, Rome: Adnkronos (1989).
- Seitz, Michael J., *Staatliche Industriepolitik. Begründungen, Instrumente und Probleme*, Baden-Baden: Nomos (2000).
- Serra, Enrico, 'Dall'unione doganale italo-francese alla CECA', in: Schwabe, Klaus (ed.), *Die Anfänge des Schuman-Plans 1950/51*, Baden-Baden: Nomos (1988), pp. 171–195.
- Spagnolo, Carlo, *La stabilizzazione incompiuta. Il piano Marshall in Italia (1947–1952)*, Rome: Carocci (2001).
- SVIMEZ, *Un Quarto di Secolo nelle Statistiche Nord-Sud. 1951–1976*, Milan: Giuffrè (1978).
- Tolliday, Steven W., 'Introduction: Enterprise and State in the Italian "Economic Miracle"', *Enterprise & Society* 1 (June 2000), pp. 241–248.

- Toninelli, Pier A. and Michelangelo Vasta, 'State-Owned Enterprises (1936–83)', in: Colli, Andrea and Michelangelo Vasta (eds.), *Forms of Enterprise in 20th Century Italy. Boundaries, Structures and Strategies*, Cheltenham/Northampton: Edward Elgar (2010), pp. 52–86.
- Varsori, Antonio, 'Le scelte internazionali', in: Sabbatucci, Giovanni and Vittorio Vidotto (eds.), *Storia d'Italia, vol. 5, La Repubblica 1943–1963*, Rome-Bari: Laterza (1997), pp. 253–312.
- Vigna, Guido, *Pasquale Saraceno. L'uomo che voleva unificare l'Italia*, Milan: Rusconi (1997).
- Wachtler, Ulrike, 'Il Piano Sinigaglia. Il progetto di rifondazione e ristrutturazione dell'industria siderurgica italiana nel periodo 1948–1952', in: Istituto Franco Momigliano (ICSIM), *Steelmaster*, Edizione 1999 (1999).
- Woller, Hans, *Geschichte Italiens im 20. Jahrhundert*, Munich: Beck (2010).
- Zamagni, Vera, *Lo stato italiano e l'economia. Storia dell'intervento pubblico dall'unificazione ai giorni nostri*, Florence: E. Ariani (1981).
- Zamagni, Vera (ed.), *Nuovo meridionalismo e intervento straordinario: la SVIMEZ dal 1946 al 1950*, Bologna: Il Mulino (1988).
- Zamagni, Vera, *Dalla periferia al centro. La seconda rinascita economica dell'Italia 1861–1981*, Bologna: Il Mulino (1990).
- Zamagni, Vera, 'Un'analisi macroeconomica degli effetti della guerra', in: Zamagni, Vera (ed.), *Come perdere la guerra e vincere la pace. L'economia italiana tra guerra e dopoguerra, 1938–1947*, Bologna: Il Mulino (1997), pp. 13–51.

7

Was it a Spanish miracle? Development plans and regional industrialization, 1950–1975¹

Joseba De la Torre and Mario García-Zúñiga

Public University of Navarre and University of the Basque Country UPV/EHU

Miracle: 1. An extraordinary and welcome event that is not explicable by natural or scientific laws and is therefore attributed to a divine agency. 2. A remarkable event or development that brings very welcome consequences. *Oxford Dictionary*.

7.1 Introduction

Spain's economic history over the last 50 years is marked by a sequence of extreme booms and busts. The periods of growth and recession have been of such intensity that Spain, in spite of itself, has swung from 'economic miracle' to 'outcast' among the countries of the EU. After discounting exogenous factors, economists have attributed the gravity of each crisis to some of the endogenous factors that sustained the growth pattern of the boom years. While in 2011 the blame for the fall and stagnation of GDP was laid squarely at the door of the 'brick economy' and high private and business debt,² the depth of the economic downturn of 1978 was attributed to liabilities accumulated during years of frenzied pursuit of economic development. The key factor is identified as the combined effect of a dictatorship applying ineffective government interventionism, while shying away from basic structural reforms and enforcing industrial policy that resulted in an inefficient economy

¹Financial support from the Ministry of Science and Technology, Spain's Government (HAR 2009-9700/HIST) and from the Basque Government (Consolidated Research Groups IT337-10 and IT807-13) is gratefully acknowledged.

²Fundación de Estudios de Economía Aplicada, *The Crisis of the Spanish Economy*, Madrid: Fundación de Estudios de Economía Aplicada Annual Policy Conference (2009).

that was highly sensitive to international market trends.³ In short, the state and industrialization played key roles in defining the kind of economic miracle that took place in Spain between 1950 and 1975 and the years of deep and prolonged crisis that have followed.

Now, half a century later, and with the benefit of hindsight, it falls to economic historians to analyse the events of that period and re-examine some of the pieces of what is a complex puzzle. Our task revolves around three principal objectives. We must first examine Spain's experience against the background of Western European dynamics and then sum up the nature and main macroeconomic consequences of industrial development policies applied during the dictatorship. Finally, we need to examine the mid-to-long-term impact of regional development policies, both in areas of the country selected by the government for industrial development and in the provinces institutionally equipped to follow the government's model for promoting economic development. We are convinced of the need for such a long-term perspective because much of the reasoning against long-term regional development policy, from critics both within and outside of Spain, is based on two main arguments. One view is that, while in force, the plans were expected to possess the power of a demiurge basis to spur on the development process and achieve short-term catch-up growth. This, however, ignores the fact that these instruments require a longer evaluation period.⁴ Others argue that the negative effect of the 1970s' industrial crisis throughout Western Europe on the key economic sectors affected by indicative planning and regional policy caused the plans to fail.⁵ The ruins provided a breeding ground for criticism of the planners of the Golden Age, which sparked off a deep-running debate regarding the state's role in the economy.

7.2 Spanish planning from the European perspective

Broadly speaking, Spain's industrial policy and government planning for the promotion of economic growth in the mid 1950s was largely a

³Jordi Catalan, 'Del milagro a la crisis. La herencia económica del franquismo', in: Miren Etxezarreta (ed.), *La reestructuración del capitalismo en España*, Barcelona: Icaria (1991), pp. 95–132. Albert Carreras and Xavier Tafunell, *Historia económica de la España contemporánea (1789–2009)*, Barcelona: Crítica (2010), pp. 369–371.

⁴Elio Cerrito, 'I poli di sviluppo nel Mezzogiorno. Per una prospettiva storica', *Studi Storici* 51, no. 3 (2010), p. 796.

⁵Lloyd Rodwin and Hidehiko Sazanami (eds.), *Industrial Change and Regional Economic Transformation. The Experience of Western Europe*, London: Harper Collins Academic (1991), pp. xi–xiii.

delayed attempt to copy what was being tried out in the rest of Western Europe, but with two main differences. One is that Spain's *European style* planned economy began at a later date; the other is that events were being managed by a dictatorship and would, therefore, never completely mirror what was going on north of the Pyrenees. The new post-1945 institutional framework for international economic relations and the commitment of democratic governments to promote a growth model combining economic development with social equality simultaneously triggered two apparently contradictory mechanisms: liberalization and planning. Both these factors had a powerful, albeit unequal, impact on economic policy and business management that gave rise to the mixed economy concept, which resulted in expanded markets and the founding of the welfare state throughout what is referred to as the Golden Age.⁶ Economic science embraced this concept as its own, and it was this sort of Keynesian thinking that helped to shape the decisions of Western governments and international organizations facing post-war urgencies, the task of rebuilding Europe and, later, in sustaining development. This led to the establishment of new priorities and the design of new economic planning and management tools. Large-scale industrialization, the opening-up of the economy and concerted action were meant to align the national market and institutions, and reconcile the interests of the country's leaders with those of its businessmen and workers. There was no question about liberalization abroad. Planning was the all-pervading note.

With some nuances, the plan generally adhered to indicative principles for the private sector and normative principles for the public sector across all capitalist countries, nearly all of which resorted to the same financial and fiscal toolbag to encourage private initiative and apply a political strategy aimed at spreading development, while simultaneously addressing inequality between rich and poor regions. Government plans included building infrastructure and services, regional industrialization, improvements in technical education, utilization of the country's available physical resources and freeing-up public funds to draw in private capital.⁷ France is known to have been the paradigm of

⁶Nicholas F. Crafts and Gianni Toniolo, *Economic Growth in Europe since 1945*, Cambridge: Centre for Economic Policy Research (1996), pp. 16–20. Derek H. Aldcroft, *Historia de la economía europea (1914–1990)*, Barcelona: Crítica (1997), pp. 182–189. Ivan T. Berend, *An Economic History of Twentieth-Century Europe*, Cambridge: Cambridge University Press (2006), pp. 192–197.

⁷Jean Vergeot, *Les plans dans le monde. Expériences et enseignements*, Paris: France-Empire (1970). For Spain, Joseba De la Torre and Mario García-Zúñiga (eds.),

indicative planning and, as such, stood as an outstanding example to the rest of the old continent. In very simple terms, capitalist Europe can be divided into the southern European countries – Spain, Portugal, Italy, Greece and Turkey – which resorted to planning *strictu sensu* and those of northern Europe – Great Britain, the Benelux countries, Scandinavia and the Federal Republic of Germany – which opted for concerted, more flexible, action between the public and private sectors. In other words, Europe's wealthy nations, with their burgeoning welfare states, were less orthodox in their style of organizational planning than its developing countries. We believe that the latter group's decision to opt for indicative planning was based on two deciding factors. One is that it was one of the requisites when applying for technical assistance and financial aid from the EOEC and the World Bank. The other is that it was very much in tune with the authoritarian style of the political regimes that prevailed in the Iberian Peninsula and Turkey, and also with the intrinsic weaknesses of the Italian and Greek democracies. It was a solution that governments and economic elites were able to impose without provoking too much political debate.

Thus, it comes as no surprise that the model adopted by Franco's authorities to reconcile the necessary liberalization of foreign trade with increasing state intervention in domestic affairs was that of France, the most highly bureaucratized and technocratic of all Western European models. However, although simply copying another government's mode of action was easy, it did not necessarily mean it would work. Spain could not match France either in economic development or human capital, nor did it possess the fiscal resources of a strong state or a powerful public banking system, which were the combined factors that had bolstered the effectiveness of the planning process in France, at least in its initial stages. Spain, furthermore, remained under dictatorial rule, which meant that, while embracing planning, it ignored equality. It is not surprising, therefore, that by the end of the 1960s this form of indicative planning was being very poorly rated by some Spanish economists, as it had weakened the push towards liberalization resumed in 1959, instituted an inequitable form of distribution of public revenues among the privileged classes and exhibited a number of relative failures or very partial successes in terms of regional development policy. It had also financed ailing sectors of industry and prevented Spain from

attaining its full growth potential during the era of economic developmentism.⁸ In absolute terms, however, while this criticism may have been loaded with evidence, our theory is that the Spanish case, despite its peculiarities, was another example of southern European indicative planning. In other words, our view is that such criticism shows a lack of perspective with respect to an issue that calls for a comparative history treatment. The economic policy of the Franco era is still being interpreted as yet another aspect of Spain's exceptional character and as one of the regime's propaganda tools. It is a proven fact that, from 1939, the dictatorship committed a series of economic aberrations that distorted the market, with unashamed government interventionism that failed to diminish even under the masquerade of economic development discourse after 1959 and continued to hamper the nation's economic efficiency. Nevertheless, during the Golden Age, the story of *laissez-faire* economics with government presence was a constant in developed, underdeveloped and emerging countries.⁹ Governments and economists so firmly believed that economic growth could be boosted by reconciling the state with the market, that the model was adopted everywhere, albeit, of course, with very different outcomes. Spain's economic policy in the 1960s was its own version of the government intervention model that international bodies recommended for developing countries.

7.3 Growth and structural change in Spain (1950–1975)

Between 1950 and 1975, Spain's industrial economy experienced a prolonged period of growth, the characteristics of which changed distinctly after 1959, which was when the so-called 'Plan for Economic Stabilization and Liberalization' came into force. The effect of this plan was, first, to put an end to the period of political autarchy that had begun with the civil war and later, in the words of one of its artificers, to sow the seeds of economic development.¹⁰ Economists and economic historians have drawn an overall picture of the Spanish development model that pin-

⁸Henry W. Richardson, *Política y planificación del desarrollo regional en España*' Madrid: Alianza (1975), pp. 139–140. Carreras and Tafunell (2010), *Historia económica*, p. 360: 'Spain prospered economically despite of, rather than thanks to, this strategy of global interventionism.'

⁹James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth-Century Experience*, Oxford and New York: Oxford University Press (1999), p. 13. Berend (2006), *Economic History*, pp. 213–218.

¹⁰Enrique Fuentes Quintana, 'Tres decenios de la economía española en perspectiva', in: José Luis García Delgado (ed.), *España. Economía*, 6th ed., Madrid: Espasa (1989), pp. 8–17.

points its origins in the substitutive import strategy of the 1950s, and the resulting need to undertake an economic liberalization programme that drew its initial inspiration from international bodies and vaguely mirrored the steps taken by the Western world after 1945. By that same interpretation, it was not long before economic liberalism became weighed down and held back by the new brand of government interventionism that was inherent in the development plans. The fact that both decisions were taken by the same government appears to have been overlooked. Be that as it may, liberalization and interventionism formed the background to a period that simultaneously witnessed the gathering pace of structural change, the decline of the agricultural sector, the spread of industrialization and the emergence of the service sector.

The government's strategy to accelerate industrialization resorted to ploys both old and new (Figure 7.1). While a high level of industrial protectionism continued to prevail over the domestic market (which was plagued by regulations and quantitative restrictions on imports, forced to use domestically-produced intermediate inputs and oriented towards weak-demand sectors), the country began to experience the positive effects of a gradual opening-up to the outside that allowed a massive inflow of foreign capital and technology. The industrial policy, as such, had to wait until 1962/63. Gregorio López-Bravo, appointed as Minister for Industry following the retirement of Suanzes and Planell (artificers of the National Institute of Industry and industrial policy since 1940), symbolized the new face of government intervention.¹¹ Thus, reforms in the banking system were introduced in order to guarantee funding for industries (through the official credit banks and the strengthening of legal instruments forcing banks and savings institutions to invest an increasing percentage of their assets in government-designated industries).¹² Institutionally speaking, all tax breaks and subsidies were organized centrally by the Ministry of the Presidency,

¹¹Francisco Comín and Pablo Martín-Aceña, 'La acción regional del Instituto Nacional de Industria, 1941–1976', in: Jordi Nadal and Albert Carreras (eds.), *Pautas regionales de la industrialización española (siglos XIX y XX)*, Barcelona: Ariel (1990), pp. 378–419. Mikel Buesa and Luis Eduardo Pires, 'Intervencionismo estatal durante el franquismo. La regulación de la inversión industrial en España (1963–1980)', *Revista de Historia Industrial*, no. 21 (2002), pp. 159–187.

¹²Manuel-Jesús González, *La economía española del franquismo, 1940–1970. Dirigismo, mercado y planificación*, Madrid: Tecnos (1979), p. 330. Gabriel Tortella and Juan Carlos Jiménez, *Historia del Banco de Crédito Industrial*, Madrid: Alianza (1986), pp. 12–26. Pedro Fraile Balbin, 'Spain. Industrial Policy under Authoritarian Politics', in: Foreman-Peck and Federico (1999), *European Industrial Policy*, pp. 233–267.

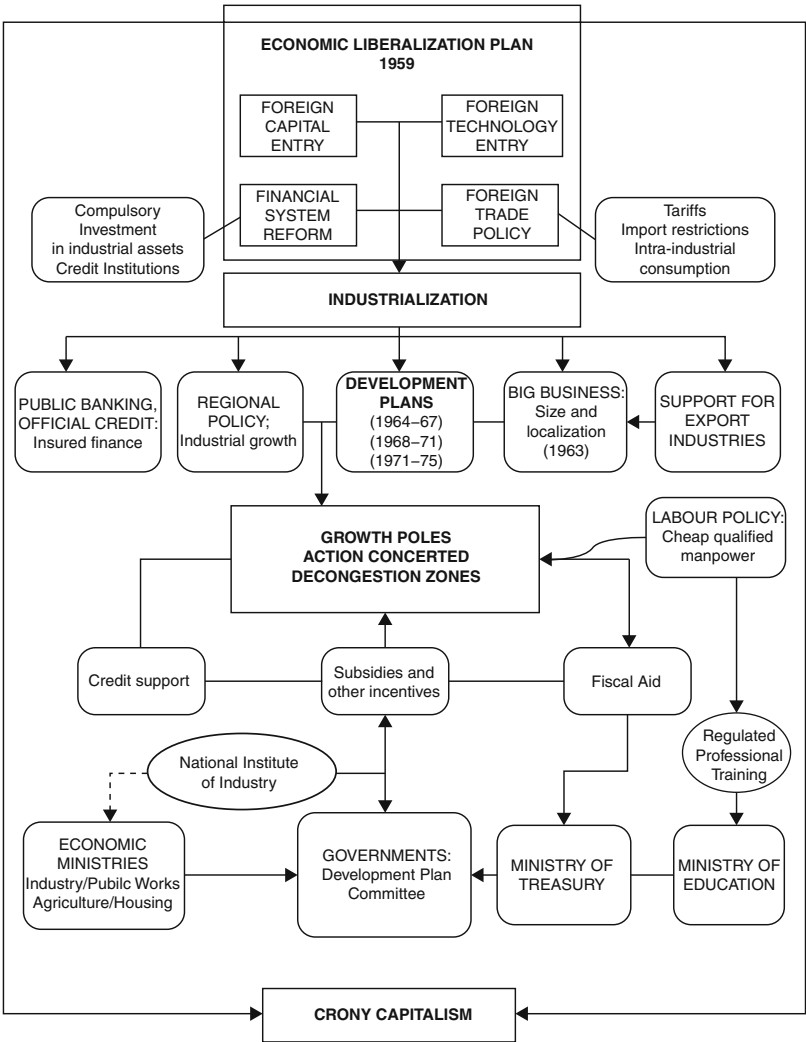


Figure 7.1 Spanish industrial policy, 1959–1975

Source: Author's elaboration.

upon which the Development Plan Commission depended. The said commission was supposed to coordinate the individual public spending policies of the various economic ministries affected by the plans (Industry, Public Works, Agriculture, Housing and Education), thereby

taking over functions that had previously been the domain of the Treasury and unleashing a covert struggle between interest groups within government, all vying for public money.¹³ This provided an ideal framework to allow funding privileges for certain business sectors, and encouraged the kind of behaviour typical of crony capitalism.

The development plans set up specific industrial investment incentive schemes (growth poles, concerted action, decongestion zones and so on), subsidies for factories oriented towards exporting manufactured goods and incentives to encourage mergers between large enterprises. Politicians and economists alike were convinced of the capacity of basic industries and semi-durable consumer goods manufacturers (automobiles, domestic appliances and so on) to drive the economy. This new policy, in conjunction with foreign investment facilities and financial advantages, guaranteed effective protection for the nascent industries; especially for car manufacturers. During the developmentalism era, legislation stated that 90 per cent of input factor consumption in assembly plants had to be domestically produced.¹⁴

An overall view of industrial development during that period reveals not only a record secondary-sector growth rate (the highest in the world after that of Japan), but also a predominance of labour-intensive over technology-intensive industries, which also exacerbated the country's dependence on foreign technology and energy (in other words, an industrial base with major weaknesses that augured badly for the future). The nation almost doubled its industrial output during the 1950s, and by the 1960s its output level was five times higher than that of 1950.¹⁵ The regional impact of this was the strengthening of the highly industrialized regions and the spread of manufacturing production, which finished with the arrival of a number of latecomers

¹³Francisco Comín and Rafael Vallejo, 'Los programas de inversiones públicas (1964–1976): El instrumento presupuestario al servicio del desarrollo?', in: De la Torre and García-Zúñiga (2009), *Entre el Mercado y el Estado*, pp. 89–146.

¹⁴Jordi Catalan, 'La creación de la ventaja comparativa en la industria automovilística española, 1898–1996', *Revista de Historia Industrial*, no. 18 (2000), pp. 135–155, here p. 135. José Luis García Ruiz, 'La evolución de la industria automovilística española, 1964–1999. Una perspectiva comparada', *Revista de Historia Industrial*, no. 19–20 (2001), pp. 138–152, here p. 142.

¹⁵Albert Carreras, *Industrialización española. Estudios de historia cuantitativa*, Madrid: Espasa Calpe (1990), pp. 162–163. Antonio Parejo, 'Industrialización, desindustrialización y nueva industrialización de las regiones españolas (1950–2000). Un enfoque desde la historia económica', *Revista de Historia Industrial*, no. 20 (2001), pp. 15–75.

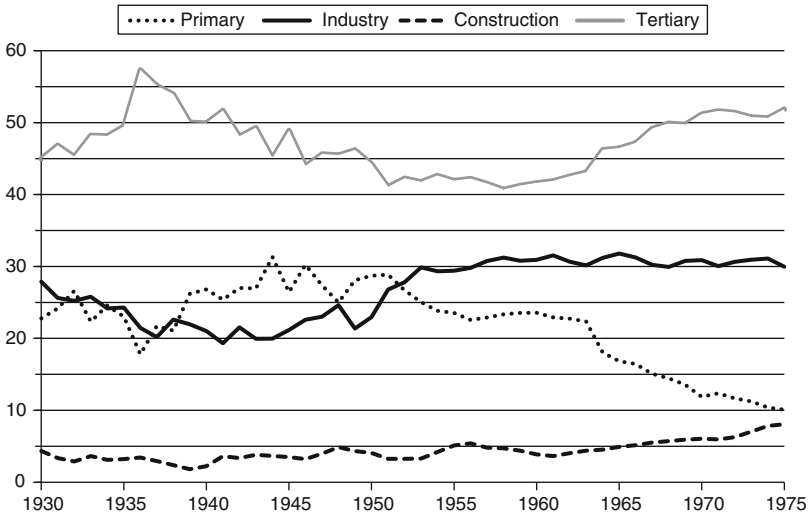


Figure 7.2 Spain's gross domestic product (GDP) by sector, 1930–1975 (in percentages)

Source: Leandro Prados de la Escosura (2003), pp. 581–585.

to the industrialization process, parallel to a ‘tertiarization’ process of equal intensity in regions with and without a history of manufacturing. The intensity of this structural change earned it the description of ‘economic miracle’ (Figure 7.2).

7.4 The regional impact of the developmentalist policy for industry

In order to test and weigh up the effectiveness of the economic development model, we need to examine how it worked in the provinces that made up the direct scenario of one of the most active policies for regional and industrial growth: the growth pole policy.¹⁶ Among these, we include the seven provinces selected by the planning commission to benefit from the growth pole policy. These were Burgos, Valladolid and Zaragoza in inland Spain; Huelva and Seville in the south; and

¹⁶Joseba De la Torre and Mario García-Zúñiga, ‘El impacto a largo plazo de la política industrial del desarrollismo español’, *Investigaciones de Historia Económica*, 9, no. 1 (2013), pp. 43–53.

La Coruña and Pontevedra on the Cantabrian coast of Spain. We also include the northern provinces of Álava and Navarre, which stand as examples of industrial promotion by local institutions. Being blessed with the comparative advantage of fiscal and financial autonomy from central government, Álava and Navarre were able to observe themselves in the Spanish mirror while designing their own development programmes. Firms setting up in the government-designated regions were entitled to special temporary tax benefits and exemptions and, above all, funding facilities. They were also eligible to claim back from the government 10 to 20 per cent of their investment in the form of direct subsidies and received preferential treatment when applying for official credit.

Apart from these institutional factors (which were not applied systematically until 1964), we do not rule out the possible influence of more strictly market factors in bolstering Spain's 1950 to 1975 period of economic dynamism. The return to the economic growth levels and well-being that had been lost during the civil war, and the prolonged post-war period of political autarchy, stirred the markets and created business opportunities. In some regions, private initiative responded to this awakening of demand by increasing their investment activity and seeking to profit from the prevailing economic and institutional environment. It is a known fact that the results were better in some regions than in others. This begs an explanation as to why some regions succeeded in catching up developmentally while others failed. It also means that our analysis must transcend beyond the short-term impact and explore the mid-to-long-term effects on the country's economy.

A look at trends in the sectorial distribution of economic activity and industrial GVA data for those nine regions between 1940 and 1975 suggests an exponentially increasing rate of structural change and industrialization after 1950, albeit with substantial cross-regional differences (Tables 7.1 and 7.2). In employment terms, although industrial development had already taken off prior to the era of growth-oriented interventionism, it showed real strength only in Álava and Navarre (where employment in factories had risen by 31 and 25 points, respectively). Of the remaining regions only Valladolid (+19) at some distance, and Zaragoza (+12) at an even greater distance, registered increases above the national average (+8). Thus, in 1975, these four could be described as industrialized provinces, although it is important to add that industrialization took place 10 to 15 years earlier in Álava (1960) and Navarre (1965) than in the two top-ranking growth poles in job-creation terms. 1950 to 1965 was also a period of spectacular growth in industrial

Table 7.1 Industrial employment in the growth pole provinces in Spain, 1940–1975 (in percentages; decimals rounded)

	1940	1945	1950	1955	1960	1965	1970	1975	1965–1975
Álava	17	21	23	28	30	41	46	48	7
Navarre	9	14	15	17	21	27	31	34	8
Burgos	13	13	13	14	14	16	18	21	5
La Coruña	8	8	10	10	12	13	14	16	3
Huelva	16	14	14	15	17	18	19	20	2
Seville	18	16	15	15	16	18	19	19	2
Valladolid	12	11	11	13	15	20	24	31	11
Pontevedra	10	10	11	11	13	15	15	17	3
Zaragoza	15	16	15	19	19	24	26	28	3
Spain	16	16	16	18	20	23	23	24	2

Source: Julio Alcaide (2003), pp. 168–187. Author's own calculations.

output. Álava became the fastest growing province in the country, while Pontevedra, La Coruña, Navarre and Valladolid also climbed to high positions in the provincial ranking, with growth rates above the national average. In the meantime, despite benefiting from the overall growth, the rest of the growth pole provinces remained among the low performers.

In any event, these data ratify the fact that, in the 15 years before indicative planning really took off, industrialization spread beyond the Catalanian and Basque centres of industry. This provided the basis, from 1965 to 1975, for three successive development plans, and towns and cities actively competed to attract investors. At that point, Huelva and Valladolid topped the national ranking of GVA growth rates, while Álava fell to third place and Burgos took a striking leap to tenth place, not far behind Pontevedra (in sixth place), Navarre (in seventh) and ahead of La Coruña (in twelfth). Only Seville and Zaragoza failed even to reach the Spanish average, the latter falling several places in the provincial ranking. In short, there was an overall surge of economic growth, and six of the nine provinces analysed hoisted themselves up among the country's top ten provinces in terms of industrial growth rates, although not all of these cases qualify as unmitigated successes.¹⁷

The short-term data for regional investment levels, employment and manufacturing specialization suggest a similar picture. Álava and Navarre were most successful in the growth pole experiment, followed by the

¹⁷González (1979), *La economía española*, pp. 338–339.

Table 7.2 Spanish national and growth pole industrial gross value added (GVA) growth rates, 1935–1975 (based on 1995 constant pesetas, in percentages)

	1935–1950		1950–1965		1965–1975		1935–1975				
Huelva	1.3	(11)	Álava	14.2	(1)	Huelva	14.7	(1)	Álava	8.6	(1)
Álava	1.1	(13)	Pontevedra	10.5	(6)	Valladolid	13.6	(2)	Valladolid	6.6	(4)
Navarre	1.0	(17)	La Coruña	9.7	(10)	Álava	12.2	(3)	Navarre	6.4	(5)
Zaragoza	0.3	(25)	Navarre	9.5	(12)	Pontevedra	10.4	(6)	Pontevedra	6.2	(7)
Burgos	0.1	(29)	Valladolid	8.9	(14)	Navarre	10.2	(7)	Huelva	5.9	(8)
<i>Spain</i>	0.0		<i>Spain</i>	8.1		Burgos	9.2	(10)	La Coruña	5.4	(14)
Valladolid	-0.1	(34)	Zaragoza	7.9	(20)	La Coruña	8.9	(12)	<i>Spain</i>	4.8	
Pontevedra	-0.4	(37)	Burgos	5.3	(44)	<i>Spain</i>	7.5		Zaragoza	4.7	(19)
Seville	-0.8	(42)	Huelva	5.0	(47)	Seville	7.3	(22)	Burgos	4.3	(28)
La Coruña	-1.0	(45)	Seville	4.3	(52)	Zaragoza	6.8	(25)	Seville	3.1	(50)

Note: In parentheses, ranking of the Spanish provinces.

Source: Alcaide (2003), pp. 318–321. Author's own calculations.

partially successful Valladolid, Burgos, Pontevedra, Zaragoza and Huelva. The attempts made in La Coruña and Seville were resounding failures. Using the available indicators to take the analysis to a more detailed level, a comparison of regional performances between 1964 and 1970 shows that, in Navarre, roughly twice as many firms and jobs were created when compared to the averages attained by government-promoted regions (Table 7.3). The averages in terms of investment per factory and worker suggest *a priori* costs below the average for the poles, although comparable to those of Zaragoza – in both variables – and those of Valladolid and Vigo (Pontevedra) – only in terms of investment per worker. In other words, some affinity can be seen in experiences that had pivoted around the development of metal-derived products and automotive industry. Furthermore, the cabinet ministers' urge for gigantism in manufacturing industry and the push for specialization in chemicals and iron and steel called for large-scale plants, which partly explains the high capital requirements of La Coruña and, particularly, Huelva, as well as casting some doubts on its effectiveness (as made apparent by the oil crisis).

Extending our retrospective to the period post-1975, by which time the planning formula had run its course, we can identify the firms that lead the current industrial scene in the growth pole provinces, which suggests that there was a very powerful *path dependence* associated with the decisions taken in the 1950s and 1960s. Indeed, shifting the spatial analysis from regional to municipal level, the latest economic historiography concludes that the Franco regime's decade of economic developmentalism finished up by completely restructuring the territorial distribution of Spanish industry, thanks to direct public intervention, incentives for the growth poles and foreign investment.¹⁸ This two-sided, long-term outcome is confirmed by the profile of the industrial intensity co-efficient between 1975 and 2000, a reliable clue as to what eventually happened to earlier achievements. From the 15 leading Spanish provinces, there are now just three clear winners: Álava, Navarre and Valladolid. Pontevedra and Zaragoza trail a long way behind, and of the rest, there is barely a trace.

The main characteristic shared by all five of these winners is a large automotive plant to drive local industry. The plans helped these provinces to establish a solid manufacturing sector with strong potential

¹⁸Antonio Parejo, 'De la región a la ciudad. Hacia un nuevo enfoque de la historia industrial española contemporánea', *Revista de Historia Industrial*, no. 30 (2006), pp. 53–101. Jordi Catalan, José-Antonio Miranda and Ramón Ramón-Muñoz, (eds.), *Distritos industriales y clusters en la Europa del Sur*, Madrid: LID (2011), pp. 9–36.

Table 7.3 Results obtained by the state's growth pole policies and by the industrial development plan for Navarre, 1964–1970

	Number of firms	Investment in metal (in %)	Investment chemicals and energy (in %)	Final investment (10 ⁶ ptas)	Job creation (000)	Investment per firm (10 ⁶ ptas)	Investment per job (10 ⁶ ptas)	Workers per firm
Burgos	67	34	24	5,616	6.11	83.81	0.92	91
La Coruña	20	24	54	3,462	1.299	173.10	2.67	65
Huelva	31	14	67	9,732	2.562	313.94	3.8	83
Seville	49	19	35	5,851	5.503	119.41	1.06	112
Vigo (Pontevedra)	42	60	6	4,191	8.419	99.78	0.5	200
Valladolid	45	56	22	7,652	10.243	170.05	0.75	228
Zaragoza	85	17	53	4,942	6.411	58.14	0.77	75
State growth-pole average	48	34	22	5,921	5.792	123.30	1.02	120
Navarre	104	60	13	6,865	10.959	66.01	0.63	105

Sources: González (1979), p. 339; Joseba De la Torre and Mario García-Zúñiga (2009), pp. 347–376, here p. 356.

to generate employment and create industrial know-how and markets. Assembly lines turning out automobiles and industrial vehicles led, in the mid-to-long term, to the creation and growth of small and medium-sized enterprises to complement volume car production. In all cases, specialized labour, markets and the right infrastructure were essential to the successful launch of this activity. In their early days, what are now the Volkswagen plant in Pamplona, the Mercedes-Benz plant in Vitoria, the Renault plant in Valladolid and the Citroën-PSA plant in Vigo were located in areas that had a certain level of industrial capacity, but only burgeoned during the era of economic developmentalism. Except in Navarre (1965) – where they were set up to serve the car plant – all the auxiliary firms were started with local capital during the 1950s and were technologically equipped to serve the major European plants, although they had not yet progressed beyond small-scale workshop production.¹⁹ The new industrial policy of 1963 and the tax and financial incentives introduced in 1964 (in conjunction with foreign investment facilities) amounted to very powerful and effective protectionism for this newly-emerging industry. Indeed, during the following decade legislation ruled that 90 per cent of input factor consumption in assembly plants had to be domestically-produced.²⁰ The sector also benefited from the modernization of iron and steel industry through concerted action between private enterprises and the state.²¹ In 1972 the reduction of the minimum compulsory use of locally-made components to 50 per cent eventually led to the entry of General Motors in Zaragoza in 1981.²² In the meantime, advances in the metal-mechanical sector had provided one of the pillars of economic growth in the region of Aragon. The metal and transport sectors accounted for close to 60 per cent of total investment in Valladolid,

¹⁹Catalan (2000), 'La creación de la ventaja comparativa', pp. 113–55. García Ruiz (2001), 'La evolución de la industria automovilística', pp. 138–152. Joseba De la Torre, 'Industria del automóvil y desarrollo económico regional. La experiencia de Navarra (c. 1955–1980)', *Investigaciones de Historia Económica*, no. 9 (2007), pp. 109–140. Tomás Fernández de Sevilla, 'Renault in Spain. From Assembly to Manufacture, 1961–1972', *Business History* 52, no. 3 (2010), pp. 471–492.

²⁰Catalan (2000), 'La creación de la ventaja comparativa', p. 135. De Sevilla (2010), 'Renault in Spain', p. 473.

²¹Emiliano Fernández de Pinedo, 'Planes de desarrollo y siderurgia privada: Altos Hornos de Vizcaya (1960–1975)', in: De la Torre and García-Zúñiga (2009), *Entre el Mercado y el Estado*, pp. 177–205.

²²García Ruiz (2001), 'La evolución de la industria automovilística', pp. 147–148.

Vigo, Pamplona and Vitoria. The growth poles used this as a means to bolster the European multinationals' Spanish-market entry strategy, which was, necessarily, based on a long-term perspective. The period between 1965 and 1975 saw the highest increases in the output growth rate (Figure 7.3). The 1970s industrial crisis had a serious effect on the Pamplona plant, which survived only thanks to aid from the National Institute of Industry and local government. The rest managed to resist the impact of that particular recession. European Common Market entry eventually gave transnationals the chance to consolidate their bid for industrial development, which has made twenty-first-century Spain the EU's third largest automobile producer, and its largest industrial vehicle producer.

The major firms did not always generate such positive externalities, however; quite the opposite, in fact. The petro-chemical growth pole of Huelva is a paradigmatic example of their inability to act as a driving force for sustained industrial development, either in terms of jobs or overall value. The environmental cost, meanwhile, has been

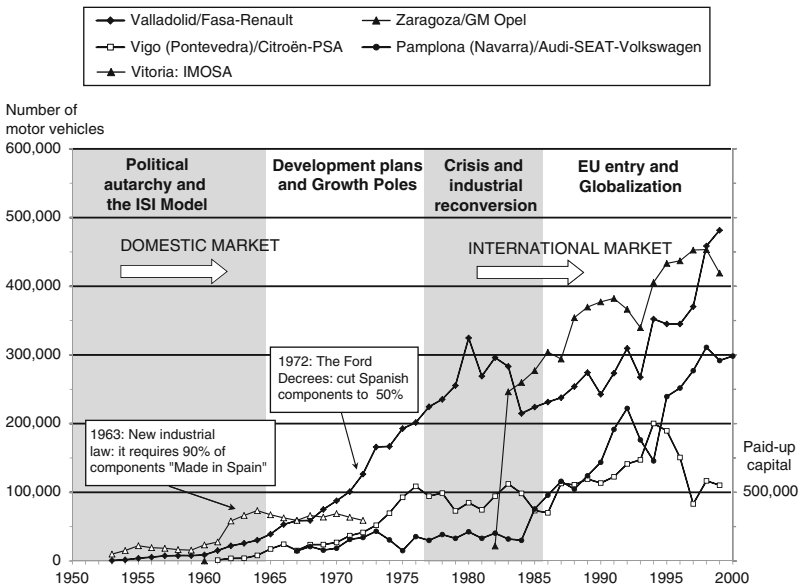


Figure 7.3 Automobile output in the growth pole provinces in Spain, 1953–1999
Sources: Catalan (2000), pp. 113–155. García Ruiz (2001), pp. 138–152. De la Torre (2007), pp. 109–140. Fernández de Sevilla (2010), pp. 471–492. For Industrias del Motor S.A. (IMOSA), paid-up capital in millions of pesetas at 1959 constant prices. Registro Mercantil de Álava, vol. 33 ff.

enormous, and the Spanish economy's strategic demand for the supply and processing of petroleum by-products means that its pressure on the environment is likely to continue. Something rather similar can be said for the case of La Coruña, where the accent was on energy. Why, then, did big business sometimes behave in such a diametrically opposite way? The literature on the growth poles in the Italian Mezzogiorno suggests a possible explanation: any growth attributable to the metal-mechanical or chemicals sectors stems from the fact that, while the former encourages complementarity between small, medium and large firms through horizontal integration, thus helping to build industrial networks, the latter is hampered by its very nature, which is capital intensive and vertically integrated.²³ In addition, automotive and other durable consumer goods industries have higher job creating potential, which in turn boosts demand for goods and services and drives regional growth.

Irrespective of the choice of indicator used in the comparison, however, the story of the growth poles shows that Álava and Navarre performed substantially better than the regions targeted by the central government for development. These two provinces, in the metal-mechanical and automotive branches, attracted most capital, created the most firms, promoted the most jobs and consolidated industrial specialization with the capacity to support medium-to-long-term development. It is true that in both cases the main beneficiary was big business, although small and medium-sized firms did emerge around a cluster that served as an industry incubator. Álava and Navarre stood as useful examples for the rest. The latest empirical research tells us that the entrepreneurial spirit of these two northern provinces (using the entrepreneurship rate as the yardstick), throughout the Franco regime, was one-and-a-half to three times greater than the average of their closest neighbours and the nation as a whole. The key is that a more conducive institutional environment than in the rest of Spain had created more powerful incentives to private initiative in the form of grants, lower fiscal pressure and a good working rapport between entrepreneurs and local authorities.²⁴

²³Massimo Florio, 'Large Firms, Entrepreneurship and Regional Development Policy. "Growth Poles" in the Mezzogiorno over 40 Years', *Entrepreneurship and Development*, no. 8 (1996), pp. 263–295.

²⁴Joseba De la Torre and Mario García-Zúñiga, 'Instituciones y "empresarialidad" en el Norte de España, 1885–2010', *Revista de Historia Industrial*, no. 51 (2013), pp. 141–170.

7.5 Conclusions

During the era of economic developmentalism, the Spanish economy experienced rapid growth. However, growth and structural changes had already made themselves felt during the 1950s, which saw a return to the trend that had been interrupted by the civil war and the first stage of political autarchy. Once the serious macroeconomic imbalances that had hampered the country's growth potential up to 1959 had been addressed, new economic and industrial policy actually enabled Spain to make up its ten-year lag and ride the wave of prosperity then sweeping Europe, which it did by partially adapting to the recommendations put forward by international economic authorities. In other words, Franco's government used doses of economic liberalism in foreign matters in order to address its balance of payments problems and obtain growth-financing mechanisms, doses of institutional interventionism. It also imitated extreme-form indicative planning in order to attract investors, and took on a strongly protectionist industrial policy to achieve a combined effect that would promote growth in backward regions. Versus the generally very negative evaluation of development plans and growth poles resulting from short-term analyses, as well as certain ideological prejudices, a mid-to-long term analysis leads to somewhat different conclusions regarding the industrial history of the provinces selected for government action. The industrial development policy promoted by the dictatorship was not without its shortcomings and errors. The regions were selected more for political than economic reasons. Financially speaking, they were hampered by the budgetary restrictions of a political regime that was allergic to tax reforms that might have introduced more equity and greater spending power. The plans received a mere 1 per cent of GDP through the ordinary budget. However, when calculating the amount of public resources allocated to industrial development plans as a whole, we have to include generous fiscal expenditures (fiscal and financial grants), privileged access to public bank credit for selected firms and the use of the provincial savings banks to fund plans. To this day, that part of the cost of that period of the country's economic development has never been quantified. Thus, the effectiveness of its impact has never been assessed. To bridge this gap, we have opted in our analysis to select a specific policy – the growth pole policy from 1964 to 1975 – in an attempt to calculate its short-, medium- and long-term effect in the regional context. According to economic theory about growth poles, it would take at least 20 to 25 years for its net impact to make up for lost time. The end of the

growth cycle came when the Spanish growth poles had barely completed half the course, and the crisis dealt a serious blow to the major iron and steel, and chemical industries. The growth pole effect proved to have long-term viability only in those regions that had harnessed their futures to sectors able to propitiate intra-industrial relationships, and closely linked to innovation and the international market place. It was during the 15 years of economic development frenzy that Spanish automotive industry, hand-in-hand with multinationals, became properly established, thus laying foundations that would enable it to mature in the second era of globalization (after a grueling period of industrial re-conversion programmes) and conquer the European and world markets. Government intervention, however, although necessary, was not sufficient. The state and the market played complementary roles during the latter years of Franco's dictatorship. Thus, we have only partially answered the question with which we set out: Did Spain have an economic miracle? For the Franco regime and its propaganda machine, the miracle was as in the first meaning listed in the dictionary, that is, 'attributable to a divine agency', which they understood to be incarnate in the dictatorship. As far as the second listed meaning is concerned, while far from being 'remarkable', it was, nevertheless, a welcome event, despite its structural shortcomings. Furthermore, though we would not attribute it to divine agency, it was unheard of in Spain's economic history, since never before had the country seen such a marked and rapid increase in industrial output.

Appendix



Figure 7-A.1 Growth poles selected by the Planning Commission (light grey) and by local institutions (dark grey) in Spain
Source: Author's own elaboration.

References

- Alcaide, Julio, *Evolución económica de las regiones y provincias españolas en el siglo XX*, Bilbao: Fundación BBVA (2003).
- Aldcroft, Derek H., *Historia de la economía europea (1914–1990)*, Barcelona: Crítica (1997).
- Berend, Ivan T., *An Economic History of Twentieth-Century Europe*, Cambridge: Cambridge University Press (2006).
- Buesa, Mikel and Luis Eduardo Pires, 'Intervencionismo estatal durante el franquismo: la regulación de la inversión industrial en España (1963–1980)', *Revista de Historia Industrial*, no. 21 (2002), pp. 159–187.
- Carreras, Albert, *Industrialización española: estudios de historia cuantitativa*, Madrid: Espasa Calpe (1990).
- Carreras, Albert and Xavier Tafunell, *Historia económica de la España contemporánea (1789–2009)*, Barcelona: Crítica (2010).
- Catalan, Jordi, 'Del milagro a la crisis: la herencia económica del franquismo', in: Etxezarreta, Miren (ed.), *La reestructuración del capitalismo en España*, Barcelona: Icaria (1991), pp. 95–132.
- Catalan, Jordi, 'La creación de la ventaja comparativa en la industria automovilística española, 1898–1996', *Revista de Historia Industrial*, no. 18 (2000), pp. 113–155.
- Catalan, Jordi, José-Antonio Miranda and Ramón Ramón-Muñoz (eds.), *Distritos industriales y clusters en la Europa del Sur*, Madrid: LID (2011).
- Cerrito, Elio, 'I poli di sviluppo nel Mezzogiorno. Per una prospettiva storica', *Studi Storici* 51, no. 3 (2010), pp. 691–797.
- Comín, Francisco and Pablo Martín-Aceña, 'La acción regional del Instituto Nacional de Industria, 1941–1976', in: Nadal, Jordi and Albert Carreras (eds.), *Pautas regionales de la industrialización española (siglos XIX y XX)*, Barcelona: Ariel (1990), pp. 378–419.
- Comín, Francisco and Rafael Vallejo, 'Los programas de inversiones públicas (1964–1976): El instrumento presupuestario al servicio del desarrollo?', in: De la Torre, Joseba and Mario García-Zúñiga (eds.), *Entre el Mercado y el Estado: Los planes de desarrollo durante el franquismo*, Pamplona: Universidad Pública de Navarra (2009), pp. 89–146.
- Crafts, Nicholas F. and Gianni Toniolo, *Economic Growth in Europe since 1945*, Cambridge: Centre for Economic Policy Research (1996).
- De la Torre, Joseba, 'Industria del automóvil y desarrollo económico regional: la experiencia de Navarra (c. 1955–1980)', *Investigaciones de Historia Económica*, no. 9 (2007), pp. 109–140.
- De la Torre, Joseba and Mario García-Zúñiga, 'Intervencionismo y mercado en la industrialización de Álava y Navarra', in: De la Torre, Joseba and Mario García-Zúñiga (eds.), *Entre el Estado y el Mercado. Los planes de desarrollo durante el franquismo*, Pamplona: Universidad Pública de Navarra (2009), pp. 347–376.
- De la Torre, Joseba and Mario García-Zúñiga (eds.), *Entre el Mercado y el Estado: Los planes de desarrollo durante el franquismo*, Pamplona: Universidad Pública de Navarra (2009).
- De la Torre Joseba, and Mario García-Zúñiga, 'El impacto a largo plazo de la política industrial del desarrollismo español', *Investigaciones de Historia Económica* 9, no. 1 (2013), pp. 43–53.

- De la Torre Joseba, and Mario García-Zúñiga, 'Instituciones y "empresarialidad" en el Norte de España, 1885-2010', *Revista de Historia Industrial*, no. 51 (2013), pp. 141-170.
- Fernández de Pinedo, Emiliano, 'Planes de desarrollo y siderurgia privada: Altos Hornos de Vizcaya (1960-1975)', in: De la Torre, Joseba and Mario García-Zúñiga (2009), *Entre el Mercado y el Estado: Los planes de desarrollo durante el franquismo*, Pamplona: Universidad Pública de Navarra (2009), pp. 177-205.
- Fernández de Sevilla, Tomás, 'Renault in Spain: From Assembly to Manufacture, 1961-1972', *Business History* 52, no. 3 (2010), pp. 471-492.
- Florio, Massimo, 'Large Firms, Entrepreneurship and Regional Development Policy: "Growth Poles" in the Mezzogiorno over 40 Years', *Entrepreneurship and Development*, no. 8 (1996), pp. 263-295.
- Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth-Century Experience*, Oxford: Oxford University Press (1999).
- Fraile Balbin, Pedro, 'Spain: Industrial Policy under Authoritarian Politics', in: Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth-Century Experience*, Oxford: Oxford University Press (1999), pp. 233-267.
- Fuentes Quintana, Enrique, 'Tres decenios de la economía española en perspectiva', in: García Delgado, José L. (ed.), *España. Economía*, 6th ed., Madrid: Espasa (1993), pp. 1-140.
- Fundación de Estudios de Economía Aplicada, *The Crisis of the Spanish Economy*, Madrid: Fundación de Estudios de Economía Aplicada Annual Policy Conference (2009).
- García Ruiz, José Luis, 'La evolución de la industria automovilística española, 1964-1999: una perspectiva comparada', *Revista de Historia Industrial*, no. 19-20 (2001), pp. 133-164.
- González, Manuel-Jesús, *La economía española del franquismo, 1940-1970, Dirigismo, mercado y planificación*, Madrid: Tecnos (1979).
- Parejo, Antonio, 'Industrialización, desindustrialización y nueva industrialización de las regiones españolas (1950-2000). Un enfoque desde la historia económica', *Revista de Historia Industrial*, no. 20 (2001), pp. 15-75.
- Parejo, Antonio, 'De la región a la ciudad. Hacia un nuevo enfoque de la historia industrial española contemporánea', *Revista de Historia Industrial*, no. 30 (2006), pp. 53-101.
- Prados de la Escosura, Leandro, *El progreso económico de España (1850-2000)*, Bilbao: Fundación BBVA (2003).
- Richardson, Harry W., *Política y planificación del desarrollo regional en España*, Madrid: Alianza (1975).
- Rodwin, Lloyd and Hidehiko Sazanami (eds.), *Industrial Change and Regional Economic Transformation: The Experience of Western Europe*, London: Harper Collins Academic (1991).
- Tortella, Gabriel and Juan Carlos Jiménez, *Historia del Banco de Crédito Industrial*, Madrid: Alianza (1986).
- Vergeot, Jean, *Les plans dans le monde: expériences et enseignements*, Paris: France-Empire (1970).

Part II
Transnational and Global
Perspectives

8

Towards a global history of the Marshall Plan. European post-war reconstruction and the rise of development economic expertise

Daniel Speich Chassé

University of Lucerne

8.1 Introduction

Decolonization and the end of the European colonial empires concurred with an unprecedented European economic dynamic during the first post-war decades in what is known as an economic miracle, a 'Wirtschaftswunder' or the 'trente glorieuses'. In many European countries, historical traditions and institutional legacies promoted new avenues of growth and allowed for the implementation of rather successful industrial policies after 1945. These processes gained additional strength through the establishment of a common market and through the mutual influence and adaption of norms, expertise and organizational innovation. Largely based upon US interventions, a European economic growth model emerged that had considerable global implications. Its shorthand is the Marshall Plan.

This chapter sketches out some questions for future research into the global historical assessment of European post-war reconstruction and investigates the global impact of European industrial policy after 1945. Such a quest seems necessary, because historical scholarship has probably too long and too exclusively been consigned to national frameworks.¹ Studies on late colonialism, colonial development, the post-colonial situation and the history of development have not very often been systematically linked to inquiries into the economic history

¹ Andreas Wimmer and Nina Glick-Schiller, 'Methodological Nationalism and Beyond. Nation-State Building, Migration and the Social Sciences', *Global Networks* 2, no. 4 (2002), pp. 301–334.

of Western Europe between 1945 and 1975.² The Cold War, the process of European unification and decolonization form the backdrops to an astonishing career of the Marshall Plan as a metaphor and a template for development economic planning. The argument is that the roots of the European experience in industrial policy and its historical implications need to be set in a global historical framework.

We are well informed about the French experience, the British national history of the epoch, which is here under scrutiny, and about the special German situation. Work has been done to establish a comparative European framework of inquiry that not only compares these cases, but also includes a view of the small, but economically powerful European nations such as the Scandinavian countries or the Benelux states. The latter includes a glimpse at the European peripheries in Ireland and along the Mediterranean coast. A transnational approach that transcends the fundamental divide between Western and Eastern Europe is emerging,³ and even further inquiry seems necessary in order to understand how to position the European overseas possessions in such a narrative. This should include the colonial territories of Great Britain, France, Belgium, the Netherlands and Portugal. A lot is to be gained by contextualizing the European experience in a larger geographical framework.⁴ Exploring such global links seems important,

²Breaking new ground is Mark Mazower, 'Reconstruction. The Historiographical Issues', in: Mark Mazower, Jessica Reinisch and David Feldman (eds.), *Post-war Reconstruction in Europe. International Perspectives, 1945–1949*, Oxford: Oxford University Press (2011), pp. 17–28. The contributions by Sunil Amrith, Nicholas J. White and Frederick Cooper to this volume chart new global historical connections similar to what is envisioned here.

³See the contributions to James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999).

⁴Carol Ann Cosgrove, 'The Common Market and its Colonial Heritage', *Journal of Contemporary History* 4, no. 1 (1969), pp. 73–87; Urban Vahsen, *Eurafrikanische Entwicklungskooperation. Die Assoziierungspolitik der EWG gegenüber dem subsaharischen Afrika in den 1960er Jahren*, Stuttgart: Franz Steiner (2010); Martin Rempe, *Entwicklung im Konflikt. Die EWG und der Senegal 1957–1975*, Köln: Böhlau (2012); Ferdinand Leikam, *Empire, Entwicklung und Europa. Die Europapolitik Großbritanniens und die Entwicklungsländer im Commonwealth, 1945–75*, Augsburg: Wissner (2011); Guia Migani, 'L'association des TOM au Marché commun. Histoire d'un accord européen entre cultures économiques différentes et idéaux politiques communs, 1955–1957', in: Marie-Thérèse Bitsch and Gérard Bossuat (eds.), *L'Europe unie et l'Afrique. De l'idée d'Euroafrique à la convention de Lomé I*, Bruxelles: Bruylant, LGDJ, Nomos (2005), pp. 233–252.

because European post-war economic reconstruction has had a strong impact on economic policies globally.

It is suggested that one take a concise look at the promises of economic expertise. Economists and their academic discipline gained a new importance in the shaping of political processes worldwide. Before 1945 economics was just one of several 'arm-chair' sciences within the family of the social sciences.⁵ It seems important to highlight this fact, because economists and economic discourse have since become such prominent features in daily politics. But it was only post-1945 that economics gained such a status and became a crucial source in global political discourse, second only to legal practice and international law.⁶ The following is a tentative map of the networks of institutions, persons and ideas that informed the early phase of European reconstruction after the Second World War. These networks, so it is assumed, have subsequently shaped the intention and the form of global developmental interventions by the West in the Third World.

Attention thus focuses on the role of expertise in economic policy and on the importance of international organizations in fostering new

⁵On the changing public role of economists see Michael A. Bernstein, *A Perilous Progress. Economists and Public Purpose in Twentieth-Century America*, Princeton, NJ and Oxford: Princeton University Press (2001); Yuval P. Yonay, *The Struggle over the Soul of Economics. Institutional and Neoclassical Economists in America between the Wars*, Princeton: Princeton University Press (1998). These authors focus on the US experience, which was of great international importance. For the economists' standing in Weimar Germany see Roman Köster, *Die Wissenschaft der Aussenseiter. Die Krise der Nationalökonomie in der Weimarer Republik*, Göttingen: Vandenhoeck & Ruprecht (2008); Adam J. Tooze, *Statistics and the German State, 1900–1945. The Making of Modern Economic Knowledge*, Cambridge: Cambridge University Press (2001).

⁶Marion Fourcade, *Economists and Societies. Discipline and Profession in the United States, Britain, and France, 1890s to 1990s*, Princeton, NJ: Princeton University Press (2009). For Germany, Alexander Nützenadel, *Stunde der Ökonomen. Wissenschaft, Politik und Expertenkultur in der Bundesrepublik 1949–1974*, Göttingen: Vandenhoeck & Ruprecht (2005); Jan-Otmar Hesse, *Die Wirtschaft als Wissenschaft. Bundesdeutsche Volkswirtschaftslehre zwischen Weltkrieg und Ölpreiskrise*, Frankfurt a. M.: Campus (2010). With a view to Keynesianism, the transnational rise of economics has been analysed in Peter A. Hall (ed.), *The Political Power of Economic Ideas. Keynesianism across Nations*, Princeton, NJ: Princeton University Press (1989); and in Roger Backhouse and Andrea Salanti, *Macroeconomics and the Real World. Volume 2, Keynesian Economics, Unemployment, and Policy*, Oxford and New York: Oxford University Press (2000). Focusing on neo-liberalism is Philip Mirowski and Dieter Plehwe (eds.), *The Road from Mont Pèlerin. The Making of the Neoliberal Thought Collective*, Cambridge, MA: Harvard University Press (2009).

hierarchies of knowledge. The rise of experts in the twentieth century is an emerging field of historical study that has so far been based largely on the sociology of professions and professional groups.⁷ Here, this approach is expanded upon by also taking a closer look at the contents of social scientific knowledge production in the sphere of policy advice.⁸ Social scientific knowledge has formed the basis for new modes of political communication post-1945 that evolved around the notion of economic development. According to Michael Geyer and Charles Bright, this development discourse must be understood as a kind of 'global imagination' that reduced the complexity of global interaction and opened new avenues for the legitimization of political rule.⁹ International organizations were chief agents in this move because they successfully set normative standards and intensified international exchange. The globalization of the Marshall Plan was largely an effect of the internationalization of politics after the Second World War and

⁷Ronald Hitzler, Anne Honer and Christoph Maeder (eds.), *Expertenwissen. Die institutionalisierte Kompetenz zur Konstruktion von Wirklichkeit*, Opladen: Westdeutscher Verlag (1994); Stefan Fisch and Wilfried Rudloff (eds.), *Experten und Politik. Wissenschaftliche Politikberatung in geschichtlicher Perspektive*, Berlin: Duncker & Humblot (2004); Thomas Etzemüller (ed.), *Die Ordnung der Moderne. Social Engineering im 20. Jahrhundert*, Bielefeld: Transcript (2009); Lutz Raphael (ed.), *Theorien und Experimente der Moderne. Europas Gesellschaften im 20. Jahrhundert*, Köln: Böhlau (2012).

⁸Timothy Mitchell, *Rule of Experts. Egypt, Techno-Politics, Modernity*, Berkeley: University of California Press (2002); Mary S. Morgan, *The History of Econometric Ideas*, Cambridge: Cambridge University Press (1990); Daniel Speich, 'Der Entwicklungsautomatismus. Ökonomisches Wissen als Heilsversprechen in der ostafrikanischen Dekolonisation', *Archiv für Sozialgeschichte* 48 (2008), pp. 183–212. The underlying approach of a history of knowledge ('Wissensgeschichte') is clarified in Daniel Speich Chassé and David Gugerli, 'Wissensgeschichte. Ein wissenschaftlicher Kommentar', *Traverse Special Volume on 'Kulturgeschichte'*, no. 1 (2012).

⁹Michael Geyer and Charles Bright, 'World History in a Global Age', *American Historical Review* 100, no. 4 (1995), pp. 1034–1060. An important analysis of global development discourse and practice comes from James Ferguson, *The Anti-politics Machine. Development, Depoliticization, and Bureaucratic Power in Lesotho*, Cambridge: Cambridge University Press (1990). First steps towards a global history of this endeavour can be found in Frederick Cooper and Randall Packard (eds.), *International Development and the Social Sciences. Essays on the History and Politics of Knowledge*, Berkeley, CA: California University Press (1997), and in Hubertus Büschel and Daniel Speich (eds.), *Entwicklungswelten. Globalgeschichte der Entwicklungszusammenarbeit*, Globalgeschichte, vol. 6, Frankfurt a. M.: Campus (2009).

offers a privileged observation point for a new history of international organizations.¹⁰

The chapter has three sections. The first section explores the phenomenon of European recovery as a global template: Which elements of the Marshall Plan have made this programme so attractive that it has become a source of collective hope in many depressed areas of the planet? Second, post-1945 organizational innovations that were first tested in Europe and then spread globally will be discussed. The concluding section ventures into the leading concepts that allowed economists to gain an important role in international diplomacy, which, in turn, subsequently began to focus more strongly upon questions of international economic policy. Among the leading concepts were: (1) the depoliticization of social conflict through the promise of an increase in productivity, (2) the transfer of investment capital and (3) the idea of economic cooperation and regional market integration.

8.2 The Marshall Plan as a global template

Looking at the global history of the development endeavour, the Marshall Plan plays a symbolically crucial role. Under the official name of a 'European Recovery Programme', this scheme was effective during the four years between 1948 and 1952 and accompanied Europe's reconstruction as an economic and symbolic world power up to a level that more or less matched Europe's pre-war status. Since the 1950s, many authors have positively connected to this specifically European experience. The European Recovery Programme has become a template in a global developmental discourse. Time and again, many authors from all corners of the world have voiced the need for a new Marshall Plan for the Middle East, Asia, Africa, or globally in view of environmental challenges.¹¹ In the course of the financial crisis in the early 2010s,

¹⁰Sunil Amrith and Glenda Sluga, 'New Histories of the United Nations', *Journal of World History* 19, no. 3 (2008), pp. 251–274; Iris Schröder, 'Die Wiederkehr des Internationalen. Eine einführende Skizze', *Zeithistorische Forschungen/Studies in Contemporary History*, Online-Ausgabe 8, no. 3 (2011), <http://www.zeithistorische-forschungen.de/16126041-Editorial-3-2011> (date accessed 24 February 2013); Glenda Sluga, 'Editorial. The Transnational History of International Organizations', *Journal of Global History* 6, no. 2 (2011), pp. 219–222.

¹¹Uwe Möller, *Global Marshall Plan. Mit einem Planetary Contract für eine ökosoziale Marktwirtschaft weltweit Frieden, Freiheit und Wohlstand ermöglichen, ein Statement der Global Marshall Plan Initiative*, Stuttgart: Horizonte (2004). In the German translation, Al Gores' *Earth in Balance* of 1992 was presented as a 'Marshall

'Marshall Plans' for Greece have been demanded.¹² Such authors were inspired by the European economic miracle post-1945 that seems to have moved the continent of Europe from shambles into the position of a global centre at relatively low cost.

The precise impact of the Marshall Plan upon European economic development is contested. Many questions have been posed in US and European scholarship on this scheme over the last 30 years.¹³ Was the investment of a large sum of US capital into the European economy decisive in triggering the following boom? Did it repair the war damage? Or did it help to correct specific anomalies in European economic life that go back to the great depression of the early 1930s? In political terms, it has been asked whether the Marshall Plan was an instrument to soften the initially, rather unpopular concept of 'containment', as voiced in the Truman Doctrine of 1947. Was it mainly an instrument in US Cold War politics? Was it a clever move with respect to the US difficulties in administrating their sector of the vanquished Nazi Germany,

Plan for the earth', in: Al Gore, *Wege zum Gleichgewicht. Ein Marshallplan für die Erde*, Frankfurt a. M.: Fischer Taschenbuch (1992). For Africa, see Abdoulaye Sawadogo, *Un Plan Marshall pour l'Afrique?* Paris: L'Harmattan (1987); Tétévi G. Tété-Adjalo, *La question du plan Marshall et l'Afrique*, Paris: L'Harmattan (1989).
¹²Such a perspective was voiced, for example, by the president of the European Investment Bank (EIB), Werner Hoyer, in Ruth Berschens, 'Griechenland braucht einen Marshall-Plan', *Handelsblatt*, 21 February 2012, <http://www.handelsblatt.com/politik/international/eib-praesident-hoyer-griechenland-braucht-einen-marshall-plan/6237748.html> (date accessed 21 June 2012).

¹³The following is a very rough abstract of the main controversial topics from Hadley Arkes, *Bureaucracy, the Marshall Plan and the National Interest*, Princeton: Princeton University Press (1972); Walt W. Rostow, *The Division of Europe after World War II, 1946*, Austin, TX: University of Texas Press (1981); Imanuel Wexler, *The Marshall Plan Revisited. The European Recovery Program in Economic Perspective*, Westport, CT: Greenwood Press (1983); Alan S. Milward, *The Reconstruction of Western Europe, 1945–51*, London: Methuen (1984); Michael J. Hogan, *The Marshall Plan. America, Britain, and the Reconstruction of Western Europe, 1947–1952*, Cambridge: Cambridge University Press (1987); Charles P. Kindleberger, *Marshall Plan Days*, Boston, MA: Allen & Unwin (1987); John Gillingham, *Coal, Steel, and the Rebirth of Europe, 1945–1955. The Germans and French from Ruhr Conflict to Economic Community*, Cambridge: Cambridge University Press (1991); Ludolf Herbst, Werner Bühner and Hanno Sowade (eds.), *Vom Marshallplan zur EWG. Die Eingliederung der Bundesrepublik Deutschland in die westliche Welt*, München: Oldenbourg (1990); Charles S. Maier and Günter Bischof (eds.), *Deutschland und der Marshall-Plan*, Baden-Baden: Nomos (1992); Gerd Hardach, *Der Marshall-Plan. Auslandshilfe und Wiederaufbau in Westdeutschland 1948–1952*, München: dtv Wissenschaft (1994); John Killick, *The United States and European Reconstruction, 1945–1960*, Keele, TN: Keele University Press (1997).

as the historian John Gimbel has argued¹⁴ Also, less political questions have been posed: Were the engines of European growth – namely, the British, French and German economies – already well on track when Marshall aid started to pour in as of 1948? Did the catastrophic climate in 1947 obfuscate this principally positive trajectory so that the symbolism of the US initiative has to be tracked down to the contingencies of the weather? And, in view of the Dollar-shortage of the European nation-states, it has been argued that the establishment of a European Payments Union in 1950 was historically much more significant than the transfer of large assets across the Atlantic Ocean.¹⁵ It is unclear to what extent Marshall aid was a ‘hard’ economic factor, or to what extent it was merely of symbolic importance. It is even less clear how such a discursive impact must be assessed.

Looking at this topic from a more general standpoint, which is primarily interested in the history of the global development discourse, most of these questions come as a surprise. In fact, only two propositions are familiar from a global vantage point: the first is the critical neo-Marxist standpoint, according to which the Marshall Plan was an instrument in stabilizing US imperialism by reconstructing overseas markets for American export goods, but not to raise European collective welfare in a disinterested humanistic perspective.¹⁶ Global development practices following the Marshall Plan template have been criticized as vehicles of a post-colonial US imperialism.¹⁷ The second proposition connects to the observation that the European recovery initiative was based upon existing skills and profit-seeking mentalities among the target populations. Later developmental systems of capital-transfer could not build upon such favourable preconditions.¹⁸ All other aspects

¹⁴ John Gimbel, *The Origins of the Marshall Plan*, Stanford, CA: Stanford University Press (1976).

¹⁵ Barry J. Eichengreen, *Reconstructing Europe's Trade and Payments. The European Payments Union*, Ann Arbor, MI: University of Michigan Press (1993).

¹⁶ Peter Wagner, *Mythos Marshall-Plan. Das europäische Wiederaufbauprogramm in der deutschen öffentlichen Meinung 1947–1952*, Pfaffenweiler: Centaurus (1996).

¹⁷ Wolfgang Sachs, ‘Introduction’, in: Wolfgang Sachs (ed.), *The Development Dictionary. A Guide to Knowledge as Power*, London: ZED books (1992), pp. 1–5. Most pertinent in this volume is Gustavo Esteva, ‘Development’, in: Sachs (1992), *The Development Dictionary*, pp. 6–25. For a substantial critique of development economics see Arturo Escobar, *Encountering Development. The Making and Unmaking of the Third World*, Princeton, NJ: Princeton University Press (1995).

¹⁸ David Ekbladh, *The Great American Mission. Modernization and the Construction of an American World Order*, Princeton, NJ: Princeton University Press (2010). This study suggests that the Tennessee Valley Authority (TVA) was much more

of recent scholarship about the workings and the possible success of the European Recovery Programme have gone unnoticed in the international appropriation of the Marshall Plan. This observation seems highly relevant.

In the context of international development discourse and practice, the after-history of the European Recovery Programme by and large consists of a rather simplified vision. The scheme is collectively remembered as an assumedly historic first in the field of wide ranging economic interventions. The Marshall Plan has become a template in international development, not because it has had such a controversial history, but in contrast because it could be imagined as a neat and successful programme. It stands as a positive example of a large-scale capital transfer in order to stimulate a regional economy. Two aspects that have made this simplified view plausible are both closely related to timing.¹⁹

First, the US intervention stood, chronologically, at the beginning of the *'trente glorieuses'*,²⁰ which saw an unprecedented change in consumer culture and in collective lifestyle and a historically singular per capita growth rate of national income in all Western European countries. This chronological proximity has often been turned into a causal relation. But the causalities at stake are questionable. Second, the international transfer of Marshall Plan aid found an end in 1952. The US intervention ended when a massive change in European economic life began to take shape. This course of events sent a message to the foreign policy departments of all comparatively rich Western states, according to which costly action in the field of international solidarity could be subjected to a rigid time frame. Taxpayers could be convinced that the disposal of their riches abroad would remain temporary, while the gains would reach far into the future. In sum, these two aspects stabilized a general assessment of the Marshall initiative as a great success. As a matter of

important in globalising Western development planning than the Marshall Plan, because this US-domestic scheme also had to deal with a lack of local expertise.

¹⁹The historical nexus between concepts of time and development has been elaborated in Niels P. Petersson, "Großer Sprung nach vorn" oder "natürliche Entwicklung"? Zeitkonzepte der Entwicklungspolitik im 20. Jahrhundert', in: Hubertus Büschel and Daniel Speich (eds.), *Entwicklungswelten. Globalgeschichte der Entwicklungszusammenarbeit*, Globalgeschichte vol. 6, Frankfurt a. M.: Campus (2009), pp. 89–111.

²⁰Jean Fourastié, *Les Trentes glorieuses ou la révolution invisible de 1946 à 1975*, Paris: Fayard (1979).

fact, the US Secretary of State, George C. Marshall, received the Nobel Peace Prize in 1953 for his contributions to securing world order.²¹

The argument in this chapter is that, in order to fully assess the global historical impact of the European Recovery Programme, we need to take a closer look at organizational issues. George C. Marshall's innovation stands for a new blending of social scientific expertise and political practice in view of the larger issues of securing economic reconstruction, growth and development worldwide. We need to ask how this specifically Western planning experience was organized and how it was reconciled with free-market ideology. Despite the notorious endeavours of the Soviet GOSPLAN, economic planning was no communist prerogative, but an important asset in Western policies during the height of the Cold War.²²

In this regard, the post-war reconstruction of Europe utilized major organizational experiences. The European Recovery Programme was one of them; it gave rise to the Organization of European Economic Cooperation, today known as the OECD.²³ The United Nations system was also important, especially in that it created a regional economic commission for Europe as early as 1947.²⁴ The European Coal and Steel Community (ECSC) and the European project played significant roles through politically creating a Common Market, thereby setting a third organizational trajectory.²⁵

²¹ See Nobelprize.org, 'George C. Marshall – Nobel Lecture. Essentials to Peace', http://www.nobelprize.org/nobel_prizes/peace/laureates/1953/marshall-lecture.html (date accessed 21 June 2012).

²² Peter J. Boettke and Steven Horwitz, 'The Limits of Economic Expertise. Prophets, Engineers, and the State in the History of Development Economics', *History of Political Economy* 37 (2005), pp. 10–39. On the globality of the Cold War see Odd Arne Westad, *The Global Cold War. Third World Interventions and the Making of our Time*, Cambridge: Cambridge University Press (2005). The leading historian in this field misses relevant aspects of the topic by focusing too exclusively on national foreign policy outlooks. John Lewis Gaddis, *The Cold War. A New History*, New York: Penguin Press (2005).

²³ Daniel Barbezat, 'The Marshall Plan and the Origin of the OEEC', in: Richard T. Griffiths (ed.), *Explorations in OEEC History*, Paris: OECD (1997), pp. 33–48.

²⁴ Yves Berthelot (ed.), *Unity and Diversity in Development Ideas. Perspectives from the UN Regional Commissions*, Bloomington, IN: Indiana University Press (2003).

²⁵ Historiography on European integration is vast and still at an infant stage concerning the issues here at stake. Pioneering work has been done by Véronique Dimier, *Le gouvernement des colonies. Regards croisés franco-britanniques*, Bruxelles: Editions de l'Université de Bruxelles (2004). See also Véronique Dimier, 'Négocié avec les rois nègres. L'influence des administrateurs coloniaux français sur la politique européenne de développement', in: Marie-Thérèse Bitsch and Gérard

These bodies emerged from the US-led project of reconstructing Europe economically and gave rise to a network of macroeconomic expertise that held a global potential. With the help of economists, they have been instrumental in transforming economic problems into political questions.²⁶ By looking more closely at their historical unfolding, it is possible to contextualize the European post-war experience more deeply and more globally.

Economic planning formed the avenue through which social-scientific expertise rose to an unprecedented importance in international affairs: it set the conditions for what Tony Judt, in his masterly narrative of recent European history, describes as a general epoch of planning. In Judt's view, the catastrophic effects of the Second World War affected both Europeans and, more generally, the social organization of collective life. Thus, a call for more responsible, more rational and better-planned governmental interventions was shared among most inhabitants of the devastated continent of Europe. This was true for both sides of what emerged as the global East–West split post-1945.²⁷ Moreover, economic prospects and the promise of a materially better future became the chief arena of Cold War contestations. The US advocates of liberty and the Soviet promoters of social justice agreed that state action could make a difference.²⁸

Such a promise was also a crucial element in the process of decolonization. Scholars like Frederick Cooper have causally attributed the end of the European empires to a new understanding of the role of government

Bossuat (eds.), *L'Europe unie et l'Afrique. De l'idée d'Euroafrique à la convention de Lomé I*, Bruxelles: Bruylant, LGDJ, Nomos (2005), pp. 393–410.

²⁶On technocratic depoliticization, see Frank Fischer, *Technocracy and the Politics of Expertise*, Newbury Park, London, New Delhi: Sage (1990); Stefan Willeke, *Die Technokratiebewegung in Nordamerika und Deutschland zwischen den Weltkriegen. Eine vergleichende Analyse*, Studien zur Technik-, Wirtschafts- und Sozialgeschichte vol. 7, Frankfurt a. M.: Lang (1995); Helmut Willke, 'Organisierte Wissensarbeit', *Zeitschrift für Soziologie* 27, no. 3 (1998), pp. 161–177; Hermann Lübke, 'Technokratie. Politische und wirtschaftliche Schicksale einer philosophischen Idee', *WeltTrends, Zeitschrift für internationale Politik und vergleichende Studien* 18 (1998), pp. 39–61.

²⁷Tony Judt, *Post-war. A History of Europe Since 1945*, London: Heinemann (2005).

²⁸The structural comparability of the two systems was recorded first by Raymond Aron, Colin Clark and C. A. R. Crosland, *The Soviet Economy. A Discussion*, Congress for Cultural Freedom, London: Secker & Warburg (1956). The importance of social scientific expertise in the Cold War has been studied in depth by David Engerman, *Know Your Enemy. The Rise and Fall of America's Soviet Experts*, Oxford: Oxford University Press (2009).

in securing the welfare of their people. With the advent of the welfare state, so he argued, colonial subjects started to voice demands for inclusion into these schemes of economic prosperity. However, colonial power was not wealthy enough to spread the new promises of economic security to its peripheries.²⁹ This shortcoming opened up a new arena for international organizations in the realm of economic policy.

In assessing the global history of the Marshall Plan, one need not look at the incompatibility of divergent modes of social organization within the discursive framework of Cold War antagonisms. Rather, the great innovation of the Marshall Plan seems to have been the construction of intermediary organizations and their legitimation through economic expertise. This innovation was truly international, also with respect to the cleavages of the Cold War. The recipients of US generosity, that is the Western European states, became members of an international organization, through which they were linked to US foreign-policy aims and gained access to US assets while retaining the full sovereignty of nation states. Comparable organizational modes also structured the logic of the Comecon. Such international systems were helpful in renegotiating the relations between the centres and the peripheries of the declining European empires. In the emerging 'West', economic expertise fostered a method for ensuring the stability of global capitalism without the need of collective bargaining with the organized labour force. Rather, economic expertise epistemologically strengthened the container of national sovereignty with an assumedly material substance and a promising future outlook.³⁰

One would conclude that the organizational innovation linked to European post-war reconstruction was scaled up in the 1950s to what became a global development endeavour. Seen from an organizational perspective, the emergence of development aid from North to South was a corollary to de-colonization. According to the organizational logic of the Marshall Plan, the new system of equal sovereign states, which formed a global 'family of nations', would not have become plausible without the prospect of large-scale transfers of wealth from the rich to

²⁹Frederick Cooper, 'States, Empires, and Political Imagination', in: Frederick Cooper (ed.), *Colonialism in Question. Theory, Knowledge, History*, Berkeley, CA: California University Press (2005), pp. 153–203; Frederick Cooper, 'Possibility and Constraint. African Independence in Historical Perspective', *Journal of African History* 49 (2008), pp. 167–196.

³⁰Daniel Speich, 'The Use of Global Abstractions. National Income Accounting in the Period of Imperial Decline', *Journal of Global History* 6, no. 1 (2011), pp. 7–28.

the poor family members. One needs to delve more deeply into the organizational questions that were associated with such a vision of the global political economy.

8.3 International organizational innovation

The know-how that needed to be conveyed in George C. Marshall's plan lay with economic experts. It was no easy task to fuse their knowledge into the global political process. The founding of new international organizations that emerged after the Second World War, like the technical bodies of the UN, the OECD or the European Economic Community (EEC) was a consequence of this organizational problem.

In the final phase of the Second World War and in the immediate post-war years, a plethora of new international organizations emerged. Some of them are very well-known and well researched, like the United Nations itself, or some of its more prominent technical bodies, like the Food and Agricultural Organization, the World Health Organization or UNESCO. At the root of these new institutions lay the alliance of those countries that opposed the axis powers in the war.

Not unlike the end of the First World War, we can see a strong concern in international diplomatic practice in the middle of the 1940s that focused on building inter-governmentally binding policy prescriptions in order to secure civilized and peaceful global interactions. But in contrast to the founding of the League of Nations with the Treaty of Versailles in 1919, economics played a crucial role in 1945. The diplomats, secretaries of state and ministers of foreign affairs strongly built upon economic expertise. In 1945 Maurice Bourquin, an international legal scholar and diplomat, quite bluntly stated that the League of Nations concept was a failure. In spite of this bad record, for Bourquin, the League also incorporated success. He saw the international organization as the core of a new system of specialized bodies grouping around a new notion of technocratic politics. Looking back at the inter-war period, Bourquin stated: 'Step by step, under the constant pressure of daily needs and in favour of the circumstances, the bizarre edifice of what has become known as the technical organizations arose, a motely but useful collection of institutions.'³¹ This change went along with the arrival of new personnel. Bourquin recorded a certain tension

³¹ Maurice Bourquin, *Vers une nouvelle société des nations*, Neuchâtel: Editions de la Baconnière (1945), p. 62. This is my rough translation of the following French quote: '*Peu à peu, sous la pression des besoins, à la faveur des circonstances, s'éleva*

in diplomatic practice; traditional diplomats and heads of state, he observed, lacked the capacity to decipher the mystery of economic laws and ignored the task of global economic reconstruction. 'The fact is that a new figure – the expert – has entered the international scene and has quickly gained a prominent position.'³² Scientific expertise had arrived at the level of international negotiations through the backdoor and was to be built prominently into future institutions.

Not international law and not legal discourse, but a new politics of economic productivity and a new technocratic understanding of socio-economic change prevailed in the 1940s. Already during the war, the British and US governments installed boards of economic advisors. At the same time, experts like Jean Monnet brought economic arguments into the French resistance movement. This connection blossomed after the collapse of Hitler's regime.

The following is a preliminary compilation of all those international organizations founded during the first 15 years after the Second World War that had a certain proximity to economic knowledge and expertise and were active on the European continent:

- United Nations Relief and Rehabilitation Administration (UNRRA, 1943)
- International Bank for Reconstruction and Development (IBRD, 1944)
- International Monetary Fund (IMF, 1944)
- United Nations Economic and Social Council (ECOSOC, 1945)
- Food and Agriculture Organization of the United Nations (FAO, 1945)
- Emergency Economic Committee for Europe (EECE, 1945)
- European Coal Organization (ECO, 1945)
- European Central Inland Transport Organization (ECITO, 1945)
- International Air Transport Association (IATA, 1945)
- United Nations International Children's Fund (UNICEF, 1946)
- United Nations Economic Commission for Europe (ECE, 1947)
- Bizonia (1947)
- World Health Organization (WHO, 1948)
- Economic Cooperation Organization (ECA, 1948)
- Organization of European Economic Cooperation (OEEC, 1948)
- Council of Europe (1949)

l'édifice bizarre, hétéroclite, mais utile et, en certains points, très solide de ce qu'on a appelé ses organisations techniques.'

³²Bourquin (1945), *Vers une nouvelle société*, p. 67. 'Le fait est qu'un personnage nouveau – l'expert – a fait son entrée sur la scène internationale et qu'il y a rapidement conquis une place en vue.'

European Payments Union (EPU, 1950)
 United Nations Expanded Program for Technical Assistance (EPTA, 1950)
 European Coal and Steel Community (ECSC, 1952)
 European Economic Community (EEC, 1957/58)
 European Atomic Energy Community (EAEC, 1958)
 European Free Trade Association (EFTA, 1960)

As early as May 1945, an 'Emergency Economic Committee for Europe' was founded by the allied forces. In June 1945 the 'European Coal Organization' and then, in September 1945, a 'European Central Inland Transport Organization' both came into being. These bodies grew out of the United Nations Relief and Rehabilitation Administration (UNRRA). They were transitory agencies for coordinating European reconstruction, but are not well known. Nevertheless, they played an important role in setting the Western policy agenda of the immediate post-war years. They were formally dissolved when their functions were taken over by another, rather under-researched institution, the 'Economic Commission for Europe', which was founded by the United Nations in 1947.³³

This organizational set-up needs closer scrutiny, as a limited number of experts played a crucial role in its creation. One of them was the American manager, Paul Hoffman, who came from the automobile factory of Studebaker, who acted as the chief executive officer of the Marshall Plan-related Economic Cooperation Agency (ECA), and who later headed the United Nations Development Programme (UNDP).³⁴ Another such personality is the Swedish economist Gunnar Myrdal: the leading figure in the United Nations approach to war-torn Europe through the United Nations Economic Commission for Europe (UN-ECE), which he presided over as its first chief representative. Myrdal was instrumental in building up a network of experts.³⁵

³³Yves Berthelot and Paul Rayment, 'The ECE. A Bridge between East and West', in: Yves Berthelot (ed.), *Unity and Diversity in Development Ideas. Perspectives from the UN Regional Commissions*, Bloomington: Indiana University Press (2003), pp. 51–131.

³⁴Alan R. Raucher and Paul G. Hoffman, *Architect of Foreign Aid*, Lexington: University Press of Kentucky (1985). On UNDP history, see Craig N. Murphy, *The United Nations Development Programme. A Better Way?*, Cambridge: Cambridge University Press (2006).

³⁵On Myrdal, see Thomas Etzemüller, *Die Romantik der Rationalität. Alva & Gunnar Myrdal – Social Engineering in Schweden*, Bielefeld: Transcript (2010).

Organizational innovation was a crucial point in the 1940s. The UN Regional Economic Commission for Europe was commissioned by the UN Economic and Social Council (ECOSOC) in 1947, and set a template for other regional bodies, such as the Latin-American CEPAL headed by Raul Prebisch.³⁶ Some sources trace this idea back to the famous development economist, Walt W. Rostow.³⁷ During the last phase of the war, Walt Rostow served as an intelligence officer, designing targets for the allied air raids over Germany. After the war, he became an advisor in the German-Austrian Economic Division of the US Secretary of State, whose task was to direct the allied efforts in reconstructing the German economic potential. From this vantage point, Rostow called for a new international organization early on that would coordinate all such trajectories in a supra-national planning effort.

The UN reacted to Rostow's call by establishing a new international body that had two tasks. First, it should introduce macroeconomic knowledge into the construction of a post-war European order, and second, it should design guidelines for all European states on how to cooperate economically. The questions addressed which fields of economic activity such cooperation seemed most promising and efficient, and by what policy recommendations these goals could most easily be achieved. In the prose of the UN system, the UN Economic Commission for Europe (UN-ECE) was supposed to 'initiate and participate in measures for facilitating concerted action for the economic reconstruction of Europe, for raising the level of European economic activity, and for maintaining and strengthening the economic relations of the European countries, both among themselves and with other countries of the world'.³⁸

A new expert body was formed under UN auspices and headed by Gunnar Myrdal. This body came into existence before the allied forces split along the faults created by the Cold War. Accordingly, the USSR was a full member of the UN-ECE. This regional body, which still exists today, always saw itself as a combined agent of the East and the West in the greater task of economic reconstruction and development.

The first thing that the UN-ECE issued under Myrdal's lead was a scientific report on the major problems and perspectives of the combined

³⁶ Edgar J. Dosman, *The Life and Times of Raul Prebisch*, Montreal: McGill-Queen's University Press (2008).

³⁷ Kindleberger (1987), *Marshall Plan Days*, p. 106.

³⁸ Quoted from the UN-ECE website at <http://www.unece.org/oes/history/history.htm> (date accessed 9 May 2011).

European economies. It appeared in 1948 and was written largely by the British economist, Nicholas Kaldor.³⁹ Charles P. Kindleberger, who was a senior economic scientist at the US state department at the time, regarded this report as fundamental in many respects.⁴⁰ It gave substance to one key observation in Marshall's initial speech, according to which the connection between European agricultural production and its industrial economic life was fundamentally torn apart. Put simply, European – and especially German – farmers had stopped marketing their agricultural produce in exchange for the fruits of industrial labour. Economic planning by international organizations had to reconstruct such basic functions of national economic interaction, as market forces did not seem to push labour and production into the right directions.

More importantly, the UN-ECE report of 1948 clearly showed that the ongoing planning activities in all European countries set national priorities, which in their sum proved detrimental to general European welfare. Each nation sought to diversify its economic production without taking their comparative advantages in the European market into consideration. This resulted in an inefficient overall allocation of resources and completely disregarded the economies of scale. Economic life in the continent had, until 1939, been closely inter-woven. However, the market forces that had safeguarded this greater perspective had been destroyed by the war. Now it seemed compulsory to artificially re-install an international perspective in Europe by means of coordinating all national planning activities.

According to the early exponents of the idea of a Marshall Plan, the UN-ECE would have been the natural body to bring such an initiative into operation. But, when Soviet foreign minister Vyacheslav Molotov rejected any participation of his empire in such a scheme, a new body had to be founded that would consign membership according to the cleavages created by the emerging Cold War. Thus, the OEEC came into existence, sinking the UN-ECE into oblivion and diplomatic irrelevance.

Gunnar Myrdal has always made a strong point of the initial importance of his organization. In one of his many retrospective publications he wrote: 'As a matter of fact [the 1948] survey was taken as the scientific basis for the newly created OEEC's attempt to get into business by

³⁹UN-ECE, *A Survey of the Economic Situation and Prospects of Europe*, vol. 1948. I.I.E.1, UN Publication (1948).

⁴⁰Kindleberger (1987), *Marshall Plan Days*, p. 49.

establishing country plans for recovery and expansion.⁴¹ Myrdal also claimed such a primer in economic analysis for the UN-ECE publication on 'European Steel Trends' of 1949. According to him, the knowledge and the expertise entailed in this publication defined the subsequent political negotiations towards a European Coal and Steel Community. It was – allegedly – also one of the chief inspirations for the launching of the 'Schuman-Plan'. Moreover, the UN-ECE was one of the more important sources of knowledge for Jean Monnet in his aim at setting out concrete action frameworks in coordinating French and German steel industries.⁴²

In 1949, Gunnar Myrdal organized an international conference of eminent economists in Geneva. The topics were: (1) 'Exchange rate adjustments as a means of rectifying disequilibrium in the balance of payments', (2) 'Internal financial policy and the problem of external disequilibrium', (3) 'The possibilities of the simultaneous existence of bilateral and multilateral trading practices in a transition to freer trade', (4) 'The effects of national economic planning on the international division of labour', and (5) 'Possible approaches towards achievement of a regional economic union'.⁴³ The conference was sponsored by the Rockefeller Foundation. It was instrumental in homogenizing the Western economists' understanding of the problems of economic reconstruction and development.

The following is a list of some of the experts who participated at the Geneva-conference:⁴⁴ Paolo Baffi, Rome; E. H. Chamberlin, Cambridge, MA; Gottfried Haberler, Cambridge, MA; Pierre Uri, Paris; V. Travaglini, Genua; Piero Sraffa, Cambridge, UK; E. F. Schumacher, Frankfurt (British occupation authority); Jan Tinbergen, Den Haag; Alfred Sauvy, Paris; William Rappard, Valavran; Kjeld Philip, Stockholm; François Perroux, Paris; Jorgen Pedersen, Aarhus, Denmark; G. D. A. MacDougall, OEEC, Paris; Erik Lundberg, Stockholm; Alexander Loveday, Oxford; Ernst John, Vienna; Carl Iversen, Copenhagen; Sir Hubert Henderson,

⁴¹Gunnar Myrdal, 'The Research Work of the Secretariat of the Economic Commission for Europe', in: *Ekonomisk Tidskrift* (ed.), *25 economic essays in English, German and Scandinavian languages in honour of Erik Lindahl, 21 November 1956*, Stockholm: Svenska Tryckeriaktiebolaget (1956), p. 281.

⁴²Jean Monnet, *Erinnerungen eines Europäers*, München: Hanser (1978).

⁴³Invitation letter by Gunnar Myrdal to R. F. Kahn, Cambridge, 4 August 1949, in: United Nations Archive Geneva, GX. 26/2, 1, Periodic conferences of economists.

⁴⁴Meeting of European economists, September 1949, Summary. List of recipients of the protocol of the conference, 9 November 1949, in: United Nations Archive Geneva, GX. 26/6.

Oxford, UK; M. F. W. Hemming, London; Jorgen Gelting, Copenhagen; Ragnar Frisch, Oslo; J. M. Fleming, London; F. di Fenizio, Mailand; D. G. Camperhowne, Oxford, UK; Maurice Bye, Foix-Ariege; F. A. Burchardt, Oxford, UK; Karl Brunner, La-Chaux-de-Fonds. Most of these experts went on to become famous figures.

We do not have to take the claims by Gunnar Myrdal on the secular importance of the UN-ECE at face value. But the economists working in this group, such as those named in the list, or Rostow, Myrdal, Kindleberger and Kaldor, need closer attention. It is highly probable that the abstract theories of economic development, such as Walt W. Rostow's concept of a 'take-off'⁴⁵ were designed out of specific organizational experience, which these scholars had gained in war-torn Europe.

8.4 Leading ideas in planning Western economies

Further research needs to go more deeply into the question: What was the role of planning in the context of the Cold War? The fundamental antagonism of the Cold War has largely been remembered as an assumed opposition between centrally planned economies of the Soviet style and the open market societies of the West. But if we look at the importance of economic planning on both sides of the Iron Curtain, things become a little more complicated – and much more interesting.

How can we understand the fact that the Marshall Plan, which carried the word 'plan' in its name, became such an important template in Western diplomatic practice worldwide? After all, the foreign policies of the United States and of the more powerful Western European countries towards the emerging 'Third World' were clearly aimed at containing the communist challenge and at counter-fighting the promises of a centrally planned economy. Western economists have rather clearly analysed the specific economic problems in all member states of the Atlantic alliance. The established facts show that the Second World War produced a massive cut in European economic productivity, a heavy shortage of Dollars in European trade and a major disturbance in the fabric of European economic life. These problems were solved, or brought near to a promising solution, in the course of the 1950s. We cannot know with certainty what effect the Marshall Plan had upon

⁴⁵Walt W. Rostow, 'The Take-Off Into Self-Sustained Growth', *The Economic Journal* 66, no. 261 (1956), pp. 25–48.

their resolution, but contemporary politicians and diplomats in the Western world easily draw a causal relation between the Marshall Plan and the European growth miracle. More importantly, they gained the conviction that economic processes could and should be planned in Western market societies, and that the careful international coordination of these endeavours effectively would raise the living standards of all people concerned.

From 1945 up to the 'neo-liberal' counter-revolution of the late 1970s,⁴⁶ the need for a strong state and the call for planned state intervention into the continuum of economic interaction were unquestioned features in Western political economy. This constellation is known as the Keynesian national welfare state. We do not know exactly, however, what the contribution of the British economist John Maynard Keynes was to the global proliferation of this scheme. His name has become shorthand for a complicated constellation that needs further examination. Keynes obviously profited considerably from a global discursive conjuncture that went far beyond his own intellectual control. The rise of new state functions, and the new significance of social and economic policy post-1945 in the Western capitalist countries and in the new states that emerged out of de-colonization, were phenomena that transcended the scope of Keynes' 'general theory'. Keynes happened to formulate new thoughts at a timely convenient stage, but their precise impact on world politics is beyond the scope of this chapter.

Let us look more closely at what actually happened in Western political economy after the Second World War. According to historical evidence, the policy advisors and the leading politicians of the West in the middle of the twentieth century thought it important to do several things. First, economists kept to the philosophy of what Charles S. Maier has called a 'politics of productivity'.⁴⁷ Essentially, this meant raising the overall efficiency of a given economic collective by applying specific knowledge claims and by transferring such know-how; an approach that seemed more promising than destructing former enemies in war through massive reparations. While the Soviets and the French

⁴⁶Deepak Lal, *The Poverty of 'Development Economics'*, London: Institute of Economic Affairs (1983); John Toye, *Dilemmas of Development. Reflections on the Counter-Revolution in Development Theory and Policy*, Oxford: Basil Blackwell (1987).

⁴⁷Charles S. Maier, 'The Politics of Productivity. Foundations of American International Economic Policy after World War II', *International Organization* 31, no. 4 (1977), pp. 607–633.

pursued such a destructive reparation strategy, the British and the US based their foreign policy upon productivity. Starting with General Lucius D. Clay's decision not to allow the further dismantling of German economic assets in his sector in 1946, the dichotomy between reparation and reconstruction seems to have become a major element in constructing the two antagonistic blocs of the Cold War.

Second, new modes of organizing international diplomatic interaction emerged that created an unprecedented interface between academic insight and economic policy. The UN-ECE is a result of this organizational innovation. Third, and more specifically, the new kind of international organizations that emerged after the Second World War, like the Bretton Woods Institutions (BWI), focused largely on the problems of international finance. The transfer of large sums of investment capital and the stabilization of the conditions of international trade, namely currency issues, became a chief political problem of the international world post-1945. An assumed financing gap and an assumed poverty trap were the most important issues of international economic diplomacy in view of the European post-war recovery, and in view of the emerging worldwide political problem of a substantial inequality between Northern hemisphere and Southern hemisphere states. The process of de-colonization and the decline of the European colonial empires brought such a global antagonism into view.

Fourth, the idea of constructing regionally integrated markets gained strength. Here, the first and most important issue was the coordination of the production and distribution of coal and steel between France and Germany. The idea was to find an optimal allocation of resources through inter-governmental planning. Many further efforts in coordinating European economic interaction followed, including those in the fields of timber production, agriculture and nuclear energy. The idea of a European common market emerged and was fused into the political project of a political European unification.

These four issues – raising productivity, organizational innovation, a new 'monetarism' that strongly highlighted the importance of stability in currency exchange rates and the international financial order, and the efficiency gains from regional market integration – defined international Western diplomacy and gave rise to the global development endeavour. They were packed into policy prescriptions that secured financial aid for the former colonies. The technical internationalism of economic aid replaced colonial power structures; it safeguarded well-established avenues of world economic interference while granting full

political sovereignty to the emerging nations, as US Marshall aid had done towards Europe.

8.5 Conclusion

When one considers the post-1945 globalization of Marshall Plan-like development interventions, two observations are noteworthy. First, it was not an assumed fundamental divergence between centrally planned economies and free market societies, but different techniques of planning that marked the two controversial approaches to collective welfare in the emerging Cold War. Eastern economists planned, as did their Western counterparts. Economic planning was not an object of controversy, but a medium of communication in the East–West conflict. The same is also true in the context of the North–South conflict that emerged with the decline of the European empires during the 1950s. As seemingly well-established structures of geographically extended imperial governance collapsed, economic expertise stepped into this void, thereby effecting a major change in international political communication from legal considerations to a more materially oriented economists' development discourse. Problems of industrial policy and welfare were not only crucial to the decline of imperialism, as Frederick Cooper and others argued, but they also played an important role in the building-up of post-colonial North–South relations. When writing about the history of development,⁴⁸ the Marshall Plan is an important chapter. European experiences influenced historical trajectories in other parts of the world by exporting planned conceptions of industrialization. Specific development programmes formed the nucleus of a new global imagination that structured geographically large-scale communication, beginning in the 1950s.

A critical reassessment of the global effects of the Marshall Plan should substantiate these epistemic and political shifts, which have structured global politics post-1945 in the name of development. A global history of the Marshall Plan reveals such inter-relations, and it renders an adequate picture of the role of international organizations and of social scientific expertise in the unfolding of global communicative structures during the second half of the twentieth century. In this, the field of industrial policy formed a core.

⁴⁸ Frederick Cooper, 'Writing the History of Development', *Journal of Modern European History* 8, no. 1 (2010), pp. 5–23.

References

- Amrith, Sunil, 'Reconstructing the "Plural Society". Asian Migration between Empire and Nation, 1940–1948', in: Mazower, Mark et al. (eds.), *Post-War Reconstruction in Europe. International Perspectives, 1945–1949*, Oxford: Oxford University Press (2011), pp. 237–257.
- Amrith, Sunil and Glenda Sluga, 'New Histories of the United Nations', *Journal of World History* 19, no. 3 (2008), pp. 251–274.
- Arkes, Hadley, *Bureaucracy, the Marshall Plan and the National Interest*, Princeton: Princeton University Press (1972).
- Aron, Raymond, Colin Clark and C. A. R. Crosland, *The Soviet Economy. A Discussion by Raymond Aron, Colin Clark, C.A.R. Crosland and Others*, edited by the Congress for Cultural Freedom, London (1956).
- Backhouse, Roger and Andrea Salanti, *Macroeconomics and the Real World, Volume 2: Keynesian Economics, Unemployment, and Policy*, Oxford/New York: Oxford University Press (2000).
- Barbezat, Daniel, 'The Marshall Plan and the Origin of the OEEC', in: Griffiths, Richard T. (ed.), *Explorations in OEEC History*, Paris: OECD (1997), pp. 33–48.
- Bernstein, Michael A., *A Perilous Progress. Economists and Public Purpose in Twentieth-Century America*, Princeton/Oxford: Princeton University Press (2001).
- Berthelot, Yves (ed.), *Unity and Diversity in Development Ideas. Perspectives from the UN Regional Commissions*, Bloomington: Indiana University Press (2003).
- Berthelot, Yves and Paul Rayment, 'The ECE: A Bridge between East and West', in: Berthelot, Yves (ed.), *Unity and Diversity in Development Ideas. Perspectives from the UN Regional Commissions*, Bloomington: Indiana University Press (2003), pp. 51–131.
- Boettke, Peter J. and Steven Horwitz, 'The Limits of Economic Expertise. Prophets, Engineers, and the State in the History of Development Economics', *History of Political Economy* 37 (2005), pp. 10–39.
- Bourquin, Maurice, *Vers une nouvelle société des nations*, Neuchatel: Editions de la Baconnière (1945).
- Büschel, Hubertus and Daniel Speich (eds.), *Entwicklungswelten. Globalgeschichte der Entwicklungszusammenarbeit*, Frankfurt a. M.: Campus (2009).
- Cooper, Frederick, 'States, Empires, and Political Imagination', in: Cooper, Frederick (ed.), *Colonialism in Question. Theory, Knowledge, History*, Berkeley: California University Press (2005), pp. 153–203.
- Cooper, Frederick, 'Possibility and Constraint. African Independence in Historical Perspective', *Journal of African History* 49 (2008), pp. 167–96.
- Cooper, Frederick, 'Writing the History of Development', *Journal of Modern European History*, 8 (2010), pp. 5–23.
- Cooper, Frederick, and Randall Packard (eds.), *International Development and the Social Sciences. Essays on the History and Politics of Knowledge*, Berkeley: California University Press (1997).
- Cosgrove, Carol A., 'The Common Market and Its Colonial Heritage', *Journal of Contemporary History* 4, no. 1 (1969), pp. 73–87.
- Dimier, Véronique, *Le gouvernement des colonies. Regards croisés franco-britanniques*, Bruxelles: Editions de l'Université de Bruxelles (2004).

- Dimier, Véronique, 'Négocier avec les rois nègres: L'influence des administrateurs coloniaux français sur la politique européenne de développement', in: Bitsch, Marie-Thérèse and Gérard Bossuat (eds.), *L'Europe unie et l'Afrique. De l'idée d'Euroafrrique à la convention de Lomé I*, Bruxelles: Bruylant, LGDJ, Nomos (2005), pp. 393–410.
- Dosman, Edgar J., *The Life and Times of Raul Prebisch*, Montreal: McGill-Queen's University Press (2008).
- Eichengreen, Barry J., *Reconstructing Europe's Trade and Payments. The European Payments Union*, Ann Arbor: University of Michigan Press (1993).
- Ekladh, David, *The Great American Mission. Modernization and the Construction of an American World Order*, Princeton: Princeton University Press (2010).
- Engerman, David, *Know Your Enemy. The Rise and Fall of America's Soviet Experts*, Oxford: Oxford University Press (2009).
- Escobar, Arturo, *Encountering Development. The Making and Unmaking of the Third World*, Princeton: Princeton University Press (1995).
- Esteva, Gustavo, 'Development', in: Sachs, Wolfgang (ed.), *The Development Dictionary. A Guide to Knowledge as Power*, London/New York: ZED books (1992), pp. 6–25.
- Etzemüller, Thomas (ed.), *Die Ordnung der Moderne. Social Engineering im 20. Jahrhundert*, Bielefeld: Transcript (2009).
- Etzemüller, Thomas, *Die Romantik der Rationalität. Alva & Gunnar Myrdal – Social Engineering in Schweden*, Bielefeld: Transcript (2010).
- Ferguson, James, *The Anti-Politics Machine. Development, Depoliticization, and Bureaucratic Power in Lesotho*, Cambridge: Cambridge University Press (1990).
- Fisch, Stefan and Wilfried Rudloff (eds.), *Experten und Politik: Wissenschaftliche Politikberatung in geschichtlicher Perspektive*, Berlin: Duncker & Humblot (2004).
- Fischer, Frank, *Technocracy and the Politics of Expertise*, Newbury Park/London/New Delhi: Sage (1990).
- Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999).
- Fourastié, Jean, *Les trente glorieuses ou la révolution invisible de 1946 à 1975*, Paris: Fayard (1979).
- Fourcade, Marion, *Economists and Societies. Discipline and Profession in the United States, Britain, and France, 1890s to 1990s*, Princeton: Princeton University Press (2009).
- Gaddis, John L., *The Cold War. A New History*, New York: Penguin Press (2005).
- Geyer, Michael and Charles Bright, 'World History in a Global Age', *American Historical Review* 100, no. 4 (1995), pp. 1034–1060.
- Gillingham, John, *Coal, Steel, and the Rebirth of Europe, 1945-1955. The Germans and French from Ruhr Conflict to Economic Community*, Cambridge: Cambridge University Press (1991).
- Gimbel, John, *The Origins of the Marshall Plan*, Stanford: Stanford University Press (1976).
- Gore, Al, *Wege Zum Gleichgewicht. Ein Marshallplan Für Die Erde*, Frankfurt a. M.: Fischer Taschenbuch (1992).
- Hall, Peter A. (ed.), *The Political Power of Economic Ideas: Keynesianism across Nations*, Princeton: Princeton University Press (1989).

- Hardach, Gerd, *Der Marshall-Plan. Auslandshilfe und Wiederaufbau in Westdeutschland 1948–1952*, München: dtv Wissenschaft (1994).
- Herbst, Ludolf, Werner Bührer and Hanno Sowade (eds.), *Vom Marshallplan zur EWG. Die Eingliederung der Bundesrepublik Deutschland in die westliche Welt*, München: Oldenbourg (1990).
- Hesse, Jan-Otmar, *Die Wirtschaft als Wissenschaft. Bundesdeutsche Volkswirtschaftslehre zwischen Weltkrieg und Ölpreiskrise*, Frankfurt a. M.: Campus (2010).
- Hitzler, Ronald, Anne Honer and Christoph Maeder (eds.), *Expertenwissen. Die institutionalisierte Kompetenz zur Konstruktion von Wirklichkeit*, Opladen: Westdeutscher Verlag (1994).
- Hogan, Michael J., *The Marshall Plan. America, Britain, and the Reconstruction of Western Europe, 1947–1952*, Cambridge: Cambridge University Press (1987).
- Judt, Tony, *Post-War. A History of Europe since 1945*, London: Heinemann (2005).
- Killick, John, *The United States and European Reconstruction, 1945–1960*, Keele: Keele University Press (1997).
- Kindleberger, Charles P., *Marshall Plan Days*, Boston: Allen & Unwin (1987).
- Köster, Roman, *Die Wissenschaft der Aussenseiter. Die Krise der Nationalökonomie in der Weimarer Republik*, Göttingen: Vandenhoeck & Ruprecht (2008).
- Lal, Deepak, *The Poverty of 'Development Economics'*, London: Institute of Economic Affairs (1983).
- Leikam, Ferdinand, *Empire, Entwicklung und Europa. Die Europapolitik Grossbritanniens und die Entwicklungsländer im Commonwealth, 1945–75*, Augsburg: Wissner (2011).
- Lübbe, Hermann, 'Technokratie. Politische und wirtschaftliche Schicksale einer philosophischen Idee', *WeltTrends. Zeitschrift für internationale Politik und vergleichende Studien* 18, no. Frühjahr (1998), pp. 39–62.
- Maier, Charles S., 'The Politics of Productivity. Foundations of American International Economic Policy after World War II', *International Organization* 31, no. 4 (1977), pp. 607–633.
- Maier, Charles S. and Günter Bischof (eds.), *Deutschland und der Marshall-Plan*, Baden-Baden: Nomos (1992).
- Mazower, Mark, 'Reconstruction. The Historiographical Issues', in: Mazower, Mark, Jessica Reinisch and David Feldman (eds.), *Post-War Reconstruction in Europe. International Perspectives, 1945–1949*, Oxford: Oxford University Press (2011), pp. 17–28.
- Migani, Guia, 'L'association des TOM au Marché Commun: Histoire 'accord européen entre cultures économiques différentes et idéaux politiques communs, 1955–1957', in: Bitsch, Marie-Thérèse and Gérard Bossuat (eds.), *L'Europe unie et l'Afrique. De l'Idée d'Euroafrique à la convention de Lomé I*, Bruxelles: Bruylant, LGDJ, Nomos, (2005), pp. 233–252.
- Milward, Alan S., *The Reconstruction of Western Europe, 1945–51*, London: Methuen (1984).
- Mirowski, Philip and Dieter Plehwe (eds.), *The Road from Mont Pèlerin. The Making of the Neoliberal Thought Collective*, Cambridge, MA/London: Harvard University Press (2009).
- Mitchell, Timothy, *Rule of Experts. Egypt, Techno-Politics, Modernity*, Berkeley: University of California Press (2002).
- Möller, Uwe, *Global Marshall Plan. Mit einem Planetary Contract für eine ökologische Marktwirtschaft weltweit Frieden, Freiheit und Wohlstand ermöglichen. Ein Statement der Global Marshall Plan Initiative*, Stuttgart: Horizonte (2004).

- Monnet, Jean, *Erinnerungen eines Europäers*, München: Hanser (1978).
- Morgan, Mary S., *The History of Econometric Ideas*, Cambridge: Cambridge University Press (1990).
- Murphy, Craig N., *The United Nations Development Programme. A Better Way?*, Cambridge: Cambridge University Press (2006).
- Myrdal, Gunnar, 'The Research Work of the Secretariat of the Economic Commission for Europe', in: *Tidskrift, Ekonomisk* (ed.), *25 Economic Essays in English, German and Scandinavian Languages in Honour of Erik Lindahl, 21 November 1956*, Stockholm: Svenska Tryckeriaktiebolaget (1956), pp. 267–293.
- Nützenadel, Alexander, *Stunde der Ökonomen. Wissenschaft, Politik und Expertenkultur in der Bundesrepublik 1949–1974*, Göttingen: Vandenhoeck & Ruprecht (2005).
- Peterson, Niels P., "'Grosser Sprung nach vorn" oder "natürliche Entwicklung?" Zeitkonzepte der Entwicklungspolitik im 20. Jahrhundert', in: Büschel, Hubertus and Daniel Speich (eds.), *Entwicklungswelten. Globalgeschichte der Entwicklungszusammenarbeit*, Frankfurt a. M.: Campus, 2009, pp. 89–111.
- Raphael, Lutz (ed.), *Theorien und Experimente der Moderne. Europas Gesellschaften im 20. Jahrhundert*, Köln: Böhlau (2012).
- Raucher, Alan R. and Paul G. Hoffman, *Architect of Foreign Aid*, Lexington: University Press of Kentucky (1985).
- Rempe, Martin, *Entwicklung im Konflikt. Die EWG und der Senegal 1957–1975*, Köln: Böhlau (2012).
- Rostow, Walt W., 'The Take-Off into Self-Sustained Growth', *The Economic Journal* 66, no. 261 (1956), pp. 25–48.
- Rostow, Walt W., *The Division of Europe after World War II, 1946*, Austin: University of Texas Press (1981).
- Sachs, Wolfgang, 'Introduction', in: Sachs, Wolfgang, *The Development Dictionary. A Guide to Knowledge as Power*, London/New York: ZED books (1992), pp. 1–5.
- Sawadogo, Abdoulaye, *Un Plan Marshall Pour 'Afrique?*, Paris: L'Harmattan (1987).
- Schröder, Iris, 'Die Wiederkehr des Internationalen. Eine einführende Skizze', *Zeithistorische Forschungen/Studies in Contemporary History*, Online-Ausgabe 8, no. 3 (2011).
- Sluga, Glenda, 'Editorial – the Transnational History of International Organizations', *Journal of Global History* 6, no. 2 (2011), pp. 219–222.
- Speich, Daniel, 'The Use of Global Abstractions. National Income Accounting in the Period of Imperial Decline', *Journal of Global History* 6, no. 1 (2011), pp. 7–28.
- Speich Chassé, Daniel and David Gugerli (eds.), 'Wissensgeschichte. Eine Standortbestimmung', *Traverse Special Volume on 'Kulturgeschichte'*, no. 1 (2012), pp. 85–100.
- Speich, Daniel, 'Der Entwicklungsautomatismus. Ökonomisches Wissen als Heilsversprechen in der ostafrikanischen Dekolonisation', *Archiv für Sozialgeschichte* 48 (2008), pp. 183–212.
- Tété-Adjalogo, Tétévi G., *La question du Plan Marshall et l'Afrique*, Paris: L'Harmattan (1989).
- Tooze, J., Adam, *Statistics and the German State, 1900–1945. The Making of Modern Economic Knowledge*, Cambridge: Cambridge University Press (2001).
- Toye, John, *Dilemmas of Development. Reflections on the Counter-Revolution in Development Theory and Policy*, Oxford: Basil Blackwell (1987).
- UN-ECE, *A Survey of the Economic Situation and Prospects of Europe*, UN Publication 1948.II.E.1 (1948).

- Vahsen, Urban, *Eurafrikanische Entwicklungskooperation. Die Assoziierungspolitik der EWG gegenüber dem subsaharischen Afrika in den 1960er Jahren*, Köln: Steiner (2010).
- Wagner, Peter, *Mythos Marshall-Plan. Das europäische Wiederaufbauprogramm in der deutschen öffentlichen Meinung 1947–1952*, Pfaffenweiler: Centaurus (1996).
- Westad, Odd A., *The Global Cold War. Third World Interventions and the Making of Our Time*, Cambridge: Cambridge University Press (2005).
- Wexler, Imanuel, *The Marshall Plan Revisited. The European Recovery Program in Economic Perspective*, Westport, CT: Greenwood Press (1983).
- White, Nicholas J., 'Reconstructing Europe through Rejuvenating Empire. The British, French, and Dutch Experiences Compared', in: Mazower, Mark et al. (eds.), *Post-War Reconstruction in Europe. International Perspectives, 1945–1949*, Oxford: Oxford University Press (2011), pp. 211–236.
- Willeke, Stefan, *Die Technokratiebewegung in Nordamerika und Deutschland zwischen den Weltkriegen. Eine vergleichende Analyse*, Frankfurt a. M.: Lang (1995).
- Willke, Helmut, 'Organisierte Wissensarbeit', *Zeitschrift für Soziologie* 27/3 (1998), pp. 161–177.
- Wimmer, Andreas and Nina Glick-Schiller, 'Methodological Nationalism and Beyond: Nation-State Building, Migration and the Social Sciences', *Global Networks* 2, no. 4 (2002), pp. 301–334.
- Yonay, Yuval P., *The Struggle over the Soul of Economics. Institutional and Neoclassical Economists in America between the Wars*, Princeton: Princeton University Press (1998).

9

Towards a European industrial policy? The European Economic Community (EEC) debates, 1957–1975

Laurent Warlouzet

University of Artois/London School of Economics

9.1 Introduction

In 1967, the famous book *The American Challenge* warned Europeans about a new ‘war’ waged by American multinationals invading the ‘common market’.¹ What is less known about this book is that it argued for the creation of an ambitious industrial policy by the European Economic Community’s (EEC) institutions in order to overcome this ‘challenge’. This chapter will reconstruct these ambitious projects of EEC industrial policy from the birth of the EEC in 1957, to the end of the ‘Golden Age’ in 1975. It will demonstrate that there was a willingness to converge towards a European solution despite the contrasting national models, and that ‘industrial policy’ was both a fashionable and a flexible concept from 1965 to 1975.

Three main issues are at stake. In terms of national economic models, a debate occurred between French and Italian officials who came from countries with strong national industrial policies, and German officials who were influenced by a different national experience and who were less keen on directly supporting business. To trace this discussion in a precise way, this chapter will define the main features of European industrial policy proposals. The aim is to gauge the extent to which the different national visions were compatible.

Secondly, with regard to institutions, the role of EEC institutions is controversial. Many national actors favoured inter-governmental solutions

¹Jean-Jacques Servan-Schreiber, *The American Challenge*, Harmondsworth: Penguin (1969).

(that is loose forms of European cooperation), however, other actors argued for the pooling of resources and power at the European level by empowering federal institutions such as the European Commission. They were driven by political considerations (the support for European integration) and/or functionalist arguments, such as achieving a higher degree of efficiency by gathering strengths and avoiding unnecessary duplications.

Thirdly, geography matters: from 1957 to 1972, the EEC was limited to six countries (Belgium, France, Italy, Luxembourg, the Netherlands and West Germany), whereas the United Kingdom, one of the most important industrial powers – and certainly the first European country in many high-technology sectors in those days – was an outsider. As a result, it was difficult to envisage a powerful EEC industrial policy without the British. The same question can be raised for the United States. In some sectors, such as nuclear energy or space launchers, where R&D costs were very high and where a strategic dimension existed, especially in the Cold War context, developing cooperation between European countries in this sector, without Washington, might have been considered to be irrational. On the other hand, one can surmise that the larger an industrial cooperation is, the looser and less efficient it is.

The three issues overlap, creating a complex web of motivations for the actors involved. For example, France was dominated by Gaullist governments from 1958 to 1974. They frequently called for a strong EEC industrial policy, but they refused to grant relevant competences to the Commission, and they had an uncomfortable position on Great Britain. Moreover, national actors should not be considered as united behind one single model. Many French officials working at the Commission, or even in the French government, rejected the official Gaullist position and strongly defended more federalist solutions.² Lastly, the national economic models cannot be considered homogenous or permanent. The term ‘model’ is employed as Weberian ‘ideal-type’, namely as a heuristic tool designed to facilitate comparisons, and not as a reification of abstract concepts.

So far, the attempts at creating an EEC industrial policy have not been studied through a systematic recourse to archives sources, except

²For an example of inner conflicts among the French officials on the CAP, see Laurent Warlouzet, ‘The Deadlock. The Choice of the CAP by de Gaulle and its Impact on French EEC Policy (1958–69)’, in: Kiran Patel (ed.), *Fertile Ground for Europe? The History of European Integration and the Common Agricultural Policy since 1945*, Baden-Baden: Nomos (2009), pp. 111–115.

for a chapter in the European Commission's official internal history, an article in Italian by Lorenzo Mechi and Francesco Petrini that did not use the Commission fund, and Arthe Van Laer's PhD thesis on telecommunications and the computer industry.³ The literature on European industrial policy does not study the pre-1985 period.⁴ It envisages the debate mainly through the eyes of the European competition policy,⁵ which was on the rise in those days.⁶

Drawing on EEC archival sources, and on a few national sources,⁷ this chapter will firstly demonstrate that the 'common market' was an unexpected framework for developing an industrial policy. Nevertheless, a second section will explain why a growing need to develop an EEC industrial policy emerged from 1965 onwards. It will then explore the main projects proposed by the European Commission, and finish with a last section on the sectoral attempts, which were the most promising.

9.2 The EEC: An unexpected vehicle for industrial policy

When the EEC was created in 1957, it was not considered a natural framework for developing an industrial policy, especially compared with other European organizations regrouping the Original Six, the European

³Éric Bussière, 'Chapter XXIII. L'improbable politique industrielle', in: Michel Dumoulin (ed.), *La Commission européenne, 1958–1972. Histoire et mémoire d'une institution*, Brussels: Office de publication des Communautés européennes (2007), pp. 471–485; Lorenzo Mechi and Francesco Petrini, 'La Comunità europea nella divisione internazionale del lavoro. Le politiche industriali, 1967–1978', in: Antonio Varsori (ed.), *Alla origini del presente. L'Europa occidentale nella crisi degli anni '70*, Milan: Franco Angeli (2006), pp. 251–283; Arthe van Laer, *Vers une politique industrielle commune. Les actions de la Commission européenne dans les secteurs de l'informatique et des télécommunications (1965–1984)*, Louvain-la-Neuve: Catholic University of Louvain-la-Neuve (2010).

⁴Hussein Kassim and Anand Menon (eds.), *The European Union and National Industrial Policy*, London: Routledge (1996); with the exception of Hussein Kassim's contribution on air transport, which has a strong historical dimension.

⁵Wolf Sauter, *Competition Law and Industrial Policy in the European Union*, Oxford: Clarendon Press (1997); Lee McGowan, 'Competition Policy and Industrial Policy', in: Colin Hay and Anand Menon (eds.), *European Politics*, Oxford: Oxford University Press (2007), pp. 346–361.

⁶For a history of EEC competition policy, see: Laurent Warlouzet, *The Rise of European Competition Policy, 1950–1991. A Cross-Disciplinary Survey of a Contested Policy Sphere*, Florence: European University Institute (2010).

⁷The following abbreviations are used in the footnotes: EUA for European Union Archives, FNA for French National Archives and FFAM for French Foreign Affairs Ministry Archives.

Coal and Steel Community (ECSC) and Euratom. The first organization was set up in 1951 with the Treaty of Paris. Since both coal and steel were strategic industries and basic sectors in the rebuilding of Europe, which was not yet achieved in 1951, the Treaty of Paris gave extended competences to the ECSC institutions to regulate the companies. As a result, the supra-national body overseeing the ECSC, the 'High Authority' received large powers in terms of market regulation (ability to ban mergers, to set maximum and minimum prices) and of structure (through direct loans to companies, but also via the possibility to influence the companies' investment programmes). However, the High Authority was not able to use these powers very boldly. This was true both for merger control⁸ and for the vertical industrial policy. For example, when a severe crisis occurred in 1958 to 1959 in the Belgian mines, the six member-states did not allow the High Authority to implement its proposed industrial policy measures.⁹

Euratom was the other European community created by the Rome Treaties of 25 March 1957. As with the ECSC, it was a sectoral organization with numerous tools designed to develop a vertical industrial policy, this time for civil nuclear energy. Euratom institutions received the power to publish investment plans to foster research via a common research centre and to implement a common policy on uranium imports. However, the low cost of petrol during the 1960s and a lack of interest by France, the main promoter of Euratom in 1956 and in 1957, condemned this organization to failure.¹⁰ Common research centres were set up – the main centre being located in Ispra (Italy) – but they had only marginal activity.

As a result, in 1958 and 1959, when the Treaty of Rome began to be implemented, European cooperation in vertical industrial policy had an impressive record of failure. Moreover, the most successful European organization, the Organization of European Economic Cooperation (OECE, set up in 1948), was based entirely on free-market policy. Its aim was to remove specific obstacles to the exchange of goods and the circulation of payments. Naturally, the EEC encompassed many free-trade tools such as the development of the four liberties of circulation

⁸Tobias Witschke, *Gefahr für den Wettbewerb? Die Fusionskontrolle der Europäischen Gemeinschaft für Kohle und Stahl und die 'Rekonzentration' der Ruhrstahlindustrie, 1950–1963*, Berlin: Akademie (2009).

⁹René Leboutte, *Histoire économique et sociale de la construction européenne*, Brussels: Lang (2009), pp. 408–416.

¹⁰Leboutte (2009), *Histoire économique et sociale*, pp. 439–441.

(for goods, individuals, services and payments). In addition, free-market rules were tamed by a process of harmonization (of the external tariffs, and of some legal and fiscal rules) and the development of common policies in selected areas (agriculture, transport and overseas territories were mentioned), but not in industry. The only provisions regarding industry were linked to competition policy, especially the monitoring of state aid (articles 92 to 94 EEC). The only industrial sector mentioned was shipbuilding (article 92 C), but here, too, the emphasis was put on the limitation of state aid. A European Investment Bank (EIB) was set up (article 129–130 EEC). It was aimed at granting loans for projects, especially in underdeveloped regions, so it was embedded in the regional policy project.¹¹

The lack of industrial policy provisions in the EEC Treaty is linked both to the failure of the ECSC in this field, and to the fact that a common position on European cooperation was found only on free-trade provisions and on regulating liberalism. Industrial policies remained national tools that were not designed to be pooled at the European level, much like welfare state provisions. France, for example, the most ardent proponent of industrial policies, remained wary of the common market for a long time and did not accept any delegation of powers to a European institution in this field.¹² As a result, in article 90 the EEC almost exempted companies providing ‘services of general economic interest’ from the competition rules (depending on the interpretation of article 90).¹³ Italy was another country with a strong industrial policy, but its aim was more to secure a regional policy, namely funds for the Mezzogiorno, rather than tools to stimulate its industry. The last big country, West Germany, did not want to set up an active industrial policy, a concept which was alien to the ‘social market economy’.¹⁴

However, the Treaty of Rome did provide some general tools to develop ambitious European policies, in particular its semi-federal

¹¹ On the EIB: Lucia Coppolaro, ‘Setting Up the Financing Institution of the EEC. The Creation of the European Investment Bank (EIB), 1955–57’, *Journal of European Integration History* 2 (2009), pp. 87–104; Eric Bussière, Michel Dumoulin and Emilie Willaert, *La banque de l’Union Européenne. La BEI, 1958–2008*, Luxembourg: Imprimerie Centrale (2008).

¹² Laurent Warlouzet, *Le choix de la CEE par la France. L’Europe économique en débat de Mendès-France à de Gaulle (1955–1969)*, Paris: Cheff (2011), pp. 30–35, 39–43.

¹³ See the Franco-German debate in: EUA, CM3, 236, note on the debates of 3–5 September 1956.

¹⁴ Wolfgang Neumann and Henrik Uterwedde, *Industriepolitik. Ein deutsch-französischer Vergleich*, Leverkusen: Leske (1986), pp. 41–42.

institutions. The Commission had a monopoly to propose laws (which were subsequently voted on by the EEC Council of Ministers that gathered together the members of the six national governments), and to implement them (with the assistance of national administration). It could rely on a genuinely federal law (from 1963/64 onwards). To gain new competences, the Commission could use article 2 of the Treaty of Rome, which defined very broadly the EEC's economic aims, and article 235, which stipulated that the Commission could receive powers from the Council in any areas uncovered by the Rome Treaties. To sum up, while the Treaty of Rome did not provide any explicit tools for carrying out an active industrial policy, its flexibility allowed the EEC institutions to interpret it in very different ways. The controversies over the implementation of the Treaty of Rome arose around 1965.

9.3 Motivations to create an EEC industrial policy, 1965–1967

Three arguments in favour of creating an EEC industrial policy were developed from the mid 1960s onwards: the American challenge, the support of several Western European countries, and internal debates within the EEC institutions which aimed to reorient the European community.

The American Challenge, by the French journalist – and later politician – Jean-Jacques Servan-Schreiber warned against the danger of unfair competition by US companies – a consequence of their huge size and their higher efficiency. The threat was especially present in high-technology sectors (aeronautics, space and the computer industry), for which huge R&D investment were required. High barriers existed for newcomers, and to overcome this obstacle, the book called for a genuinely supranational industrial policy managed by EEC institutions. This policy should have been based both on creating a favourable environment for European mergers and on the development of common policies for high technology (and not just the coordination of national initiatives).¹⁵ The book clearly advocated the implementation of a European ‘federalism’ in the industrial sector.¹⁶

Servan-Schreiber's book is remembered more for its focus on the threat of US companies than for its federalist dimension. It is true that

¹⁵Jean-Jacques Servan-Schreiber, *Le défi américain*, Paris: Denoël (1967), pp. 122, 171, 180–199.

¹⁶Servan-Schreiber (1967), *Le défi américain*, p. 185.

Table 9.1 Turnover of the most important car companies, 1965 (in million US \$)

	Turnover (in million US \$)
1: General Motors (United States)	14,640
2: Ford (United States)	8089
3: Chrysler (United States)	2377
4: Volkswagen (West Germany)	1595
5: Fiat (Italy)	1262
6: Daimler-Benz (West Germany)	1176
7: American Motors (United States)	1056
8: British Motor (United Kingdom)	871
9: Renault (France)	750
10: Citroën (France)	557
11: Toyota (Japan)	463
12: Peugeot (France)	440
13: Leyland Motor (United Kingdom)	420
14: Nissan (Japan)	391
15: Simca (France)	372

Source: EUA BAC 26/1969/601, letter from H.J. de Koster (UNICE) to Walter Hallstein, 3 March 1965.

European companies had to face growing international competition thanks to the General Agreement on Tariffs and Trade (GATT). For example, the Kennedy Round (1964 to 1967) diminished European and US tariffs by 35 per cent on average. The problem was that European companies were often far smaller than their American counterparts. This was a big disadvantage in a world dominated by the Fordist mode of production, in which economies of scale are crucial. That is why the ‘American challenge’ caused some concern for European companies. The peak European business organization, the Union des industries de la Communauté européenne (UNICE), issued a memorandum in March 1965, which compared the size of the most important enterprises.¹⁷

Among the 500 biggest companies, 306 were American and only 33 German, and 25 French. In the car sector, for example, the leading European company (Volkswagen) had a turnover one-ninth that of the largest US company, General Motors. France’s largest company, Renault, had a turnover equivalent to 5 per cent of that of General Motors. UNICE called for measures aiming at facilitating intra-European mergers. It did not ask for a state-led industrial policy, but rather for fiscal and legal provisions facilitating a consolidation of the European industrial base.

¹⁷ EUA, BAC 26/1969/601, letter from H. J. de Koster (UNICE) to Walter Hallstein, 3 March 1965.

Beyond the intellectual debates, several European states began to call for an active European industrial policy. Within the EEC framework, France took the initiative during the first semester of 1965 as it held the rotating presidency of the EEC Council of Ministers. Its working programme included two new projects linked to industrial policy: the development of a common status of European company (which could facilitate intra-European mergers), and the coordination of national policies of 'technical and scientific research'.¹⁸ For both issues, the French government developed precise proposals in two memoranda, which led to concrete realizations, namely the creation of two working groups whose first meetings occurred, respectively, in May and June of 1965.¹⁹ The quick decision-making process meant that these projects met the concrete demands of not only France, but all EEC member states, as the UNICE memorandum showed.

'The Empty Chair crisis' triggered by the French government from July 1965 to January 1966 shattered these projects. The Gaullist power wanted to promote an active EEC industrial policy without supporting EEC institutions. This contradiction was criticized by a group of 'revisionist' French officials who wanted to foster a re-orientation of the French EEC policy from its focus on the Common Agricultural Policy (CAP), to a new agenda on industrial policy, including stronger cooperation with Great Britain.²⁰ This group had an influence on two French ministers, Michel Debré and Olivier Guichard.²¹ As a former Prime Minister and close collaborator of de Gaulle, Debré was a powerful minister of economy and finance. He was hostile towards any drift of the EEC towards federalism. At the same time, however, he was in favour of efficient European cooperation in order to strengthen the Original Six against the United States. He supported all initiatives designed to foster intra-European mergers. Guichard was the minister of industry and also a staunch Gaullist. He supported many horizontal and vertical industrial policy initiatives in 1967 and 1968.²² However, Debré and Guichard

¹⁸FNA, 19900638/23, note from the French government to the EEC Council of Minister, 21 January 1965, doc. R/32/65.

¹⁹On the status of European companies: FNA, 19880577/37, notes of 24 March 1965 and 19 May 1965; on the scientific and technical research policy: FFAM, RPUE 685, note SGCI of 14 May 1965; note on the first meeting of the PREST group, 14 June 1965.

²⁰Warlouzet (2011), *Le choix de la CEE*, pp. 433–444.

²¹Warlouzet (2011), *Le choix de la CEE*, pp. 454–456.

²²EUA, BDT 118/83/807, note on a speech by Guichard, 26 April 1968; FNA, 19880577/50, note on a speech by Guichard, scheduled on 25 January 1968.

remained in a purely inter-governmental framework, which limited the thrust of their dynamic.

Two other countries with strong national industrial policies also supported the development of European industrial policies, but not within the EEC. The first was Italy. In 1966, the Foreign Affairs Minister, Amintore Fanfani, proposed a 'technological Marshall Plan', namely a US–Western Europe cooperation using high technology and organized on the same scale as NATO.²³ In November 1966, the British Prime Minister, Harold Wilson, launched the theme of a 'European Technological Community'. Drawing on British advances in many high-technology sectors, Wilson wanted to demonstrate that the EEC enlargement to his country would be beneficial for the Community.²⁴ At that time, London was involved in its second attempt at joining the EEC, with an official application in May 1967. Even after the second French veto in November 1967, London proposed to create a European Technological Institute, but the project was quickly abandoned.²⁵ Lastly, even West Germany became less hostile to these projects when the free-marketer Erhard was replaced as Chancellor by Kiesinger, who led an CDU–SPD grand coalition in 1966. The new Minister for Foreign Affairs, Willy Brandt (SPD), wanted to foster European technological cooperation in order to bridge the gap between the Original Six and Great Britain.²⁶ The 1966/67 recession triggered official reflection about developing a 'structural policy' in favour of targeted sectors (mainly declining industries and high technology).²⁷

A third dynamic occurred: an internal willingness of the EEC Commission's officials to set the Community on a different course. With the exception of the CAP and the associated state policy, the EEC dynamic was characterized by regulated liberalism until the mid 1960s. Policies designed to curb market forces (regional policies or social policies) were largely stalled, whereas the internal liberalization proceeded smoothly. Moreover, German officials inspired by ordoliberalism, such as the commissioner for competition Hans von der Groeben, developed an ambitious EEC competition policy, whose aim was to increase

²³ Mechi and Petrini (2006), 'La Comunità europea', pp. 255–256.

²⁴ John W. Young, 'Technological Cooperation in Wilson's Strategy for EEC Entry', in: Oliver J. Daddow (ed.), *Harold Wilson and European Integration. Britain's Second Application to Join the EEC*, London: Frank Cass (2003), pp. 98–100.

²⁵ Young (2003), 'Technological Cooperation', pp. 108–109.

²⁶ Henning Türk, *Die Europapolitik der Großen Koalition, 1966–1969*, Munich: Oldenbourg (2006), p. 166.

²⁷ Neumann and Uterwedde (1986), *Industriepolitik*, pp. 51–52, 66–67.

free-market dynamism.²⁸ While this attempt largely failed in the 1960s, its importance must not be underestimated, especially as those German officials wanted to use competition policy to curb state interventions in the economy.²⁹ In 1963, for example, a study was launched on the possibility of using article 90 EEC (whose wording was very general) against economic state interventions,³⁰ that is to say, to limit national industrial policies.

Against this ordoliberal interpretation of Europe, the French commissioner Robert Marjolin developed a project of European planning, which was implemented from 1964 onwards with the creation of the medium-term economic policy committee.³¹ Its inspiration was French indicative planning, which was a model in those days. In his influential book of 1965, Andrew Shonfield thought that indicative long-term planning was on the rise both for private and public decisions-makers and that it was implemented in at least eight Western European countries under one form or another.³² Marjolin's initiative failed because of lack of support from the French government (Marjolin was a socialist, hostile to de Gaulle), and because of the Empty Chair crisis of 1965. The German government was hostile for doctrinal reasons, with the Minister of Economics, Ludwig Erhard, launching a direct offensive against it in a famous speech before the European parliament in 1962.³³ Within the Commission, von der Groeben frequently criticized Marjolin's project.³⁴

²⁸Sybille Hambloch, *Europäische Integration und Wettbewerbspolitik. Die Frühphase der EWG*, Baden-Baden: Nomos (2009); Katja Seidel, 'DG IV and the Origins of a Supranational Competition Policy. Establishing an Economic Constitution for Europe', in: Wolfram Kaiser, Brigitte Leucht and Morten Rasmusen (eds.), *The History of the European Union. Origins of a Trans- and Supranational Policy, 1950–1972*, London: Routledge (2008), pp. 129–147.

²⁹EUA BAC 31/1984/768, note from Campet to Verloren van Themaat, 12 February 1962.

³⁰EUA BAC 31/1984/768, note DG V/B-3, 19 December 1963, 'Öffentlich-rechtliche Marktregelungen'.

³¹Warlouzet (2011), *Le choix de la CEE*, pp. 339–356, 396–399.

³²Andrew Shonfield, *Modern Capitalism. The Changing Balance of Public and Private Power*, Oxford: Oxford University Press (1965), p. 122.

³³European Parliament, *Comptes-rendus des séances, 1962, 60*, Luxembourg: Office de publications des Communautés (1962), pp. 51–56; Erhard spoke on 20 November 1962.

³⁴Warlouzet (2011), *Le choix de la CEE*, pp. 371–396.

Marjolin was replaced in 1967 by Raymond Barre, who was more liberal.³⁵ Nevertheless, his heritage was important for numerous officials willing to develop more interventionist EEC economic policies. The merger of the Communities' Executives in 1967 provided additional impetus. The EEC Commission merged with the ECSC High Authority and with the Euratom Commission, both of which had explicit powers in industrial policy (though they were not implemented). At the ECSC High Authority, for example, Dino del Bo, in the last year of his presidency, put an emphasis on the development of a European industrial policy.³⁶ On 1 July 1967, the new unified Commission was born. Its internal structure was adapted to the debate on industrial policy, with the creation of the DG III 'Industrial Affairs' and of the DG XII 'General and Technological Research'.

As a result, for both political (to foster European and/or Atlantic cooperation) and economic (the 'American challenge') reasons, European industrial policy became fashionable from 1965 onwards. Even Gaullist France was interested. This favourable European context allowed European officials to launch multiple projects from 1967 to 1973.

9.4 Strengthening and integrating European industry, 1967–1973

Before studying the chronology and content of the EEC's industrial policy project, it is necessary to focus on its supporters. They came mainly from France and Italy, two countries characterized by strong national industrial policies. Lots of them were linked to the French commissioner Robert Marjolin. This was also true for the commissioner for industrial affairs, the Italian Guido Colonna di Paliano (1967–70). A diplomat specializing in economic issues, he was a former collaborator of Marjolin when the latter was general secretary of the OEEC.³⁷ Colonna di Paliano worked with a group of French EEC officials, like Alain Prate, the Director General (the highest position in the EEC civil

³⁵ François Denord, *Néolibéralisme version française. Histoire d'une idéologie politique*, Paris: Démopolis (2007), p. 249; Laurent Warlouzet (2011), *Le choix de la CEE*, p. 400.

³⁶ EUA, CEAB 2, 3697/55-56, note from Dino del Bo to his colleagues, 23 March 1965.

³⁷ Robert Marjolin, *Le travail d'une vie, mémoires 1911–1986*, Paris: Robert Laffont (1986), p. 194.

service) of the DG III 'Industrial Affairs'. After taking part in the negotiation of the Rome Treaty, Prate entered the Commission where he worked on all of Marjolin's projects, in particular as director for 'structure and economic development' (1961–65) in the DG II 'Economic and Financial Affairs'. In 1965, Colonna specifically asked Hallstein, the President of the Commission, to choose Alain Prate as his Director General for Industry because he wanted to increase the economic orientation of his Directorate General, which was too concentrated on commercial issues and detailed legal harmonization.³⁸ It is true that before the merger of executives in 1967, the DG III was in charge of implementing the internal market. This meant eliminating internal duties and harmonizing the related legislation. In 1967, most of this basic work was completed, so Colonna was free to reshape his administration in order to work towards more ambitious goals. Prate was replaced in 1968 by Robert Toulemon, who stayed in charge of the DG 'Industrial Affairs' until 1973. Toulemon worked closely with another Frenchman, Jean Flory, who was the director in charge of sectoral affairs at the DG 'Industrial Affairs' (1967–72).³⁹ Both Toulemon and Flory were former 'chef de cabinet' (equivalent to principal private secretary) to Robert Marjolin when he was commissioner. A fourth Frenchman, Michel Albert, deserves to be mentioned: Albert replaced Prate as director in charge of 'structure and economic development', working at the DG II 'Economic and Financial Affairs' for Marjolin and then for Barre. Michel Albert co-wrote *The American Challenge* with Servan-Schreiber.⁴⁰ In 1969 he became a close collaborator of Servan-Schreiber as part of his press group, and later went on to become head of the French Planning Agency. In the 1990s, he wrote an influential book called *Capitalism against Capitalism*, in which he praised the German model of 'Rhenish capitalism' against the free-market policies embodied by Reagan and Thatcher.⁴¹

In 1970, Colonna di Paliano was replaced by another Italian commissioner, Altiero Spinelli. Spinelli, the famous Italian opponent to Mussolini and then prominent federalist, remained in charge of industrial affairs

³⁸EUA, Hallstein Papers, 1248, letter from Guido Colonna di Paliano to Walter Hallstein, 26 November 1964 and 11 February 1965.

³⁹Robert Toulemon and Jean Flory, *Une politique industrielle pour l'Europe*, Paris: PUF (1974).

⁴⁰EU Oral archives (available on <http://www.eui.eu/HAEU/EN/OralHistory.asp>), interview of Michel Albert, 18 December 2003, 9.

⁴¹Michel Albert, *Capitalism against Capitalism*, London: Whurr (1993).

until 1976. He had a large portfolio that included industrial and technological research. Although not a specialist in economic issues, Spinelli was a bold supporter of European integration, and pushed forward the industrial policy projects with great energy. He was advised by Christopher Layton, who was British and who advocated for the development of ambitious European technological projects as early as 1969 in order to integrate the United Kingdom into the EEC.⁴² Other figures include the Luxembourgerg Fernand Braun, director of the unit in charge of ‘industry’ in 1962, counsellor of the Director General Toulemon in 1968, and who later himself became Director General for Industry.

Chronologically, the Commission’s initiatives in industrial policy dated back to Prate’s first note to Colonna in March 1965, which delved into the issue of concentration.⁴³ The debates launched by the UNICE and the French initiatives clearly influenced the Commission’s reflexions. In September 1966, Prate wrote the first draft of a memorandum for an EEC industrial policy.⁴⁴ It was shaped in cooperation with Michel Albert at the DG II.⁴⁵ Then, the Commission’s first official memorandum on industrial policy was issued on 4 July 1967.⁴⁶ It was motivated by the same general argument as in *The American Challenge*, which was released at the same time, using European integration as a tool to strengthen the EEC’s industrial base, as it was confronted with an increasing competitive challenge from US multi-nationals. The memorandum proposed a very consensual definition of industrial policy as ‘a set of problems and actions, most of which are already being implemented’⁴⁷ and which would be linked in a coherent plan laid out in this document. It seems that Colonna wanted to avoid the

⁴²Christopher Layton, *European Advanced Technology. A Programme for Integration*, London: Allen & Unwin (1969); Éric Bussière and Arthe van Laer, ‘Recherche et technologies ou la “sextuple tutelle” des États’, in: Michel Dumoulin (ed.), *La Commission européenne, 1958–1972. Histoire et mémoire d’une institution*, Bruxelles: Communautés européennes (2007), p. 520.

⁴³EUA, BDT 118/83/807, note from Prate to Colonna di Paliano, 24 March 1965.

⁴⁴FFAM, RPUE 685, EEC document 11.590/III/66, 12 September 1966.

⁴⁵EUA, BAC 118/83/807, note from the DG II for Prate, 17 February 1967, probably written by Michel Albert.

⁴⁶EUA, BDT 118/83/807, ‘Mémorandum sur la politique industrielle de la Communauté’, doc. SEC (67) 1201 final, 4 July 1967.

⁴⁷EUA, BDT 118/83/807, ‘Mémorandum sur la politique industrielle de la Communauté’, doc. SEC (67) 1201 final, 4 July 1967. Translation by the author of: ‘Par politique industrielle on entend un ensemble de problèmes et d’actions dont la plupart sont en cours. L’objet du mémorandum ci-joint est d’établir un lien logique entre ces différentes actions’.

severe doctrinal debates that had occurred between Marjolin and von der Groeben on competition policy and planning. Indeed, the German President of the Commission, Walter Hallstein, underlined the fact that the memorandum's main contribution was to 'demystify' and 'rationalize' the 'industrial policy' terms.⁴⁸ Nevertheless, von der Groeben was the most critical within the Commission.⁴⁹

Four main proposals were developed in this memorandum and most of the Commission's proposals from 1967 to 1973. The first, completing the single market, meant the progressive elimination of fiscal and technical obstacles to trade that remained after the removal of custom duties (which were due to disappear completely on 1 July 1968). It was a rather consensual aim, which was constantly put forward by the EEC Commission in the 1970s until its implementation after the Single Act of 1986. The second and third proposals, meant to foster intra-European concentration by removing fiscal and legal obstacles, and to develop a common policy in science and technology, were also popular, as both issues were tackled by the two French notes of 1965. The fourth issue to implement sectoral policies, both for high-technology and for declining sectors (two areas where state intervention existed in all EEC countries), was more modest in this memorandum, but was more worked out in subsequent documents.

After the 1967 memorandum, the discussions stalled, but the four main themes remained in two other important documents, the Colonna Report of 1970,⁵⁰ which was prepared by Toulemon in particular,⁵¹ and in the Programme of Industrial and Technology Policy, launched by Spinelli in 1973.⁵² More emphasis was put on technological policy from 1970 onwards. The 1973 programme was slightly less 'dirigiste' (interventionist) in order to be more pragmatic,⁵³ as concrete

⁴⁸EUA, BAC 144/1992/682, doc. G (67) 92, 'Résumé du déroulement de la discussion dans la Commission sur les problèmes de la politique industrielle (séance du 2 mars 1967)'.

⁴⁹EUA, BAC 144/1992/682, note from Emile Noël on the meeting of the 'chefs de cabinet' of 8 March 1967, and note of the 'secrétaire exécutif', 6 April 1967.

⁵⁰European Commission, Bulletin of the EC, supplement 4/70.

⁵¹EUA, BDT 118/83/808, note from Toulemon to Colonna di Paliano, 22 November 1968.

⁵²Summary published in: *Bulletin Industrie*, 'Recherche et Technologie des Communautés européennes' (1973), p. 188.

⁵³Denis Swann, *Competition and Industrial Policy in the European Community*, London: Methuen (1983), p. 41; Mechi and Petrini (2006), 'La Comunità europea', p. 267.

results were almost inexistent. For example, more emphasis was placed on the coordination of national industrial policy rather than on EEC tools. Lastly, Spinelli integrated the industrial policy initiatives into a more ambitious framework. Its aim was not only economic and material, but also geared towards more qualitative concerns, such as environmental policy, sustainable development, the North–South dialogue and increasing workers' involvement in the management of companies. The emphasis was put on public needs, much as in Marjolin's mid-term policy project, but with the post-1968 concerns in mind.

All of these initiatives were condemned to failure by the member-states' inability to agree both on the institutional and on the economic issues. In 1970, for example, a debate occurred within the Council of Ministers on the Colonna Report. The French government, which was under the influence of the Gaullist President Georges Pompidou, supported the whole philosophy, but put an emphasis mainly on inter-governmental tools.⁵⁴ Moreover, he developed a specific request, the control of foreign direct investment, which was linked more to France's political cautiousness towards the United States than to a rational economic argument. In the same vein, West Germany put an emphasis on competition policy, and Italy on regional policy. Other factors played a role, such as the British issue. From 1970 to 1972, the enlargement negotiations stalled progress on secondary issues like industrial policy. At the Venice Conference of April 1972, and at the Paris Summit of December 1972, various European actors re-affirmed their commitment to creating a genuine European industrial policy, but this was only integrated into a frenzy of projects including regional, social and monetary policies. Spirits were high as the United Kingdom was led by the pro-European Edward Heath, who broadly supported this ambitious agenda.⁵⁵ In 1974, however, the economic crisis and the replacement of Heath by Wilson, who asked for a re-negotiation of the UK's accession to the EEC, decisively stalled any progress for several years. As a result, Spinelli expressed his bitterness in mid 1974.⁵⁶

Beyond this negative context, the technical obstacles played a huge role. The issue of easing mergers, for example, was linked to the attempt at creating a European company status. Without a common legal framework, agreed upon by all member states, companies located in a place

⁵⁴Toulemon and Flory (1974), *Une politique industrielle*, pp. 103–104.

⁵⁵Stephen George, *An Awkward Partner. Britain in the European Community*, Oxford: Oxford University Press (1994), pp. 56–57.

⁵⁶Mechi and Petrini (2006), 'La Comunità europea', p. 270.

with a disadvantageous legal environment would certainly want to merge with a company located elsewhere to escape their national obligations. A working group was set up in 1965 to solve this problem. Two intractable problems arose as early as 1967. Firstly, the specificity of the German 'codetermination' (Mitbestimmung) emerged, as it stipulated an important representation of workers in the management body in the main German companies (in particular in the coal and steel sectors).⁵⁷ If the 'codetermination' system was not integrated in the European common status for the sake of simplicity, and as the other EEC countries did not want to adopt it, Bonn feared that many companies would opt for the European company status in order to escape their national obligations. Secondly, France wanted to reserve the European company status for 'genuine' European enterprises. Paris had a very narrow definition of 'European', as it wanted to exclude the British and the European subsidiaries of US firms.⁵⁸ Both of these problems remained on the table in the 1970s, without any possibility of solving them. Sectoral initiatives, which were more focused, stood a better chance of success.

9.5 Supporting specific sectors

European cooperation in sectoral industrial policies seemed natural, as all countries had active national policies to support both high-technology (aeronautics, space, computers) and declining sectors (steel, shipbuilding, textiles). The most visible projects concerned high-technology sectors, as a clear link was built between the development of these sectors and economic growth. Moreover, important investments that exceeded the capacity of most of the individual member states were needed. The debate began in April 1965 with the creation of a working group, whose first report, in May 1966, proposed to foster the exchange of information, to coordinate the national programmes, and to launch common initiatives.⁵⁹ The main problem was with the United Kingdom's position, as it was the most powerful European country in this field. The French were reluctant to fully include the UK for political

⁵⁷FNA, 19880577/38, note of 22 February 1967, on the meeting of 15–16 February 1967.

⁵⁸FNA, 19880577/38, instructions for the meeting of 19 January 1967, 18 January 1967.

⁵⁹FFAM, RPUE 685, note by Maréchal, 12 May 1966. The working group was called PREST (Politique de recherche scientifique et technologique: Scientific and Technological Research Policy).

reasons, although they were not hostile to ad hoc cooperation. Thanks to the support of several member states, such as Belgium and Italy, the Council of Ministers adopted a solemn resolution to develop an EEC policy in this field on 31 October 1967.⁶⁰ But the second French veto to British membership, on 27 November 1967, triggered retaliation by Italian and Dutch officials, who suspended their involvement in the working group.⁶¹ The work resumed only in December of 1969 (The Hague summit), but the enlargement negotiations stalled the work.⁶² In the meantime, the UNICE issued a memorandum which strongly supported the development of a 'research policy' for the Community.⁶³

The 1970 Colonna report insisted on this issue. New themes such as the reform of public procurement were developed, as state purchases played an important role in high-technology products (such as planes, space launchers, computers and so on).⁶⁴ As Spinelli and Layton were very interested in the aforementioned issue, a specific memorandum devoted to research and scientific technological policy was issued in 1971.⁶⁵ It suggested creating a European Research and Development Committee (CERD) composed of national officials and a European development agency designed to provide funds and administrative backing.⁶⁶ The CERD was eventually created in 1973, but it was only a consultative agency. Moreover, there were internal conflicts within the Commission between the federalist Altiero Spinelli and the more cautious Ralf Dahrendorf, commissioner in charge of research. The latter supported a research policy completely disconnected from industrial policy, and less ambitious than Spinelli's schemes.⁶⁷ In addition, secto-

⁶⁰ Bussi re and van Laer (2007), 'Recherche et technologies', p. 514; FFAM, DECE 735, EEC Council resolution of 31 October 1967, doc. R/1548/67 of 6 November 1967.

⁶¹ FFAM, RPUE 685, note of 25 March 1968.

⁶² FFAM, RPUE 686, note SGCI, 8 January 1969.

⁶³ EUA, BAC 118/1986/1393, UNICE Memorandum of 19 July 1968.

⁶⁴ Arthe van Laer, 'Liberalisation or Europeanisation? The EEC Commission's Policy on Public Procurement in Information Technology and Telecommunications (1957–1984)', *Journal of European Integration History* 2 (2006), pp. 107–130.

⁶⁵ Arthe van Laer, 'Vers une politique de recherche commune. Du silence du Trait  CEE au titre de l'Acte unique', in: Christophe Bouneau, David Burigana and Antonio Varsori (eds.), *Les trajectoires de l'innovation technologique et la construction europ enne. Des voies de structuration durable?*, Brussels: Lang (2010), p. 520.

⁶⁶ Swann (1983), *Competition and Industrial Policy*, p. 139.

⁶⁷ Michel Andr , 'L'espace europ en de la recherch . L'histoire d'une id e', *Journal of European Integration History* 12 (2006), pp. 134–135; van Laer (2010), 'Vers une politique de recherche commune', p. 85.

ral discussions were held. In the telecommunications sector, meetings of national officials were organized from 1974 onwards. The problem of the multiplicity of technical standards was underlined but no decisions were taken.⁶⁸ In this regard, the cooperation in the telecommunication sector was no more intense than the discussion that occurred in the car sector between multi-nationals and the Commission on technical standards in the same period.⁶⁹ In the aeronautic field, Spinelli launched an 'aeronautic community' project, but it was a failure as only a non-binding resolution to support it was taken in 1975.⁷⁰

The failure of these projects can be explained for the same reasons as those listed for the industrial policy. Additional obstacles were threefold. Firstly, it was impossible to overcome the principle of a fair return (*juste retour*): in every programme of cooperation, each country wanted a return (in terms of employment and of investment) equal to its share in the financing. Secondly, the scale of cooperation was very uneven. For example, a framework of inter-governmental cooperation in research technology called COST was set up in 1970. It was composed of 19 European countries, including dictatorships (Spain, Portugal, Yugoslavia) and neutral countries.⁷¹ This meant that cooperation on strategic industries was clearly impossible. In 1974, the European Science Foundation (ESF) was created with actors based in 15 countries; a larger base than the nine-member EEC.⁷² Thirdly, a lot of cooperation in high-technology sectors was already taking place on an inter-governmental basis. For example, despite their quarrels regarding the EEC, the French and British governments cooperated closely in aeronautics through the Concorde, Jaguar and Airbus programmes (although in 1969, the British left the Airbus programme for a few years). Thus, a specific EEC action in this field seemed not always justified. In 1971, the Commission recognized that in high technology, quick decisions

⁶⁸van Laer (2006), 'Liberalization or Europeanisation?', p. 122.

⁶⁹Sigfrido Ramirez, *Public Policies, European Integration and Multinational Corporations in the Automobile Sector. The French and Italian Cases in a comparative perspective 1945–1973*, Florence: European University Institute (2007), pp. 733–752.

⁷⁰David Burigana, 'Toujours troisième? La République Fédérale et la survivance technologique de l'espace aérien européen. Du bilatéralisme à Airbus, entre rêve intégrationniste et pratique intergouvernementale (1959–1978)', in: Jürgen Elvert and Sylvain Schirmann (eds.), *Europa y Alemania en los siglos XIX y XX*, Brussels: Lang (2008), p. 187.

⁷¹Bussièrre and van Laer (2007), 'Recherche et technologies', pp. 516–517.

⁷²Swann (1983), *Competition and Industrial Policy*, p. 151.

were needed in order to follow closely the pace of innovation, but the Community was unable to catch up with the technological progress.⁷³

Paradoxically, more successes were achieved for old industries, although not specifically under the 'industrial policy' heading. In the textile sector, the Commission used two tools external to the DG industrial policy. The first was state aid control. In 1971, a Framework for Aid to the Textile Industry was adopted in order to limit their total amounts and to link them to rationalization programmes. Updated rules were adopted later on.⁷⁴ The external side of this policy was the Multi-Fibre Arrangement (MFA) concluded in 1973. The textile exports were taken out of the GATT system and regulated by quotas. More ambitious projects, devised by the Commissioner for Industrial Affairs, Etienne Davignon, were rejected.⁷⁵ There was internal opposition within the Commission (by the competition policy commissioner) and among member states, such as West Germany.

In the shipbuilding sector, state aid had been important since the late 1950s, hence the mention of this sector in the Rome Treaty. Here too, the main tool was the limitation of state aid by capping it and requiring a link with rationalization programmes. The first directive was adopted as soon as 1969 and more followed in the 1970s. The end of subsidies was envisaged in the third directive of 1975, but the second oil shock brought back the overcapacity issue.⁷⁶ In this domain, the autonomy of national industrial policies was severely constrained by EEC institutions.

In the steel sector, the most important initiatives occurred in the late 1970s with the setting up of a crisis cartel managed by the Commission and based on the limitation of state aid. The scheme was largely managed by Davignon and implemented between 1981 and 1984. However, the situation was exceptional as the Commission benefited from the ambitious provisions of the ECSC Treaty, which gave extensive powers to the supra-national institutions (the High Authority and later on the Commission after the merger of 1967). Moreover, the tool used – state aid control – belonged to competition policy, but was used with the explicit aim of actively rationalizing the industrial base. As a result, the steel policy was managed by Davignon in cooperation with François-Xavier Ortoli (commissioner for Economic Affairs) and Frans

⁷³Bussi re and van Laer (2007), 'Recherche et technologies', p. 517.

⁷⁴Toulemon and Flory (1974), *Une politique industrielle*, p. 93

⁷⁵Swann (1983), *Competition and Industrial Policy*, pp. 157–158; Mechi and Petrini (2006), 'La Comunit  europea', pp. 278–280.

⁷⁶Swann (1983), *Competition and Industrial Policy*, p. 160.

Andriessen (commissioner for Competition Policy). The Commission wanted to repeat this scheme of interventionist industrial policy in several sectors, but without success.

To sum up, European sectoral industrial policies underwent a certain degree of success, but it was achieved either outside the EEC framework (through cooperation with one member of the high-technology sector, such as Airbus), or largely outside the EEC industrial policy division, and mainly in order to cope with the unstoppable decline of old industries rather than to stimulate new sectors, as outlined in *The American Challenge*.

9.6 Conclusion

Between 1965 and 1975, ambitious projects of EEC industrial policy were devised. Four main proposals were regularly put forward: to complete the single market, to facilitate cross-border integration, to develop a common policy in science and technology and to promote vertical policies in high-technology and in declining industrial sectors. Common motivations, such as the need to address the 'American challenge' and the large development of national industrial policies, fuelled these discussions.

These proposals largely failed because of a lack of convergence on the three main issues: the institutional framework, the economic doctrine and the geographical scope. The first problem was mainly political. Empowering the Commission in the industrial policy field meant greatly enhancing its expertise and financing capacities, but also building a strong political union in order to overcome the 'fair return' principle and to cooperate in strategic sectors. The second issue is linked to a classical Franco-German opposition, complicated by the Italian (and sometimes British) support for several French projects. National path-dependencies based on different models of economic policy clearly hampered the possibility of building common tools on the European scale. Thirdly, the geographical conundrum could be explained both by technical factors – the considerable cost of cooperation in high technology, in particular – and by political ones: for most EEC countries, it was impossible to envisage an industrial cooperation without the United Kingdom, and even the United States. However, the United Kingdom entered the EEC only in 1973, the year of the economic crisis.

These three debates were further complicated by the fact that the institutional actors were not unitary: the socialist Commissioner,

Marjolin, had frequent quarrels with the French Gaullist government. Within the Commission, the German Commissioners, von der Groeben or Dahrendorf, frequently argued with their colleagues Marjolin, Colonna di Paliano and Spinelli. Lastly, positive integration (that is building common policies) was certainly a more difficult endeavour than negative integration (removing obstacles to trade). However, the setting up of the Common Agricultural Policy between 1962 and 1966 and of the regional policy between 1975 and 1985 shows that it was not an impossible task, so the failure of industrial policy was not inevitable.

Nevertheless, the projects of European industrial policies were not complete failure. A relative consensus existed on the 'American Challenge' problem, although not on all the solutions proposed. Three realizations occurred after 1975. To begin with, the two oil shocks put additional pressure on declining sectors. Therefore, sectoral industrial policies based on state-aid control (and sometimes on commercial policy too) were present in textile, steel and shipbuilding, but they could not prevent their dramatic decline. Secondly, high-technology programmes were devised. Some of them were implemented by the EEC (ESPRIT programme in 1984),⁷⁷ but most of them materialized in inter-governmental cooperation (Airbus, Ariane, Tornado and so on). Lastly, industrial policy aims were largely taken charge of by the Single Market Programme and by competition policy from 1985 onwards. Paradoxically, industrial policy was inserted for the first time in the European Treaties in 1986 (Single Act) and in 1992 (Maastricht Treaty), at a time when it underwent a decisive decline. From the early 1990s onwards, EU industrial intervention has largely been carried out by competition policy, either to favour European companies – for example when foreign companies are targeted – or sometimes to weaken them – as demonstrated by the ban of the merger between the European aircraft company ATR with the Canadian De Havilland in 1991.⁷⁸ The Euro crisis brought back industrial policy under the timid project of using the EIB to fund local projects, but this was a far cry from the high pitch of late-1960s European industrial policy projects.

⁷⁷ van Laer (2010), 'Vers une politique de recherche commune', p. 87.

⁷⁸ Catherine Goybet, 'La CEE a-t-elle une politique industrielle?', *Revue du Marché Commun* 352 (1991), pp. 753–755; Frédéric Jenny, 'Droit européen de la concurrence et efficience économique', *Revue d'économie industrielle* 63 (1993), p. 203.

References

- Albert, Michel, *Capitalism against Capitalism*, London: Whurr (1993).
- André, Michel, 'L'espace européen de la recherche: l'histoire d'une idée', *Journal of European Integration History* 12 (2006), pp. 131–150.
- Burigana, David, 'Toujours troisième? La République Fédérale et la survivance technologique de l'espace aérien européen. Du bilatéralisme à Airbus, entre rêve intégrationniste et pratique intergouvernementale (1959–1978)', in: Elvert, Jürgen and Sylvain Schirmann (eds.), *Europa y Alemania en los siglos XIX y XX*, Brussels: Lang (2008), pp. 177–196.
- Bussière, Éric, 'Chapter XXIII: L'improbable politique industrielle', in: Dumoulin, Michel (ed.), *La Commission européenne, 1958–1972. Histoire et mémoire d'une institution*, Brussels: Office de publication des Communautés européennes (2007), pp. 471–485.
- Bussière, Eric, Michel Dumoulin and Emilie Willaert, *La banque de l'Union Européenne. La BEL, 1958–2008*, Luxembourg: Imprimerie Centrale (2008).
- Bussière, Éric and Arthe van Laer, 'Recherche et technologies ou la 'sextuple tutelle' des États', in: Dumoulin, Michel (ed.), *La Commission européenne, 1958–1972. Histoire et mémoire d'une institution*, Bruxelles: Communautés Européennes (2007), pp. 507–522.
- Coppolaro, Lucia, 'Setting up the Financing Institution of the EEC: The Creation of the European Investment Bank (EIB), 1955–57', *Journal of European Integration History*, 2 (2009), pp. 87–104.
- Denord, François, *Néolibéralisme version française. Histoire d'une idéologie politique*, Paris: Démopolis (2007).
- George, Stephen, *An Awkward Partner. Britain in the European Community*, Oxford: Oxford University Press (1994).
- Goybet, Catherine, 'La CEE a-t-elle une politique industrielle?', *Revue du Marché Commun* 352 (1991), pp. 753–755.
- Hambloch, Sybille, *Europäische Integration und Wettbewerbspolitik. Die Frühphase der EWG*, Baden-Baden: Nomos (2009).
- Jenny, Frédéric, 'Droit européen de la concurrence et efficience économique', *Revue d'économie industrielle* 63 (1993), pp. 193–206.
- Kassim, Hussein and Anand Menon (ed.), *The European Union and National Industrial Policy*, London: Routledge (1996).
- Layton, Christopher, *European Advanced Technology. A Programme for Integration*, London: Allen & Unwin (1969).
- Leboutte, René, *Histoire économique et sociale de la construction européenne*, Brussels: Lang (2009).
- Marjolin, Robert, *Le travail d'une vie, mémoires 1911–1986*, Paris: Robert Laffont (1986).
- McGowan, Lee, 'Competition Policy and Industrial Policy', in: Hay, Colin and Anand Menon (eds.), *European Politics*, Oxford: Oxford University Press (2007), pp. 346–361.
- Mechi, Lorenzo and Francesco Petrini, 'La Comunità europea nella divisione internazionale del lavoro: le politiche industriali, 1967–1978', in: Varsori, Antonio (ed.), *Alla origini del persente. L'Europa occidentale nella crisi degli anni '70*, Milan: FrancoAngeli (2006), pp. 251–283.
- Neumann, Wolfgang and Henrik Uterwedde, *Industriepolitik: ein deutsch-französischer Vergleich*, Leverkusen: Leske (1986).

- Ramirez, Sigfrido, 'Public Policies, European Integration and Multinational Corporations in the Automobile Sector. The French and Italian Cases in a Comparative Perspective 1945–1973', (Ph.D), Florence: European University Institute (2007).
- Sauter, Wolf, *Competition Law and Industrial Policy in the European Union*, Oxford: Clarendon Press (1997).
- Seidel, Katja, 'DG IV and the Origins of a Supranational Competition Policy: Establishing an Economic Constitution for Europe', in: Kaiser, Wolfram, Brigitte Leucht and Morten Rasmusen (eds.), *The History of the European Union. Origins of a Trans- and Supranational Policy, 1950–1972*, London: Routledge (2008), pp. 129–147.
- Servan-Schreiber, Jean-Jacques, *The American Challenge*, Harmondsworth: Penguin (1969).
- Shonfield, Andrew, *Modern Capitalism. The Changing Balance of Public and Private Power*, Oxford: Oxford University Press (1965).
- Swann, Denis, *Competition and Industrial Policy in the European Community*, London: Methuen (1983).
- Toulemon, Robert and Jean Flory, *Une politique industrielle pour l'Europe*, Paris: PUF (1974).
- Türk, Henning, *Die Europapolitik der Grossen Koalition, 1966–1969*, Munich: Oldenbourg (2006).
- van Laer, Arthe, 'Liberalization or Europeanisation? The EEC Commission's Policy on Public Procurement in Information Technology and Telecommunications (1957–1984)', *Journal of European Integration History*, 2 (2006), pp. 107–130.
- van Laer, Arthe, 'Vers une politique de recherche commune. Du silence du Traité CEE au titre de l'Acte unique', in: Bouneau, Christophe, David Burigana and Antonio Varsori (eds.), *Les trajectoires de l'innovation technologique et la construction européenne: des voies de structuration durable?*, Brussels: Lang (2010), pp. 77–96.
- van Laer, Arthe, 'Vers une politique industrielle commune. Les actions de la Commission européenne dans les secteurs de l'informatique et des télécommunications (1965–1984)', (Ph.D), Catholic University of Louvain-la-Neuve (2010).
- Warlouzet, Laurent, 'The Deadlock: The Choice of the CAP by de Gaulle and its Impact on French EEC Policy (1958–69)', in: Patel, Kiran (ed.), *Fertile Ground for Europe? The History of European Integration and the Common Agricultural Policy since 1945*, Baden-Baden: Nomos (2009), pp. 99–118.
- Warlouzet, Laurent, *The Rise of European Competition Policy, 1950–1991: A Cross-Disciplinary Survey of a Contested Policy Sphere*, Florence: European University Institute (2010).
- Warlouzet, Laurent, *Le choix de la CEE par la France. L'Europe économique en débat de Mendès-France à de Gaulle (1955–1969)*, Paris: Cheff (2011).
- Witschke, Tobias, *Gefahr für den Wettbewerb? Die Fusionkontrolle der Europäischen Gemeinschaft für Kohle und Stahl und die 'Rekonzentration' der Ruhrstahlindustrie, 1950–1963*, Berlin: Akademie (2009).
- Young, John W., 'Technological Cooperation in Wilson's Strategy for EEC Entry', in: Daddow, Oliver J. (ed.), *Harold Wilson and European Integration. Britain's Second Application to join the EEC*, London: Frank Cass (2003), pp. 98–100.

10

Entangled industrialization. The EEC and industrial development in Francophone West Africa

Martin Rempe

University of Konstanz

10.1 Industrialization and entanglement

Industrialization played a significant role as a development strategy in the global, post-colonial development-discourse during the ‘first development decade’ heralded by the United Nations in 1961. Whereas colonial powers such as France and Great Britain had remained rather reluctant with respect to state-led industrialization in their colonies, modernization theorists and development economists considered a planned and comprehensive industrial policy a key factor for staging growth. Clark Kerr’s *Industrialism and Industrial Man*, published in 1962, was only one of numerous studies that reflected, and at the same time guided, government strategies in the ‘North’, as well as in the ‘South’ in their efforts to overcome ‘backward’ or ‘traditional’ social structures of the developing countries. Thus, in the era of decolonization, industrialization became not only a key concept with which to foster social change, but also a strategy of global convergence: it was assumed that through industrialization, nation-states all over the world would sooner or later converge to one model of society, what Walt Rostow called ‘the age of high mass consumption’.¹

¹Clark Kerr, *Industrialism and Industrial Man. The Problems of Labour and Management in Economic Growth*, London: Heinemann (1962); Walt W. Rostow, *Stadien wirtschaftlichen Wachstums. Eine Alternative zur marxistischen Entwicklungstheorie*, Göttingen: Vandenhoeck & Ruprecht (1960); Patrick Karl O’ Brien, ‘Industrialization’, in: Jerry H. Bentley (ed.), *The Oxford Handbook of World History*, Oxford: Oxford University Press (2011), pp. 304–324; on the modest significance of industrialization in colonial development see Herward Sieberg, *Colonial Development. Die Grundlegung moderner Entwicklungspolitik durch*

Against this global backdrop, the European Economic Community (EEC) also engaged in industrial development outside Europe: the Association of the Overseas' Countries and Territories to the EEC, which was mainly comprised of former French colonies in Africa, provided the legal framework for an active industrial policy as part of the Community's development policy. Even if the implementation of industrial development projects turned out to be relatively modest compared to agricultural and infrastructural activities taking place between 1958 and 1975, the EEC did embark on distinct strategies in terms of industrialization in Francophone Africa from the beginning of the Community's existence. Focusing on overall industrialization plans and on the implementation of two projects in Senegal during the 1960s and 1970s, this chapter will shed some light on these early efforts, including the scientific base on which they were constructed, the ensuing political frictions, the actual economic outcomes, and their shortcomings.

In contrast to Eurocentric accounts that highlight the insignificance of the Community's early industrial development policy, it is argued here that these plans and their partial implementation had a considerable impact on industrialization in Francophone Africa. What is more, a critical historicization of entangled industrial development efforts puts into question widespread assumptions of both contemporary social sciences' analysis and historical accounts, which both maintain that post-independent industrial development in Africa was shaped mainly by national prerogatives and policies. Usually founded on national empirical data, these studies did not care for mutual exchange, for the flow of concepts or for the shared implementation of industrialization projects.² In contrast, an entangled, actor-centered analysis of industrialization efforts in Africa not only escapes contemporary history's

Großbritannien 1919–1949, Stuttgart: Franz Steiner (1985) and Jacques Marseille, *Empire colonial et capitalisme français. Histoire d'un divorce*, Paris: Albin (1984).

²See, for example, Jürgen Donges and Lotte Müller-Ohlsen, *Außenwirtschaftsbeziehungen und Industrialisierung in Entwicklungsländern*, Tübingen: Mohr (1978); David K. Fieldhouse, *Black Africa 1945–80. Economic Decolonization and Arrested Development*, London: Allen & Unwin (1986); James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth Century Experience*, Oxford: Oxford University Press (1999); for Senegal's national development policy see Mamadou Diouf, 'Senegalese Development. From Mass Mobilization to Technocratic Elitism', in: Frederick Cooper and Randall Packard (eds.), *International Development and the Social Sciences. Essays on the History and Politics of Knowledge*, Berkeley, CA: University of California Press (1997), pp. 291–319.

danger of retelling established narratives,³ but also points to concrete, exogenous factors beyond the scope conditions usually examined, such as the world market or environmental issues. This approach, therefore, provides a more balanced account of industrial policy in Francophone West Africa.

The chapter proceeds in three steps: first with a sketch that details the background of the Association of the Overseas' Countries and Territories to the EEC, including the statistical record of its industrial policy in Francophone Africa; second with an analysis of the making of the EEC's general industrialization plans; third with a discussion of three case studies in Senegal in the 1960s and 1970s that offer great insight into the reasons why large scale industrialization did not gain ground in Francophone Africa.

10.2 The official record of the EEC's industrial development policy

The Association of the Overseas' Countries and Territories to the EEC was one of the most controversial topics addressed in the negotiations leading to the Rome Treaty in March 1957. Still a colonial power, France, backed by Belgium, insisted on a financial contribution of the prospective community to the development of its African territories and threatened to block the integration project altogether if the Association was not accepted. On the other hand, West Germany and the Netherlands had little economic interest in this part of the world. Moreover, they feared involvement in French colonial affairs. Primarily strategic considerations with respect to the Cold War, as well as the lurking failure of the negotiations, led Bonn and Den Haag to give in to French demands. A compromise was made in which a preferential trade area with the associated countries as well as the establishment of a European Development Fund (EDF) was allowed for. The latter was planned to be in effect for a period of five years and was funded by all member states, with Germany and France as the major payers: out of 581.5 million units of account (u.a.), the two countries spent 200 million u.a. each.⁴

³Rüdiger Graf and Kim Christian Priemel expand on this danger in 'Zeitgeschichte in der Welt der Sozialwissenschaften. Legitimität und Originalität einer Disziplin', *Vierteljahrshefte für Zeitgeschichte* 26 (2011), pp. 479–508.

⁴Urban Vahsen, *Eurafrikanische Entwicklungskooperation. Die Assoziierungspolitik der EWG gegenüber dem subsaharischen Afrika in den 1960er Jahren*, Stuttgart: Franz

Although most African countries had gained independence by 1960, the Association was continued and a renewal was supposed to be negotiated between European states and the now sovereign African states. Tenacious bargaining followed, primarily between the European states themselves, before the first Yaoundé Convention was signed in July of 1963. New institutions, such as the Association Council, were founded with the intent to demonstrate that the new Association put the countries involved on equal footing with each other and that the relationships had broken away from their colonial traditions. Moreover, a second European Development Fund, again designed for a period of five years and amounting up to 800 million u.a., was launched. In 1969, the second Yaoundé Convention brought little change to the general design of the Association. The third EDF had only slightly more money to invest (around 1 billion u.a.), but its financial instruments were made more flexible in terms of loans and risk capital. It was only the British entry to this Association in 1973 that brought major transformations of the Association, and subsequently led to the age of the so-called Atlantic–Caribbean–Pacific Partnership, which was established by the first Lomé Convention in 1975.⁵

As Table 10.1 shows, the fund's statistical record of genuine industrial projects between 1958 and 1975 remained very modest compared to agricultural or infrastructural projects: the first fund spent less than 1 per cent on industrial activities, the second less than 6 per cent and the third only a little more than 7 per cent. A specific view on Senegal makes it clear what these figures could have meant from an African national perspective: whereas the first fund did not include any investment at all in the West African country, the second funded only two studies on small industrial business possibilities and the erection of an iron ore factory on a budget of less than 50,000 u.a.⁶ The data for the early 1970s are hardly different: in the official programme for Senegal,

Steiner (2010); Guia Migani, *La France et l'Afrique sub-saharienne, 1957–1963. Histoire d'une décolonisation entre idéaux eurafricains et politique de puissance*, Brussels: Lang (2008); Thomas Moser, *Europäische Integration, Dekolonisation, Eurafrika. Eine historische Analyse über Entstehungsbedingungen der Eurafrikanischen Gemeinschaft von der Weltwirtschaftskrise bis zum Jaunde-Vertrag, 1929–1963*, Baden-Baden: Nomos (2000).

⁵ Moser (2000), *Europäische Integration*.

⁶ DG VIII, 'Situation des projets du 2ème FED en execution', 30 September 1970, Historical Archives of the European Union (HAEU) 25/1980-1362, 46; DG VIII, 'Résumé de la situation du Sénégal', February 1972, HAEU 25/1980-1328, 367, here 380.

Table 10.1 Sectoral disbursement of the European Development Fund, 1958–1975

	EDF I		EDF II		EDF III	
	Unit of account (thousands)	in %	Unit of account (thousands)	in %	Unit of account (thousands)	in %
Industrialization	4175	0.73	40,225	5.61	45,598	7.15
Rural Production	94,108	16.49	26,6919	37.19	188,966	29.63
Infrastructure ¹	346,847	60.75	310,947	43.32	274,853	43.11
Educational training	111,043	19.45	70,092	9.77	66,328	10.4
Others	14,729	2.58	29,489	4.11	61,918	9.71
Total	570,902	100	717,672	100	637,663	100

¹ Infrastructure encompasses transport communication, health, water engineering and urban infrastructure.

Source: Carol Cosgrove-Twitchett (1978), p. 136.

Table 10.2 Loans from the European Investment Bank for industrial projects in the associated countries in Africa, 1964–1975

	Loans in unit of account (millions)	Number of projects
Ivory Coast	21.54	6
Cameroon	17.27	9
Congo	9.0	1
Gabon	0.91	2
Upper Volta	0.45	1
Mauritania	11.0	1
Senegal	2.43	1
Togo	5.93	1
Zaire	34.2	3

Source: Helga Gerth-Wellmann and Dorothee Kayser (1980), p. 73.

not a single industrial project was included.⁷ The same holds true for the record of the European Investment Bank (EIB) during the two Yaoundé conventions: as Table 10.2 indicates, only nine out of the 18 associated African countries profited from an EIB engagement, of which six received modest or only single investments.

In reflection, it might appear that this chapter looks like a case of much ado about nothing: the EEC played no part in the industrial

⁷Ferrandi, Rapport de mission, not dated [1970], HAEU 25/1980-1362, 130, here 132.

development of Senegal and, irrespective of its role in the development of the Ivory Coast, Cameroon and Zaire, only a marginal one with regard to Francophone Africa as a whole. At second glance, however, it is clear that the statistical evidence is insufficient to paint the whole picture. Statistical analyses are, after all, always the result of individual acts of construction and categorization. Such analyses are founded only on documented events and cold facts, but can tell nothing as to people's intentions and ideas.⁸ In short, statistical records are ill-suited for an empirically grounded assessment of the Community's role in Francophone Africa's industrial development during the 1960s and 1970s. Instead, it seems to be more fruitful to investigate the EEC's ideas and concepts before more thoroughly investigating its industrial cooperation with Senegal. The selection of a (statistically) rather neglected country shall strengthen this argument as, even in such countries, effects of industrial cooperation with the EEC can be clearly identified.

10.3 From import substitution to export-oriented industrialization: Plans and their shortcomings

It would be misleading to claim that the Directorate General VIII for development of the European Commission designed concrete concepts on industrial development before the Yaoundé Convention had taken effect in June of 1964. The formative years of the European development policy were mainly characterized by the effects of African decolonization and the renewal of the Association. Apart from the generation of very general reports on African agriculture and social living conditions, and aside from one historical review on capital investments in Africa since the Second World War, there was no statement on this topic worth mentioning. Nevertheless, these reports already show that the DG VIII was clearly in favour of African industrialization, which was reliant on modernized and productive agriculture.⁹

The first systematic approach of the Community to industrialization in Francophone Africa was started at the end of 1963, when the DG VIII

⁸Adam J. Tooze, 'Die Vermessung der Welt. Ansätze zu einer Kulturgeschichte der Wirtschaftsstatistik', in: Hartmut Berghoff and Jakob Vogel (eds.), *Wirtschaftsgeschichte als Kulturgeschichte. Dimensionen eines Perspektivenwechsels*, Frankfurt a. M.: Campus (2004), pp. 325–351; Graf and Priemel (2011), 'Zeitgeschichte'.

⁹Martin Rempe, *Entwicklung im Konflikt. Die EWG und der Senegal 1957–1975*, Köln: Böhlau (2012), pp. 63–73.

decided to draft a general survey dealing with possibilities of import substitution in the 18 associated African countries. According to the planners surrounding Jean Durieux, the Belgian Director for development studies within the DG VIII, the EEC was not supposed to wait for the governments of the associated states to make industrialization proposals, but was itself to take over the initiative.¹⁰ The general study plan was to act as a guide for the associated states, the EDF and private industry. The survey focused on the consumer and consumption industries, the two branches that the experts considered the most favourable for the purposes of import substitution.

The import substitution approach was developed, theoretically, by Raúl Prebisch after the Second World War. Its aim was to overcome colonial economic structures that had been based on the export of cheap agricultural goods and the import of finished goods from metropolitan areas.¹¹ The experts chose this strategy because of its allegedly simple procedural method: they needed only to evaluate existing needs and markets on the basis of the import statistics of the associated countries in order to decide whether a project would be profitable.¹² Conceptually, they followed a 'pluri-national' approach that ignored national borders and focused on greater distribution zones. In the final study, the DG VIII made explicit that the aim of the pluri-national approach was a reorganization of the associated countries' restricted markets that suffered from the political decolonization process. As such, this kind of reorganization was to be geared to the geographical structures of the colonial era.¹³ Considered to be an incentive for (now voluntary) regional integration processes, this concept was supposed to correct the 'balkanization process' that accompanied the decolonization of the French colonies in Africa.¹⁴

¹⁰COM, Programme d'études générales sur les possibilités d'industrialisation des EAMA, not dated [1965], HAEU 25/1980-1998, 61.

¹¹Bernardo Calzadilla and Andreas Novy, 'Imports substituierende und exportorientierte Industrialisierung', in: Peter Feldbauer (ed.), *Industrialisierung. Entwicklungsprozesse in Afrika, Asien und Lateinamerika*, Frankfurt a. M.: Brandes & Apsel (1995), pp. 33–46.

¹²COM, Programme d'études générales sur les possibilités d'industrialisation des EAMA, not dated [1965], HAEU 25/1980-1998, 61, here 65 f.

¹³COM, Rapport de synthèse sur les perspectives d'industrialisation des EAMA, not dated [1967], HAEU 25/1980-1995, 14, here 26.

¹⁴For more on the balkanization process, see Tony Chafer, *The End of Empire in French West Africa. France's successful Decolonization*, Oxford/New York: Berg (2002), pp. 163–192; on the EEC's role in African integration processes, see Martin Rempe and Tillmann Schneider, '50 Jahre "Europa" in Westafrika. Zum

The study was executed by expert institutions from several member states, among them the German IFO Institut für Wirtschaftsforschung and the French Société d'études du développement économique et social. Execution took more than two years to complete, and included two phases of local fieldwork. However, African experts or politicians scarcely participated in this kind of knowledge production. Their role was clearly delineated insofar as they were supposed to only provide information and organizational support.¹⁵

In the end, the survey presented 109 possible industrial projects that were based on import substitution. However, by the beginning of the 1970s, 156 were being planned. The associated states did not care about the 'pluri-national' setting of these plans, but adopted the proposals within a national framework.¹⁶ Hence, many projects never outlived the planning stage because, in the course of the European survey, no political dialogue took place that would have acted in favour of the 'pluri-national' approach. Consequently, the whole study, the costs of which amounted to at least 400,000 u.a.,¹⁷ produced virtually nothing, making it useless for donor institutions and interested investors. It was not so much a deliberate decision not to engage in industrial development that accounts for the modest record of the EDF in the 1960s, but errant planning that led to the Community's poor performance. At the same time, this story qualifies the nature of African 'national' industrial policy: whereas the EEC's economic approach of import substitution was warmly welcomed by the African states, they preferred the maintenance of national sovereignty over intra-regional cooperation. This preference, however, eventually forced them to sooner or later resort to European assistance.¹⁸

Verhältnis europäischer und westafrikanischer Integration', in: Ingolf Pernice et al. (eds.), *Europa jenseits seiner Grenzen. Politologische, historische und juristische Perspektiven*, Berlin: Nomos (2009), pp. 37–52.

¹⁵For details, see Martin Rempe, 'EEC Industrialization Plans for Africa in the Sixties', in: Federica di Sarcina, Laura Grazi and Laura Scichilone (eds.), *Res Europae. Attori, Politiche e Sfide dell'Integrazione Europea*, Florence: Centro Editoriale Toscano (2010), pp. 107–118.

¹⁶DG VIII, État de réalisation des projets, not dated [1971], HAEU 25/1980–1997, p. 170.

¹⁷DG VIII, Note, 8 July 1965, HAEU 25/1980-1655, p. 60.

¹⁸On the significance of national sovereignty for the post-colonial African state see, for example, Christopher Clapham, *Africa and the International System. The Politics of State Survival*, Cambridge: Cambridge University Press (1996), pp. 106–113; further, Jean-François Bayart, 'Africa in the World. A History of Extraversion', *African Affairs* 99 (2000), pp. 217–267.

Compared to the first Yaoundé convention, the second agreement put a stronger emphasis on industrialization. A closer look at the relevant documents reveals that the 1969 convention twice (in art. 1 and art. 19) declared industrialization to be a central goal of the association, whereas the predecessor only mentioned it in the preamble.¹⁹ A re-start was supposed to be achieved with a new general survey. Officially, the second study aimed at complementing the first one in focusing on possibilities for the establishment and strengthening of export-oriented industries. However, there is no doubt that experience from conducting the first study prompted a different approach and decision-making process. First, the pluri-national approach was abandoned in favour of a purely national framing. Second, the African ambassadors residing in Brussels were more directly involved in the elaboration of the general setting. For example, they participated in discussions on issues like branch selection and, in this way, had a slightly bigger influence on the overall concept than they did in the first survey.²⁰ Consequently, as will be shown later on, regular meetings and frequent communication in Brussels led to a higher sensitivity regarding such development initiatives among the African governments.

10.4 Senegal's experience with industrial cooperation

It became clear that the success of the European plans, for better or for worse, depended highly on the behaviour and political preferences of the African partners. Hence, these plans are telling with regard to European basic intentions and theoretical convictions of how to foster industrial development, but say rather little about effective industrialization endeavours in Africa and what the Community contributed to them. From a Senegalese perspective, the European industrial policy looked quite different: highly inconsistent, indifferent and sometimes even outright hostile towards African industrialization. This argument shall be exemplified in three industrial projects: truck-manufacture, fertilizer production and the build-up of an export processing zone. These three initiatives were at the heart of the state-led Senegalese industrial policy in the 1960s and 1970s, which was otherwise quite

¹⁹'Abkommen über die Assoziation zwischen der Europäischen Wirtschaftsgemeinschaft und den mit dieser Gemeinschaft assoziierten Staaten und Madagaskar', *Amtsblatt der Europäischen Gemeinschaften* no. L 282, 28 December 1970, pp. 2–17, here art. 1 and 19.

²⁰Rempé (2012), *Entwicklung im Konflikt*, pp. 302–305.

reluctant towards state intervention in an industrial sector that was highly dominated by private French enterprises.²¹

The French vehicle manufacturer Berliet erected two construction sites for trucks and public transport vans in Dakar and Thiès in the early 1960s. Following classical import substitution ideas, the goal was to serve the domestic demand and to replace imports coming mainly from France and Germany. Both sites, together, had a utilized capacity of 400 vehicles per year, whereas the domestic demand in Senegal amounted to merely 220 at that time. Consequently, the Senegalese government guaranteed Berliet 90 per cent of the domestic demand and introduced quantitative restrictions on trucks at the end of 1963.²²

However, the introduction of new quantitative restrictions was not in line with the stipulations of the first Yaoundé Convention. Based on the principles of non-discrimination and reciprocity, the agreement obligated Senegal to abolish trade barriers at the same pace as the European member states would do among each other. There was just one exception made in the event that the omission of customs or quantitative restrictions would hamper the industrialization of the African countries – and it was exactly this exemption to which the Senegalese government referred when Berliet started the manufacturing.²³

However, the European partner states, as well as the European Commission, strongly disagreed with Senegalese behaviour in this matter for two reasons: firstly, the Yaoundé Convention had, at that time, not yet taken effect; secondly, no consultation, as it was required by the Convention, had taken place in the association committee.²⁴ It is certain that, behind these formal objections, were vital economic

²¹République du Sénégal, *Plan quadriennal de développement, 1961–1964*, Dakar: République du Sénégal (1961); République du Sénégal, *Deuxième Plan quadriennal de développement économique et social*, Dakar: République du Sénégal (1965); Fieldhouse (1986), *Black Africa*, p. 213 f.

²²CEE Conseil, 'Note 2, 1 June 1966', Archives du ministère des Affaires étrangères français (AMAEF) CE 1961/66-1564; DG VIII, 'Note' 22 September 1965, HAEU 25/1980-906, 25; Interimsausschuss, 'Schlussfolgerungen zur Sitzung der gemeinsamen Sachverständigengruppe EWG/AASM', 6 March 1964, HAEU 19/1969-173, p. 70.

²³'Assoziationsabkommen zwischen der Europäischen Wirtschaftsgemeinschaft und den mit dieser Gemeinschaft assoziierten afrikanischen Staaten und Madagaskar', Bundesgesetzblatt II (1964), p. 292, here art. 3, 6; Carol Cosgrove-Twitchett, *Europe and Africa. From Association to Partnership*, Farnborough: Saxon House (1978), pp. 97–100; Enzo Grilli, *The European Community and the Developing Countries*, Cambridge: Cambridge University Press (1993), p. 20.

²⁴Grilli (1993), *European Community*.

interests of some European member states. Germany's automobile industry particularly felt the effects of Senegal's new restrictions: export figures fell from 160 in 1963, to around 23 in the first half of 1965. Even the French government was not very happy about Berliet's virtual monopoly in Senegal, since it robbed other French manufacturers – like Citroën and Renault – of their market shares.²⁵ In short, the French and the Germans were greatly united in their attitude that Senegalese industrialization must not develop in such a way as to injure European exports, a view that can be traced back to colonial times.²⁶

Out of these opposing interests emerged a conflict that kept the association committee occupied for more than two years. The Senegalese government opted for a strategy of delay, whereas the European member states were ready to fight for very modest market shares. In the end, Senegal's exemption was accepted as long as the contingent for European manufacturers would not fall under 10 per cent of the total demand per year.²⁷

To be sure, the Berliet affair did not have any sustainable effect on the industrialization process in Senegal. Nevertheless, it illuminated the scope conditions for industrial development, being essentially the same for the entire associated Africa: the Community's member states had little interest in an African industrialization based on import substitution that would restrict market access for European products. The Yaoundé Convention gave them a suitable instrument to govern and control this process. In other words, the Commission conducted a general survey based on theoretical assumptions that were by no means backed by the member states. To make matters worse, from the European capital investor's point of view, a settlement in African states without public purchase guarantees was all too risky.

In examining the establishment of a fertilizer industry, the Senegalese predicament is made even more obvious. Again the Senegalese government was at the centre of the project. Put precisely, planning of

²⁵ 'Wendland to AA', 3 September 1965, Politisches Archiv des Auswärtigen Amtes (PAAA) B 20-1214; 'Heise to Ministry for Economic Affairs', 22 September 1965; 'Moreau to MAES', 26 March 1966, Centre des Archives diplomatiques (CAD) Dakar Ambassade 290; Rat, 'Vermerk', 17 May 1968, HAEU 25/1980-906, 31.

²⁶ Frederick Cooper, *Africa since 1940. The Past of the Present*, Cambridge: Cambridge University Press (2002).

²⁷ Comité d'Association, 'Procès-verbal de la 11ème reunion', 20 September 1966, HAEU 26/1969-325, p. 176, here 210 f., 226 f.; Rat, 'Vermerk', 17 May 1968, in: 25/1980-906, p. 31; Comité d'Association, 'Procès verbal de la 14ème reunion', 16 May 1967, in: id, 26/1969-327, p. 105.

the project was already long in progress before the EEC listed it in its general survey on import substitution. Already in 1962, a consortium called Société industrielle d'engrais du Sénégal (SIES) was founded as the first fertilizer industry on African soil capable of producing complex fertilizer.²⁸ The economic concept of the enterprise was closely bound to the so-called 'production aid' of the Community. This five-year programme, running under the auspices of the first Yaoundé Convention, was intended to modernize Senegal's peanut economy.²⁹ The largest share, almost 1.5 billion F CFA, went to fertilizer subventions. These subventions were supposed to act as incentives for the peasants to apply fertilizer and, in the long run, to establish a stable demand for it. The Senegalese government's idea was to kill two birds with one stone: the fertilizer subventions were not only supposed to modernize the Senegalese agriculture, but should, at the same time, serve as initial funding for an important industrial fertilizer manufacturer.³⁰

In 1966, after long negotiations, an agreement to construct a new factory with a capacity of 130,000 tons of fertilizer per year between the SIES, four donor institutions – the International Financial Corporation, the European Investment Bank (EIB), the French Development Bank and the French Development Fund – and the Senegalese government was signed. The costs ran to more than three billion Francs CFA, of which the EIB supplied a share of 600 million F CFA. The Community's Production Aid Programme, with its enigmatic modernization plan for the peanut economy and extremely optimistic consumption forecasts,

²⁸République du Sénégal, *Les orientations générales du plan quadriennal 1961–1964*, Dakar: République du Sénégal (1963), p. 86; Comité du FAC, 'Prêt spéciale à la société industrielle d'engrais au Sénégal', May 1966, Centre d'accueil et de recherches des Archives Nationales (CARAN), Fonds Foccart public (FPU), p. 237; see also Guy Rocheteau, *Pouvoir financier et indépendance économique en Afrique. Le cas du Sénégal*, Paris: Karthala (1982), p. 241; complex fertilizer contains several nutritive substances in contrast to simple fertilizer, and hence requires a more elaborate process of manufacture.

²⁹On details of this programme, see Martin Rempé, 'Fit für den Weltmarkt in fünf Jahren? Die Modernisierung der senegalesischen Erdnusswirtschaft in den 1960er Jahren', in: Hubertus Büschel and Daniel Speich (eds.), *Entwicklungswelten. Globalgeschichte der Entwicklungszusammenarbeit*, Frankfurt a. M.: Campus (2009), pp. 241–273.

³⁰DG VIII, 'Exposé du programme quinquennal d'aide à la production du Sénégal', 21 December 1964, Archives of the Delegation of the EU in Senegal (ADEUS) II. FED 214015032; République du Sénégal 1963, p. 86; Comité du FAC, 'Prêt spéciale à la société industrielle d'engrais au Sénégal', May 1966, CARAN, FPU, p. 237.

was a component of critical investment-security for some creditors. Especially the French fund, but also the EIB, trusted the planners of the DG VIII so much that the European bank seemingly deemed it unnecessary to make direct inquiries in Brussels. However, this blind confidence may also be explained by the donor's successful campaign for a purchase guarantee: the Senegalese government was obligated to buy 60,000 tons of fertilizer per year, an amount large enough to make the investment profitable for the investors, regardless of the actual demand.³¹

When the purchase guarantee came into effect in 1968, the modernization programme of the EEC had not fulfilled the great expectations placed on it. On the contrary, the Senegalese peanut economy was deep in crisis due to climatic reasons, the failure of structural reforms imposed by Senegalese government and the effects of hasty modernization and liberalization caused by the Production Aid Programme itself.³² The 'malaise paysan', as the return to subsistence economy was called, spread among the peasants³³ and those who continued to cultivate cash crop had no money to buy fertilizer. In 1968, the heyday of the *grève d'engrais*,³⁴ the estimated demand decreased to less than 20,000 tons of fertilizer.

In this situation, Senegal's president Leopold Senghor came up with a controversial proposal for the last tranche of the fertilizer subventions: apply for much more money than originally planned for the purpose of both subsidizing fertilizer and accounting for the penalty the Senegalese government had to pay *vis-à-vis* the SIES. What was more, Senghor's concept required direct contracting with the Senegalese company in place of a regular call for tenders.³⁵

This proposition met little support in Brussels for several reasons. Firstly, the DG VIII did not feel responsible for the penalty, which was

³¹Comité du FED, 'Compte rendu de la 61ème reunion', 12 May 1969, HAEU 38/1984-153, p. 193, here 220; Comité du FAC, 'Prêt spéciale à la société industrielle d'engrais au Sénégal', May 1966, CARAN, FPU, p. 237.

³²Yves Péhaut, 'De l'O.C.A à la SONACOS. Vingt ans d'échec des structures de commerce de l'arachide du Sénégal', *Année Africaine* (1982), pp. 407–431; John Waterbury, 'Dimensions of State Intervention in the Groundnut Basin', in: Mark Gersovitz (ed.), *The Political Economy of Risk and Choice in Senegal*, London: Cass (1987), pp. 188–222.

³³On the malaise paysan, Edward J. Schumacher, *Politics, Bureaucracy, and Rural Development in Senegal*, Berkeley, CA: University of California Press (1975), pp. 183–185.

³⁴Note 'Le placement et la production de l'engrais', not dated [1968], Centre des Archives Contemporaines (CAC) 19950347-55, vol. 2.

³⁵Instead of applying for the planned 250 million, he applied for 650 million F CFA. 'Hendus to Rochereau', 12 February 1969, HAEU 25/1980-657, p. 23.

exacted for non-compliance to the purchase guarantee. Secondly, conflicts about the distribution of contracts were generally at the heart of the European development policy for years. Thirdly, the fertilizer applications of the earlier tranches led to discussions between the member states and the Commission, since some countries' fertilizer industries felt discriminated against. Indeed, this conflict led to the generation of a 'scheme for allowable aberrations',³⁶ which, however, was only valid for tenders of the EDF. A European agreement on the comparability of fertilizers was only signed after long lasting negotiations in 1975.³⁷ Obviously, the mixture of fertilizers was not as unimportant as the member states had claimed with respect to the scheme laid out in European development policy nearly ten years before. Again, it seemed like the interests of European industries were more important than the provision of the best-suited fertilizer to Senegalese peanut farmers. Against this backdrop, it is not surprising that all member states but France vetoed the planned, single tender action in favour of the SIES. The Commission, however, being completely aware of the situation's urgency, ignored the decision of the EDF committee and concluded the contract with the Senegalese enterprise.³⁸

Nevertheless, this move alone did not much help in getting the Senegalese government out of its plight. On the one hand, the demand lagged far behind the estimated amount, despite the high subventions for the fertilizer. On the other hand, it was the last tranche of the Community's five-year production aid programme, which also meant the end of fertilizer subsidies. As a result, at the beginning of the 1970s, the SIES bestowed an additional and considerable financial obligation on the Senegalese state at a time when the domestic demand for fertilizer was at a ten-year low. This case serves as a striking example for the fact that the failure of development projects had considerable effects on developing countries. What is more, the establishment of the SIES shows that the EEC was much more involved in industrial development in Africa than the bare figures of the EDF or EIB indicate at first glance. Finally, the case significantly shows, again, how much resistance

³⁶DG VIII, 'Vermerk', March 1966, HAEU 25/1980-515, p. 5; the problem was to determine 'the equivalence between fertilizers whose mixture of nutritive elements differ from each other'.

³⁷Richtlinie 76/116 des Rates zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten für Düngemittel', Amtsblatt der Europäischen Gemeinschaften L no. 24, 30 January 1976, pp. 21–44.

³⁸Rempe (2012), *Entwicklung im Konflikt*, p. 219 f.

an import substitution approach met from the industrialized European countries. The inconsistency of the Community's industrial development policy was primarily the result of the differing attitudes and behaviour between the European Commission and the EEC member states.

This divide between the Commission and the member states was not restricted to the import substitution approach, but manifested as well in the 1970s, when the Senegalese government embarked on an export-oriented industrialization strategy. The foundation of an industrial export processing zone (EPZ) came to be a pet project for President Senghor. The original idea for the establishment of an EPZ near Dakar, however, was birthed in Paris. The department for African Affairs of the Quai d'Orsay wanted to facilitate access to Latin American markets for French and other European enterprises. It was assumed that a settlement in Dakar would not only be geographically much closer to Latin America, but could also be advantageous in terms of labour costs.³⁹ In contrast, the Federal Republic judged the economic value of such an industrial zone to be rather marginal for its own economy. Hence, when Senghor asked for German support in 1970, Chancellor Willy Brandt reacted cautiously, and argued that due to the size of the project, the foundation of the zone would require a European initiative.⁴⁰

Despite Germany's reluctance, the Senegalese government stuck to its guns and was conceptually backed by the Commission. Indeed, the EPZ fit perfectly with the new general survey of the DG VIII on export-oriented industries. The Senegalese Minister for industry Daniel Cabou took advantage of this correspondence and selected one of the Commission's drafts as the key justification for his own project. In a preliminary study intended for the French development ministry, Cabou cited the following from the European draft: 'The best measure to attract foreign investors is to provide special sites for their settlements, that is, well-suited and highly developed export processing zones.'⁴¹

Once more, the discrepancy between the recommendations of European experts and political action of the member states became obvious. Germany did not change its sceptical attitude, and France, meanwhile, had reconsidered its position, not least because it became clear that, due

³⁹'Senghor to Pompidou', 23 April 1970, AMAEF Sénégal 93; 'Réunion chez Dechamps' [handwritten protocol of the meeting of the ad hoc group], 10 August 1970, in: Rempe (2012), *Entwicklung im Konflikt*.

⁴⁰Secrétaire d'état de la Coopération, 'Compte rendu d'entretien "Port franc du Cap Vert"', 9 August 1970, AMAEF Sénégal 93.

⁴¹'Cabou to Bourges', 14 January 1972, Annex: Étude de marché complémentaire, CAC 19950347-53.

to a very investor-friendly regular commercial law, the formation of a Senegalese export processing zone would barely add any advantages for foreign enterprises.⁴²

It all ended in the following division of labour: Senegal took over the general planning and France and the FRG became responsible for special preliminary surveys. The DG VIII was supposed to give special attention to the export processing zone when conducting the sector studies of its general survey. In short, the European partners engaged in further knowledge production and feasibility studies, but stayed away from any capital investment. Finally, the establishment of the export processing zone was achieved in 1976 with money from the Iranian development fund.⁴³

10.5 Conclusion

Some general conclusions can be drawn from the Senegalese experience. First of all, the three cases together make clear that the EEC had been, already in the 1960s and early 70s, much more influential in African endeavors of industrial development than the official record of the European Development Fund suggests. Even looking at a country such as Senegal, which, at first glance, appears to have barely been touched by the EEC in terms of industrialization, still shows that the Community more often than not had a finger in the pie when the Senegalese state seized the initiative in the industrial sector. More generally, this observation can be put forward as a strong argument in favour of conducting historical investigations that take both ends of the development cooperation into account in a more systematic fashion.⁴⁴

Secondly, the combination of the Community's concepts on industrial development is, to some extent, surprising, at least from a global perspective. It is not so much the dominance of the import-substitution

⁴²Secrétaire d'état de la Coopération, 'Note pour la direction des affaires africaines et malgaches', 11 September 1971, AMAEF Sénégal 93; on the Senegalese code of investments see Jean-Claude Gautron, 'Les conventions d'établissement conclues par le Sénégal avec des entreprises', *Annuaire français de droit international* 14 (1968), pp. 654–670.

⁴³Huybrechts, 'Rapport de mission', not dated [1972], HAEU 25/1980-1487, p. 12; 'Bulletin développement industriel', July/October 1976, CAC 19950347-53; Rocheteau (1982), *Pouvoir financier et indépendance économique*, p. 372; the sector studies of the community were finished only in 1975, 'Krohn to Lebsanft', 20 January 1975, HAEU 25/1980-1986, p. 261.

⁴⁴See as well Andreas Eckert, 'Nachwort', in: Büschel and Speich (2009), *Entwicklungswelten*, pp. 311–319.

approach in the 1960s which is astonishing, even if one argues that the problems of Prebisch's theory were already well-known at that time.⁴⁵ More striking is the focus on export-oriented industrialization at the beginning of the 1970s, at a time when the global development discourse highlighted education, health, nutrition and the so-called basic needs approach as absolute priorities. Given that not only Senegal, but many other developing countries deliberately embarked on this export-oriented strategy – in 1975, around 80 developing countries had an operational export processing zone – it would seem that the picture of the second development decade with its allegedly social focus has to be reassessed.⁴⁶

Third, the cases shed some light on external factors that blocked industrialization in Senegal. The Senegalese government was caught in a dilemma between investors' demands for considerable privileges and international trade obligations, and between the need of attracting foreign investment and the reluctance of European member states. Ignoring the developmental expertise of the European Commission, the latter vehemently protected the industrial status quo and defended the existing international division of labour. Accordingly, the export processing zone did not attract many investors either; and, after few years, it was deemed a failure.⁴⁷ Nevertheless, one should not conclude that entangled industrial development efforts were regularly doomed to fail. For example, it seems that the Ivory Coast was more successful in the 1960s and 70s in using Community means and assistance in order to foster its agro-industrial sector.⁴⁸ In conclusion, industrial development

⁴⁵For example, see the criticism in Donges and Müller-Ohlsen (1978), *Außenwirtschaftsbeziehungen und Industrialisierung*.

⁴⁶Hubertus Büschel, 'Geschichte der Entwicklungspolitik', Docupedia-Zeitgeschichte, 11 February 2010, http://docupedia.de/zg/Geschichte_der_Entwicklungspolitik, (date accessed 3 May 2012); Gilbert Rist, 'The History of Development. From Western Origins to Global Faith', 3rd edn. London: Zed Books (2008), pp. 140–170; Folker Fröbel, Jürgen Heinrichs and Otto Kreye, 'Die neue internationale Arbeitsteilung. Strukturelle Arbeitslosigkeit in den Industrieländern und die Industrialisierung der Entwicklungsländer', Reinbek: Rowohlt (1977), p. 493.

⁴⁷Dirk Wieser, *Ausländische Privatinvestitionen im Senegal. Eine Fallstudie über Struktur, Rahmenbedingungen und Auswirkungen in einem AKP-Land*, Berlin: Duncker & Humblot (1982), p. 77.

⁴⁸Helga Gerth-Wellmann and Dorothee Kayser, *Die industrielle Zusammenarbeit zwischen der EG und den AKP-Staaten im Rahmen der Lomé-Politik. Empirische Analyse und Versuch einer Einschätzung*, München: Weltforum (1980), pp. 73 f., 115–130.

cooperation between the EEC and its associated African countries, for better or for worse, represents a shared history, which must be taken into account when studying the history of industrial policy in Africa.

References

- Bayart, Jean-François, 'Africa in the World: A History of Extraversion', *African Affairs* 99 (2000), pp. 217–267.
- Büschel, Hubertus, 'Geschichte der Entwicklungspolitik', *Docupedia-Zeitgeschichte*, 11.2.2010, http://docupedia.de/zg/Geschichte_der_Entwicklungspolitik (accessed 3 May 2012).
- Calzadilla, Bernardo and Andreas Novy, 'Importsubstituierende und exportorientierte Industrialisierung', in: Feldbauer, Peter (ed.), *Industrialisierung: Entwicklungsprozesse in Afrika, Asien und Lateinamerika*, Frankfurt a.M.: Brandes & Apsel (1995), pp. 33–46.
- Chafer, Tony, *The End of Empire in French West Africa: France's Successful Decolonization*, Oxford/New York: Berg (2002).
- Clapham, Christopher, *Africa and the International System: The Politics of State Survival*, Cambridge: Cambridge University Press (1996).
- Cooper, Frederick, *Africa since 1940. The Past of the Present*, Cambridge: Cambridge University Press (2002).
- Cosgrove-Twitchett, Carol, *Europe and Africa: From Association to Partnership*, Farnborough: Saxon House (1978).
- Diouf, Mamadou, 'Senegalese Development. From Mass Mobilization to Technocratic Elitism', in: Cooper, Frederick and Randall Packard (eds.), *International Development and the Social Sciences: Essays on the History and Politics of Knowledge*, Berkeley: University of California Press (1997), pp. 291–319.
- Donges, Jürgen and Lotte Müller-Ohlsen, *Außenwirtschaftsbeziehungen und Industrialisierung in Entwicklungsländern*, Tübingen: Mohr (1978).
- Eckert, Andreas, 'Nachwort', in: Büschel, Hubertus and Daniel Speich (eds.), *Entwicklungswelten: Globalgeschichte der Entwicklungszusammenarbeit*, Frankfurt a. M.: Campus (2009), pp. 311–319.
- Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth Century Experience*, Oxford: Oxford University Press (1999).
- Fieldhouse, David K., *Black Africa 1945–80: Economic Decolonization and Arrested Development*, London: Allen & Unwin (1986).
- Fröbel, Folker, Jürgen Heinrichs and Otto Kreye, *Die neue internationale Arbeitsteilung: Strukturelle Arbeitslosigkeit in den Industrieländern und die Industrialisierung der Entwicklungsländer*, Reinbek near Hamburg: Rowohlt (1977).
- Gautron, Jean-Claude, 'Les conventions d'établissement conclues par le Sénégal avec des entreprises', *Annuaire français de droit international* 14 (1968), pp. 654–670.
- Gerth-Wellmann, Helga and Dorothee Kayser, *Die industrielle Zusammenarbeit zwischen der EG und den AKP-Staaten im Rahmen der Lomé-Politik: Empirische Analyse und Versuch einer Einschätzung*, München: Weltforum (1980).
- Graf, Rüdiger and Kim Christian Priemel, 'Zeitgeschichte in der Welt der Sozialwissenschaften. Legitimität und Originalität einer Disziplin', *Vierteljahrshefte für Zeitgeschichte* 26 (2011), pp. 479–508.

- Grilli, Enzo R., *The European Community and the Developing Countries*, Cambridge: Cambridge University Press (1993).
- Kerr, Clark, *Industrialism and Industrial Man: The Problems of Labour and Management in Economic Growth*, London: Heinemann (1962).
- Marseille, Jacques, *Empire colonial et capitalisme français: histoire d'un divorce*, Paris: Albin (1984).
- Migani, Guia, *La France et l'Afrique sub-saharienne, 1957–1963: histoire d'une décolonisation entre idéaux eurafricains et politique de puissance*, Brussels: Lang (2008).
- Moser, Thomas, *Europäische Integration, Dekolonisation, Eurafrika: Eine historische Analyse über Entstehungsbedingungen der Eurafrikanischen Gemeinschaft von der Weltwirtschaftskrise bis zum Jaunde-Vertrag, 1929–1963*, Baden-Baden: Nomos (2000).
- O' Brien, Patrick K., 'Industrialization', in: Bentley, Jerry H. (ed.), *The Oxford Handbook of World History*, Oxford: Oxford University Press (2011), pp. 304–324.
- Péhaut, Yves, 'De l'O.C.A à la SONACOS: Vingt ans d'échec des structures de commerce de l'arachide du Sénégal', *Année Africaine* 1982, pp. 407–431.
- Rempe, Martin, 'Fit für den Weltmarkt in fünf Jahren? Die Modernisierung der senegalesischen Erdnusswirtschaft in den 1960er Jahren', in: Büschel, Hubertus and Daniel Speich (eds.), *Entwicklungswelten. Globalgeschichte der Entwicklungszusammenarbeit*, Frankfurt a. M.: Campus (2009), pp. 241–273.
- Rempe, Martin, 'EEC Industrialization Plans for Africa in the Sixties', in: di Sarcina, Federica, Laura Grazi and Laura Scichilone (eds.), *Res Europae: Attori, Politiche e Sfide dell'Integrazione Europea*, Florence: Centro Editoriale Toscano (2010), pp. 107–118.
- Rempe, Martin, *Entwicklung im Konflikt. Die EWG und der Senegal 1957–1975*, Köln: Böhlau (2012).
- Rempe, Martin and Tillmann Schneider, '50 Jahre "Europa" in Westafrika: Zum Verhältnis europäischer und westafrikanischer Integration', in: Pernice, Ingolf et al. (eds.), *Europa jenseits seiner Grenzen: Politologische, historische und juristische Perspektiven*, Berlin: Nomos (2009), pp. 37–52.
- République du Sénégal, *Plan quadriennal de développement, 1961–1964*, Dakar: République du Sénégal (1961).
- République du Sénégal, *Les orientations générales du plan quadriennal 1961–1964*, Dakar: République du Sénégal (1963).
- République du Sénégal, *Deuxième Plan quadriennal de développement économique et social*, Dakar: République du Sénégal (1965).
- Rist, Gilbert, *The History of Development: From Western Origins to Global Faith*, 3rd ed., London: Zed Books (2008).
- Rocheteau, Guy, *Pouvoir financier et indépendance économique en Afrique. Le cas du Sénégal*, Paris: Karthala (1982).
- Rostow, Walt W., *Stadien wirtschaftlichen Wachstums: Eine Alternative zur marxistischen Entwicklungstheorie*, Göttingen: Vandenhoeck & Ruprecht (1960).
- Schumacher, Edward J., *Politics, Bureaucracy, and Rural Development in Senegal*, Berkeley: University of California Press (1975).
- Sieberg, Herward, *Colonial Development: Die Grundlegung moderner Entwicklungspolitik durch Großbritannien 1919–1949*, Stuttgart: Steiner (1985).
- Tooze, Adam J., 'Die Vermessung der Welt. Ansätze zu einer Kulturgeschichte der Wirtschaftsstatistik', in: Berghoff, Hartmut and Jakob Vogel (eds.),

- Wirtschaftsgeschichte als Kulturgeschichte. Dimensionen eines Perspektivenwechsels*, Frankfurt a. M.: Campus (2004), pp. 325–351.
- Vahsen, Urban, *Eurafrikanische Entwicklungskooperation: Die Assoziierungspolitik der EWG gegenüber dem subsaharischen Afrika in den 1960er Jahren*, Stuttgart: Steiner (2010).
- Vieser, Dirk, *Ausländische Privatinvestitionen im Senegal: Eine Fallstudie über Struktur, Rahmenbedingungen und Auswirkungen in einem AKP-Land*, Berlin: Duncker & Humblot (1982).
- Waterbury, John, 'Dimensions of State Intervention in the Groundnut Basin', in: Gersovitz, Mark (ed.), *The Political Economy of Risk and Choice in Senegal*, London: Cass (1987), pp. 188–222.

11

The EEC and the challenge of the ACP states' industrialization, 1972–1975

Guia Migani

François Rabelais University, Tours

Introduction

This chapter will focus on the industrial cooperation between the EEC and the ACP (African, Caribbean and Pacific) group. In particular, it will show how the problem of industrialization was raised by the ACP states during the negotiations leading to the signature of the Lomé Convention (1975), and the terms that were laid out in it.

With the Lomé Convention, ACP industrialization became a specific aim of the ACP–EEC partnership. Together with new measures (Stabex: stabilization of export earnings from agricultural products, the abolition of reversal preferences and a protocol on sugar), the Lomé Convention defined a new kind of relationship between the ACP and the EEC. The general ambition, as proclaimed in the preamble of the Convention, was ‘to establish a new model for relations between developed and developing States, compatible with the aspirations of the international community towards a more just and more balanced economic order’.

In this context, there are some open questions which need to be analysed: did the EEC member states really consider ACP industrialization as part of the new partnership with the ACP states? for their part, did the ACP states really want to develop an industrial cooperation with the European states, or did they prefer a national strategy? and, to what extent was the ACP disposed to cooperate with European states in the elaboration of their industrialization strategies?

This chapter, based on EEC, French and British archives (but also on some ACP documents), will analyse the negotiations leading to the signature of the Lomé Convention, focusing on the terms of the debate surrounding industrialization and on the confrontation between ACP and EEC states on this issue. After an analysis of industrial development in the

ACP states, it throws a new light on the position of the ACP group and on their aims (free access to technology, new international division of labour etc.). At the same time, it investigates the position of the EEC member states and the efforts of the European Commission to arrive at a compromise. Finally, it points out the reasons leading the EEC member states to accept a truly ambitious title in industrial cooperation in the Convention while showing the ambiguities in the position of the European countries towards the industrial development of the ACP states.

11.1 The agreements between the EEC and the Associated African States during the 1960s

In 1957, the EEC Treaty introduced some provisions for the development of the colonial territories under European authority. The French and Belgian colonies, and Somalia under Italian authority, would be associated to the EEC. In a protocol of the treaty, the Convention of Association established that the African territories would benefit from the European Development Fund (EDF) in financing economic and social investments. Furthermore, the exports of the African territories associated with the EEC would not pay the External Common Tariff (ECT). In exchange, the African territories granted the five other European states the same benefits as their colonial powers.

The main instruments of the European development policy were already defined in 1957. These were the commercial provisions and the EDF. The commercial provisions were supposed to lead to a Eurafrikan free trade area. At the same time, thanks to EDF resources, African states could finance infrastructures as well as economic and social projects.¹ Industrialization was not explicitly an aim of the association policy. Nevertheless, the projects financed by EDF were supposed to favour the industrialization of the associated countries in the long term.

During the 1960s, the Convention of Association was renewed twice, in 1963 and in 1969.² The principle of a free trade area between the Six

¹René Girault, 'La France entre l'Europe et l'Afrique', in: Enrico Serra (ed.), *La relance européenne et les traités de Rome. Actes du colloque de Rome, 25–28 mars 1987*, Milano: Giuffrè (1989), pp. 351–378. Guia Migani, *La France et l'Afrique sub-saharienne, 1957–1963. Histoire d'une décolonisation entre idéaux eurafricains et politique de puissance*, Bruxelles: Peter Lang (2008), pp. 45–66. Yves Montarsolo, *L'Eurafrrique contrepoint de l'idée d'Europe*, Aix-en-Provence: Publications de l'Université de Provence (2010), pp. 195–258.

²Enzo R. Grilli, *The European Community and the Developing Countries*, Cambridge: Cambridge University Press (1993). William I. Zartman, *The Politics of Trade*

and the associated states was maintained. At the same time, the ECT on some tropical products was lowered, thereby reducing the preferential rate on imports coming from the associated states. In 1969, the second Yaoundé Convention did not change the main provisions of the European development policy: the principle of the Eurafrikan free trade area was confirmed, and the third EDF would have consisted of one billion dollars.

Table 11.1 European Development Fund and contributions of the European Investment Bank to the associated states, 1958–1974 (in million US \$, units of account)

	Rome Treaty	Yaoundé I	Yaoundé II
EDF	581.25	730	900
EIB (European Investment Bank)	–	70	100
Total	581.25	800	1000

Source: Author's own calculation.

Yaoundé I mentioned industrialization only to recognize the possibility for the associated states to introduce tariffs and new taxes for the purposes of protecting development. Yaoundé II, besides recognizing that industrialization was one of the Convention aims, mentioned that the EDF could be used to promote industrialization and agricultural development.³ In practice, a sort of 'positive action' had been introduced: the financial resources used by the Community to promote industrialization grew from 1 per cent (1958–62) to 11 per cent (1969–74), thereby representing about 9 per cent of the total EDF between 1958 and 1974.⁴ (see Table 11.2.)

Negotiations between Africa and the EEC. The Weak Confront the Strong, Princeton, NJ: Princeton University Press (1971). Gérard Bossuat and Marie-Thérèse Bitsch (eds.), *L'Europe unie et l'Afrique. De l'idée d'Eurafrique à la Convention de Lomé I*, Bruxelles: Bruylant (2005). Véronique Dimier, 'Constructing Conditionality. The Bureaucratization of EC Development Aid', *Journal of European Foreign Affairs*, no. 11 (2006), pp. 263–280. Guia Migani, 'Stratégies nationales et enjeux internationaux à l'origine de l'aide au développement communautaire. La France, l'Afrique sub-saharienne et les Conventions de Yaoundé', in: Gérard Bossuat (ed.), *La France, l'Europe et l'aide au développement des traités de Rome à nos jours*, Paris: IGPDE/CHEFF (2013), pp. 15–30.

³ Archives of European integration, Pittsburgh University, Note on the Associated African states and Madagascar 'Promotion and Industrialization', 14 December 1971, <http://aei.pitt.edu/id/eprint/7869> (date accessed 19 December 2012).

⁴ Archives of European integration, University of Pittsburgh, Commission of the European Communities, 'The European Community's contribution to the

Table 11.2 EEC industrial financing in the AASM (Associated African States and Madagascar) countries, 1958–1974 (in thousands of units of account)

	On the EDF's resources			EIB's resources (ordinary loans)	Total EDF + EIB
	Subsidies	Loans on special terms	Contributions to capital risk formation		
Energy	28,801	9000	—	7550	45,351
Extractive industries	584	—	—	52,600	53,184
Agri-industrial complexes and food industry	36,607	28,153	541	16,420	77,721
Manufacturing industry	1743	2856	990	20,230	25,819
Other	3254	—	972	—	4226
Total	66,989	40,009	2503	96,800	206,301

Source: *The European Community's contribution to the industrialization of developing countries* (May 1975), p. 8 (see note 4).

11.2 Africa, international trade and industrialization during the 1970s

In spite of the progress accomplished after independence, it is only during the 1970s that industrialization became a source of confrontation between the EEC and the associated countries. In fact, the participation of the English-speaking African countries and of the Caribbean and Pacific Islands in the negotiations renewing the Yaoundé Convention greatly reinforced the associated states coalition. Also, in many cases, the new states industrial sector was more developed than in the associated states. They therefore wanted to debate about industrial cooperation with the European states.

More generally, the ACP group was looking for a new partnership with the European countries. The aim of these countries, or at least that of a few, was to reform their relations with Western European states in adherence with the requirements of the New International Economic Order (NIEO).⁵

industrialization of developing countries', May 1975, p. 8, <http://aei.pitt.edu/id/eprint/5753> (date accessed 19 December 2012).

⁵Cf. Jagdish N. Bhagwati, *The New International Economic Order. The North–South Debate*, Cambridge, MA: MIT Press (1977); Craig N. Murphy, *The Emergence of the NIEO Ideology*, Colorado, CO: Westview Press (1984); Karl P. Sauvant, *The Group of*

The NIEO was the agenda regrouping the requests of the G77 to reform the economic international system. In 1974 the UN General Assembly, under pressure from the G77, adopted a resolution calling for the instauration of the NIEO, and some months later for a Charter of Economic Rights and Duties of States. The G77 demanded a new international labour division. To this end, special measures had to be adopted: non-reciprocal trade preferences, free transfer of technologies, and nationalization of private and foreign industries.

Technology, it was believed, would have accelerated the development process. Moreover, industrialization would have helped to end both market- and technological-dependence, managerial- and entrepreneurial-dependence, foreign capital dependence and economic inflexibility.⁶ The emphasis of African leaders such as N'Krumah on industrialization as a means of reducing market dependence was heightened by a desire to escape declining terms of trade. Diversification of the production structures through industrialization was also seen as a means to reduce economic inflexibility.⁷

During the 1960s, economic-growth theories influenced developing states' strategies. The widespread belief that growth could be planned, contributed to imposing the growth approach.⁸ Governments started to elaborate plans for economic growth through the development of the industrial sector.⁹ Greater use of local raw materials also became a major theme of industrial development planning. After independence, the most common strategy adopted in Sub-Saharan Africa to boost industrialization was import-substitution. At the same time, the export processing industries implanted in some countries during the colonial period were continued. However, 'in many countries, the export sector, especially mining, was an enclave separated from the rest of the

77, New York: Oceana Publications (1981); Thomas G. Weiss, Tatiana Carayannis, Louis Emmerij and Richard Jolly (eds.), *UN Voices. The Struggle for Development and Social Justice*, Bloomington, IN: Indiana University Press (2005). Giuliano Garavini, *After Empires. European Integration, Decolonization, and the Challenge from the Global South (1957–1986)*, Oxford: Oxford University Press (2012).

⁶William F. Steel and Jonathan W. Evans, 'Industrialization in Sub-Saharan Africa. Strategies and Performance', *World Bank Technical Paper* no. 25 (1984), p. 29.

⁷Steel and Evans (1984), 'Industrialization in Sub-Saharan Africa', p. 14.

⁸Arturo Escobar, *Encountering Development. The Making and Unmaking of the Third World*, Princeton, NJ: Princeton University Press (1995), p. 85.

⁹Cf. Archives of European Integration, University of Pittsburgh, Commission of the European Communities, 'Les plans de développement des Etats africains et malgache associés à la CEE', 1969, pp. 22–4, <http://aei.pitt.edu/id/eprint/33867> (date accessed 19 December 2013).

economy. [...] The export sector generally had few direct linkages in terms of either using locally-produced inputs or providing goods for domestic consumption'.¹⁰ In all these states, the public sector played a major role in leading the development effort. At the same time, tariffs were raised to reduce import demand (as well as to raise government revenue).

In spite of these efforts, African industrial growth lagged behind that of other developing regions. From 1960 to 1975, Africa's share of world manufacturing value grew from 0.7 to 0.8 per cent, whereas Asian countries grew from 2.2 to 3.0 per cent and Latin America from 4.1 to 4.8 per cent. The share of African manufactured exports fell from 1.1 per cent in 1970–71 to 0.6 per cent in 1975–76, whereas that of other developing regions (especially Asia) grew: clearly, African manufactures were not competitive.

Table 11.3 Share of developing regions in world manufacturing, value added and exports, 1960–1976 (in percentages)

	Africa	Latin America	South and East Asia	Other Asia
Share in value added				
1960	0.7	4.1	1.9	0.3
1970	0.7	4.2	2.0	0.4
1975	0.8	4.8	2.5	0.5
			Asian Middle East	
Share in exports				
1970–71	1.1	1.5	0.3	3.1
1975–76	0.6	1.6	0.5	4.9

Source: William F. Steel and Jonathan W. Evans (1984), p. 39.

The African industrial sector was dominated by 'light industries such as the manufacture of food, beverages and tobacco (43 per cent) and the textile, wearing apparel, and leather industries (19 per cent). Heavy industries, on the other hand, account[ed] for less than 25 per cent of industrial production. By way of contrast, 42.1 per cent of total industrial production for Asia for the period 1970–76 was devoted to heavy industry, 52.3 per cent for Latin America and 64 per cent for the developed market economies of Western Europe and North America.'¹¹

¹⁰Steel and Evans (1984), 'Industrialization in Sub-Saharan Africa', p. 11.

¹¹Ndiva Kofele-Kale, 'Title I of the 2nd Lomé Convention between the EEC and ACP states. A Critical Assessment of the Industrial Cooperation Regime as it

Table 11.4 The Nine's share of ACP trade, 1966–1973 (in percentages, world = 100)

	Imports	Exports
1966	49	58
1967	49	54
1968	48	52
1969	47	54
1970	47	51
1971	45	49
1972	46	49
1973	44	48

Source: Eurostat (1975), p. 27.

The EEC was still the principal trading partner of those countries. Moreover, only eight countries accounted for 55 per cent of the total ACP exports: Nigeria, Zaire, Ivory Coast, Ghana, Zambia, Jamaica, Trinidad and Tobago, and Bahamas.¹² The ACP exports to the EEC consisted mainly of food and tobacco (34 per cent) and mineral fuels (33 per cent). (See Table 11.5)

Although primary products were the dominant imports from all areas, their importance varies between regions. Clothing (from Mauritius) was

Table 11.5 European Community imports from ACP by main product categories, 1976

	Value (million EUA)	in %
Food and tobacco	3477.7	34
Inedible agricultural products	967.3	9
Fertilizers and minerals	934.7	9
Mineral fuels	3362.2	33
Chemicals	174.6	2
Iron and steel	0.8	0
Non-ferrous metals	988.3	10
Other manufactured goods	189.5	2
Machinery and transport equipment	42.9	0
Total	10285.4	100

Source: Eurostat (1977), p. 806.

Related to Africa', *Northwestern Journal of International Law and Business* 5, no. 352 (1983), p. 359.

¹²Eurostat, *ACP: Yearbook of Foreign Trade Statistics 1968–1973*, Luxembourg: OPOCE (1975), p. 28.

the most important category of EC imports of manufactured products. However, when chemical products are included, the Caribbean states play an important role, with aluminium oxides and hydroxides from Jamaica and Surinam and a variety of medical and chemical products from the Bahamas making up over 70 per cent of EC imports from this area.¹³ (See Table 11.6)

In conclusion, ACP countries played a relatively small part in world trade (including oil), accounting for 3–4 per cent of the total, while the trade of all developing countries represented a little over 30 per cent.¹⁴ Secondly, despite a slow diversification in the ACPs' sources of supply and markets for their products, the share of the Community remained preponderant. Third, the degree of concentration in EC-ACP trade was very pronounced. Most ACP countries depended on two or three products for the vast majority of their global export receipts. Furthermore, the markets for these products were subject to violent price fluctuations, causing instability in export earnings.¹⁵

This helps to understand the importance of the EEC for the ACP states. If the ACP states wanted to modify the structure of their trade patterns, the European Community was the first to be involved. Furthermore, the EEC had already shown a certain openness to discussing the reform of the international economic system inside UNCTAD.¹⁶ In this context, the debate about ACP industrialization is particularly interesting, because it concerns a crucial area for ACP and European interests. For the ACP states, the recognition of the importance of their industrialization was an aim of great relevance.¹⁷ On the other side, the European governments were in an ambivalent position: they were willing to meet the ACP requests, but only to some extent. The European governments could not forget the difficult situation in their countries. The economic

¹³Eurostat, *ACP: Yearbook of Foreign Trade Statistics 1968–1976*, Luxembourg: OPOCE (1977), p. 809.

¹⁴*Analysis of trade between the European Community and the ACP states*, Belgium (1979), 0.3–0.7.

¹⁵*Analysis of trade between the European Community and the ACP states*, Belgium (1979), 2.27–8.

¹⁶Giuliano Garavini, *Dopo gli imperi. L'integrazione europea nello scontro Nord-Sud*, Firenze: Le Monnier (2009), pp. 149–196.

¹⁷Tom Hewitt, Hazel J. Johnson and David Wield, *Industrialization and Development*, Oxford: Oxford University Press (1992). Alain Lipietz, *Mirages et miracles. Problèmes de l'industrialisation dans le Tiers Monde*, Paris: Découverte (1985). Pierre Salama and Patrick Tissier, *L'industrialisation dans le sous-développement*, Paris: F. Maspero (1982).

Table 11.6 European Community imports from ACP of primary and manufactured products, 1976 (in million EUA)

	Primary products		Of which: Fuel products		Manufactured products		Total	
	Volume	in %	Volume	in %	Volume	in %	Volume	in %
Total ACP	9790.5	93.5	3362.5	32.1	548.9	5.2	10,473.8	100
West Africa	5646.5	96.8	2868.6	49.2	178.1	3.1	5831.9	100
Central Africa	1675.0	87.2	259.0	13.5	125.7	6.5	1920.7	100
East Africa	1482.4	96.3	22.1	1.4	52.5	3.4	1539.8	100
Indian Ocean	285.6	84.5	1.3	0.4	52.1	15.4	337.9	100
Caribbean	489.3	77.5	211.5	33.5	140.1	22.2	631.1	100
Pacific	211.7	99.7	0	0	0.4	0.2	212.4	100

Source: Eurostat (1977), p. 807.

crisis and the oil shock made employment a sensitive question for some states and a big problem for others. So which kind of industrialization could they promote in the ACP countries? The ACP industrialization could mean their own de-industrialization, especially in very sensitive sectors (textiles for example), where the industries were based on human factors more than on technology.¹⁸

11.3 The negotiations between the EEC and the ACP states start: The first debates (April 1973–June 1974)

The Deniau Memorandum, which contained the Commission's proposals for the new Convention, was presented to the Council of Ministers in April 1973. In the chapter devoted to the different sectors of EEC cooperation policy (infrastructure, agriculture, social development), a paragraph is dedicated to industrialization. The Commission, after acknowledging the possibilities already offered by the Yaoundé Convention in the industrial sector, proposed a series of actions aimed at improving information among European private operators on industrial opportunities in the ACP states and favouring the organization of meetings between ACP representatives and private investors.¹⁹

Compared to the other proposals of the Commission, the chapter on industrial promotion lacked ambition: no part of the EDF was set aside for industrial promotion, no special organism was in charge of it and no special action was introduced. The speeches of Briggs, the Nigerian Minister of Commerce, and Ramphal, the Minister of Foreign Affairs of Guyana, speaking on behalf of the African and Caribbean states at the opening conference held in Brussels in July 1973, revealed a different approach to the problem. Both the Ministers set claims for a revision of the rules of origin in order to facilitate their exports to the EEC, an easier and cheaper transfer of technology towards their countries and free access to the EEC for all their products. Other requests concerned the guaranty of just prices for their most important exports and the abolition of the reverse trade preferences (granted by the associated states to the EEC countries). The ACP states asked for a reform of the commercial, economic and monetary international order, at least in their relations with the European states.²⁰

¹⁸On these questions see Christian Stoffaes, *La grande menace industrielle*, Paris: Calmann-Levy (1978), pp. 23–86.

¹⁹Archives of the French Foreign Ministry (MAEF), De-Ce 1969–1974, 1100, *Mémoire* de la Commission, 9 April 1973, p. 26.

²⁰MAEF, De-Ce 1969–1974, 1099, Briggs speech at the Brussels Conference, 25–26 July 1973.

The negotiations between the ACP countries and the EEC started officially in October 1973. In January 1974, discussions about ACP industrialization began. The spokesman of the ACP group proposed to include a title on industrial cooperation in the new convention. He asked if the EEC member states would be ready to give ACP states free access to their technology, to use their resources in order to adapt their technology to the specific needs of the ACP states, to modify their production patterns and to favour the conciliation of the interests of private investors with the policy of the ACP countries.²¹

The ACP states had to wait some months for an answer. In fact, the Commission was ready to discuss industrialization only as an aspect of financial and technical cooperation. Confronted with the ambitious requests of the ACP states, the Commission, which was negotiating on behalf of the nine member states, needed more instructions from the Council.

In April 1974, a working document prepared by the Commission clarified to what extent the EEC was ready to engage itself in industrial cooperation. The Commission proposed to the EEC member states that they specify the instruments of industrial cooperation in the new convention, focusing on the role of the private sector, on technological transfer and on professional training. In the opinion of the Commission, it was not necessary to create new funds for the promotion of industrialization in ACP countries, because this could be done thanks to financial, technical and commercial cooperation. What was needed, was a better definition of the possibilities offered by the convention.

The Commission proposed adopting some measures in order to promote the marketing of the ACP exports, to help the ACP countries to respect EEC states' regulations and to abolish non-tariff obstacles that obstructed ACP exports. On the sensitive issue of technology transfers, the Commission only mentioned the adoption of measures facilitating ACP access to technological knowledge and adjustment of the technology to the specific conditions of the ACP countries. Nothing was said about the sale (with special conditions) of this technology.²²

On other occasions and on other matters, the Commission had been more ready to meet ACP requests than the EEC member states were. In this case, the positions were far apart. The only agreement was that

²¹European Commission Historical Archives (ECHA), BAC 28/1980, 744, Extrait de la déclaration du porte-parole du groupe des pays ACP, Bruxelles, 27 March 1974.

²²ECHA, BAC 28/1980, 743, Document de travail des services de la Commission établi en accord avec les services de la BEL, Bruxelles, 24 April 1974.

industrial cooperation should constitute a specific part of the new convention. But the proposals of the Commission were just an elaboration of the ideas contained in the Deniau Memorandum (already approved by the Council).²³

11.4 The Kingston Conference, the ACP memorandum on industrialization and its aftermaths (July–December 1974)

On the eve of the Kingston Conference, held in July 1974, the ACP presented a memorandum. Following their text, the aims of industrial cooperation should include the following points: to favour the industrial development in the ACP countries (from this point of view, the ACP group asked that all the processes of transformation of raw materials remain in the ACP countries); to strengthen the links between industry and other economic sectors, especially agriculture; to favour the transfer of European technology to ACP countries and their adaptation to local conditions; to adopt special measures for the marketing of ACP country industrial products; to promote professional training at all levels.

The ACP countries also proposed the establishment of an Industrial Cooperation Committee composed of ACP and EEC representatives that was tasked with preparing specific proposals for the implementation of industrial cooperation and of a centre of industrial promotion for the diffusion of information in the industrial sector.²⁴

The Kingston Conference was a turning point in the negotiations for the Lomé Convention. France, which held the presidency of the Council, wanted to push the negotiations in order to secure an agreement for the associated countries. The British, for their part, strongly favoured the participation of the Commonwealth countries in the new agreement and played an encouraging role. The other European states and the Commission were ready to compromise. On the other side, the ACP wanted the negotiations taking place at the first conference organized in one of their countries to be successful. The discussions on industrial cooperation benefited from this favourable context.

Making an important concession, the EEC member states accepted the goals of industrial cooperation as described in the ACP memorandum (in spite of its many ideological claims) in order to maintain the

²³The National Archives, Great Britain (TNA), FCO 30/2131, déclaration de Cheysson, 7 March 1974.

²⁴MAEF, De-CE 1967–1974, 1101, document interne à la Communauté, Bruxelles, 25 July 1974.

good climate of the negotiations.²⁵ The final text issued at the end of the conference declared: 'The ACP states and the EEC recognize the fundamental importance which should be placed on industrial cooperation in the future agreement and agree that a special chapter of the agreement should be devoted to this subject; the European Community has taken note of the memorandum on industrial cooperation presented by the ACP countries and confirms its agreement on the general aim of this memorandum.'²⁶

The discussions among the Nine on industrial cooperation resumed in September. Analysing the proposals of the ACP countries, the EEC member states agreed to finance the industries and industrial infrastructures through EDF and EIB loans (which was already possible under the Yaoundé Convention), to adopt some special measures in favour of small and medium enterprises and to organize professional training with the participation of European industries.²⁷ Concerning the sensitive question of access to technology, the EEC declared that it did not have any competence in this sector. Licenses belonged to private industries, not to the Community. Therefore, the EEC could only help contacts between the ACP countries and the owners of the technology, and could offer technical assistance to the ACP countries during the negotiations and, eventually, contribute towards purchasing technology. (But on these two points, there was no general consensus among the Nine).

It was easier to find an agreement on technological adaptation. The European funds could be used towards this aim if the ACP countries asked for it. In their memorandum, the ACP countries had also asked that the EEC encourage private investment in their countries. The EEC

²⁵Cf. the British view of the memorandum: 'The ACP Memorandum [...] contains certain unacceptably radical elements, eg. it calls for a "new international division of labour". It is in places unrealistic; for example in the assumption that the Community has the power to direct industry in a mixed economy such as that of Western Europe to invest in ACP countries. But the Community agreed in Kingston that the broad aim of promoting industrialization in the ACP countries should be written into the new Convention. [...]'. TNA, FCO 30/2137, Telegram to FCO, 31 October 1974.

²⁶MAEF, DE-CE 1967-1974, 1101, Communiqué publié à l'issue de la Conférence, Kingston, 26 July 1974. The text for the press issued at the end of the conference went even further: 'The Conference offered an opportunity of opening the way to a new world economic order; it was intended to define the principles of a new model for relations between the industrialised and the developing countries on the basis of international social justice.' TNA, FCO 30/2136, Conference of EEC and ACP states, Kingston, 25-26 July 1974, text of joint press release.

²⁷ECHA, BAC 28/1980, 745, Note sur la coopération industrielle, 27 September 1974.

was ready to adopt some special measures in the field of financial or technical cooperation, or to favour the circulation of information, but it would not take any fiscal measures, as this was the responsibility of the member states.

On the new international division of labour, the Nine were divided. Some delegations did not want to mention this topic at all in the Convention, and insisted that the private sector should be associated to the discussions with the ACP countries. Other delegations were ready to encourage some industrial transfers in the sector of raw material transformation, when it was economically justified. The Commission stressed that the Community should promote the industrial development of the ACP countries and open its market to their manufactures. Therefore, the new Convention should have some articles on ways to encourage the industrial development of the ACP countries (without engaging the EEC in any formal commitment).²⁸

During their discussions, the Nine insisted on the importance of the creation, by the ACP states, of a favourable framework for private investments. In their minds, this 'framework' was more a condition *sine qua non* than a concession of the ACP states. Without a guaranty against nationalization, a legal framework and a procedure of conciliation, the private investments would not have gone to ACP countries. Anticipating the hesitation of the ACP countries, the Community was ready to bind the EEC investments to the purposes of the host country's economic and social aims.

The ACP proposal to create an Industrial Cooperation Committee, giving impetus to industrial cooperation, was easily accepted by the Nine. This organ should be a sort of think tank, without operative powers. Concerning the Industrial Promotion Centre (the second institution proposed by the ACP countries), there was hesitation because of the costs of the new institution.²⁹ At the end of their debates, the Nine agreed on the following points: the ACP memorandum could be the starting point for discussions on industrial cooperation; the Community could not take a concrete commitment for the instauration of a new international division of labour, but this could be a consequence of the new partnership between the EEC and the ACP countries.

²⁸ ECHA, BAC 28/1980, 745, Note sur la coopération industrielle, 27 September 1974.

²⁹ On the doubts of the Nine about the Industrial Promotion Centre, TNA, FCO 30/2137, Note: Report by the AASM Working Party to the Permanent Representatives Committee, 30 October 1974.

11.5 Towards the final agreement: Last questions to be answered

The debates between the ACP countries and the EEC states went on in the following months. An agreement was easily found on the general aims of industrial cooperation. The most difficult discussions concerned creating a favourable framework for private investments. The ACP countries wanted to choose the destination of the investments and to fix their aims. At the Dakar Conference, in December 1974, ministers from the ACP countries rejected the EEC's proposed article on investment climate.

Strongly connected to industrial cooperation, the rules of origin caused another difficult debate. The rules of origin would determine whether ACP goods qualified for duty-free access to the EEC. From the beginning of the negotiations, the ACP asked for more liberal rules of origin. In particular, they asked that the EEC consider, as an original product, any good to which the ACP country could add 25 per cent of its value when the EEC wanted to maintain this limit to 50 per cent. In fact, the Nine feared the duty-free importation of products coming from the US or Japan after a small transformation in the ACP countries.³⁰

In the last days of January 1975, the ACP and the EEC member states reached a final agreement on all the articles of the new Convention. As requested by the ACP states, the new Convention, signed in Lomé at the end of February, contained a chapter dedicated to industrial cooperation. The first article of title III defined the aims of industrial cooperation as they were specified in the ACP memorandum presented to the Kingston Conference (art. 26). The financial and technical cooperation would provide the means for implementing industrial cooperation, but the Convention did not earmark any money for industrial cooperation. Special arrangements had also provided for small and medium sized firms.

In spite of the EEC demands, the ACP rejected any clause on the definition of the legal framework encouraging the arrival of Community businessmen. In their opinion, this was an interference with their sovereign right to determine their own development policies. They only agreed on an article providing that the ACP countries should take all the steps to promote effective cooperation with those businessmen from the EEC countries who respected the development plans and priorities

³⁰MAEF, De-CE 1967-1974, 1102, Note, 10 January 1975.

of the host countries. Under the same article, the Community was to take steps to persuade firms to participate in the industrial development of the ACP countries (art. 38).

Two special institutions were created to manage industrial cooperation. The Industrial Cooperation Committee had the task of following the implementation of the industrial cooperation, to examine problems in the field of industrial cooperation and to supervise the activities of the Centre for Industrial Development. The Centre for Industrial Development, jointly managed by the ACP countries and the EEC, was responsible for industrial information, contact-making and other functions connected with industrial promotion.

On the rules of origin, the Nine recognized the collective origin that considered the ACP to be one market. This gave them the possibility to increase their industrial cooperation. On the percentage of the value added, the European states refused 25 per cent and did not accept less than 50 per cent.

11.6 Conclusions

As Sanu, the Nigerian Minister, stated in an interview, it was his opinion that the most important parts of the Convention were the trade provisions, because they 'offer a lot of free access for most of our products to the EEC markets, both in the agricultural and industrial fields; and the industrial cooperation which give us the hope of assistance in training, in transferring technology during this very crucial time in our development'.³¹ The representatives of the Caribbean and other African countries were probably more concerned with the sugar protocol and the stabilization of export earnings, or the amount of EDF. Nevertheless, it is true that the new rules of trade cooperation, such as the abolition of the reverse trade preferences, were among the most symbolic outcomes of the new Convention. They seemed to create a new partnership agreement, 'compatible with the aspirations of the international community towards a more just and more balanced economic order', as it was specified in the preamble of the Convention.

From this point of view, the ACP states could certainly be satisfied with the results of the negotiations. For the first time, they had imposed the terms of the debate on the renewal of the Convention to the EEC. Some key factors favoured the ACP countries in the negotiations: the international context, with the oil-shock, reinforced the raw

³¹*The Courier*, no. 31, special issue, March 1975, p. 9.

material exporting countries. The ambition of the EEC to play a more important role in the international context after the Summit of Paris, in 1972, coupled with a relative weakness of the United States in the same years, favoured the ACP as well.³² Moreover, some political and social forces in Western European countries played in favour of the Third World countries. For example, in July 1973, during the Brussels Conference, the International Confederation of Free Trade Unions (ICFTU) sent a declaration to EEC and ACP representatives asking the European states to open their markets to ACP exports. The ICFTU confirmed that they were in favour of the establishment of Western industries in the developing states.³³ Some months later, the European Economic and Social Committee declared that industrial cooperation should seek a re-orientation of the international division of labour.³⁴ Even the Union of Industrial and Employers' Confederations of Europe (UNICE) recognized that it was the responsibility of the ACP states to fix the aims and priorities of the industrial cooperation to which the industries should conform.³⁵

All these elements, coupled with the capacity of the ACP group to stand together until the end of negotiations, help to explain how they

³²Jan van der Harst (ed.), *Beyond the Customs Union. The European Community's Quest for Deepening, Widening and Completion 1969–1975*, Brussels: Bruylant (2007). Antonio Varsori (ed.), *Alle origini del presente. L'Europa occidentale nella crisi degli anni '70*, Milano: Franco Angeli (2007). Daniel Moeckli, *European Foreign Policy during the Cold War. Heath, Brandt, Pompidou and the Dream of Political Unity*, London: Tauris (2008). Antonio Varsori and Guia Migani (eds.), *Europe in the International Arena during the 1970s. Entering a Different World*, Brussels: Peter Lang (2011). Andreas Wirsching (ed.), 'The 1970s and 1980s as a Turning Point in European History?', *Journal of Modern European History* 9, no. 2 (2011), pp. 8–26.

³³ECHA, BAC 28/1980, 741, Déclaration de la CISEL, 25 July 1973.

³⁴ECHA, BAC 28/1980, 744, Comité économique et social, projet d'avis sur les questions relatives aux négociations de la Communauté avec les Etats ACP, 30 May 1974.

³⁵(L'UNICE) est convaincue que l'association peut offrir une base particulièrement favorable à la mise en œuvre d'une coopération industrielle effective dans l'intérêt mutuel des partenaires. Il va de soi que cette coopération doit avant tout répondre aux souhaits des pays associés et être conforme à leurs objectifs économiques et sociaux. [...] Il est essentiel que [...] les pays associés qui souhaitent voir se développer la coopération industrielle garantissent aux opérateurs qui sont le facteur déterminant de cette coopération, les conditions indispensables de confiance et de sécurité.' ECHA, BAC 28/1980, 746, Prise de position de l'UNICE au sujet de la coopération industrielle, 10 January 1975.

could obtain such favourable terms: besides the industrial cooperation, the Lomé Convention abolished reverse trade preferences, established a system for the stabilization of export earnings (called Stabex) and provided the EDF with three billion dollars. A sugar protocol was attached to the Convention. With this protocol, the EEC agreed to import 1,275,000 tons of sugar from ACP countries. More importantly, the sugar would benefit from guarantees in price and sale.³⁶

But obtaining a good Convention was only the first step in the establishment of a new partnership between the ACP states and the EEC. Even more important was how the Convention would be implemented. From this point of view, some elements relativized the importance of the gains of the ACP states. The industrial cooperation depended greatly on the attitude of the European industries. In this context, the lack of legal guaranties and the instability in many ACP countries did not favour their implantation there. But the industrial cooperation depended on the good will of the European states as well. Unfortunately, the economic crisis encouraged EEC states to keep industries in their countries – especially those that were labour-intensive – and to protect them against foreign competition. The safeguard clauses were even reinforced at the request of France in order to protect the industrialization of its overseas departments. Moreover, the crucial factor, which was never discussed with the ACP countries, was that industrial cooperation depended on choices made by the EEC at the communitarian level. From this standpoint, the Nine and the Commission were debating a common industrial policy.³⁷ At the same

³⁶On Lomé, Marjorie Lister, *The European Community and the Developing World. The Role of the Lomé Convention*, Aldershot: Avebury (1988). Frans A. Maria Alting von Geusau (ed.), *The Lomé Convention and a New International Economic Order*, Leyden: A.W. Sijthoff (1977). Emmanuel C. Onwuka, 'The Lomé Conventions and the Search for a New International Economic Order', *Indian Journal of Economics*, no. 299 (April 1995), pp. 479–493. John Ravenhill, *Collective Clientelism. The Lomé Conventions and North–South Relations*, New York: Columbia University Press (1985). William Brown, *The European Union and Africa. The Restructuring of North–South Relations*, London: Tauris (2002), pp. 43–63. Guia Migani, 'Les accords de Lomé et les relations eurafricaines. Du dialogue nord-sud aux droits de l'homme', in: Georges-Henri Soutou and Emilia Robin-Hivert (eds.), *L'Afrique dans la mondialisation*, Paris: PUPS (2012), pp. 149–165.

³⁷On the industrial policy cf. the PhD thesis of Arthe Van Laer, 'Vers une politique industrielle commune. Les actions de la Commission européenne dans les secteurs de l'informatique et des télécommunications (1965–1984)', Louvain-La-Neuve: Université catholique de Louvain (2010).

time as the Lomé negotiations, Altiero Spinelli, Commissioner for Industrial Affairs, presented a '*Programme d'action en matière de politique industrielle et technologique*'. The axes of the Spinelli programme were the completion of the common market and the adoption of an interventionist policy in favour of crisis-stricken European and high-tech industries. In the elaboration of his programme, Spinelli was aware of the importance of taking into account the international context, environmental problems, the regional dimension as well as the situation of developing countries.³⁸ Nevertheless, in spite of the approval of the Council, which adopted the programme in December 1973, the Spinelli programme was far from being carried out.³⁹ Finally, if we consider the fact that there were many bodies in charge of industrial cooperation with the ACP (the EDF, the EIB, the Industrial Promotion Centre and the Industrial Cooperation Committee), that the task was enormous, the funds limited, and that there was a lack of a concrete strategy agreed on by the ACP and the Nine, it becomes easier to understand the difficulties and disappointments of the years that followed. Still, the inclusion of the title on industrial cooperation in the Lomé Convention is one of the major achievements of the debate on the international division of labour, a debate that disappeared only a decade later.

References

- Altling von Geusau, Frans A. M. (ed.), *The Lomé Convention and a New International Economic Order*, Leyden: A. W. Sijthoff (1977).
- Bhagwati, Jagdish N., *The New International Economic Order. The North-South Debate*, Cambridge, MA: MIT Press (1977).
- Bossuat, Gérard and Marie-Thérèse Bitsch (eds.), *L'Europe unie et l'Afrique. De l'idée d'Eurafrrique à la Convention de Lome I*, Brussels: Bruylant (2005).
- Brown, William, *The European Union and Africa. The Restructuring of North-South Relations*, London: Tauris (2002).
- Bussière, Eric, 'L'improbable politique industrielle', in: Dumoulin, Michel (ed.), *La Commission européenne 1958-1972, Histoire et mémoires d'une institution*, Luxembourg: OPOCE (2007), pp. 471-485.

³⁸Eric Bussière, 'L'improbable politique industrielle', in: Michel Dumoulin (ed.), *La Commission européenne 1958-1972, Histoire et mémoires d'une institution*, Luxembourg: OPOCE (2007), p. 482.

³⁹Arthe Van Laer, 'Quelle politique industrielle pour l'Europe? Les projets des Commissions Jenkins et Thorn (1977-1984)', in: Eric Bussière, Michel Dumoulin and Sylvain Schirmann (eds.), *Milieus économique et intégration européenne au XX siècle. La relance des années quatre-vingt*, Paris: CHEFF (2007), pp. 7-52.

- Dimier, Véronique, 'Constructing Conditionality: The Bureaucratization of EC Development Aid', *Journal of European Foreign Affairs*, no. 11 (2006), pp. 263–280.
- Escobar, Arturo, *Encountering Development. The Making and Unmaking of the Third World*, Princeton: Princeton University Press (1995).
- Eurostat, *ACP: Yearbook of Foreign Trade Statistics 1968–1973*, Luxembourg: OPOCE (1975).
- EUROSTAT, *ACP: Yearbook of Foreign Trade Statistics 1968–1976*, Luxembourg: OPOCE (1977).
- Garavini, Giuliano, *Dopo gli imperi. L'integrazione europea nello scontro Nord-Sud*, Florence: Le Monnier (2009).
- Garavini, Giuliano, *After Empires. European Integration, Decolonization, and the Challenge from the Global South (1957–1986)*, Oxford: Oxford University Press (2012).
- Girault, René, 'La France entre l'Europe et l'Afrique', in: Serra, Enrico (ed.), *La relance européenne et les traités de Rome. Actes du colloque de Rome, 25–28 mars 1987*, Milan: Giuffrè (1989), pp. 351–378.
- Grilli, Enzo R., *The European Community and the Developing Countries*, Cambridge: Cambridge University Press (1993).
- Hewitt, Tom, Hazel J. Johnson and Wield David, *Industrialization and Development*, Oxford: Oxford University Press (1992).
- Kofele-Kale, Ndiva, 'Title I of the 2nd Lomé Convention between the EEC and ACP States: A Critical Assessment of the Industrial Cooperation Regime as it Related to Africa', *Northwestern Journal of International Law and Business*, 5:352 (1983), pp. 352–393.
- Lipietz, Alain, *Mirages et miracles: problèmes de l'industrialisation dans le Tiers Monde*, Paris: Découverte (1985).
- Lister, Marjorie, *The European Community and the Developing World: The Role of the Lomé Convention*, Aldershot: Avebury (1988).
- Migani, Guia, *La France et l'Afrique sub-saharienne, 1957–1963: Histoire d'une décolonisation entre idéaux eurafricains et politique de puissance*, Brussels: Peter Lang (2008).
- Migani, Guia, 'Les accords de Lomé et les relations eurafricaines: du dialogue nord-sud aux droits de l'homme', in: Soutou, Georges-Henri and Emilia Robin-Hivert (eds.), *L'Afrique dans la mondialisation*, Paris: PUPS (2012), pp. 149–165.
- Migani, Guia, 'Stratégies nationales et enjeux internationaux à l'origine de l'aide au développement communautaire: La France, l'Afrique sub-saharienne et les Conventions de Yaoundé', in: Gérard Bossuat (ed.), *La France, l'Europe et l'aide au développement des traités de Rome à nos jours*, Paris: IGPDE/CHEFF (2013), pp. 15–30.
- Moeckli, Daniel, *European Foreign Policy during the Cold War: Heath, Brandt, Pompidou and the Dream of Political Unity*, London: Tauris (2008).
- Montarsolo, Yves, *L'Eurafrique contrepoint de l'idée d'Europe*, Aix-en-Provence: Publications de l'Université de Provence (2010).
- Murphy, Craig N., *The Emergence of the NIEO Ideology*, Colorado: Westview Press (1984).
- Onwuka, Emmanuel C., 'The Lomé Conventions and the Search for a New International Economic Order', *Indian Journal of Economics*, no. 299 (1995), pp. 479–493.
- Ravenhill, John, *Collective Clientelism. The Lomé Conventions and North-South Relations*, New York: Columbia University Press (1985).

- Salama, Pierre and Patrick Tissier, *L'industrialisation dans le sous-développement*, Paris: F. Maspero (1982).
- Sauvant, Karl P., *The Group of 77*, New York: Oceana Publications (1981).
- Statistical Office of the European Communities, *Analysis of Trade between the European Community and the ACP States*, Luxembourg: Office for Official Publications of the European Communities (1979).
- Steel William F. and Jonathan W. Evans, 'Industrialization in Sub-Saharan Africa. Strategies and Performance', *World Bank Technical Paper*, no. 25 (1984).
- Stoffaas, Christian, *La grande menace industrielle*, Paris: Calmann-Levy (1978).
- The Courier*, no. 31, special issue (March 1975).
- Van der Harst, Jan (ed.), *Beyond the Customs Union: The European Community's Quest for Deepening, Widening and Completion 1969–1975*, Brussels: Bruylant (2007).
- Van Laer, Arthe, 'Quelle politique industrielle pour l'Europe? Les projets des Commissions Jenkins et Thorn (1977–1984)', in: Bussière, Eric, Michel Dumoulin and Sylvain Schirmann (eds.), *Milieux économique et intégration européenne au XX siècle. La relance des années quatre-vingt*, Paris: CHEFF (2007), pp. 7–52.
- Van Laer, Arthe, 'Vers une politique industrielle commune. Les actions de la Commission européenne dans les secteurs de l'informatique et des télécommunications (1965–1984)', (PhD thesis), Université catholique de Louvain (UCL) (2010).
- Varsori, Antonio and Guia Migani (eds.), *Europe in the International Arena during the 1970s. Entering a Different World*, Brussels: Peter Lang (2011).
- Varsori, Antonio (ed.), *Alle origini del presente. L'Europa occidentale nella crisi degli anni '70*, Milano: FrancoAngeli (2007).
- Weiss, Thomas G., Tatiana Carayannis, Louis Emmerij and Jolly Richard, *UN Voices. The Struggle for Development and Social Justice*, Bloomington: Indiana University Press (2005).
- Wirsching, Andreas, 'The 1970s and 1980s as a Turning Point in European History?', *Journal of Modern European History*, vol. 9 (2011/2), pp. 8–26.
- Zartman, William I., *The Politics of Trade Negotiations between Africa and the EEC: The Weak Confront the Strong*, Princeton: Princeton University Press (1971).

Part III
The Soviet Bloc

12

Industrial policy and its failure in the Soviet Bloc

Ivan T. Berend

University of California, Los Angeles

12.1 The origins of Soviet-type industrial policy

Russia, and later the entire Soviet Bloc, belonged to the relative backward peripheries of Europe. Both in the mid nineteenth century and before the First World War, their per capita GDP was only less than half that of Western Europe. Backward countries looked for the 'secret' of success in order to 'catch up' with the West. The key factor of Western achievements – contrary to the myth that laissez-faire was the cradle of modern transformation – was the central role of a strong entrepreneurial state. The forerunner of the industrial revolution and Western industrialization in the pioneering countries was the centralized, mercantilist absolute state that supported industrial development, defended the domestic market and made incentives for establishing industrial enterprises and exporting. The state also played a central role in infrastructure building, creating dense canal, road and then rail networks. As British economic historians agree, the strong navy and army also had a lion's share in the success by defending national interests, trade routes to other continents and trade expansions, all partly by building colonial empires. The road to economic success was often paved by military success and the defeat of rivals, as in the case of the Netherlands, Britain, France and Germany. As Findley and O'Rourke phrased it, state power created plenty.¹

¹See Ronald Findlay and Kevin H. O'Rourke, *Power and Plenty. Trade, War, and the World Economy in the Second Millennium*, Princeton: Princeton University Press (2007); Patrick O'Brian, 'War and Economic Development', in: Richard Holmes (ed.), *Oxford Companion to Military History*, Oxford: Oxford University Press (2000).

For latecomer countries, such as Prussia and later Germany, the historical disadvantage was even more vigorously counterbalanced by strong state interventionism. Here was born the counter-theory of the Smithian laissez-faire. As early as 1800, Johann Gottlieb Fichte published *Der geschlossene Handelsstaat*, and advocated a state run economic system in an isolated national framework where even the currency was not convertible, and the state approved or rejected any business endeavour. Four decades later, Friedrich List became the prophet of protectionism and colonial building in his work *Das nationale System der politischen Ökonomie*, published in 1841.² Germany, as well as the struggling peripheral countries, indeed rushed to impose protective tariffs from the 1870s on. Ultimately, the average tariff comprised 28 per cent of the value of imported goods, and only a handful of countries preserved free trade. Russia and Spain built up the highest tariff walls around their domestic market. Imports of certain goods, such as industrial products for railroads, were banned in Russia to stimulate domestic production. Tariffs had a positive impact on economic growth, which increased significantly in several countries during the high-tariff years. Germany's growth rate increased from 0.1 to 1.2 per cent, Italy's from 0.5 to 2.3 per cent. 'The data are far more comfortable with the hypothesis that tariffs boosted late nineteenth century growth.'³ O'Rourke and Williamson concur: 'Rising tariffs during the last third of the century were mainly defensive responses to the competitive winds of market integration as transport cost declined.'⁴

In the nineteenth century, Central and Eastern Europe reacted to backwardness by choosing a policy of import substituting industrialization. Lajos Kossuth, the early-mid-nineteenth-century Hungarian nationalist leader, urged for industrialization and a turn to protectionism beginning in 1841. He used Friedrich List's metaphor by declaring: 'Without industry, a nation is a one-armed giant.' He compared the economic relations between Austria and Hungary to the relations of the innkeeper and the barrel: the former could tap the latter freely. After the royal veto against Hungary's parliamentary decision to introduce protective tariffs,

²See Johann Gottlieb Fichte, *Der geschlossene Handelsstaat*, Jena: Gustav Fischer ([1800] 1920); Friedrich List, *Das nationale System der politischen Ökonomie*, Stuttgart: J. G. Cotta'scher Verlag (1841).

³Kevin H. O'Rourke, 'Tariffs and Growth in Late Nineteenth Century', *The Economic Journal* 110, no. 463 (2000), p. 464, 468.

⁴Kevin H. O'Rourke and J. G. Williamson, 'When Did Globalization Begin?' *NBER Working Paper Series*, April 2000, Nr. 7632, p. 17, <http://www.nber.org/papers/w7632> (date accessed 20 February 2013).

Kossuth initiated a social movement to introduce the tariffs 'at everybody's doorstep'. In October 1844, the National Protective Association was established, whose members committed themselves to buying only Hungarian goods and to boycott foreign industrial products.⁵

The superhuman economic efforts of the First World War – the long, first mechanized war – led to the invention of a totally state-run *Planwirtschaft* in Germany. Rathenau's *Kriegsrohstoffabteilung*, and later the *Oberstes Kriegsam* and the *Hindenburg Plan* directed the entire economy, while the mandatory *Hilfdienst* mobilized the entire population to work for the military.⁶ Militarization of the economy produced superb results. The most influential economist of the age, John Maynard Keynes, in his Oxford Lecture in 1924, concluded: 'War experience in the organization of socialized production, has left some near observers [...] anxious to repeat it in peace conditions. War socialism unquestionably achieved a production of wealth on a scale far greater than we ever know in Peace.'⁷

And, indeed, the war experience was repeated in the inter-war 'quasi-peace' decades. Mussolini's fascist modernization dictatorship invented a state-run system. As Mussolini described it: '[The State] is the keystone of the fascist doctrine [...] [The twentieth century is] the century of the State. The Fascist State lays claim to rule in the economic field.'⁸ Franco copied the fascist economic regime in Spain.⁹ Hitler's war preparation, with the *Neuer Plan* and the 4-year plan – the formation of an autarchic regional zone with neighbouring Central and Eastern European agricultural countries in the *Grossraumwirtschaft* project during the 1930s – repeated the war experience in peace-time.¹⁰ Poland's 'industrial triangle' and Hungary's five-year plan (*Győri Program*) also introduced planning in the 1930s.

⁵Domokos Kosáry, *Kossuth és a Védegyelet. A Magyar nacionalizmus történetéhez*, Budapest: Atheneum (1942); Gyula Mérei, *Magyarország története 1790–1848*, Budapest: Akadémiai Kiadó (1983), p. 907.

⁶Ivan T. Berend, *An Economic History of Twentieth-Century Europe. Economic Regimes from Laissez-Faire to Globalization*, Cambridge: Cambridge University Press (2006), pp. 49–50.

⁷John Maynard Keynes, *The End of Laissez Faire*, London: Leonard and Virginia Woolf (1927), p. 5.

⁸Benito Mussolini, *Fascism. Doctrine and Institutions*, Rome: Ardita (1935), pp. 26–31.

⁹Charles W. Anderson, *The Political Economy of Modern Spain. Policy Making in an Authoritarian System*, Madison: University of Wisconsin Press (1970), p. 53, 55.

¹⁰György Ránki, *The Economics of the Second World War*, Vienna: Böhlau Verlag (1993), p. 67.

That was partly the origins of the introduction of the Bolshevik economic and industrialization model as well. As early as the spring of 1918, six months after the revolution, Lenin stated in his famous debate article, *Left-Wing Childishness*: "Take the most concrete example of state capitalism [...] It is Germany. Here we have the "last word" in modern large-scale capitalist engineering and planned organization. [...] If this system is not subordinated to "Junker-bourgeois imperialism," Lenin continued, but to a Soviet state, we have 'the sum total of the conditions necessary for socialism'.¹¹

The concept of a state-run, planned economic regime had, of course, ideological roots in Marx and Engels ideas of collective ownership by the state, collectivization of agriculture, egalitarian distribution and the forecast of an unhindered and unparalleled development of the productive forces.¹² On these bases, Leon Trotsky introduced the concept of 'primitive socialist accumulation' and the 'dictatorship of industry', a tornado of industrialization. Another leading figure of the left opposition, Evgeny Preobrazhenski, worked out an exact programme and mechanism of forced capital accumulation and industrialization in 1924. His point of departure was that backwardness causes low accumulation, and that the Soviet state had to achieve a high capital accumulation rate to be able to invest in industry. The only way to do this was the exploitation of agriculture and the peasantry – three-quarters of the population – by creating a 'price scissor'. The state would have to force the peasants to 'sell' their product to the state (by the compulsory delivery system), which made the cost of purchasing agricultural products hardly more than the cost of their production. Meanwhile, industrial goods (produced by the state sector) were sold to the peasants at artificially high prices. Besides, wages in general had to be kept low, partly by inflationary policy. Such an economic regime required, of course, a strong dictatorial state that oppressed any possible resistance. Force was the basis of a rushed collectivization of agriculture as well – a kind of late repetition of the British enclosure system of the early modern centuries.¹³

The realization of ideas of the left opposition by Stalin – meanwhile eliminating the left opposition, killing Trotsky and Preobrazhenski – led

¹¹ Vladimir I. Lenin, *Selected Works. One-Volume Edition*, New York: International Publisher (1971), p. 417, 443.

¹² David McLellan (ed.), *Karl Marx. Selected Writings*, Oxford: Oxford University Press (2000), p. 261.

¹³ Evgeny Preobrazhensky, *The New Economics*, Oxford: Clerendon House ([1926] 1965), p. 89, 91, 111.

to the dramatic jump of capital accumulation from 6 per cent of GDP to 30 per cent from the late 1920s on. This huge amount was invested mostly in industry, especially in the so-called heavy industries: coal and oil extraction, iron, steel and heavy engineering. The new Soviet economic system eliminated the free market. This first non-market regime in the world introduced central planning, compulsory plan indexes and a huge bureaucratic control mechanism. All of this made possible the concentration of industrial investments and growth in selected branches. Private peasant plots were replaced by collective big estates.¹⁴ About ten million people died during the wild collectivization campaign, and the entire population was forced to sacrifice: lack of food and consumer goods, apartments shared by several families and an extremely low standard of living accompanied a heroic industrialization effort.

The results shocked the world: backward Russia avoided the Great Depression, increased its industrial output two-and-half-fold in the period of the first five-year plan and became industrialized within the period of two five-year plans. Millions of peasants were uprooted and pushed to construction work and industry. Historically speaking, Stalin's brutal modernization regime worked, and was legitimized by a marked catching-up process: per capita GDP of the Soviet Union, which was only 37 per cent of the West in 1913, and 28 per cent in 1929, increased to 50 per cent in 1950 (Figure 12.1). Even more convincing was the military victory over Germany, Europe's economic powerhouse in the industrialized Second World War.

Alec Nove, one of the best British experts on the Soviet economy, stated: 'Whatever the validity of certain official claims, it remains true beyond question that the second five-year plan period was one of impressive achievement.'¹⁵ Huge heavy industrial plants that were built beginning in the late 1920s were completed and started production between 1934 and 1936. The trademark metallurgical and engineering factories of Magnitogorsk, Kuznetsk, Zaporozhye, Tula and Lipetsk changed the economic structure of the Soviet Union. The

¹⁴See Alec Nove, *The Soviet Economic System*, London: Allen & Unwin (1977); Edward H. Carr and Richard W. Davies, *Foundation of a Planned Economy*, Harmondsworth: Penguin Books (1974); János Kornai, *The Socialist System. The Political Economy of Communism*, Princeton, NJ: Princeton University Press (1992), pp. 112–114.

¹⁵Alec Nove, *An Economic History of the USSR 1917–1991*, London: Penguin Books (1992), p. 231. The case study is based on this work, pp. 231–235.

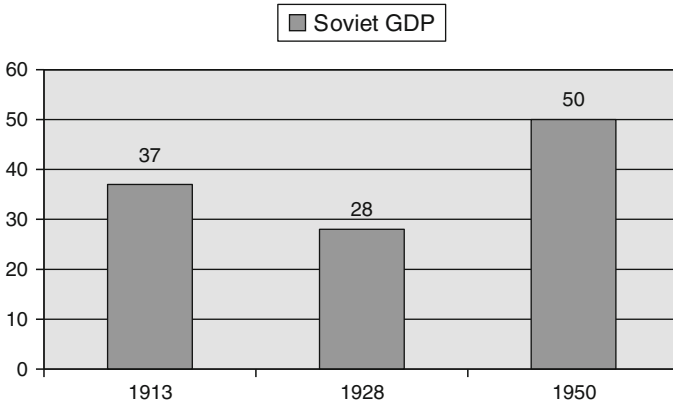


Figure 12.1 Soviet GDP compared with Western Europe's GDP, 1913–1950 (in percentages, Western Europe's GDP = 100)

Source: Author's own calculation, based on Angus Maddison (1995).

new machinery and metalworking sector strengthened the country's economic independence. In 1932, 78 per cent of the machine tools installed in that year were imported; by 1937, only 10 per cent of machine tools had to be imported. Electricity production increased by 26 per cent per year in the late 1930s. This impressive industrial breakthrough was partly the consequence of a tremendous labour input and the employment of newly trained experts. In the 12 years between 1928 and 1941, the number of engineers graduating in the Soviet Union jumped from 47,000 to 290,000. The total number of graduates jumped from 233,000 to 908,000, and the number of trained technicians increased from 51,000 to 320,000.

After the war, the Soviet Union attained worldwide respect and popularity. It became a superpower in a bi-polarized world system. In a few decades, Soviet-type, or similar economic systems, went from spanning one-sixth of the globe to one-third. Moreover, many signs signalled the spread of important elements of the Soviet economic model in a transforming European capitalism. Western Europe, although politically on the other side in the bi-polarized world that existed in an American-led alliance, transformed its economy into a mixed economic system, whereby state ownership increased from 25 per cent to 50 per cent. The cradle of *laissez-faire*, Britain herself, realized a wide-spread nationalization programme after 1945. De Gaulle's France did the same. Half of the German, Italian and Austrian economy was state-owned. Planning

became a household term. France initiated a series of modernization plans, of which nine four-year plans were carried out successfully. Japan started a series of five-year plans; the Asian economic model, the most successful in the second half of the twentieth century, was largely a state-run industrialization and modernization plan. Italy realized a ten-year plan for developing the less developed Mezzogiorno.¹⁶ After 1973, the European Union introduced the 'cohesion policy' to use the Union's budget to assist the backward regions to catch-up with the others. By using state intervention, state ownership and macroeconomic planning, Asia and Western Europe experienced a real economic miracle, with an average annual growth rate of about 4 per cent, and as much as 5–7 per cent in several countries.

Small wonder that after the Second World War, some of the least developed Balkan countries, such as Yugoslavia and Albania, deliberately introduced the Soviet economic regime; in the case of Yugoslavia, this was done against Stalin's will. When Central and Eastern Europe became Sovietized and the Soviet Bloc was established in 1947 to 1948, Stalin copied Hitler's *Großraumwirtschaft* project by founding the Comecon, a similarly autarchic regional bloc, based on bi-lateral agreements and barter trade in 1949.¹⁷ Communist Central and Eastern Europe copied the state-owned, state-run, non-market, planned economic regime. Although this was partly forced by Stalin, it was generally and enthusiastically accepted by several countries of this peripheral agricultural region as a promising exit from backwardness towards a fast industrialization and modernization. This policy orientation had a centuries-long legacy in backward regions. In spite of the revolutionary rhetoric, this path was strongly rooted in the past. Its introduction, however, was also an adjustment to a new world trend. Rapid industrialization did indeed follow.

Between 1950 and 1973, with tremendous sacrifices – deep poverty and general shortages, often to the point of starvation – the agricultural half of Europe grew at the fastest rate in history, reaching an annual 3.8 per cent economic growth to step over the Rubicon, and became industrialized. This success had a huge impact on the non-industrialized Third World. Several countries took over some version of the Soviet industrialization policy, and by the 1980s, about one-third of the globe followed suit.

¹⁶Ivan T. Berend, *An Economic History of 20th Century Europe*, Cambridge: Cambridge University Press (2006), pp. 190–197.

¹⁷See Sándor Ausch, *Theory and Practice of CMEA Cooperation*, Budapest: Akadémiai Kiadó (1972).

Table 12.1 Economic growth in Central and Eastern Europe and in the Soviet Union, 1950–1989

	CEE GDP per capita in US \$	1950 = 100%	Soviet Union GDP per capita in US \$	1950 = 100%
1950	2.604	100	2.834	100
1973	5.742	258	6.058	214
1989	6.736	398	7.078	250

Source: Angus Maddison (1995), pp. 201 and 212.

12.2 The main characteristics of the industrial policy

This historical achievement, however, was a pyrrhic victory that undermined itself and, in the long run, led to the reproduction of backwardness. The devastating negative effects were built-in and hidden in the system. This might be visible by analysing its main characteristics.

a. Exploiting agriculture and forced collectivization assisted capital accumulation in the Soviet Bloc: accumulated capital jumped from 6–8 per cent of the GDP in the inter-war decades to 20–25 per cent during the 1950s and 1970s, which made possible huge investments in industry.¹⁸ Indeed, industrial investments jumped from 15–18 per cent to 50 per cent of total investments. The social ‘side effect’ of the agricultural policy and collectivization was the destruction of the extreme, cast-like polarization of society and its overwhelming agricultural character. This effect was actually the most durable and valuable outcome of Soviet-type modernization.¹⁹ Nevertheless, it temporarily destroyed agriculture, which is a solid base for industry as a producer and for the market as a whole. In two decades, 40–50 per cent of the agricultural population migrated to other sectors. Production dramatically decreased by 20–25 per cent and reached the pre-war level again only in the late 1960s. This had a severe negative consequence: economic history’s most telling lesson is that industrial revolution and industrialization only became successful if preceded by an agricultural revolution that created a strong base to build upon. The courses of events in this respect were

¹⁸János Kornai (1992), *The Socialist System*, p. 175. See Frederic L. Pryor, *A Guidebook to the Comparative Study of Economic Systems*, Englewood Cliffs: Prentice Hall (1985).

¹⁹Ivan T. Berend, *Central and Eastern Europe 1944–1992*, Cambridge: Cambridge University Press (1996), pp. 205–209.

similar in eighteenth century Britain, nineteenth century Germany and at the turn of the twenty-first century in China.

Agricultural policy, however, was modified during later decades: investments doubled and trebled, and led to a complex mechanization of the socialist big estates. Nevertheless, the structure of cultivation hardly changed: specialization remained backward and field-crop production represented more than 70 per cent of output, hardly less than before the war, even in the 1980s.²⁰

b. Concentrating solely on industrial development, aside from its negative consequences for agriculture, also blocked the road for the development of infrastructure. Neglecting infrastructure and communication was an important characteristic of communist industrial policy. The service sector was not considered to be a productive branch of the economy. In countries of fossilized infrastructure, lack of a sufficient telephone system (seven telephone sets per 100 inhabitants, compared to the Western 35 to 45, and the American 75 per 100) made the industrialization process extremely fragile. The service sector gained only one-third of total investments in Soviet Bloc countries, and only employed an average of one-third of the active population. Freeway construction, car transportation, modernization of railroads and the entire new communication system were lacking, and their development generally postponed in Eastern Europe.²¹ One must not forget that this happened at the same time as an emerging service and communications revolution in the modern Western economy, where employment in the service sector gradually increased to up to 70 per cent of total employment. This economic policy built unbreakable roadblocks against the new, emerging communications, including the computer revolution, in the second half of the twentieth century. The landmark invention of the transistor, chips and computer played a similar role in the new technological-communication revolution of the second half of the twentieth century to that of the steam engine in the first industrial revolution, and electricity in the second. Consequently, the communication and service revolution never arrived in the Soviet Bloc.

c. The old-fashioned military concept of the industrial policy, focusing on coal, iron, steel and traditional engineering – repeating the policy of the Soviet first five-year plan – was incongruous with the requirements of the new technological age. In the Soviet Union, between 1917 and

²⁰ See the series of *Productivity Yearbook, 1949–1990*, Rome: FAO.

²¹ Éva Ehrlich and Gábor Révész, *Összeomlás és rendszerváltás Kelet-Közép Európában*, Budapest: Institute of World Economics (1991), p. 83.

1976, 84 per cent of industrial investments were channelled into these sectors. In the first period of industrialization-drive in the Soviet Bloc, 75–80 per cent of industrial investments targeted the same so-called heavy industrial branches. In Romania, 77–80 per cent of investments targeted these branches during the entire 30 years between 1950 and 1980. In connection with this sectoral policy, the obsession of ‘gigantomania’ was also expressed by the effort to create huge, ‘nation-wide’ companies. The goal, especially in the 1970s, was the foundation of one single company in one industrial sector – if possible – such as nation-wide truck and locomotive factories, and breweries. A merger mania greatly destroyed medium- and small-sized companies, and made the industrial sector more rigid and much less ready to change.

These policies were partly the consequence of an ideological canonization of the Soviet practice that did not allow any basic deviation from the policy of the 1930s, even half a century later. The other factor of this shortsightedness was a fear of escalation of a Cold War to a hot one. In 1948, Stalin sent a message to Hungary and Romania (and certainly all the other Bloc countries as well) – that in three years, the Third World War would not be avoidable and everything had to subordinate to war preparation.²²

Radically modernizing the structural policy never really happened, and the genuine Soviet industrializing policy remained, in most cases, dominant with relatively little change. From the 1960s, for example, a major change put the emphasis on to the oil and chemical industry, but only to its so-called heavy chemical basic-products, without investing in modern processing branches. Modern high-tech branches were lacking. In 1970, at the time of the rise of the computer revolution, there were 50,000 computers in the United States, but only 650 in the entire Soviet Bloc. Romania and Bulgaria had one-twelfth of the number of computers that France had.

The traditional sectors of industry were not modernized and consequently used roughly 50 per cent more raw material for engineering products than the West. Energy use for the production of one unit of industrial products was eight times higher in Central and Eastern Europe than in the European Union.²³ Obsolete industrialization policy, lack of

²² Author’s interview in June 1960 with Ernő Gerő, number two in the Hungarian Communist Party in the 1950s, in: Berend (1996), *Central and Eastern Europe*, p. 36; Dr. Robert Levy’s interview with Tatiana Brătescu, the daughter of Ana Pauker in December 1990.

²³ Berend (1996), *Central and Eastern Europe*, pp. 197–198.

technological revolution and neglect of the service sector, in spite of industrialization breakthrough, led to the reproduction of backwardness. In the 1960s, Czechoslovakia, one of the most advanced countries of the Soviet Bloc, consumed three times more fuel than France and five times more than the United States to produce 1,000 tons of industrial products. Hungary and Poland used almost 40 per cent more coke than did Sweden to produce one ton of pig iron. The steel input per \$1,000 value of engineering products was two to four times greater than in Germany, Austria and Italy.

Agricultural occupation, which declined to 2–4 per cent in Western Europe, remained at 15–25 per cent in the Soviet Bloc countries. On the other hand, in the decades of the service revolution, when service employment increased to 66–75 per cent of the gainfully occupied population in the West, agricultural occupation remained at 30–40 per cent in the East; only 25–30 per cent of investments were channeled into services.²⁴

The quality of industrial products was inferior. The one-sided incentive of the planned economy to increase the quantity of production led to a huge percentage of defected and unsalable products. The quality of products of the export-industries was so inferior, that if sold on the Western markets, they had to be sold at half the price of similar Western products. Electric engines and generators were sold at one third of the world market price. Industrial labour productivity, the best mirror of technological and managerial development, as well as work ethic, was \$5–7 per hour at the end of the communist period in Eastern Europe, and therefore only one quarter to one third of the Western level of \$25–28 in 1990.²⁵

Old-fashioned sectoral policy and technology caused very high pollution, as it did in early capitalist industrialization. Czechoslovakia and Bulgaria belonged to the top ten countries of the world with the highest sulphur dioxide emission. Poland was the sixth highest air polluting country in Europe. Compared to income level, sulphur and nitrogen dioxide emissions were nine-times higher in the Soviet Bloc than in the European Union.²⁶

Soviet-type industrial policy generated very high economic growth and, in making consistently high rates of investments primarily in

²⁴Berend (2006), *An Economic History*, p. 175.

²⁵Angus Maddison (1995), *Monitoring the World Economy 1820–1992*, Paris: OECD (1995), p. 47.

²⁶Frank W. Carter and David Turnock (eds.), *Environmental Problems of Eastern and Central Europe*, London: Routledge (2002), pp. 66, 96, 187, 190.

Table 12.2 Averaged rates of investment and economic growth in Hungary, 1951–1975 (in percentages)

Total investment as % of GDP	Industrial investment as % of GDP	Annual growth of GDP, compared to previous year
27.4	11	3.8

Source: Based on Pál Germuska (2012), pp. 72–73.

industry, successfully industrialized and historically changed the society. The Hungarian case is a characteristic example, as seen in Table 12.2.

In this respect, industrialization policy was successful. In the end, however, its long-term effects and structural impacts were devastating, and the industrial policy failed, or, more accurately, generated mis-development and reproduced backwardness. The most dynamic modern industrial sectors, high-tech sectors and the entire communication system remained undeveloped; the structural character and technological level of the economies of the Soviet Bloc remained one to two generations behind.

This industrial policy followed the well-known 'extensive industrialization model'. This model is based on technological import (instead of domestic innovation) and massive labour input. In the Balkans, until the collapse of the regime in the late 1980s, huge labour input was indeed possible. Collectivization pushed millions of people to construction and industry. Low wages mobilized the female population. For nearly two decades, the average yearly increase of the labour force totaled 6 per cent. In Central Europe, however, these sources dried up in the 1960s, which stopped the entire industrialization drive.²⁷

One has to note, however, that the extensive industrialization model was also followed by post-war Western Europe until the 1970s, exactly during the miraculous decades of the post-war boom. Nevertheless, there was a major difference between Western and Eastern extensive industrialization. Western Europe imported the latest technological developments from the United States. The Soviet Bloc countries imported technology from the Soviet Union and from other Bloc countries, such as Czechoslovakia and East Germany, that were somewhat better developed. In other words, the imported technology imported by Soviet Bloc countries was obsolete, being mostly on par with a pre-war standard.

²⁷Ivan T. Berend, *From the Soviet Bloc to the European Union. The Economic and Social Transformation of Central and Eastern Europe since 1973*, Cambridge: Cambridge University Press, 2009, p. 22.

A very decisive external factor should be added at this point. Turning to the world market and importing modern technology from the West had its strict external obstacles. The United States Congress introduced a ban on technology export to the Soviet-dominated region in 1947, a ban whose extension was forced on all allied and even neutral Western countries from the 1950s on. In the mid 1970s, the so-called Bucy Report generated even tighter restrictions. More than 3,000 items, virtually all of the modern technology products and know-how, were put on the list. This ban stopped the export of all modern technology.²⁸ Countries that traditionally based their technological progress on technology transfer from the West were unable to do so during the second half of the twentieth century, at the crucial point of a third industrial – or technological-communication – revolution.

Peripheral countries were never technology leaders, but rather followed the advanced countries by means of technology transfer. Cold War confrontation, however, blocked the possibility of importing technology.²⁹ The foundation of the Coordinating Committee for Mutual Export Controls (CoCom) in November 1949, included all of the NATO member countries. All telecommunication technology, biotechnology and computer technology exports were banned. From the 1970s on, restrictions were significantly strengthened and included all kinds of technologies, so as to prevent infrastructural development and ‘cultural preparedness’. CoCom policy, the first peace-time export ban in history, was not only an embargo of direct military technology, but was an economic warfare in peace-time with the objective of weakening the entire economy of the Soviet Bloc. When Hungary made an agreement with Germany to buy a modern telephone system in the early 1980s, it was annulled after American intervention. Even neutral countries such as Sweden had to follow this policy so as not to lose the American market in consequence.

d. At last, the entire industrialization drive was realized in an autarchic fashion. During the first decade, the Bloc countries targeted national self-sufficiency (to an extreme that is well-illustrated by Hungarian efforts to produce cotton and plant rubber plants in an inhospitable climate). From the 1960s on, a regional self-sufficiency was targeted in the Council of Mutual Economic Aid (Comecon) framework. The

²⁸Michael Mastanduno, *Economic Containment. CoCom and the Politics of East-West Trade*, Ithaca, NY: Cornell University Press (1992), pp. 193–194.

²⁹Ivan T. Berend, *Europe since 1980*, Cambridge: Cambridge University Press (2010), p. 39. This case study is based on this work.

Comecon was established in 1949. It was actually similar to the Nazi *Großraumwirtschaft* system: countries of these blocs had bilateral agreements and bartered without using hard currency. Specialization within the Comecon started from the late 1950s, but did not follow the new practice of modern division of labour. Instead of carrying out a division of labour within each industrial sector and producing with the highest possible efficiency, the Comecon assigned production by country: heavy trucks were built in Czechoslovakia, lighter trucks and buses in Hungary, diesel locomotives in Romania, computers in Bulgaria and so on. Thus, division of labour was realized among industries.³⁰

The entire industrialization policy of the Soviet Bloc followed the inter-war, dead-end policy of economic nationalism and import substituting industrialization in the age of a globalizing world economy, which was suicidal. Globalization is undoubtedly a double-edged process, with winners and losers, but, as the history of the last three to four decades shows, the worst losers are those countries that remained outside the globalization process. The globalized world arrived in a new age of division of labour that gradually emerged after the Second World War. The division of labour between the advanced and less developed regions was no longer the simple exchange of primary products, food and raw materials for manufactured goods, as it had been in the nineteenth century. Trade patterns became strongly influenced by the comparative Ricardian advantage on the one hand, and, as Heckscher and Ohlin emphasize,³¹ by the scarcity of certain goods on the other. During the first industrial revolution, Britain gained, and was able to retain until the First World War, its comparative advantage in various areas of industry, mostly coal, textiles and iron. The Western European countries, therefore, had to find niches in which they had a better chance of gaining a comparative advantage, which they found in, among others, food processing, finished textile goods and the combining of the textile and clothing industries. This situation pushed them towards new paths along which they found success in the second industrial revolution,

³⁰ Ausch (1972), *Theory and Practice*.

³¹ Eli Heckscher, 'The Effect of Foreign Trade on the Distribution of Income', in: The American Economic Association (ed.), *Readings in the Theory of International Trade*, Blakiston series of republished articles on economics 4, Philadelphia, PA: Blakstone (1949), pp. 272–300; Bertil Ohlin, *Interregional and International Trade*, Cambridge, MA: Harvard University Press (1966). According to them, it was not the comparative advantage, but the scarcity factor that determined trade patterns. Countries purchase goods that are not (or are less) available in their economies.

when Germany took over the industrial leadership by developing chemical and electric industries. Free world competition pushed latecomers and less developed countries towards new territories where they already had, or began to develop, comparative advantages.

Dependency theories, however, maintain that trade between the advanced-industrialized and less developed countries is an uneven exchange. Processed goods, consisting of higher labour content, are more valuable than unprocessed goods; thus, their exchange is inherently exploitative. Accordingly, uneven trade continuously reproduces underdevelopment. Dependency theories' rejection of Ricardo's theory of comparative advantage – that both parties gain from trade, since both sell what they can produce in the most efficient way, and buy what they cannot produce as efficiently – had some truth. Mutual gain was not the rule in a number of cases.³² However, the opposite of what Ricardo hypothesized, that is what the dependency theory offers – that all gains accumulate at the hands of the rich countries and the less developed countries are exploited – is not the general rule and is often not true. Trade with more developed countries is frequently advantageous for less developed regions, because it incentivizes them to find strong complementary economic areas to develop and facilitates the spread of modern technology. Import-substituting or economic nationalism, which calls for high protective tariffs against goods of the more advanced countries, may help undeveloped countries advance industrially, but it also encourages them to develop the very sectors that their more advanced rivals had long established with a high level of maturity. This pattern reinforces development in production areas in which that country is weak, and not an overall, comparative strength. Furthermore, on a protected and isolated market, being current technologically and qualitatively is not a genuine requirement because of the lack of competition.

Trade between advanced and less developed countries is, therefore, neither mutually advantageous nor inherently unequal, with all the advantages going to the advanced countries, and all the disadvantages to those less developed. In reality, both outcomes are possible; this depends on the backward region's internal conditions, the role of the state in institution- and infrastructure-building, the level of education and the prevalence or lack of a societal will and entrepreneurial skill in exploiting potential advantages.

³²Joseph L. Love, *Crafting the Third World. Theorizing Underdevelopment in Rumania and Brazil*, Stanford, CA: Stanford University Press (1996), pp. 213–225.

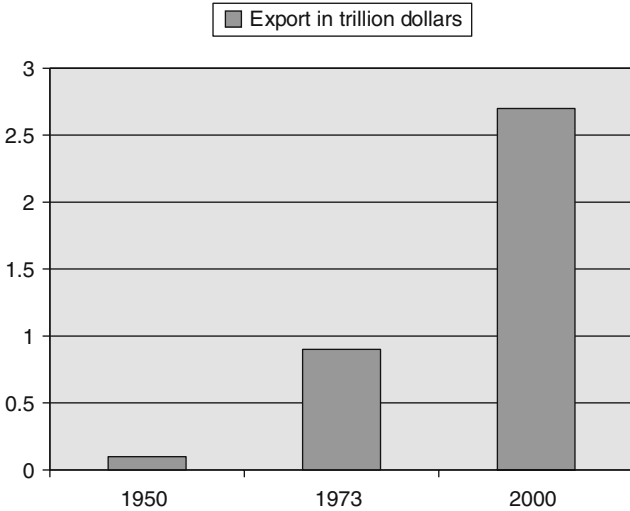


Figure 12.2 European exports, 1950–2000 (in trillion US \$)

Source: Author's own calculation, based on Angus Maddison (2001).

Trade became the primary engine of economic development in Europe since the nineteenth century, and the prime mover of the economic integration and Europeanization of the continent. It also accelerated the catching-up process of certain regions, especially in the second half of the century, post Second World War (Figure 12.2). Countries that had relatively better institutional and infrastructural development, and a social inclination to profit from trade connections abroad – formerly peripheral regions such as Scandinavia, Italy and Spain – became part of advanced Western Europe in the twentieth century. The Soviet Bloc excluded itself from the competition and potential advantage of exported industrialization and international competition.

12.3 The road towards the collapse

The failure of the industrialization policy was thus built into the system. However, it was not an unavoidable fate. The Soviet industrialization model was probably effective in very backward, agricultural countries for the first phase of their breakthrough from the vicious circle of backwardness, as was the case in Russia in the 1930s. After the first couple of decades it would, in principle, be possible and advisable to modify this policy and adjust to the new stage of economic maturity and its requirements. This happened in Italy and Germany, who stopped following

the policy of self-sufficiency after the Second World War and turned to export-led industrialization. This also happened to those countries in Western Europe who stopped following the extensive model of industrialization and turned to the intensive one based on domestic innovation and technology development from the 1970s and 1980s era.³³

This kind of flexibility and new adjustment, according to the requirements of a changing technology, was totally lacking in the Soviet Bloc. An orthodox, rigid ideology, and its even more rigid top Soviet representatives, were mostly responsible for this fact. Stalin's *History of the Bolshevik Party* became a sacrosanct bible that had to be interpreted to the letter. This presented an *eternal* road of socialist economic development. Deviation was punished and the Soviet modernization dictatorship turned into a dictatorial regime that initiated no further modernization initiatives, thereby becoming a shackle to the modernization process.

Some of the more developed Soviet Bloc countries, such as Czechoslovakia and Hungary, recognized the need of a model change in the 1960s, when their labour resources dried up and the extensive industrialization model became impossible. Hungary also realized that import-substituting industrialization in a self-sufficient system is disadvantageous, so that a strong reform movement and exact plans for a turn to export-led industrialization models were worked out in these countries. Market-oriented reforms were introduced in the mid 1960s, but the reform process took a lethal hit in the summer of 1968 when the Soviet-led Warsaw Pact invasion stopped reforms and re-established a highly conservative regime in Czechoslovakia.³⁴ Although Hungary had somewhat more elbow room because of the dramatic 1956 revolution, it still had to comply and make serious compromises. The reform remained at half-measures until the 1980s. The author of this chapter himself addressed the General Assembly meeting of the Hungarian Academy of Sciences in May 1977, a kind of national event at that time: 'The resources of extensive industrialization and economic development are exhausted. The only way for further development is the mobilization of the intensive sources of economic growth, the technological-organizational and productivity factors.'³⁵ Unfortunately,

³³ Barry J. Eichengreen, *The European Economy since 1945. Coordinated Capitalism and Beyond*, Princeton, NJ: Princeton University Press (2007), pp. 6–7, 379.

³⁴ Zdenek Mlynař, *Nightfrost in Prague. The End of Humane Socialism*, New York: Karz Publishers (1980), p. 73; Gordon H. Skilling, *Czechoslovakia's Interrupted Revolution*, Princeton: Princeton University Press (1976), p. 169.

³⁵ Ivan T. Berend, *Öt előadás gazdaságról és oktatásról*, Budapest: Magvető Kiadó (1978), pp. 200–201.

this did not happen. Reform could go further and did, in fact, reach the point of introduction of a market-type economy only when Soviet control disappeared under Gorbachev in the second half of the 1980s, and a three year plan for marketization and gradual privatization was accepted and started to be realized in Hungary.

The Hungarian economic reform was the most successful in the Soviet Bloc. It actually started immediately after the 1956 revolution, when a Committee, headed by Professor Istvan Varga, worked out a reform plan of partial marketization: 'The principal instrument of state direction', the report stated, 'will not be the obligatory plan indicator, but planned influence by economic methods'. This reform plan, however, was shelved after the consolidation of power in 1957. Nevertheless, in 1965, a new reform project led to the introduction of the so-called New Economic Mechanism with its partially market-price system and abolition of compulsory planning. Profit motivation was introduced, and investments in factories had to be covered from profit. Agriculture, although collectivized by 1960, combined collective and private enterprise and led to a flourishing agricultural performance. Although the Soviet Union learned the lessons of the Hungarian Revolution and tolerated the reform, an attack stopped the reform mid-way by 1973.

Severe economic troubles and a partially changed political situation led to a return to the reform and a more radical continuation, beginning partly in 1979 and then from 1985 on. A partial privatization, the elimination of a Soviet-type banking system, initiating foreign investments, the introduction of a nearly market-price system, and elimination of central planning led Hungary towards a quasi-market system by the late 1980s. It gave the country a great advantage for post-communist transformation after 1989.³⁶

Altogether, the challenge of globalization and the communication revolution was not answered by the Soviet Bloc. The obsolete industrialization model remained basically unchanged, the extensive model remained in place, and the policy of import-substituting industrialization was continued. By the mid 1970s, none of these systems worked any longer. Following rapid growth in the first post-war quarter of a century, decline set in for another two decades after 1973.

The decline was even steeper in the Soviet Union, where the economy shrank by 1.4 per cent per annum between 1973 and 1992. All the temporary advantages that more or less legitimized the regime and

³⁶Ivan T. Berend, *The Hungarian Economic Reforms 1953–1988*, Cambridge: Cambridge University Press (1990), pp. 45–48, 137–140, 259–290.

Table 12.3 Comparative economic growth in Europe, 1950–1992^a

	GDP per capita		GDP per capita		Growth rate 1950–1973	Growth rate 1973–1992
	1950	in %	1992	in %		
Western Europe	5.126	100	17.387	100	4.8	2.0
Central and Eastern Europe	2.631	51.3	4.665	37.3	3.79	-0.7

^aBecause a great part, but not the entire decline after the collapse of communism was a consequence of the previous 'misdevelopment', the final year documented in this table is not 1989, but 1992.

Source: Based on Maddison (1995), p. 201.

the Soviet model and gradually increased the living standard – full employment, stable prices and rapid growth – disappeared for good.

The Bloc countries, assuming a short, transitory crisis, turned to foreign credits and received cheap 'oil dollars' to compensate declining incomes. The Bloc's indebtedness increased from \$6 billion to \$100 billion in a few years. More than 80 per cent of these credits, however, were consumed and not invested. Consequently, a repayment crisis became unavoidable. Repayment consumed all, or, in Hungary, where performance was highest, three-quarters of the hard currency income of the countries. Three countries: Poland, Bulgaria and Yugoslavia, became insolvent and asked for restructuring repayment. An endless economic decline and crisis undermined the self confidence of the regime's elite in finding an exit. When Soviet assistance and, if needed, military interference no longer happened under Gorbachev's regime, the communist countries peacefully collapsed. This happened first in Poland, where a broadly supported opposition was historically well-established, and the government had to make a compromise to share power with the Solidarity movement in 1989. In a few months, this led to the collapse of the regime. At the same time, from May of 1988, the reform-wing of the party took over in Hungary and went ahead with reforms; moreover, in February 1989, it announced that free, multi-party elections would be held in a year. When the same happened in spring of the following year, the regime also peacefully collapsed.³⁷ When the regime collapsed in these two countries and the Soviet Union accepted the very same

³⁷James F. Brown, *Surge to Freedom. The End of Communist Rule in Eastern Europe*, Durham: Duke University Press (1991), pp. 81–93, 105–118.

changes, the regime collapsed throughout Central and Eastern Europe within six weeks in a kind of domino-effect. One year later the Soviet Union itself collapsed. The former Soviet Bloc countries started down the road towards the free market economy, a laissez-faire system and multi-party, parliamentary democracy. In 2004 and 2007 most of them joined the European Union. A new period of economic adjustment began.

References

- Anderson, Charles W., *The Political Economy of Modern Spain. Policy Making in an Authoritarian System*, Madison: University of Wisconsin Press (1970).
- Ausch, Sándor, *Theory and Practice of CMEA Cooperation*, Budapest: Akadémiai Kiadó (1972).
- Berend, Ivan T., *Öt előadás gazdaságról és oktatásról*, Budapest: Magvető Kiadó (1978).
- Berend, Ivan T., *The Hungarian Economic Reforms 1953–1988*, Cambridge: Cambridge University Press (1990).
- Berend, Ivan T., *Central and Eastern Europe 1944–1993. Detour from the Periphery to the Periphery*, Cambridge: Cambridge University Press (1996).
- Berend, Ivan T., *An Economic History of Twentieth Century Europe. Economic Regimes from Laissez-Faire to Globalization*, Cambridge: Cambridge University Press (2006).
- Berend, Ivan T., *From the Soviet Bloc to the European Union. The Economic and Social Transformation of Central and Eastern Europe since 1973*, Cambridge: Cambridge University Press (2009).
- Berend, Ivan T., *Europe since 1980*, Cambridge: Cambridge University Press (2010).
- Brown, James F., *Surge to Freedom. The End of Communist Rule in Eastern Europe*, Durham: Duke University Press (1991).
- Carr, Edward H. and Richard W. Davies, *Foundation of a Planned Economy*, Harmondsworth: Penguin Books (1974).
- Carter, Frank W. and David Turnock (eds.), *Environmental Problems of Eastern and Central Europe*, London: Routledge (2002).
- Ehrlich, Éva and Gábor Révész, *Összeomlás és rendszerváltás Kelet-Közép Európában*, Budapest: Institute of World Economics (1991).
- Eichengreen, Barry J., *The European Economy since 1945. Coordinated Capitalism and Beyond*, Princeton, NJ: Princeton University Press (2007).
- Erlich, Alexander, *The Soviet Industrialization Debate, 1924–1928*, Cambridge, MA: Harvard University Press (1967).
- Fichte, Johann G., *Der geschlossene Handelsstaat*, Jena: Gustav Fischer [1800] (1920).
- Findlay, Ronald and Kevin H. O'Rourke, *Power and Plenty. Trade, War, and the World Economy in the Second Millennium*, Princeton: Princeton University Press (2007).
- Germuska, Pál, 'Szocialista Csoda? Magyar iparfejlesztési politika és gazdasági növekedés, 1950–1975', *Századok*, No. 146 (2012), pp. 47–78.

- Heckscher, Eli, 'The Effect of Foreign Trade on the Distribution of Income', in: The American Economic Association (ed.), *Readings in the Theory of International Trade*, Blakistone series of republished articles on economics 4, Philadelphia, PA: Blakistone (1949), pp. 272–300.
- Keynes, John M., *The End of Laissez Faire*, London: Leonard and Virginia Woolf (1927).
- Kornai, János, *The Socialist System. A Political Economy of Communism*, Princeton: Princeton University Press (1992).
- Kosáry, Domokos, *Kossuth és a Védegylet. A Magyar nacionalizmus történetéhez*, Budapest: Atheneum (1942).
- Lenin, Vladimir I., *Selected Works. One-Volume Edition*, New York: International Publisher (1971).
- List, Friedrich, *Das nationale System der politischen Ökonomie*, Stuttgart: J.G. Cotta'scher Verlag (1841).
- Love, Joseph L., *Crafting the Third World. Theorizing Underdevelopment in Rumania and Brazil*, Stanford: Stanford University Press (1996).
- Maddison, Angus, *Monitoring the World Economy 1820–1992*, Paris: OECD (1995).
- Maddison, Angus, *The World Economy. A Millennial Perspective*, Paris: OECD (2001).
- Mastanduno, Michael, *Economic Containment. CoCom and the Politics of East–West Trade*, Ithaca, NY: Cornell University Press (1992).
- McLellan, David (ed.), *Karl Marx. Selected Writings*, Oxford: Oxford University Press (2000).
- Mérei, Gyula, *Magyarország története 1790–1848*, Budapest: Akadémiai Kiadó (1983).
- Mlynař, Zdenek, *Nightfrost in Prague. The End of Humane Socialism*, New York: Karz Publishers (1980).
- Mussolini, Benito, *Fascism. Doctrine and Institutions*, Rome: Ardita (1935).
- Nove, Alec, *The Soviet Economic System*, London: Allen & Unwin (1977).
- Nove, Alec, *An Economic History of the USSR, 1917–1991*, Harmondsworth: Penguin Books (1992).
- Ohlin, Bertil, *Interregional and International Trade*, Cambridge, MA: Harvard University Press (1966).
- Preobrazhensky, Evgeny, *The New Economics*, Oxford: Clarendon House (1965).
- Pryor, Frederic L., *A Guidebook to the Comparative Study of Economic Systems*, Englewood Cliffs: Prentice Hall (1985).
- Ránki, György, *The Economics of the Second World War*, Vienna: Böhlau Verlag (1993).
- Skilling, Gordon H., *Czechoslovakia's Interrupted Revolution*, Princeton: Princeton University Press (1976).

13

Planning priorities, managing shortages: Industrial policy in the German Democratic Republic, from Stalinism to welfare dictatorship

Ralf Ahrens

Centre for Contemporary History, Potsdam

13.1 Introduction

In the centrally planned economies of the Eastern Bloc, industrial policy was inter-related to other fields of economic policy in a stricter sense than in market economies. Within the framework of overall planning and extensive ‘public’ property, the state not only acted as an authority of control. Decisions about industrial investment and the allocation of workforce were, to a very high degree, an immediate task of the political system. Hence, the classical objective of industrial policy – political influence on managerial investment decisions to smooth or promote economic structural change – was a competence of the same apparatus that was responsible for basic investment strategies and for their implementation.

Considering basic investment concepts, from the promotion of heavy industry in the aftermath of the Second World War to ‘unity of economic and social policy’ in the 1970s and 1980s, this chapter focuses on the permanent discrepancy between changing priorities of central planning and limited economic potential. In a ‘shortage economy’ with an inherent ‘investment hunger’ of firms,¹ budgetary decisions had to increasingly consider trade-offs between the production of investment or consumer goods as well as between single industries. In consequence, industrial investment cycles in the German Democratic Republic (GDR) were highly influenced by attempts to balance outputs according to mid-term planning and often by short-term reactions to production

¹János Kornai, *The Socialist System. The Political Economy of Communism*, Princeton, NJ: Princeton University Press (1992), pp. 160–163.

bottlenecks.² To understand the options of political actors and to evaluate the results, industrial policy will thus be analysed by addressing the following questions: Which priorities were set over the years? Which problems and sources of economic growth were identified under changing market conditions? Which restrictions had to be faced? In combining an overview of the relatively well-researched general trends³ with a closer look at mechanical engineering, a key sector for modernization and competitiveness of East German industry, my main focus will be on problems of stimulating innovation as a long-term core task.⁴ Regarding quantifiable developments, the scope of this article is restricted to the composition and, selectively, the efficiency of investment. It does not try to identify correlations between investment and overall economic growth or productivity, as the respective figures often tend to obscure qualitative shortcomings, while prices and wages were determined politically and not economically. Moreover, the results would not be comparable to developments in Western countries for various methodological reasons.⁵

13.2 Basic decisions and the limits of extensive growth

Given the desolate situation immediately after the Second World War, industrial policy, just like agriculture and nutrition, inevitably became a core area of economic reconstruction. Moreover, the recovery of industry was essential to provide the occupiers with reparations out of current production. Reparations, Soviet dismantling and Soviet foreign policy were shaping the general trends of industrial investment before

²Lothar Baar, Uwe Müller and Frank Zschaler, 'Strukturveränderungen und Wachstumsschwankungen. Investitionen und Budget in der DDR 1949 bis 1989', *Jahrbuch für Wirtschaftsgeschichte*, (1995), no. 2, p. 54.

³As a summary, cf. now André Steiner, *The Plans that Failed. An Economic History of the GDR*, New York: Berghahn (2010).

⁴For an overview on innovation problems in different industries, cf. Johannes Bähr and Dietmar Petzina (eds.), *Innovationsverhalten und Entscheidungsstrukturen. Vergleichende Studien zur wirtschaftlichen Entwicklung im geteilten Deutschland 1945–1990*, Berlin: Duncker & Humblot (1996); Lothar Baar and Dietmar Petzina (eds.), *Deutsch-deutsche Wirtschaft 1945 bis 1990. Strukturveränderungen, Innovationen und regionaler Wandel. Ein Vergleich*, St. Katharinen: Scripta Mercaturae (1999).

⁵For an overview on macroeconomic data according to the 'material product system' used in GDR statistics and comparison problems, see André Steiner, *Statistische Übersichten zur Sozialpolitik in Deutschland seit 1945. Band SBZ/DDR*, Bonn: Bundesministerium für Arbeit und Soziales (2006), pp. xiii–xxvii and pp. 63–68.

the GDR came into existence. Firstly, dismantled capacities of iron and steel production and mechanical engineering had to be rebuilt, and investment had to be directed toward activities and sectors conforming to Soviet reparations demand.⁶ Secondly, foreign trade was of vital interest for East Germany – a small industrialized economy poor in raw materials. The economic division of Europe, beginning in 1947, cut off a large portion of formerly close trade relations with other parts of Germany and other Western countries. The proportion of East Germany's foreign trade going to those countries soon to be organized in the Council for Mutual Economic Assistance (CMEA) increased from 8.7 per cent in 1947 to 45.3 per cent in 1948; by 1950, trade with the East came to roughly two-thirds of the GDR's total trade volume. East German industry thus became increasingly dependent on less industrialized economies as main trading partners, which in turn limited the opportunity to import technological progress.⁷

More or less simultaneously, a fundamental transformation of the economic system took place. Stepwise, and closely connected to the construction of a communist power monopoly, 'public' (in fact, state) property and central planning replaced market patterns. The German Economic Commission (Deutsche Wirtschaftskommission, DWK) emerged as a 'nucleus of the GDR government'. In 1950, the DWK was replaced by a State Planning Commission (Staatliche Plankommission, SPK), which imposed production plans on various industrial ministries to which state-owned enterprises were subordinated.⁸ This economic system was characterized by three main differences

⁶On reparations and dismantling cf. Rainer Karlsch, *Allein bezahlt? Die Reparationsleistungen der SBZ/DDR 1945–1953*, Berlin: Links (1993); Jochen Laufer, 'Politik und Bilanz der sowjetischen Demontagen in der SBZ/DDR 1945–1950', in: Rainer Karlsch and Jochen Laufer (eds.), *Sowjetische Demontagen in Deutschland 1944–1949. Hintergründe, Ziele und Wirkungen*, Berlin: Duncker & Humblot (2002), pp. 31–77.

⁷Cf. Heinz Köhler, *Economic Integration in the Soviet Bloc. With an East German Case Study*, New York: Praeger (1965), pp. 60–72; Ralf Ahrens, *Gegenseitige Wirtschaftshilfe? Die DDR im RGW – Strukturen und handelspolitische Strategien 1963–1976*, Köln: Böhlau (2000), pp. 89–92.

⁸Steiner (2010), *The Plans that Failed*, pp. 40–48, quote p. 48; Klaus Holzwarth, 'Die Anfänge der zentralen Wirtschaftsplanung in der SBZ', in: Christoph Buchheim (ed.), *Wirtschaftliche Folgelasten des Krieges in der SBZ/DDR*, Baden-Baden: Nomos (1999), pp. 247–269; André Steiner, 'Wirtschaftliche Lenkungsverfahren in der Industrie der DDR Mitte der fünfziger Jahre. Resultate und Alternativen', in: Buchheim (1999), *Wirtschaftliche Folgelasten*, pp. 271–293; Jörg Roesler, *Die Herausbildung der sozialistischen Planwirtschaft in der DDR. Aufgaben, Methoden*

to the institutional framework of liberal market economies: a political power monopoly of the ruling Socialist Unity Party (Sozialistische Einheitspartei Deutschlands, SED), which also acted as a last instance of economic decision making; a central planning institution on top of an economic administration, exercising authority over large parts of industrial production; and the elimination of trade associations as independent lobby groups. Economic organization followed a functional differentiation on the administrative level (with, finally, up to eleven different ministries in charge of the various branches of industry), while the state–party relationship was clearly hierarchical on the top level, but rather unclearly delineated on the lower levels. Party rule thus, at least theoretically, provided the means of exercising political control over the economy.

Very roughly speaking, this institutional framework followed the ‘classical’ Soviet model of economic organization,⁹ but industrial policy certainly did not simply follow a dogma of ‘Stalinist industrialization’. A tendency to develop basic industries was primarily an effort to compensate for the consequences of separation from the West, and also tied in with larger parts of the formerly middle German industry. Starting with the two-year plan for 1949/50, the planning authorities concentrated investment on the fuel and energy sectors, iron and steel, and parts of the mechanical engineering sector. The uprising of June 1953 only temporarily induced redirection of investment in favour of foodstuffs and light industries. Instead, the political leadership tried to prevent further protest by raising wages. The second five-year plan, passed in 1956, again prioritized mechanical engineering, the energy sector and basic chemicals. Two years later, the ‘chemical programme’, at least rhetorically, signalled an intention to reconcile the development of consumer and investment goods (‘chemistry gives bread – prosperity – beauty’). But, by swallowing more than half of all industrial investment around this time, the special programmes for the development of the coal, energy and chemical branches also showed the limited investment capacities of a relatively small country like the GDR.¹⁰

und Ergebnisse der Wirtschaftsplanung in der zentralgeleiteten volkseigenen Industrie während der Übergangsperiode vom Kapitalismus zum Sozialismus, Berlin: Akademie (1978), pp. 1–101.

⁹Cf. extensively Kornai (1992), *The Socialist System*, pp. 33–130.

¹⁰Steiner (2010), *The Plans that Failed*, pp. 48–52, 60–74; for details on industrial branches cf. Wolfgang Mühlfriedel and Klaus Wießner, *Die Geschichte der Industrie der DDR bis 1965*, Berlin: Akademie (1989), pp. 212–258; Veronika Siedt, ‘Investitionen und Wirtschaftswachstum während der 50er Jahre’, in: Jörg

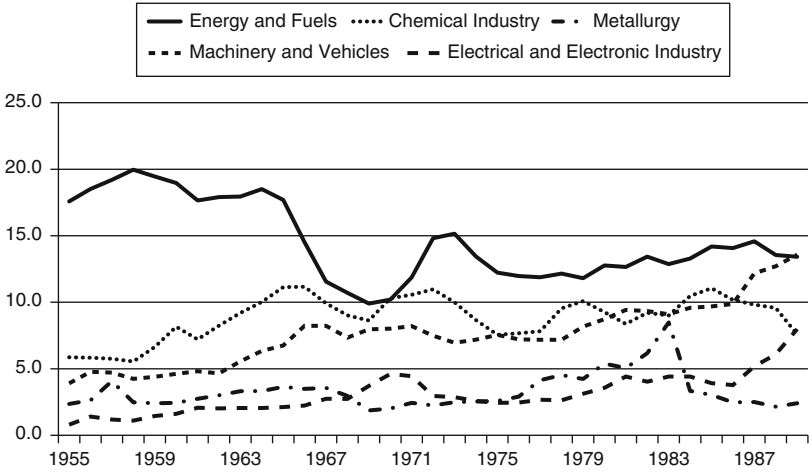


Figure 13.1 Shares of selected industrial sectors in overall gross investment in the GDR, 1955–1989 (in percentages)

Source: Lothar Baar, Uwe Müller and Frank Zschaler (1995), pp. 68–69 (price basis 1985). No differentiated data is available for the earlier years.

The promotion of regional industrialization in less developed parts of the country also reflected a disposition toward investment planning that followed the concept of economies of scale, while neglecting economic efficiency. With large investments in single factories along the Polish border during the 1950s and 1960s, the GDR tried to stimulate ‘regional development dominated by big industry’ which, especially in the case of the newly founded iron and steel plant Eisenhüttenkombinat Ost, was markedly influenced by Soviet military reasoning, which prevailed over economic advantages.¹¹

These efforts of structural policy had some effects on the composition of industrial output. But, due to increasing degrees of capacity utilization, the efficiency of investments began to decrease in the 1950s. A strategy of encouraging growth by simply increasing the input of production factors also began to face its limits in the labour markets. In response, the rationalization of production processes gradually gained

Roesler, Veronika Siedt and Michael Elle, *Wirtschaftswachstum in der Industrie der DDR 1945–1970*, Berlin: Akademie (1986), pp. 89–168.

¹¹Axel Gayko, *Investitions- und Standortpolitik der DDR an der Oder-Neiße-Grenze 1950–1970*, Frankfurt a. M.: Lang (2000), pp. 212–214.

higher importance in the planning of investment. Nevertheless, this could at best be only a part of a solution to emerging structural problems, as the planning system in the second half of the 1950s began to show its weakness in stimulating industrial innovations. New products and processes had only very limited effects on the composition of industrial employment and value added.¹²

Although producers of investment goods were among the beneficiaries of industrial policy, mechanical engineering industries give a good illustration of the necessary differentiation, even within single sectors. A large proportion of the overall investment budget went into heavy equipment, especially heavy machine tools, which were of great importance not only for the development of the GDR's own energy and metallurgy basis, but also for exports to CMEA countries. The concentration of investment on certain important factories, at first sight, seems to show the new regime's ability to allocate resources according to macroeconomic needs. But in fact, it rather demonstrates the limits of priority setting in industrial policy: as overall investment capacities were restricted, investment gaps soon caused equipment obsolescence in other segments of machine building (which in turn, redirected the workforce from industrial production to less productive repairing jobs) and shortcomings in supplier industries. Moreover, most of the factories had to fulfill their plans with an outdated machinery, because little investment was made in the modernization of facilities. Finally, investment policy, even in the manufacturing sector, tended to foster autarkic development, thus neglecting a tradition of smaller and more specialized, strongly export-orientated, enterprises in other mechanical engineering areas.¹³

Investment policy thus generated massive changes in the composition of mechanical engineering output. In East Berlin, for example, new production capacities in heavy machinery were set up, including a completely new factory for power machines, which, in turn, were supplied to the new or enlarged steel and energy plants. The machinery industry as a whole grew faster than the regional average, but even the state-owned enterprises often did not meet production targets, while manufacturing costs increased rapidly. At the same time, permanent changes in central planning generated large-scale over-production in

¹²Steiner (2010), *The Plans that Failed*, pp. 84–85.

¹³Cf. Mühlfriedel and Wießner (1989), *Geschichte der Industrie der DDR*, pp. 246–252; Siedt (1986), *Investitionen und Wirtschaftswachstum*, pp. 95–103, 140–145.

certain factories.¹⁴ The disproportion of investment recurred in the area of production of machine tools, a crucial supplier for the advancement of manufacturing processes in many other industries. Here, the product range of prioritized manufacturers was shifted towards heavy machine tools while neglecting the production of light-duty versions, which were traditionally in operation in the East Berlin area. But, whereas heavy machine tools of lower technological standards could be sold relatively easily to East German customers and to other CMEA countries that were also initiating or enlarging capacity in heavy industry, traditional comparative advantages in more advanced or more specialized machine tools began to fade. In 1950, while enterprises in West Berlin found themselves on the same technological and economic level as that of their West German competitors, the Eastern manufacturers were tending to produce machine tools of outdated types, and failed to present new models at international trade fairs.¹⁵ Elsewhere, even printing machines, which were, in general, internationally competitive and a core area of investment policy, remained below their growth potential and many types fell behind international standards.¹⁶

A closer look at the various branches of mechanical engineering thus validates the general observation that industrial policy during the 1950s tended to promote large-scale industries on relatively low technological levels. Taking into account the shift in overall demand away from Western trade partners toward national and CMEA customers, the minor political importance of innovation and flexibility even made some sense in economic terms. The strategy of extensive growth was, on the one hand, relatively coherent by setting priorities in sectors like energy, heavy and chemical industries, and was obviously a strategy designed to influence East German industrial structure. On the other hand, it came to the fore in the first decade of the GDR's existence that this strategy would not be sufficient to keep up with Western European industrial development. At the beginning of the 1960s, the failure of a new 'main economic task' to surpass West German standards of living and productivity clearly demonstrated that this kind of industrial policy

¹⁴Johannes Bähr, *Industrie im geteilten Berlin (1945–1990). Die elektrotechnische Industrie und der Maschinenbau im Ost-West-Vergleich: Branchenentwicklung, Technologien und Handlungsstrukturen*, München: Saur (2001), pp. 147–153, 199–211.

¹⁵Bähr (2001), *Industrie im geteilten Berlin*, pp. 385–390.

¹⁶Siedt (1986), *Investitionen und Wirtschaftswachstum*, pp. 103–109.

would not be adequate in the longer run – this programme, announced in 1959, had to be buried in silence only two years later.¹⁷

13.3 Economic reforms and industrial policy during the 1960s

The experiences of the 1950s generated some basic lessons for East German industrial policy. First, there was a trade-off between the development of basic industries and consumer needs, but also a general budget limitation for special industrial programmes competing against overall industrial investment. Secondly, creating growth in output without efficient utilization of inputs was not a sustainable growth strategy for an economy that was operating at full capacity and running out of labour. Thirdly, foreign trade and coordinated planning with other Eastern Bloc countries within the framework of CMEA did not provide East Germany's relatively highly-developed industry with imports of an adequate technological level. Intensive, technology-based and internationally competitive industrial growth in the longer run could only be generated through reforms of the planned economy. In consequence, the core idea of the 'New Economic System' announced in 1963 was a simulation of market mechanisms without seriously challenging the primacy of central planning. On the basis of a revised pricing system, the competitiveness and efficiency of production units were to be stimulated by financial incentives and greater autonomy for the publicly owned factories.¹⁸

Industrial policy at the sectoral or sub-sectoral level thus came into a closer connection than previously with regulatory policy at the system level. Technological progress played a key role in this modernization project, and innovation gained higher political attention, but with very limited success, as stimulation of research and development (R&D) activities conforming to economic needs turned out to be even more complicated than influencing structural change by investment control. In any event, investment policy in the first years of reform still

¹⁷Cf. Steiner (2010), *The Plans that Failed*, pp. 90–93; also Ralph Sowart, 'Planwirtschaft und die "Torheit der Regierenden". Die "ökonomische Hauptaufgabe der DDR" vom Juli 1958', *Jahrbuch für Historische Kommunismusforschung* 7 (1999), pp. 157–190.

¹⁸On the reforms as a whole, see extensively André Steiner, *Die DDR-Wirtschaftsreform der sechziger Jahre. Konflikt zwischen Effizienz- und Machtkalkül*, Berlin: Akademie (1999); regarding the foreign trade system, Ahrens (2000), *Gegenseitige Wirtschaftshilfe*, pp. 133–248.

concentrated on iron and steel and the chemical industry. Later on, mechanical engineering and the vehicle-building industry, and finally electrical engineering and electronics, gained in importance; the rate of growth in investment in the production of consumer goods still remained below the average, however.¹⁹

Reform measures – carried out stepwise and tested in various experiments in single specialised areas or enterprises, thus revealing a lot of conceptual problems in detail – soon came under criticism from conservative SED functionaries. Implementation was impeded by the inconsistencies of the planning system and the continuing practice of production units of concealing information and proposing ‘soft plans’. Profitability, in practice, never became a decisive factor for their performance. A new phase of reforms, the ‘Economic System of Socialism’, announced in 1967, only complicated the situation as a discretionary investment policy got out of control. So-called ‘structure-determining principal products and product groups’ with (seemingly) special relevance for mastering the ‘scientific-technological revolution’, received high investment priorities, but the volume of these projects – driven by political considerations as well as by the production units’ interest to receive higher investments – soon exceeded the resources of the GDR. The short-term results were disproportions between the various industrial sectors, a lack of consumer goods and, as a result of increased imports of Western investment goods, a growing balance of payments deficit in hard currencies. In 1970/71 the traditional planning system was more or less restored, and the conservative majority of the Politbüro replaced SED leader Walter Ulbricht with Erich Honecker.²⁰

The inconsistencies that industries had to cope with during the reform years can be illustrated very well by the case of machine tools. In mechanical engineering, and especially in the machine tools industry, rationalization and science-based innovation had already attracted increased attention in the late 1950s.²¹ Nevertheless, the industry was not able to meet target figures in production, productivity and export growth during the first half of the 1960s, because high appropriations of investment means in 1962/63 were followed by stagnation and even decline in the following two years. The technological level of production advanced rather slowly; expenditure on new machines and plants

¹⁹Steiner (1999), *DDR-Wirtschaftsreform*, pp. 372–404, 494.

²⁰Steiner (1999), *DDR-Wirtschaftsreform*, pp. 425–436, 448–461, 503–550.

²¹Mühlfriedel and Wießner (1989), *Geschichte der Industrie der DDR*, pp. 253–258.

was especially low and, for the time being, demand could still be satisfied with older equipment.²²

It was exactly this neglect of product- and process-innovation that was responsible for the belated introduction of a key innovation that had enormous importance for the automatization of production processes and improvements in flexibility in many industry branches. The numerical control (NC) of machine tools finally became a core topic of industrial policy during the 1960s – but only with characteristic sluggishness. As early as 1957, the Institute for Machine Tools in Karl-Marx-Stadt (one of the regional centres of that sector) had suggested starting R&D on the new technology. But only in 1966, four years later than in the Federal Republic, did serial production of NC machine tools begin in the GDR. This delay was not only due to a lack of R&D capacity: it also revealed a nexus between industrial (and foreign trade) policy on the one hand, and systemic problems of a planned economy on the other – electronic control elements had to be bought from Western suppliers, but the GDR was chronically short of hard currency to pay for these imports. The reform measures proved insufficient to force East German enterprises to produce internationally competitive goods and sell them to Western customers instead of serving the sellers' markets of CMEA countries.²³

The machine tool industry itself embodied this dilemma, as it was counted among the 'dynamic export branches' expected to earn above average hard currency revenues.²⁴ The starting position for 'dynamic'

²²Michael Elle, 'Investitionen und Wirtschaftswachstum von Industriezweigen während der 60er Jahre', in: Roesler, Siedt and Elle (1986), *Wirtschaftswachstum*, pp. 201–207.

²³Bähr (2001), *Industrie im geteilten Berlin*, pp. 397–401; Jörg Roesler, 'Einholen wollen und Aufholen müssen. Zum Innovationsverlauf bei numerischen Steuerungen im Werkzeugmaschinenbau der DDR vor dem Hintergrund der bundesrepublikanischen Entwicklung', in: Jürgen Kocka (ed.), *Historische DDR-Forschung. Aufsätze und Studien*, Berlin: Akademie (1993), pp. 263–285; Jörg Roesler, 'Im Wettlauf mit Siemens. Die Entwicklung von numerischen Steuerungen für den DDR-Maschinenbau im deutsch-deutschen Vergleich', in: Baar and Petzina (1999), *Deutsch-deutsche Wirtschaft*, pp. 349–389, 351–365; André Steiner, 'Technikgenese in der DDR am Beispiel der Entwicklung der numerischen Steuerung von Werkzeugmaschinen', *Technikgeschichte* 60 (1993), pp. 307–319; Dieter Specht and René Haak, 'Der Beitrag des Werkzeugmaschinenbaus zur flexiblen Fertigungsautomatisierung in Deutschland', in: Bähr and Petzina (1996), *Innovationsverhalten*, pp. 265–277.

²⁴SPK, 'Ausgangspunkte und voraussichtliche Hauptergebnisse der Verwirklichung der strukturpolitischen Konzeption', July 1968, Stiftung Archiv der Parteien und

export sales to the West, however, did not give much reason for optimism. A summary of the industry's situation for the Politburo in September 1969 made the criticism that East German producers, whether in technology or in terms of economic efficiency, could not compete at the international standard. Machine-tool manufacturing, just like other areas important for macroeconomic growth and export revenues, such as the chemical or electrical industries, had not fulfilled its export targets for years. The reasons were found not only in a neglect of R&D activities, but also in a low degree of enterprises' horizontal integration.²⁵

Alongside higher investment expenditure, changes in the organization of production units seemed to offer a solution. In 1969/70, the entire production of machine tools was concentrated in three large 'combines', which were designed to integrate R&D, production and sales activities of various state-owned enterprises. Like in other branches, the creation of combines was intended to decrease costs through rationalization and concentration, thus revealing a continuing belief in economies of scale. But with the closer integration of R&D and production as another primary goal, it further demonstrated that industrial policy was generally aware of the necessity to create value added in technology-based industries if East Germany was to remain a competitive industrialized economy.²⁶

At least in the short run, the success of reorganization and additional investment expenditure remained very limited. To catch up with international trends, the development and production of NC machine tools was pushed massively in the second half of the 1960s. The industry was counted among the country's 'structure-determining branches', with a high priority in investment policy. Through to 1970, the GDR exported as many NC machine tools as the Federal Republic. But the rapid boost in production targets overstrained the enterprises' capability to manufacture machinery that was high in quality and suited to actual demand. With the abandonment of reforms in 1971, the

Massenorganisationen der DDR im Bundesarchiv (SAPMO-BA), Berlin, DY 30/J IV 2/2/1176.

²⁵ 'Einschätzung über die Wirksamkeit der Maßnahmen zur weiteren Gestaltung des ökonomischen Systems des Sozialismus in der Planung und Wirtschaftsführung für die Jahre 1969 und 1970', 22 September 1969 (Proposal Halbritter), SAPMO-BA, DY 30/J IV 2/2A/1.396.

²⁶ Cf. Specht and Haak (1996), 'Beitrag des Werkzeugmaschinenbaus', pp. 266–277; Bähr (2001), *Industrie im geteilten Berlin*, pp. 239–240; on the creation of combines in general Steiner (1999), *DDR-Wirtschaftsreform*, pp. 461–466.

pendulum swung to the other extreme. The planners not only reduced the extremely high growth rates of the former few years, they also cut expenditure on the development of NC technology in general – just at a time when the next generation of computerized numerical control elements began to spread in Western markets. The output of machine tools indeed rose rapidly in the first half of the 1970s. But this output relied upon the investments in the late 1960s, and followed technical standards that would soon be outdated.²⁷

The case of machine tools thus serves as an example for the erratic investment policy of the 1960s and its shortcomings. All in all, the reform years, and especially the experiences with ‘structure-determining’ projects, once again demonstrated the difficulties of promoting special industries or product groups while neglecting others. Nevertheless, there were some positive effects on ‘structure-determining products’, which came into being only in the 1970s. Moreover, net production increases during the 1960s reveal that relatively ‘modern’, and generally more innovative branches like engineering and vehicle building, electrical engineering and electronics, or the chemical industry, were the ‘winners’ of structural change, although the politically managed process of shifting proportions between industries developed much slower than in Western industrialized economies. On the other hand, however, politically forced modernization obviously tended to decrease productivity, at least in the introduction stages of innovative products – effectiveness, measured in terms of industrial output, was bought at the expense of economic efficiency.²⁸

13.4 Industrial policy and economic decline: The Honecker years

Although one should not overlook the continuities from the Ulbricht to the Honecker years, it seems very reasonable to think of the roughly two decades after 1970 as an historical continuum. After the economic crisis of 1969/70 and the abandonment of reforms, the SED leadership’s basic decisions for the next two decades gave much higher priority to social

²⁷ Bähr (2001), *Industrie im geteilten Berlin*, pp. 401–405; Roesler (1993), ‘Einholen wollen’, pp. 276–281.

²⁸ André Steiner, ‘Beständigkeit oder Wandel? Zur Entwicklung der Industriestruktur der DDR in den sechziger Jahren’, *Jahrbuch für Wirtschaftsgeschichte* (1995), no. 2, pp. 101–118; Steiner (2010), *The Plans that Failed*, pp. 126–132.

and consumer policy, thus establishing a kind of ‘welfare dictatorship’;²⁹ this change of political direction had long-term consequences regarding the limits of industrial policy.

Honecker started to base the acceptance of the SED regime on increasing welfare measures and on a better supply of household consumer goods, whereas in the 1960s, investment goods had occupied the centre of industrial policy. The trend of investment quotas shows that for an evaluation of industrial policy after the end of the reform decade, it is necessary to look past the middle of the 1970s, the approximate end of the ‘Golden Age’ in the West. A steady decline of overall investment quota only began in the late 1970s; but, throughout the course of this decade, the so-called ‘productive’ investments – roughly speaking, the funds that went into the production of raw materials, producer goods and investment goods – lost importance.³⁰ A fundamental change from a still more or less proportional investment policy towards greater instability took place around the middle of the 1970s: the national budget increasingly served as a financial instrument for subsidies, social expenditure and housebuilding, while the state lost part of its role as industrial investor. Even more neglected were the ‘non-industrial producing sectors’ of agriculture, traffic infrastructure and industrial buildings.³¹

As one expert from the Planning Commission’s research institute pointed out shortly before the end of the GDR: the decline of the investment quota between 1971 and 1987, in absolute figures, amounted to the sum of productive investment for about two years compared to the level reached in 1970. At the same time, the allocation of investment was shifted from investment goods to primary industries, as the GDR tried to export more steel, chemicals and especially oil products; a time-lag between the rise of Soviet and international oil prices for a few years offered the chance to earn hard currency by re-exporting processing products from Soviet petroleum to Western countries. This came only at high financial and ecological costs, however, as oil was displaced by soft coal as fuel for East German households and industry. Under an

²⁹The term was introduced by Konrad H. Jarausch, ‘Realer Sozialismus als Fürsorgediktatur. Zur begrifflichen Einordnung der DDR’, *Aus Politik und Zeitgeschichte* B20 (1998), pp. 33–46; Konrad H. Jarausch, ‘Care and Coercion. The GDR as Welfare Dictatorship’, in: Konrad H. Jarausch (ed.), *Dictatorship as Experience. Towards a Socio-cultural History of the GDR*, New York: Berghahn (1999), pp. 47–69.

³⁰Steiner (2010), *The Plans that Failed*, p. 151.

³¹Baar, Müller and Zschaler (1995), ‘Strukturveränderungen’, pp. 50–51, 55–66.

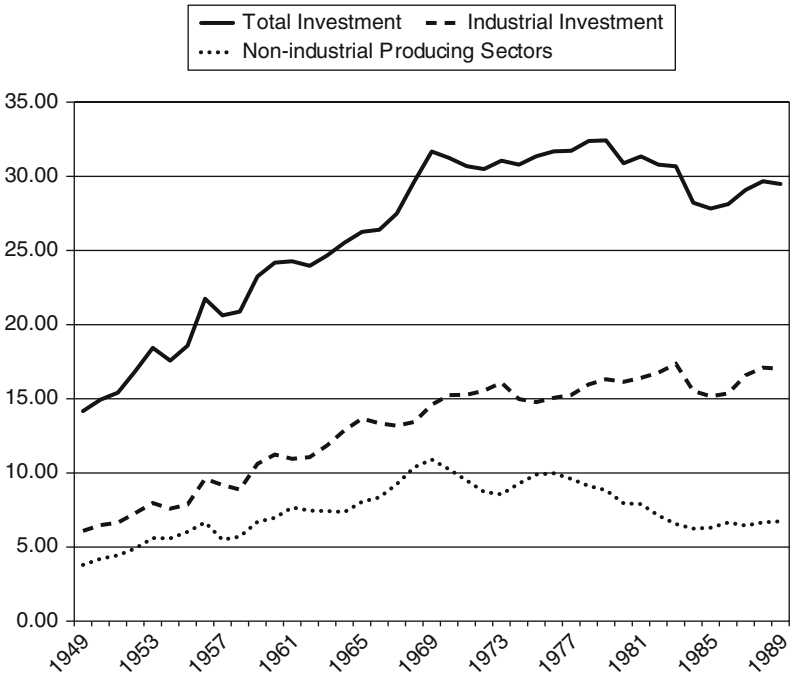


Figure 13.2 East German gross investment quotas, 1949–1989 (in percentages of national income)

Source: Data taken from Baar, Müller and Zschaler (1995), p. 67 (price basis 1985).

ever-narrowing budget constraint for overall investment, the result of the investment shift was a dramatic neglect of mechanical and electrical engineering, especially during the 1970s. Moreover, after the end of reforms, additional output was defined as the main target of investments, so that replacement and modernization in these industries were even more neglected. The mid-term results were declining growth rates and increasing erosion of capital stocks. In turn, not only did the share of products from these industries in exports to capitalist countries go down, but also the number of patents they applied for in West Germany – between 1970 and 1985, applications sank by about two-thirds.³²

³²Günter Specht, 'Problemmaterial. Überlegungen zur Begründung der zwingenden Notwendigkeit einer konsequenten Strukturpolitik im Zeitraum 1991–95 und danach', April 1989, Bundesarchiv Berlin (BAB), DE 1/57779. Cf. also Günter Kusch et al., *Schlußbilanz – DDR. Fazit einer verfehlten Wirtschafts- und*

Aside from this, the creation of combines, especially in mechanical engineering, had the effect of separating producers even further from their customers, whereas innovation in this industry traditionally evolved to a high degree from cooperation between supply and demand. At the same time, the machinery combines themselves faced massive problems in buying appropriate components like control devices from external suppliers. The re-organization of the branch, therefore, had not sustainably reduced the product ranges, but effectuated a lot of small-scale production. A striking example is the production of industrial robots: in 1987, about 700 East German factories manufactured such devices – mostly to a low technological standard, not coming up to the Western definition of robots, and with an average output of less than seven pieces per year.³³

Industrial flexibility was even more restricted by the nationalization of small and medium enterprises, which, up to 1972, had operated as private businesses (partly with capital participation of the state). The great majority of these enterprises were producing consumer goods, but among them were also smaller, highly specialized manufacturers of machinery as well as component and spare parts suppliers.³⁴ Finally, the investment goods industries were committed to wasting their capacities on the consumer goods programme of ‘1,000 small things’. The heavy machinery combine TAKRAF, for example, had to produce bathtubs, and the ministry of general machine building had to generate a sufficient production of egg slicers.³⁵

Beside the home-made shifts in investment policy, foreign markets guided the GDR’s economic development more than ever. Trade figures reflected an escalation in imports of investment goods and raw materials from Western European countries, starting particularly in 1968. The

Sozialpolitik, Berlin: Duncker & Humblot (1991), pp. 29–45, 54–69; Baar, Müller and Zschaler (1995), ‘Strukturveränderungen’, pp. 54–55, 69, 73. On the programme of oil substitution, cf. Steiner (2010), *The Plans that Failed*, pp. 172–173; Harm G. Schröter, ‘Ölkrise und Reaktionen in der chemischen Industrie beider deutscher Staaten’, in: Bähr and Petzina (1996), *Innovationsverhalten*, pp. 115–124.
³³ Specht (1989), ‘Problemmaterial’.

³⁴ Cf. Monika Kaiser, *1972 – Knockout für den Mittelstand. Zum Wirken von SED, CDU, LDPD und NDPD für die Verstaatlichung der Klein- und Mittelbetriebe*, Berlin: Dietz (1990); also Frank Ebbinghaus, *Ausnutzung und Verdrängung. Steuerungsprobleme der SED-Mittelstandspolitik 1955–1972*, Berlin: Duncker & Humblot (2003).

³⁵ Komitee der Arbeiter- und Bauerninspektion, ‘Inspektion Verarbeitungsmaschinen- und Fahrzeugbau’, Information, 13 January 1976, BAB, DY 30/vorl. SED 16249.

background was a conscious strategy of import-led growth by buying investment goods – an approach that had emerged in the last years under Ulbricht. After some efforts to return to a tighter integration with the CMEA countries, this strategy of import-led modernization and rationalization gained in importance again, starting in 1973. The result was increasing indebtedness, as East German industry failed to finance the imports with sufficient export sales. Traditional as well as new products of important export branches like machine building or the optics industry did not meet Western standards of technology, quality, terms of delivery, after-sales service or availability of spare parts. At the same time, East German enterprises needed even more supplies from the West to complete their export products.³⁶ Moreover, rising commodity prices, especially for Soviet crude oil, required additional production for the Eastern markets. However, ever since the 1960s, the less industrialized CMEA countries were increasingly showing up as serious competitors on the markets for relatively simple industrial products, for example traditional machine tools. From 1960 to 1973, the GDR's share in exports of machinery and equipment between the CMEA countries decreased from 34.2 to 23.8 per cent.³⁷

Industrial policy under these circumstances faced a problem of squaring the circle. While the budget constraints for overall industrial investment narrowed further (at least relatively, but also in absolute figures during part of the 1980s), capital productivity and investment efficiency declined massively around 1980, as investments were fragmented in too many smaller projects that could not be finished in time, and grew more expensive than originally planned.³⁸ On the other hand, technological progress on the world market demanded special and even more cost-intensive promotion of single sectors. A more erratic investment policy

³⁶Cf., for example, Arbeitsgruppe für Organisation und Inspektion beim Vorsitzenden des Ministerrates, 'Information über Auswirkungen von Reklamationen', 2 May 1973, BAB, DC 20/4416. On foreign trade policy during the 1970s and 1980s in general, cf. Ralf Ahrens, 'Debt, Cooperation and Collapse. East German Foreign Trade in the Honecker Years', in: Uta Balbier and Hartmut Berghoff (eds.), *Falling Behind or Catching Up? The East German Economy 1945–2010*, Cambridge: Cambridge University Press (2013).

³⁷Forschungsinstitut des Ministeriums für Außenhandel, 'Zur Position der DDR im gegenseitigen Handel der Mitgliedsländer des RGW', June 1975, SAPMO-BA, DY 30/vorl. 15991. Cf. Ralf Ahrens, 'Spezialisierungsinteresse und Integrationsaversion im Rat für Gegenseitige Wirtschaftshilfe. Der DDR-Werkzeugmaschinenbau in den 1970er-Jahren', *Jahrbuch für Wirtschaftsgeschichte* (2008), no. 2, pp. 73–92.

³⁸Steiner (2010), *The Plans that Failed*, pp. 151, 179.

was an obvious consequence. The most prominent case is probably microelectronics. In 1977, the party leadership decided that a massive promotion of microelectronics, as the most important new basic innovation, would be necessary to keep up with international standards of products and production processes. Sectors of the East German economy already lagged behind international developments by five to nine years. But, although planning institutions spent around 12 per cent of net annual 'productive' investments of the late 1970s on the development of microelectronics, the technological gaps with Western levels increased.³⁹

Consequently, even relatively successful branches lost ground in Western markets. The 'Polygraph' combine, for example, was still competitive with one special offset printing machine, an original GDR innovation from the 1960s, well into the 1980s because it benefitted from its high investment priority. But for most other products of the combine, by the mid 1970s shortfalls against Western competitors had to be acknowledged, which had led to rapidly declining export quotas.⁴⁰ Inadequate export earnings meant less financial scope even for the replacement of worn-out machinery. Growing wear-and-tear resulted in higher costs and lower quality of products, which in turn increased the difficulty of earning export revenues needed for investment. The end of the vicious circle is well known. In 1989, the GDR was highly indebted in Western currencies; at the same time, large parts of East German industry were non-competitive, while only in some factories, due to the selective investment policy of the 1970s and especially 1980s, a few 'islands' of relatively modern equipment stood next to completely outdated machinery. Not much of either survived the 1990s.⁴¹

13.5 Conclusion

Compared to Western European economies, the East German state certainly played a much more active role in confronting structural change

³⁹Steiner (2010), *The Plans that Failed*, pp. 153–154. Another prominent example was the motorcar industry; cf. Reinhold Bauer, *Pkw-Bau in der DDR. Zur Innovationsschwäche von Zentralverwaltungswirtschaften*, Frankfurt a. M.: Lang (1999), pp. 180–189, 250–258.

⁴⁰Eva Susanne Franke, *Netzwerke, Innovationen und Wirtschaftssystem. Eine Untersuchung am Beispiel des Druckmaschinenbaus im geteilten Deutschland*, Stuttgart: Franz Steiner (2000), pp. 149–150, 155–156, 184–204.

⁴¹For a differentiation between branches, cf. André Steiner, 'Ausgangsbedingungen für die Transformation der DDR-Wirtschaft. Kombinate als künftige Marktunternehmen?', *Zeitschrift für Unternehmensgeschichte* 54 (2009), pp. 155–156.

from the beginning. Overall planning and 'public property' put the SED leadership and the political-administrative apparatus in a position of command (not necessarily control) over large parts of the economy. But it also put them in charge of effecting economic development and avoiding 'disproportions' through factor allocation and investment. Although, in the early years after the war, economic policy partly took the form of a 'command economy', this Soviet-style framework did not possess much continuity with the Nazi economy, and was a fundamental divergence from older paths of regulatory policy in Germany.

Within the centrally planned economy, industrial policy was, on the one hand, probably more dependent on general, non-economic political decision making than in market economies; on the other hand, it certainly had a very high political priority, not only in times of crisis. The core of industrial policy was the distribution of investment funds, which were limited. Already during the 1950s, it became obvious that industrial development could not simply be financed through individual discretion. A trade-off, especially between the development of basic industries and consumer needs, existed, as did a general budget limitation for special industrial programmes competing against overall industrial investment. Nevertheless, even under these conditions there was a chance of promoting relatively innovative and technology-based industries in an attempt to keep up with developments in Western industrialized countries. In the course of the economic reforms of the 1960s, these industries gained in importance for investment policy. But, it was exactly a kind of 'investment overstretch' in their promotion that led into the crisis around 1970, and later programmes concentrating on high-tech industries had to face industrial policy's limited resources all the sooner.

The shifts of investment from heavy industry to branches like mechanical engineering, and especially toward promoting innovation – however deficient and inconsequent they were – may, at first sight, show some similarities to Western countries that were also trying to manage structural change. But industrial policy in the GDR was above all framed by integration into the CMEA and by the East European model of economic planning. Within this economic system, the role of different political actors at the top was still of great importance, as their decisions set the frame for practical measures of industrial policy. The differences between the Ulbricht and the Honecker decades in this respect are obvious. Compared to the situation before 1945, the allocation of investment in the 1950s caused a deformation of the historically evolved industrial landscape, but these changes still made some economic sense within the context of the Cold War; the same was true for some of

the reform experiments of the 1960s. During the 1970s, the top priority of achieving legitimacy for the political leadership through better living conditions narrowed the scope of industrial policy. This policy was maintained even in times when the necessity of higher industrial investment could not be overlooked any longer. Nevertheless, the freedom of action for industrial politicians in general was limited by the system's basic shortcomings in generating the growth of innovative industries that were competitive on international markets.

References

- Ahrens, Ralf, *Gegenseitige Wirtschaftshilfe? Die DDR im RGW – Strukturen und handelspolitische Strategien 1963–1976*, Köln: Böhlau (2000).
- Ahrens, Ralf, 'Spezialisierungsinteresse und Integrationsaversion im Rat für Gegenseitige Wirtschaftshilfe: Der DDR-Werkzeugmaschinenbau in den 1970er-Jahren', *Jahrbuch für Wirtschaftsgeschichte* (2008), vol. 2, pp. 73–92.
- Ahrens, Ralf, 'Debt, Cooperation, and Collapse: East German Foreign Trade in the Honecker Years', in: Balbier, Uta and Hartmut Berghoff (eds.), *Falling Behind or Catching Up? The East German Economy 1945–2010*, Cambridge: Cambridge University Press (2013), pp. 161–176.
- Baar, Lothar, Uwe Müller and Frank Zschaler, 'Strukturveränderungen und Wachstumsschwankungen. Investitionen und Budget in der DDR 1949 bis 1989', *Jahrbuch für Wirtschaftsgeschichte* (1995), vol. 2, pp. 47–74.
- Baar, Lothar and Dietmar Petzina (eds.), *Deutsch-deutsche Wirtschaft 1945 bis 1990. Strukturveränderungen, Innovationen und regionaler Wandel: Ein Vergleich*, St. Katharinen: Scripta Mercaturae (1999).
- Bähr, Johannes, *Industrie im geteilten Berlin (1945–1990). Die elektrotechnische Industrie und der Maschinenbau im Ost-West-Vergleich: Branchenentwicklung, Technologien und Handlungsstrukturen*, München: Saur (2001).
- Bähr, Johannes and Dietmar Petzina (eds.), *Innovationsverhalten und Entscheidungsstrukturen. Vergleichende Studien zur wirtschaftlichen Entwicklung im geteilten Deutschland 1945–1990*, Berlin: Duncker & Humblot (1996).
- Bauer, Reinhold, *Pkw-Bau in der DDR. Zur Innovationsschwäche von Zentralverwaltungswirtschaften*, Frankfurt a.M.: Lang (1999).
- Buchheim, Christoph (ed.), *Wirtschaftliche Folgelasten des Krieges in der SBZ/DDR*, Baden-Baden: Nomos (1999).
- Ebbinghaus, Frank, *Ausnutzung und Verdrängung. Steuerungsprobleme der SED-Mittelstandspolitik 1955–1972*, Berlin: Duncker & Humblot (2003).
- Elle, Michael, 'Investitionen und Wirtschaftswachstum von Industriezweigen während der 60er Jahre', in: Roesler, Jörg, Veronika Siedt and Michael Elle, *Wirtschaftswachstum in der Industrie der DDR 1945–1970*, Berlin: Akademie (1986), pp. 169–234.
- Franke, Eva S., *Netzwerke, Innovationen und Wirtschaftssystem. Eine Untersuchung am Beispiel des Druckmaschinenbaus im geteilten Deutschland*, Stuttgart: Franz Steiner (2000).
- Gayko, Axel, *Investitions- und Standortpolitik der DDR an der Oder-Neiße-Grenze 1950–1970*, Frankfurt a.M.: Lang (2000).

- Holzwarth, Klaus, 'Die Anfänge der zentralen Wirtschaftsplanung in der SBZ', in: Buchheim, Christoph (ed.), *Wirtschaftliche Folgen des Krieges in der SBZ/DDR*, Baden-Baden: Nomos (1999), pp. 247–269.
- Jarusch, Konrad H., 'Realer Sozialismus als Fürsorgediktatur. Zur begrifflichen Einordnung der DDR', *Aus Politik und Zeitgeschichte*, B20 (1998), pp. 33–46.
- Jarusch, Konrad H., 'Care and Coercion: The GDR as Welfare Dictatorship', in: Jarusch, Konrad H. (ed.), *Dictatorship as Experience: Towards a Socio-Cultural History of the GDR*, New York: Berghahn (1999), pp. 47–69.
- Kaiser, Monika, *1972 – Knockout für den Mittelstand. Zum Wirken von SED, CDU, LDPD und NDPD für die Verstaatlichung der Klein- und Mittelbetriebe*, Berlin: Dietz (1990).
- Karlsch, Rainer, *Allein bezahlt? Die Reparationsleistungen der SBZ/DDR 1945–1953*, Berlin: Links (1993).
- Köhler, Heinz, *Economic Integration in the Soviet Bloc: With an East German Case Study*, New York: Praeger (1965).
- Kornai, János, *The Socialist System: The Political Economy of Communism*, Princeton: Princeton University Press (1992).
- Kusch, Günter et al., *Schlußbilanz – DDR. Fazit einer verfehlten Wirtschafts- und Sozialpolitik*, Berlin: Duncker & Humblot (1991).
- Lauffer, Jochen, 'Politik und Bilanz der sowjetischen Demontagen in der SBZ/DDR 1945–1950', in: Karlsch, Rainer and Jochen Lauffer (eds.), *Sowjetische Demontagen in Deutschland 1944–1949. Hintergründe, Ziele und Wirkungen*, Berlin: Duncker & Humblot (2002), pp. 31–77.
- Mühlfriedel, Wolfgang and Klaus Wießner, *Die Geschichte der Industrie der DDR bis 1965*, Berlin: Akademie (1989).
- Roesler, Jörg, *Die Herausbildung der sozialistischen Planwirtschaft in der DDR. Aufgaben, Methoden und Ergebnisse der Wirtschaftsplanung in der zentralgeleiteten volkseigenen Industrie während der Übergangsperiode vom Kapitalismus zum Sozialismus*, Berlin: Akademie (1978).
- Roesler, Jörg, 'Einholen wollen und Aufholen müssen. Zum Innovationsverlauf bei numerischen Steuerungen im Werkzeugmaschinenbau der DDR vor dem Hintergrund der bundesrepublikanischen Entwicklung', in: Kocka, Jürgen (ed.), *Historische DDR-Forschung. Aufsätze und Studien*, Berlin: Akademie (1993), pp. 263–285.
- Roesler, Jörg, 'Im Wettlauf mit Siemens. Die Entwicklung von numerischen Steuerungen für den DDR-Maschinenbau im deutsch-deutschen Vergleich', in: Baar, Lothar and Dietmar Petzina (eds.), *Deutsch-deutsche Wirtschaft 1945 bis 1990. Strukturveränderungen, Innovationen und regionaler Wandel: Ein Vergleich*, St. Katharinen: Scripta Mercaturae (1999), pp. 349–389.
- Roesler, Jörg, Siedt, Veronika and Michael Elle, *Wirtschaftswachstum in der Industrie der DDR 1945–1970*, Berlin: Akademie (1986).
- Schröter, Harm G., 'Ölkrise und Reaktionen in der chemischen Industrie beider deutscher Staaten', in: Bähr, Johannes and Dietmar Petzina (eds.), *Innovationsverhalten und Entscheidungsstrukturen. Vergleichende Studien zur wirtschaftlichen Entwicklung im geteilten Deutschland 1945–1990*, Berlin: Duncker & Humblot (1996), pp. 115–124.
- Siedt, Veronika, 'Investitionen und Wirtschaftswachstum während der 50er Jahre', in: Roesler, Jörg, Veronika Siedt and Michael Elle, *Wirtschaftswachstum in der Industrie der DDR 1945–1970*, Berlin: Akademie (1986), pp. 89–168.

- Sowart, Ralph, 'Planwirtschaft und die "Torheit der Regierenden". Die "ökonomische Hauptaufgabe der DDR" vom Juli 1958', *Jahrbuch für Historische Kommunismusforschung* 7 (1999), pp. 157–190.
- Specht, Dieter and René Haak, 'Der Beitrag des Werkzeugmaschinenbaus zur flexiblen Fertigungsautomatisierung in Deutschland', in: Bähr, Johannes and Dietmar Petzina (eds.), *Innovationsverhalten und Entscheidungsstrukturen. Vergleichende Studien zur wirtschaftlichen Entwicklung im geteilten Deutschland 1945–1990*, Berlin: Duncker & Humblot (1996), pp. 265–277.
- Steiner, André, 'Technikgenese in der DDR am Beispiel der Entwicklung der numerischen Steuerung von Werkzeugmaschinen', *Technikgeschichte* 60 (1993), pp. 307–319.
- Steiner, André, 'Beständigkeit oder Wandel? Zur Entwicklung der Industriestruktur der DDR in den sechziger Jahren', *Jahrbuch für Wirtschaftsgeschichte* (1995), vol. 2, pp. 101–118.
- Steiner, André, 'Wirtschaftliche Lenkungsverfahren in der Industrie der DDR Mitte der fünfziger Jahre. Resultate und Alternativen', in: Buchheim, Christoph (ed.), *Wirtschaftliche Folgelasten des Krieges in der SBZ/DDR*, Baden-Baden: Nomos (1999), pp. 271–293.
- Steiner, André, *Die DDR-Wirtschaftsreform der sechziger Jahre: Konflikt zwischen Effizienz- und Machtkalkül*, Berlin: Akademie (1999).
- Steiner, André, *Statistische Übersichten zur Sozialpolitik in Deutschland seit 1945. Band SBZ/DDR*, Bonn: Bundesministerium für Arbeit und Soziales (2006).
- Steiner, André, 'Ausgangsbedingungen für die Transformation der DDR-Wirtschaft: Kombinate als künftige Marktunternehmen?', *Zeitschrift für Unternehmensgeschichte* 54 (2009), pp. 139–157.
- Steiner, André, *The Plans that Failed. An Economic History of the GDR*, New York: Berghahn (2010).

14

Economic growth and the industrial development policy in Hungary, 1950–1975

Pál Germuska

Military History Institute and Museum of the Hungarian Ministry of Defence

14.1 Economic growth and industrial policy

The purpose of this chapter is to present Hungarian economic growth and industrial policy in the period between 1950 and 1975, also referred to as the Golden Age of Western European economies. By 1950 the reconstruction and economic recovery following the Second World War was essentially complete. Growth of a dynamic form and with a breadth of impact on the different strata of society not previously seen began. This growth stopped only with the oil crisis of 1973 to 1974.¹ The countries of the Soviet Bloc similarly produced significant economic growth, albeit with extreme fluctuations.² For the purpose of measuring Hungarian economic performance, GDP data based on the Maddison database purchasing power parity, which is currently the most ubiquitous and which uses the 1990s international dollar as a primary unit, was not used.³ Instead, national income data (net material product, NMP) of current and unchanging prices, measured in forints,

¹On the 'Golden Age', see Nicholas F. Crafts and Gianni Toniolo, 'Aggregate Growth, 1950–2005', in: Stephen Broadberry and Kevin H. O'Rourke (eds.), *The Cambridge Economic History of Modern Europe Volume 2. 1870 to the Present*, Cambridge: Cambridge University Press (2010), pp. 296–332.

²On the Soviet type growth route, see Stefano Battilossi, James Foreman-Peck and Gerhard Kling, 'Business Cycles and Economic Policy, 1945–2007', in: Broadberry and O'Rourke (2010), *Cambridge Economic History*, pp. 383–385.

³For the Maddison database, see <http://www.ggdc.net/maddison/maddison-project/orihome.htm> Béla Tomka communicates the Hungarian GDP data series based on this database, see Béla Tomka, *Gazdasági növekedés, fogyasztás és életminőség*, Budapest: Akadémiai Kiadó (2011), pp. 267–269.

is used,⁴ because the changes and/or reversals of industrial policy are illustrated with allocation of investment sources, and these investment figures can only be compared with the net material product data. For practical reasons, the year 1950 (the year marking the beginning of the first five-year plan) was chosen as the starting point for the constant price investigation.

If Hungarian growth is compared using measures of prevailing current prices and at constant prices of the 1950s in forints, the largest deviations are seen at the beginning of the 1950s. It was during this period that the consumer and investment price indices developed in completely different ways, as did the implicit price index. Overall, prices roughly doubled over the 25 years in question. The rise in the consumer price index was particularly dramatic in 1951 and 1952 and then deflated temporarily over a period in which the peak levels observed in 1952 were not seen again until 1970. Investment prices, on the other hand, were only moved by the governmental re-alignment of 1959, when they were subsequently corrected in line with inflation processes of recent years. In the mid 1960s, economic control cut back on investments, which caused prices to fall. The dynamic industrialization period beginning in 1967 to 1968 then drove prices up again, particularly in the industrial sector.

The implicit price index examines price movements of the whole economy aggregately, and has been used to calculate national income at constant prices. It can easily be seen that what is perceived as a rise at current prices is, to a significant extent, only the effect of inflation. Figure 14.1 demonstrates that there was not only a severe recession in 1956, but also in 1952 and 1954, as well as zero growth in 1965. The prominent growth of 1957, on the other hand, was a single restorative correction following the revolution. The growth curve fits well with the Soviet-type trend mentioned in the introduction; indeed, when calculated at constant prices, the fluctuations observed are even greater.

The threefold breakdown of the period revealed is based on growth data calculated from prices for the year 1950. The period between 1950 and 1956 is characterized by an ever-changing economic performance, prominent leaps and severe reversals: from 1957 to 1965, after

⁴NMP = net material product, generated national income. The socialist countries used a different economic statistical system, and calculated national income using different methodology. See János Kornai, *The Socialist System. The Political Economy of Communism*, Princeton, NJ: Princeton University Press (1992), pp. 221–223, and Tomka (2011), *Gazdasági növekedés*, pp. 52–56.

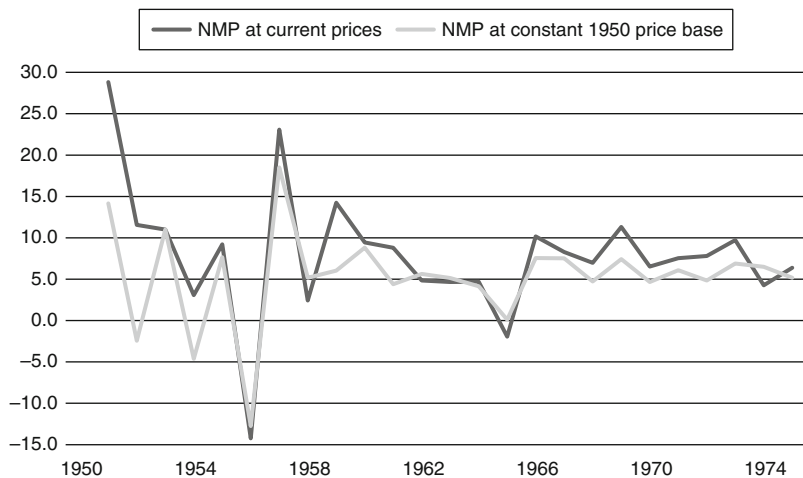


Figure 14.1 The economic growth of Hungary's NMP in current and constant prices, 1951–1975 (in percentages)

Source: Author's own calculation based on Germuska, 'Szocialista csoda', (2012), p. 71, table 6.

a dynamic start, growth gradually slowed down. From 1966 to 1975, a relatively balanced, stable pattern of growth can be seen.⁵

The reasons for this economic performance are rooted deeply in the variation of industrial policy at that time. Although Hungary was, until the 1960s, a country with a largely agrarian economy, the official communist economic policy promoted rapid transformation to an industrial economy and society. Investment sources were then allocated to meet these objectives. The period of 25 years examined here can be divided into the following periods of industrial development policy: 1950 to 1953 – the era of rapid and enforced industrialization with a focus on military and heavy industries; 1953 to 1955 – the 'new course' of Imre Nagy, when some modifications were made giving preference to the consumer industries and the rural sector; 1956 to 1965 – a second period of heavy industrialization with the chemical programme; 1966 to 1975 – a balanced development programme with selected branches (aluminium, machine industry, vehicle manufacture and electronics late in the period). Each period will be briefly characterized in the following sections.

⁵The proposed breakdown agrees essentially with Tomka's periodization. Tomka (2011), *Gazdasági növekedés*, pp. 96–97.

In the initial year of the first five-year plan (1950 to 1954), the largest investments (of some 8 billion forints) were made in smelting, mining, mechanical engineering and electricity generation.⁶ Extension of the Várpalota and Komló mines was begun, as was construction of the Danube (later Stalin) Iron Works, reconstruction of the Ózd and Diósgyőr iron foundries, construction of the Várpalota aluminium smelters and renovation of Tatabánya aluminium smelters, construction of the Barcika nitrogen works and the Szolnok sulphuric acid plant, and construction or extension of the Dunapentele, Inota, Tatabánya, Dorog, Tiszalök, Berente and Ózd power stations. At the same time, planning, designation of sites and construction of a dozen new military plants was begun, costing to the tune of some 700 million forints.

The share of investments going to the armed forces and heavy industry grew by 8 percentage points in 1951. In 1952, almost 60 per cent was allocated to these sectors. 92–93 per cent of all industrial investments made between 1951 and 1953 went to heavy industry.⁷ A substantial proportion of this was concentrated on the production of basic materials – mostly on smelting and coalmining – in order to satisfy the raw-materials needs of the military industry that was developing at a radical pace, and on the production of electricity to meet the extreme demands of the entire heavy industry sector. In 1951 to 1952, military industry had access to the most resources, after basic materials production.⁸ In 1950, 57 per cent of investments in mechanical engineering went to military industry, as did 66 per cent of investments in 1951 and 60 per cent in 1952; hardly any resources remained for other developments in mechanical engineering.

Following the death of J. V. Stalin, Soviet leadership made a partial review of its position, and also required leaders of satellite states to report on the policies of earlier years. As part of this process, Mátyás Rákosi was replaced by Imre Nagy, as Prime Minister of Hungary. In July 1953, the Imre Nagy government eliminated the supreme authority of

⁶Minutes of the 28 April 1950 session of the Hungarian Workers' Party (HWP) Secretariat. Hungarian National Archive (MNL OL) M-KS 276. f. 54/51. ő. e.

⁷Pál Germuska, 'Szocialista csoda? Magyar iparfejlesztési politika és gazdasági növekedés, 1950–1975', *Századok* 146 (2012), pp. 67–68, table 1 and 2.

⁸Within the military industry, the manufacture of gunpowder and explosives belong to the chemical industry, and so they should be listed with basic materials production. The National Planning Office investment data series, however, does not distinguish between sub-branches of the defence industry. So for the sake of simplicity, the whole defence industry has been listed with mechanical engineering.

the independent war industry, which had existed for 18 months. At the beginning of August 1953, they decided to reduce the complement of the Hungarian People's Army by roughly 20 per cent. The switch-over from military industry to civilian production also began, though finding new alternative profiles and re-organizing manufacturing dragged on for years.⁹ In 1954, the government programme was hit by a serious setback with the fall of the real value of national income by 4.6 per cent. Growth did not resume until the following year, but was dynamic at 7.6 per cent.

Using the consequences of this setback as leverage, the Imre Nagy government was successful in restraining megalomaniac heavy industry projects: military and heavy industry investments were moderated in several steps, and resources thus gained were redeployed to light industry and agriculture.¹⁰ Between 1953 and 1955, investments in military and defence dropped to one-sixth, and the proportion of heavy and construction industry investments fell by 10 percentage points. At the same time, investment in agriculture leapt by 11 percentage points and the proportion of investments made in the light and food industries grew two-and-a-half-fold.¹¹

The effects of Imre Nagy's replacement, in March 1955, and reinforcement of the old line appeared simultaneously in the summer 1955 version of the second five-year plan: in order to further the successful building of socialism, 'socialist industrialization must be continued consistently, giving priority to the development of heavy industry', as stated in a proposal by the planning office.¹² But the new government, led by András Hegedűs, could only achieve a definitive redeployment of resources the following year: investments in agriculture fell by 8 percentage points, which were, along with hundreds of millions of forints once invested in the light- and food- industries, diverted back into heavy industry.¹³

In the midst of the ever-deepening political crisis, however, attempts to get the second five-year plan for the period from 1956 to 1960

⁹See Pál Germuska, 'Military Industry versus Military-related Firms in Socialist Hungary Disintegration and Integration of Military Production during the 1950s and Early 1960s', *Enterprise & Society* 11 (2010), pp. 316–349.

¹⁰For details on the economic policy steps, see János Honvári, *XX. századi magyar gazdaságtörténet*, Budapest: Aula (2006), pp. 254–260.

¹¹See Germuska (2012), 'Szocialista csoda', pp. 68–69, table 3.

¹²Minutes of the 23 June 1955 session of the HWP Political Committee (PC). MNL OL M-KS 276. f. 53/238. ó. e.

¹³See Germuska (2012), 'Szocialista csoda', pp. 68–69, table 3.

accepted were unsuccessful. It followed that the repeatedly modified plan for 1956 tried using temporary measures to set the halting wheels of the national economy rolling again. The revolution of October 1956, followed by the Soviet military intervention on 4 November, led to a severe economic set-back: the control system for the planned economy fell apart, production links became disorganized, transportation floundered and a protracted coalminers' strike led to a severe energy shortage. The government, led by János Kádár, attempted to stabilize its authority by implementing a large number of concessions and measures: at the turn of 1957, 70–75 per cent of wage earners were given significant pay raises, and the state relaxed regulation on private trades, services, retailing and so on.¹⁴

Thanks to significant aid and loans from other socialist countries, the Hungarian economy recovered from the crisis relatively quickly: production indices improved and the national income grew vigorously. Elaboration of a temporary mid-term plan, known as the second three-year plan, intended to further considerable development of the heavy industry already in place, telecommunications, diesel engine and vehicle manufacture, instrument production and pharmaceuticals.¹⁵ The plan was soon accepted and enacted (law II of year 1958, announced 25 June 1958), while preparation of the next five-year plan (1961 to 1965) was already underway.

The development of chemical industry was given a special role by all members of Comecon, through which the Khrushchev 'catch up and overtake' programme was meant to out-strip the West through the production of, among other things, fertilizers, artificial fibres and plastics.¹⁶ Following an assessment by the Hungarian economic leadership in 1958 and 1959, and the Hungarian Socialist Workers' Party (HSWP) in the congress of November 1959, rapid development of domestic chemical industry was marked as a central goal of socialist industrialization.¹⁷ The severe underdevelopment in Hungarian chemical industry was to be rectified by the second five-year plan, with a comprehensive development scheme costing around 11 billion forints. A doubling

¹⁴Honvári (2006), *XX. századi*, pp. 314–325.

¹⁵Minutes of the 6 June 1958 session of the HSWP Central Committee (CC). MNL OL M-KS 288. f. 4/17. ő. e.

¹⁶Iván T. Berend, *Gazdasági útkeresés, 1956–1965. A szocialista gazdaság magyarországi modelljének történetéhez*, Budapest: Magvető (1983), pp. 343–345.

¹⁷*A Magyar Szocialista Munkáspárt VII. kongresszusának jegyzőkönyve 1959. November 30–December 5*, Budapest: Kossuth (1960), pp. 599–616.

of production in heavy chemical industry (fertilizers, chlorine and so on), organic chemicals industry (artificial fibres, plastics) and pharmaceuticals was to be achieved over a period of five years. The HSWP PC approved elaboration of the chemical industry scheme on 24 May 1960.¹⁸ Just 9.4 billion forints were earmarked for investment in chemical industry by the second five-year plan, although this number was soon raised to 11 billion by the Economics Committee of the Executive Council in an effort to speed up implementation of the scheme. 60 per cent of investments were used to boost artificial fibre, fertilizer and plastics production, and to support the transition of the Borsod Chemical Combine to natural gas, thereby birthing the petro-chemical industry in the process. Production lagged despite these developments, forcing the state, in 1964, to invest large sums in importing these products from the West. In reaction to this shortage, the party and state leadership allocated an additional 20 billion forints for further imports for the period between 1966 and 1970.¹⁹

The third five-year plan, finalized in the spring of 1966, targeted an increase in the export capacity of industry, including chemical industry, light industry, food industry and aluminium industry. To this end, the field of mechanical engineering was to play the largest role.²⁰ The Comecon specialization agreements also guaranteed orders for the following branches of Hungarian industry: the Soviet-Hungarian alumina-aluminium accord, Hungarian-Soviet and Hungarian-Polish automotive industry cooperation, as well as vehicle production and bus manufacture.²¹

In the second half of the 1960s, a re-alignment of 5–6 percentage points was made to industrial investments: due to cut-backs in coalmining, and a slowing down of the chemical industry project, investments in basic materials were re-allocated to mechanical engineering.²² When calculated according to constant prices in the year 1950, investments in basic materials manufacture had hardly increased at all, but investments in food and light industries, as well as mechanical engineering, had grown one-and-a-half-fold. Even so, it remains clear that the largest investments in industry during the 1960s were made in the basic

¹⁸Minutes of the 24 May 1960 session of the HSWP PC. MNL OL M-KS 288. f. 5/184. ő. e.

¹⁹Minutes of the 22 September 1964 session of the HSWP PC. MNL OL M-KS 288. f. 5/344. ő. e.

²⁰Proposal on the III five-year plan of the Hungarian People's Republic. May 1966. MNL OL, XIX-A-16-b, 1975. d.

²¹Honvári (2006), *XX. századi*, p. 444.

²²See Germuska (2012), 'Szocialista csoda', pp. 67–68, table 2.

materials industry. Hardly any investments that were similar in magnitude were made in the processing industry, although some notable exceptions included stimulation of automotive industry.²³ The most rapid expansion of production in industry as a whole did not result from these giga-investments, however, but from the more modestly assisted pharmaceuticals manufacture and telecommunications and instrument production, which maintained a steady lead in this respect from before 1945. Between 1961 and 1970, domestic pharmaceuticals industry raised its production value 5.6 times relative to 1960; telecommunications and vacuum technology industry, as well as instruments industry, increased their production values three-fold.²⁴

Two elements in the reforms of economic control²⁵ introduced in Hungary on 1 January 1968 had a considerable influence on industrial policy: modification of decision-making authorities and an emphasis on more economical practices. Driven by the impetus of reform, the Hungarian economy showed good performance at the end of the decade: in 1968 and 1969, calculated at current prices, the growth of national income increased first to 7 per cent and then to 11 per cent.

The proposal for the fourth five-year plan, presented to the Executive Council in July 1970, allocated specific sums to special development schemes: 8.9 billion forints to automotive production (buses, lorries, tractors), 17.1 billion forints to aluminium industry and 3.5 billion forints to the manufacture of computer science products. The share of the processing industries in the total budget, however, still fell far behind that of basic materials industry: 17.9 billion forints were allocated to mining, 4.4 billion forints to smelting, 30.8 billion forints to chemical industry and 5.2 billion forints to building-materials industry. These sums stand in stark contrast to investments made in fields such as: mechanical engineering (7 billion forints), light industry (4.9 billion forints) and food industry (1.7 billion forints).²⁶

The highest returns on investment for the first half of the 1970s came from light and food industries, where, thanks to a share growth of 3–4 percentage points, development and reconstruction of a yet

²³*Beruházási adattár, 1950–1971*, Budapest: KSH (1972), based on pp. 142–154.

²⁴*Ipari adattár. I. kötet*, Budapest: KSH (1972), p. 234.

²⁵For details on the reform, see Gábor Révész, *Perestroika in Eastern Europe. Hungary's Economic Transformation, 1945–1988*, Boulder, CO: Westview Press (1990); Honvári (2006), *XX. századi*, pp. 413–426.

²⁶Proposal to the Hungarian Revolutionary Worker-Peasant Government on the IV five-year plan for the national economy for the years 1971–75, Budapest, 21 July 1970. MNL OL, XIX-A-16-b, 2118. d.

unparalleled magnitude could be attained. The position of mechanical engineering was hardly weakened, however basic materials industry suffered greatly from a reduction in the overall share of investments in this sector, in spite of large development in chemical industry. Within mechanical engineering, vehicle manufacturers carved out the largest share (25–33 per cent), with telecommunications and instruments industry closing ranks in second and third position, receiving prominent shares of 16–20 per cent and 8–12 per cent respectively.²⁷

Figure 14.2 summarizes the two and a half decades in question: the economic and industrial development policy gave preference to energetics and basic material industries, especially in the 1950s. The traditional Hungarian branches with already good capacities (food industry, vacuum industry, telecommunications and aluminium industry) were further strengthened and developed in the 1960s and 1970s. Thus, Hungary entered the 1970s with over-developed heavy industry, yet

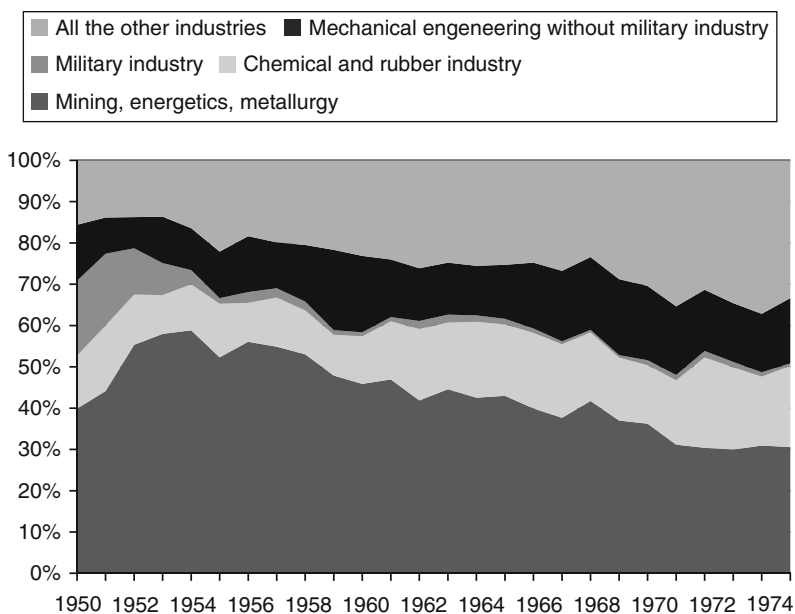


Figure 14.2 The distribution of industrial investments in Hungary, 1950–1975
 Source: Author's own calculation based on Germuska (2012), 'Szocialista csoda', pp. 73–75, table 9.

²⁷ See Germuska (2012), 'Szocialista csoda', pp. 67–69, tables 2 and 4.

without sufficient resources for the high-tech (sub)branches allocated by the economic leadership.

At the beginning of the 1970s, particularly following the explosion in oil prices, the Hungarian economic and political leadership recognized the radical changes taking place in the world economy and carved out a plan to identify and develop promising branches of industry. Investment preferences were modified to allocate significantly more resources for the acquisition of modern technologies and the development of electronics than had been available for this purpose in the 1960s. In spite of this move, mining and basic materials industries retained their investment preference: the share of investments allocated to mining never fell below 56 per cent, and heavy industry, at a share of roughly 33 per cent, still carved out too great a proportion of state investments.

14.2 Historical legacy and national path-dependency

During the inter-war years in Hungary, partial replacement of industrial branches lost due to the Treaty of Trianon became one of the goals of state industrial policy. This was to be achieved through moderation of the industrial-economic predominance of Budapest, as well as the creation of new, modern branches of industry. The state attempted to facilitate the growth of small-, medium- and large-scale industry using decidedly indirect means: tax concessions, favourable transportation tariffs, credit concessions and, in some cases, direct subsidies. No special agency or industrial development organization was established before 1945.

The role of heavy industry continued to grow after the Second World War, with the reparation obligations and the ensuing restoration and reconstruction of the massive damages experienced during this conflict. Starting in the spring of 1945, control of the economy came increasingly into the hands of the communist party. With this change in the balance of power came a transformation of goals and the system for industrial development: policy had no need for indirect regulators, since the goals of economic and industrial development were realized by gradual introduction of a planned economy with the Soviet framework. Plans for industrialization fostered moderation of territorial and location-inequality inside Hungary: Budapest's dominance as an industrial centre was deflated, enabling the less-developed agricultural regions (mainly the Great Plain and Southern Transdanubia) to catch up. Both politicians and experts expected elimination of inequality to

be achieved through industrialization of underdeveloped regions and settlements. The communists imagined that a great transformation of society and the establishment of a mass, urban working class would take place in just this same way. For this reason, the principles of industrialization came to the forefront in the first plan of the national economy.

Law XXV in the first five-year plan for the national economy of the People's Republic of Hungary was finally enacted by parliament on 10 December 1949. The law used a slogan that was later integrated into every day use, namely that Hungary must be transformed 'from an agrarian-industrial land into an industrial-agrarian country'. The 'brain trust' of industrialization and industrial policy was the National Planning Office, which was formed in August 1947 with the launch of the three-year plan. In May 1948, a special new agency was established for military industry development; the Department for Industrial Development was overseen by the Ministry of Industrial Affairs.²⁸ This department represented a new, separate military industry, but was fully integrated into the Ministry of Heavy Industry in December 1949.²⁹

Although communist propaganda promised rapid development of the countryside, the already developed industrial regions of Hungary experienced greater concentration of industrialization. Evaluation of the first five-year plan for the year 1955 shows that less developed agricultural regions did not profit from industrialization (shown in Table 14.1).

Large-scale re-organization of agriculture also made it on to the agenda, beginning at the turn of 1958: resolutions launching a new collectivization campaign were passed on 7 August and between 5 and 7 December 1958 by the HSWP CC.³⁰ At the beginning of the 1950s, the organization of production cooperatives (téesz) was used specifically to relocate manpower from agriculture to industry, thereby forcing the migration of several hundred thousand villagers to industrial areas. However, in the autumn of 1958, even before the beginning of collectivization, the registration of several thousand workers as jobless in agrarian regions put tremendous strain on the labour market. In response, local party and council leaders used every available resource in establishing industrial plants in those areas in order to create employment. The counties' resources available for this task were, however, minimal; at best, aid

²⁸MNL OL XIX-F-1-rr 6. d.

²⁹MNL OL M-KS 276. f. 54/70. ő. e.

³⁰For details on collectivisation, see Zsuzsanna Varga, *The Hungarian Agriculture and Rural Society. Changes, Problems and Possibilities, 1945–2004*, Budapest: Szaktudás Kiadó Ház (2009).

Table 14.1 The distribution of the newly settled factories and their workers between the regions of Hungary, 1955–1956

	Settled factories		Distribution of the new workers among regions (in %)	New workers per 100,000 inhabitants	
	place	in %		number	Index (average=100)
Northern Transdanubia	23	26.5	19.5	422	110
Southern Transdanubia	8	9.2	9.8	282	74
The Great Plain	25	28.8	22.2	278	72
North-Eastern Hungary	10	11.5	8.7	254	66
Budapest and its territories	21	24	39.8	604	156
Total	87	100	100		
Average				386	100

Source: For details, see Germuska *Indusztria bővületében* (2004), pp. 143–181, here p. 132.

came in the form of donation of land for the building of plants. This meant ever-increasing pressure on leaders of the HSWP to implement a central framework for creation of jobs in those underdeveloped areas.

In a session held on 29 October 1958, the HSWP Political Committee (PC) put the matter on the agenda; the means of industrialization before 1956 were expressly labelled as faulty, and even the second three-year plan was criticized because the establishment of a larger number of new provincial industrial plants had not been planned. In the interest of proportional development of individual regions within Hungary, a PC resolution set the task of the next mid-term plans for the national economy to reduce the industrial dominance of Budapest, to industrialize otherwise undeveloped areas (prioritized by the social, economic and natural features of those regions) and to promote more economical spending in general. In accordance with this plan, the PC cancelled plans to build a new, nationally significant, industrial plant in Budapest, and prescribed guidelines for the building of other plants in provinces, in accordance with those regions' capacity for development.³¹

The November 1959 congress of the HSWP approved the industrialization plans for the Hungarian countryside: not only was heavy

³¹Minutes of the 29 October 1958 session of the HSWP PC. MNL OL M-KS 288. f. 5/101. ő. e.

industrial development of regional centres targeted (Miskolc, Győr, Pécs, Debrecen and Szeged), but also expansion of industry in smaller towns in order to improve employment.³² On 24 May 1960, the HSWP PC assessed the progress made in the establishment of provincial industry: plans outlined in the three-year plan to re-locate 12 major and several smaller industrial projects to the provinces were successfully carried out. Despite this, Budapest's share of those employed in state industries remained unchanged at 45 per cent. During the 1961 to 1965 plan, however, at least 58 plants were to be built outside the capital and its territories – mainly in the Great Plain.³³ One month later, the detailed scheme for the establishment of provincial industry was also approved by the HSWP CC,³⁴ and guidelines for the establishment of industry were soon published in a governmental resolution.³⁵

In keeping with this resolution, and as part of the next two five-year plans (second, 1961 to 1965 and third, 1966 to 1970), an attempt was made to locate industries requiring a large workforce to less-developed regions. Thanks to these endeavours, Budapest's share of those employed in the entire industry sector fell by 10 percentage points (from 44 to 34 per cent) between 1961 and 1970. Concurrently, however, growth of the capital city's surrounding territories accelerated, with growth in populations as a whole, as well as in industry-workers specifically. Industry of a low technical standard established in the underdeveloped areas may have tied down a portion of the workforce forced out of agriculture initially, but a subsequent migration of population to the more highly developed regions later followed.³⁶

In concluding this section, it can be pointed out that this spatial inequality problem represented the continuity between the inter-war market economy and post-war communist Hungary. Although Stalinist development policy neglected this problem when investing in heavy industry, the Kádár administration was pressured by the party elite who favoured development of agricultural areas. This was reflected by

³²*A Magyar Szocialista Munkáspárt VII. kongresszusának jegyzőkönyve* (1960), pp. 599–616.

³³Minutes of the 24 May 1960 session of the HSWP PC. MNL OL M-KS 288. f. 5/184. ő. e.

³⁴Minutes of the 29 June 1960 session of the HSWP CC. MNL OL M-KS 288. f. 4/34. ő. e.

³⁵Resolution no. 3075/1960 of the Hungarian Revolutionary Worker-Peasant Government.

³⁶For details, see Pál Germuska, *Indusztria bővületében. Fejlesztéspolitika és a szocialista városok*, Budapest: 1956-os Intézet (2004), pp. 143–181.

investments of far more capital in those underdeveloped regions; in all, this can be interpreted as kind of national path-dependency.

14.3 Conclusions

Table 14.2 presents the most important productivity parameters of the Hungarian economy between 1950 and 1975. Due to the stagnation of population growth, and only moderate increase in active employment, the growth of NMP per capita and per employee shows the same trend as national income growth. However, high volatility can be observed in total and per employee investments – these sudden drops and quick rises are reflective of similarly fluctuating priorities of economic policy.

Annual averages of the separated periods were computed and are displayed in Table 14.3. Growth rates of NMP, investments and NMP per active employee follow the same trend. However, it is noteworthy that the indicator of NMP per unit of capital is negative in three periods, and positive only in 1954 to 1956, when investments had fallen. This symptom highlights the inefficiency of the Hungarian socialist economy: the over-representation of mining and basic materials manufacture, shown in the lower segment of the production column, reflects a state in which less resources were available for the processing industry that required more qualified work and a higher standard of research and development, but simultaneously represented greater added value. These data support the statements made in recent literature, namely that capital investments grew more rapidly in the socialist countries of Central Eastern Europe during the 1960s and 1970s, that the accumulation of capital was higher than in Western European countries, but that per capita income diverged all the same.³⁷

All in all, apparently robust growth was achieved at great cost: either by drastically reducing the standard of living and revving up inflation, as in the early 1950s, or by foreign indebtedness (chiefly dollar-based), as observed for the early 1960s and early 1970s. Although an average annual growth rate of 5.3 per cent was achieved between 1950 and 1975, the loans used to push this growth through a forced, unstructured and strained economic model left the government with a debt that took a quarter-century to repay.

³⁷Péter Földvári and Bas van Leeuwen, 'Capital accumulation and growth in Central Europe, 1920–2006', 17 July 2009, p. 9, <http://www.basvanleeuwen.net/Papers.htm> (date accessed 24 February 2013). On Hungarian capital accumulation, see Péter Földvári and Bas van Leeuwen, 'Capital Accumulation and Growth in Hungary, 1924–2006', *Acta Oeconomica* 61, no. 2 (2011), pp. 143–164.

Table 14.2 The annual growth rates of NMP, population, active employment and productivity in Hungary, 1951–1975 (based on constant 1950 prices, in percentages)

	NMP	Population	Investments	Active employment	NMP per capita	NMP per active employee	Investments per active employee
1951	14.2	0.9	28.7	3.5	13.4	11.1	26.1
1952	-2.4	0.9	15	1.2	-3.3	-3.7	13.9
1953	11	0.9	1.7	1	10.1	10.1	0.7
1954	-4.6	1.1	-40.6	1.2	-5.8	-5.9	-42.2
1955	7.6	1.2	-9.3	1.6	6.5	6.2	-11.1
1956	-12.7	0.9	2.6	2	-13.7	-15.1	0.6
1957	18.5	-0.7	-7.6	-1	19.1	19.3	-6.6
1958	5.2	0.4	51.7	1.4	4.8	3.9	51.1
1959	6	0.6	-17.9	1.5	5.5	4.6	-19.7
1960	8.8	0.5	14.7	1.2	8.4	7.7	13.7
1961	4.4	0.5	-9.4	-1.3	4	5.6	-8
1962	5.6	0.3	13.6	-0.4	5.3	6	14
1963	5.1	0.3	13	0.7	4.9	4.5	12.4
1964	4.2	0.3	4.7	1	3.8	3.2	3.8
1965	0.1	0.3	1.5	0.7	-0.2	-0.6	0.8
1966	7.6	0.3	12.4	0.9	7.3	6.7	11.6
1967	7.5	0.4	17.7	1	7.2	6.6	16.9
1968	4.7	0.4	-18.2	-0.6	4.4	5.3	-17.5
1969	7.4	0.4	24.1	3.6	7.1	4	21.3
1970	4.7	0.3	14.1	2.9	4.3	1.8	11.5
1971	6.1	0.3	9.5	5.8	5.8	0.4	4
1972	4.8	0.3	-2.4	0.9	4.6	3.9	-3.3
1973	6.9	0.3	3.3	0.7	6.6	6.2	2.5
1974	6.5	0.4	8.9	0.6	6.1	6	8.4
1975	5.2	0.6	12.9	1.3	4.6	4	11.8

Source: Author's own calculation based on: NMP: Germuska (2012), 'Szocialista csoda', pp. 67–68 and p. 71, table 6. Population: KSH, http://www.ksh.hu/docs/hun/xstadat/xstadat_hosszu/h_wdsd001a.html. Active employment 1950–1966: *Munkaügyi adatok 1949–1966*, (1968), pp. 24–25. Active employment 1967–1975: KSH, http://ksh.hu/docs/hun/xstadat/xstadat_hosszu/h_qli001.html (date accessed 27 February 2013).

Table 14.3 Average annual growth rates of NMP, investments and productivity in Hungary, 1951–1975 (based on constant 1950 prices, in percentages)

	1951–53	1954–56	1957–65	1966–75
NMP	7.6	–3.2	6.4	6.1
Investments	15.1	–15.8	7.1	8.2
NMP per unit of capital	–10.5	8.4	–7.4	–3.6
NMP per active employee	5.8	–4.9	6	4.5

Source: Author's own calculation based on Table 14.2.

References

- Battilossi, Stefano, James Foreman-Peck and Gerhard Kling, 'Business Cycles and Economic Policy, 1945–2007', in: Broadberry, Stephen and Kevin H. O'Rourke (eds.), *The Cambridge Economic History of Modern Europe, Volume 2, 1870 to the Present*, Cambridge: Cambridge University Press (2010), pp. 360–389.
- Berend, Iván T., *Gazdasági útkeresés, 1956–1965. A szocialista gazdaság magyarországi modelljének történetéhez*, Budapest: Magvető (1983).
- Beruházási adattár, 1950–1971*, Budapest: KSH (1972).
- Crafts, Nicholas F. and Gianni Toniolo, 'Aggregate Growth, 1950–2005', in: Broadberry, Stephen and Kevin H. O'Rourke (eds.), *The Cambridge Economic History of Modern Europe, Volume 2, 1870 to the Present*, Cambridge: Cambridge University Press (2010), pp. 296–332.
- Földvári, Péter and Bas van Leeuwen, 'Capital accumulation and growth in Central Europe, 1920–2006', 17 July 2009 (<http://www.basvanleeuwen.net/Papers.htm>).
- Földvári, Péter and Bas van Leeuwen, 'Capital Accumulation and Growth in Hungary, 1924–2006', *Acta Oeconomica* 61 (2011), pp. 143–164.
- Germuska, Pál, *Indusztria bővületében. Fejlesztéspolitika és a szocialista városok*, Budapest: 1956-os Intézet (2004).
- Germuska, Pal, 'Military industry versus Military-related firms in socialist Hungary disintegration and integration of military production during the 1950s and early 1960s', *Enterprise & Society* 11 (2010), pp. 316–349.
- Germuska, Pal, 'Szocialista csoda? Magyar iparfejlesztési politika és gazdasági növekedés, 1950–1975', *Századok* 146 (2012), pp. 47–78.
- Honvári, János, *XX. századi magyar gazdaságtörténet*, Budapest: Aula (2006).
- Ipari adattár. I. kötet*, Budapest: KSH (1972).
- Kornai, János, *The Socialist System: the Political Economy of Communism*, Princeton: Princeton University Press (1992).
- Munkaiügyi adattár*, Budapest: KSH, (1968).
- Révész, Gábor, *Perestroika in Eastern Europe: Hungary's Economic Transformation, 1945–1988*, Boulder: Westview Press (1990).
- Tomka, Béla, *Gazdasági növekedés, fogyasztás és életminőség*, Budapest: Akadémiai Kiadó (2011).
- Varga, Zsuzsanna, *The Hungarian Agriculture and Rural Society: Changes, Problems and Possibilities, 1945–2004*, Budapest: Szaktudás Kiadó Ház (2009).

15

Industrial performance in the USSR: Influences of state priorities, economic system, industrial policies and hidden processes, 1945–1980

Christopher Mark Davis

University of Oxford and Russian Presidential Academy of the National Economy and Public Administration

15.1 Introduction and main questions

The adoption in the USSR of the Stalinist centrally planned economic system, and the industrial policy of unbalanced growth in favour of heavy industry, generated the rapid industrialization in the 1930s that enabled the country to catch up with other leading economic powers and to support a militarized economy during both peace-time and the Second World War.¹ Throughout the post-war period from 1945 to 1980, the Soviet Union maintained the fundamental features of its historically novel economic system, although industrial policies and priorities deviated from those of the Stalin era. The Soviet model and strategy produced uninterrupted positive industrial growth from 1950 to 1980, with its index (1970=100) increasing from 22 to 158, and some significant technological advances in heavy industry and defence. The USSR became the leading industrial country in Europe. However, over the post-war decades, Soviet industry experienced growing performance problems related to quality of output, efficiency and international competitiveness, which contributed to the 'stagnation' of the economy in the 1970s and beyond, and to the eventual systemic crisis that led to the demise of the USSR.

¹Details of the history of Soviet industrialization and industrial policy can be found in a previous publication of this author: Christopher Davis, 'Russia. A Comparative Economic Systems Interpretation', in: James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth-Century Experience*, Oxford: Oxford University Press (1999), pp. 319–397.

The objectives of this chapter are to analyse USSR post-war industrial development and to answer questions concerning Soviet industrial policies: (1) What were the unique features of Soviet industrial priorities and policies in the post-war period?; (2) To what extent did the functioning of the Soviet economic system, which reflected past economic decisions, conflict with and undermine industrial policies in the post-war period?; (3) What roles did informal and hidden economic processes play in the Soviet industrial sector, which appeared to be dominated by the state and 'bureaucratic coordination' (for example planning, rationing of supplies, the priority system)?; and (4) What were the key international features of Soviet industrialization, both with respect to the impacts on it of East–West interactions and to the influences exerted by the Soviet model and practices on industrial developments in Europe and the Third World?

The chapter begins with a theoretical section that reviews relevant concepts (priority, negative value added, second economy), models (shortage economy, rent extraction) and methods (calculation of hidden subsidies). Section 15.3, and the three statistical appendices, provide information about Soviet industrialization in the main post-war historical periods. This is followed by empirical evaluations of the high priority defence industry and the low priority medical industry. Section 15.5 examines external aspects of Soviet industrialization, including the export of the Soviet model and foreign trade in industrial products. The final analytical section assesses the inter-relationships between Soviet industry and hidden economic processes: industrial firms in the second economy; disguised negative value added in industry; extraction of 'rent' (net value) from the energy industry and its redistribution; and the subsidization of Eastern Europe by the USSR through trade in machinery and energy using distorted prices.

Industry is defined to include: industrial materials (metals, fuels, electric power, chemicals and petrochemicals, wood, pulp and paper, construction materials), machinery (producer and consumer durables, military machinery) and consumer non-durables.² The extensions of

²The branches of Soviet industry are identified in Ray Converse, 'An Index of Industrial Production in the USSR', in: U.S. Congress Joint Economic Committee, *USSR. Measures of Economic Growth and Development, 1950–80*, Washington, D.C.: USGPO (1982), pp. 169–244. Information about developments in specific branches in the post-war period is provided in Converse (1982), 'Industrial Production', Davis (1999), 'Russia', and in the sources cited in these two publications

the time period of this chapter backwards to 1945 and forwards to 1980 are due to the continuities in the USSR between 1945 and 1953 (Stalin, reconstruction) and in the 1970s (rising world energy prices and expansion of Soviet foreign trade). The features and problems of Soviet industrial statistics are covered in other sources.³

15.2 Influences on industrial policies and performance in the USSR

Ideology, political system, national objectives and priorities

The Communist Party political system in the USSR, with its dictatorial social choice mechanism, played a decisive role in organizing and influencing developments in industry.⁴ However, in the post-Stalin era, there were high-level conflicts over objectives and priorities, and a gradual weakening of central control. This was reflected in phenomena such as ministerial empire-building and rivalry, bureaucratic resistance to central directives, regionalism, nationalism, corruption and second economy activity. The political leadership's choices of the main Soviet industrial goals, expressed in central economic plans, were influenced by Marxist-Leninist economic theory (state ownership, rapid development of heavy industry through high rates of investment), and its perception that the USSR was surrounded by hostile capitalist powers (adoption of policies of self-sufficiency and military preparedness).

The Soviet economic system

The features of the Soviet economic system significantly influenced the choice of instruments, beneficiaries and effectiveness of industrial policy.⁵ Decision making was highly centralized. The government owned

³Gregory Grossman, *Soviet Statistics on Physical Output of Industrial Commodities*, Princeton: Princeton University Press (1960); Rush V. Greenslade, 'Industrial Production Statistics in the USSR', in: Vladimir G. Treml and John P. Hardt (eds.), *Soviet Economic Statistics*, Durham: Duke University Press (1972), pp. 155–194; Davis (1999), 'Russia'.

⁴The important roles of the political system in the socialist economy are shown in the five block model of the socialist economy (Figure 15.1) of Janos Kornai, *The Socialist System. The Political Economy of Communism*, Oxford: Clarendon Press (1992), p. 361.

⁵Following Paul R. Gregory and Robert C. Stuart, *Comparative Economic Systems*, 5th ed., Boston, MA: Houghton Mifflin (1995) this chapter identifies the features of economic systems as: Ownership (state versus private), method of

all land and productive assets. Coordination in the economy relied on administrative instruments, notably planning and rationing, not markets.⁶ Economic incentives included moral rewards linked to socialist ideology, differentiated privileges and cash payments, and coercion. The relationships between industrial branches, the economic system, economic policies, the economic environment and performance are shown in Figure 15.1.

Priority protection mechanisms

In Soviet economic management, priority was an expression of the degree of the leadership’s commitment (from high to low) to ensuring that objectives concerning an industrial branch or firm were attained,

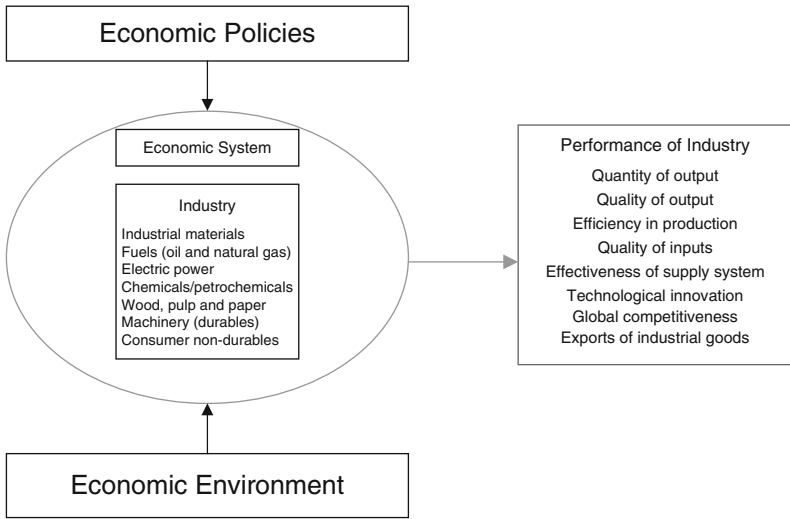


Figure 15.1 Industry, the economic system and industrial performance indicators
 Source: Paul R. Gregory and Robert C. Stuart (1995), p. 39.

coordination (plan or market), degree of centralization, and system of incentives (material, moral, coercion). A comparative economic systems interpretation of Russian industrialization and industrial policy is provided in Davis (1999), ‘Russia’.

⁶Michael Ellman, *Socialist Planning*, 2nd ed., Cambridge: Cambridge University Press (1988).

irrespective of circumstances in the economy.⁷ In order to enforce priority rankings during plan formulation and implementation, use was made of the priority-linked indicators and instruments indentified in the first column of Table 15.1.⁸

Table 15.1 Priority status of Soviet defence and medical industries

Priority indicator	Defence industry	Medical industry
During plan/budget formulation		
Industry branch in leadership's objective function	High weight/lexicographic ordering	Low weight/trade-offs between health and other objectives
Response of resource allocations to problems	Highly responsive	Unresponsive
Wage rates	Relatively high	Relatively low
Adequacy of financial norms in budgets	Generous	Stingy
During plan/budget implementation		
Outputs	Commitment to fulfilment of plans	Minimal help in maintaining output
Budget Constraints	Soft	Relatively hard
Supply Plans	Commitment to fulfilment of plans	Tolerance of disruptions
Investment plans	Ambitious and commitment to fulfilment of plans	Little investment and indifference to fulfilment
Inventories of inputs	Large input inventories	Small input inventories
Reserve production capacity	Large mobilization capacity	Limited reserve production capacity
Shortage intensity	Low	High

Source: Explanations of these priority indicators and evaluations of them in the Soviet health and defence industries are presented in Davis (1989) and Davis (1988b).

⁷Richard Ericson, *Priority, Duality and Penetration in the Soviet Command Economy*, Santa Monica: RAND Working Draft WD-3445-NA (1988), pp. 1–24; Christopher Davis, 'Priority and the Shortage Model. The Medical System in the Socialist Economy', in: Christopher Davis and Wojciech Charemza (eds.), *Models of Disequilibrium and Shortage in Centrally Planned Economies*, London: Chapman and Hall (1989), pp. 427–459.

⁸These indicators are defined and presented in mathematical terms in Davis (1989), 'Priority', and Christopher Davis, *The High Priority Defence Industry in the Soviet Shortage Economy*, Palo Alto: Paper Presented at the Hoover-Rand Conference on 'The Defence Sector in the Soviet Economy' (1988b).

The first indicator measures the weight given to sectoral output in a planner's welfare function and can either reflect marginalist trade-offs or a lexicographic preference ordering (sectoral outputs ranked by importance and no trade-offs).⁹ The second reflects Kornai's idea of 'control by norms' and measures the responses of planners to violations of 'tolerance limits' by performance indicators.¹⁰ Priority status is also manifested in the ranking of wage rates or labour quality of a sector relative to the economy average. The fourth indicator evaluates the adequacy of centrally determined financial norms relative to actual prices of planned inputs.

During the plan implementation period one measure of priority is the degree to which output plans are fulfilled.¹¹ The sixth indicator reflects the idea that the softness/hardness of budget constraints varies by sector in accordance with priorities.¹² The next two indicators assess the extent to which the authorities ensure that an industry obtains planned amounts of inputs and investment in the face of supply disruptions. Priority rankings also are reflected in the varying scales of input inventories and reserve production capacities.

A final indicator is Kornai's multi-variate 'shortage intensity' function, $Z_i(t)$, which assesses the degree and influences of shortages in sector i relative to the average for the whole economy, or to the normal value in the sector.¹³ The characteristics of these indicators for the high-priority defence industry and low-priority medical industry are summarized in columns 2 and 3 of Table 15.1. Empirical evidence related to these industrial branches is provided in Section 15.4.

Industry, industrial policies and firms

The institutional features of Soviet industry (state ownership, ministerial organization, reliance on bureaucratic control) were by-products of the economic system and past policies. The Soviet Union used a number of

⁹See explanations of lexicographic preferences in Ericson (1988), *Priority*; Davis (1989), 'Priority'.

¹⁰The concepts of 'control by norms' and 'tolerance limits' are discussed in Janos Kornai, *Economics of Shortage*, Amsterdam: North-Holland (1980), Chapters 10 and 12, and in Kornai (1992), *The Socialist System*.

¹¹Ericson (1988), *Priority*.

¹²The variation in the softness of budget constraints in accordance with the priority of a sector is explained in Davis (1989), 'Priority', and Kornai (1992), *The Socialist System*.

¹³The shortage intensity indicator is introduced in Kornai (1980), *Economics of Shortage*.

industrial policy instruments that were unusual by European standards of the day. Most obvious were mandatory state planning and the linked central rationing of supplies to industries.¹⁴ A feature of Soviet plans was that they were over-ambitious with respect to targets for industrial outputs and productivity improvements and consequently were inconsistent when implemented.¹⁵ This led to another distinguishing feature of industrial policy: priority-related interventions by Communist Party and state bodies throughout the plan period to revise output targets and redistribute supplies in attempts to rectify demand–supply imbalances and production bottlenecks.

Soviet state-owned industrial firms tended to be large in scale, monopolistic in regionally segmented markets, vertically integrated and protected from international competition.¹⁶ Their main objectives were to fulfil centrally planned output targets set by their superiors in the ministerial hierarchy, not to maximize profits or satisfy customers. Although it appeared that more decision-making power was devolved to individual enterprises over time from 1945 to 1980, in connection with reforms, in reality they remained subordinate to industrial ministries.¹⁷

Soviet industry in the shortage economy

The dynamics of the Soviet economic system and the functioning of industrial firms within it can be explained to a significant degree by the model of the ‘shortage economy’.¹⁸ Table 15.2 summarizes the

¹⁴Eugene Zaleski, *Stalinist Planning for Economic Growth, 1933–1952*, London: Macmillan (1980) provides a detailed assessment of Soviet economic planning.

¹⁵Peter Rutland, *The Myth of the Plan. Lessons of Soviet Planning Experience*, La Salle: Open Court (1985).

¹⁶Joseph S. Berliner, *Factory and Manager in the USSR*, Cambridge, MA: Harvard University Press (1957); Joseph S. Berliner, *The Innovation Decision in Soviet Industry*, Cambridge, MA: MIT Press (1976).

¹⁷Kornai (1992), *The Socialist System*, p. 488, explains the shift from ‘direct’ to ‘indirect’ bureaucratic control in the economic reform process in socialist countries.

¹⁸The theory and model of the shortage economy evolved over time from Janos Kornai, *Overcentralization in Economic Administration. A Critical Analysis Based on Experience in Hungarian Light Industry*, Oxford: Clarendon Press (1959, reprinted in 1994) to Kornai (1980), *Economics of Shortage* to Kornai (1992) *The Socialist System*. See also the relevant chapters in Christopher Davis and Wojciech Charemza (eds.), *Models of Disequilibrium and Shortage in Centrally Planned Economies*, London: Chapman and Hall (1989).

conditions and behaviour of firms in the shortage economy, without taking into account their priority status, in markets for outputs, production processes and markets for inputs. On the output side, firms operating in 'sellers' markets' consistently attempted to expand the volume of production (the 'quantity drive'), were inattentive to the quality of their products and maintained low inventories of goods for sale. On the input side, they possessed 'soft budget constraints', encountered chronic shortages of labour and supplies, and made excessive demands for investment goods, thereby generating 'investment tension'. Within the firm, the shortage conditions generated risk aversion by managers, a sluggish technological innovation process and low technological levels, production bottlenecks, forced substitution of inputs during production (usually an inferior input for a better one), large inventories (hoarding) and maintenance of production mobilization capacities (often linked to defence planning).

Table 15.2 Characteristics of industrial firms in the Soviet shortage economy

Characteristic	Soviet command economy
Output side of Soviet industrial firms	
Market for outputs	Sellers' market
Attitude toward the quantity of output	Quantity drive
Attitude toward the quality of output	Neglect of quality
Inventories of finished goods	Minimal output stocks
Production within Soviet industrial firms	
Managerial attitude toward risk	Risk aversion of managers
Technological innovation	Sluggish technological innovation
Technological level	Low technological level
Stability of production	Forced substitution and production bottlenecks
Inventories of inputs	Hoarding of inputs/large inventories
Mobilization capacity	Large mobilization capacity
Input side of Soviet industrial firms	
Budget constraint	Soft budget constraint
Investment behaviour	Investment hunger
Conditions in the market for inputs	Intense shortages of inputs

Source: The indicators of the behaviour of Soviet firms are derived from concepts of the shortage economy presented in Kornai (1980) and Kornai (1992, and from the studies by the author of the medical and defence industries (see section 15.4).

External developments related to Soviet industry

The USSR had an inconvertible currency and a state monopoly of foreign trade that was governed by central plans. Domestic producers and consumers were consciously separated from foreign purchasers and suppliers by foreign trade organizations (FTOs), which purchased goods for export and sold imports using domestic rubles. Transactions with capitalist countries were conducted in world-market prices. The USSR traded with socialist countries in the Council for Mutual Economic Assistance (CMEA) on a planned basis using administratively-determined 'transferable ruble' prices, which often did not reflect relative valuations in world markets (see Sections 15.5 and 15.6 for empirical assessments of industrial foreign trade).¹⁹

Hidden processes in Soviet industry

Throughout the period under study there were four important hidden features of Soviet industry that influenced both its functioning and the performance of the national economy: (1) participation of firms in the *second economy* (SE); (2) generation of *negative value added* (NVA) in industries; (3) *rent extraction* (RE) in the energy industry and its management by the government; and (4) *implicit subsidization of East European economies* (ISEEE). These concepts are explained in this section and relevant empirical evidence is presented in Section 15.6.

A substantial SE existed in the USSR that has been defined as a system comprised of all transactors (in national income accounting terminology) and markets involved in activities of production and exchange that have the characteristics of being for private gain and/or illegal.²⁰ The role of firms in the SE is shown in Figure 15.2. Industrial firms illegally

¹⁹The features of socialist trade are evaluated in: Kornai (1992), *The Socialist System*; John McIntyre, 'The U.S.S.R.'s Hard Currency Trade and Payments Position', in: U.S. Congress Joint Economic Committee, *Gorbachev's Economic Plans*, Vol. 2, Washington, DC: USGPO (1987), pp. 489–503; and Michael Marrese and Jan Vanous, 'Soviet Policy Options in Trade Relations with Eastern Europe', in: U.S. Congress Joint Economic Committee, *Soviet Economy in the 1980s. Problems and Prospects*, Part 1, Washington, D.C.: USGPO (1982), pp. 102–16.

²⁰This definition is based on Gregory Grossman, 'The "Second Economy" of the USSR', *Problems of Communism* 26, no. 5 (1977), pp. 25–40 and Christopher Davis, *The Second Economy in Disequilibrium and Shortage Models of Centrally Planned Economies*, Berkeley-Duke Occasional Papers on the Second Economy in the USSR, no. 12, Durham, NC: Department of Economics, Duke University (1988a). The latter provides a national income accounting interpretation of the Soviet SE and evaluates the informal activities of industrial enterprises.

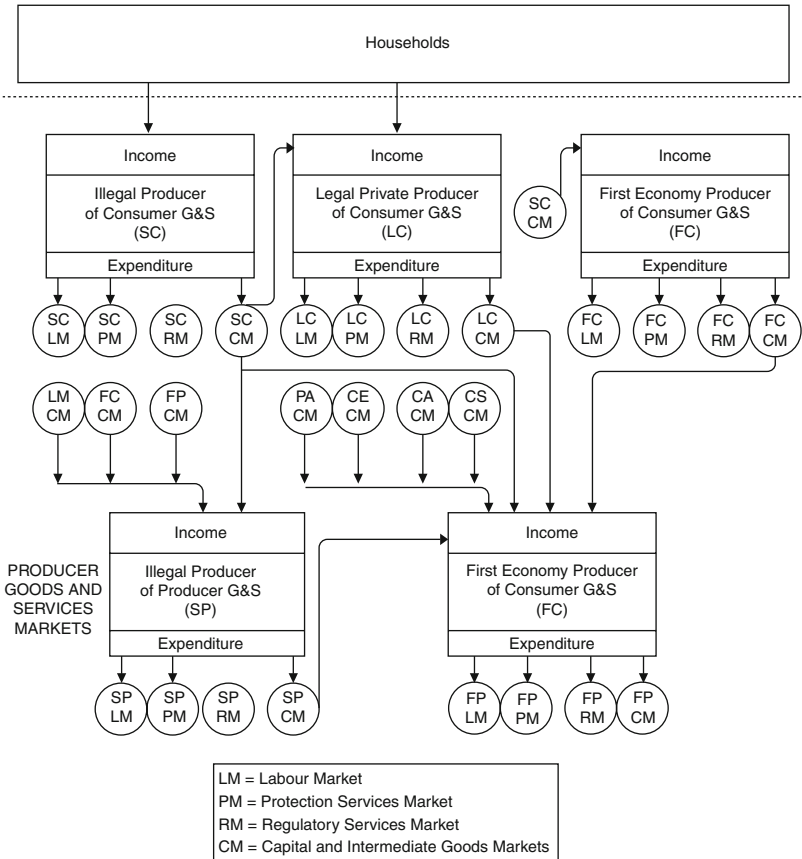


Figure 15.2 Financial flows of producers (firms) in the Soviet second economy
 Source: Davis (1988a), p. 42.

produced consumer goods for household and producer goods for other firms, purchased/obtained inputs in an illegal manner and paid bribes to the government/party regulatory bodies in return for protection of their operations.

The other three hidden processes (NVA, RE and ISEEE) were by-products of the rapid and substantial changes in world-market relative prices (especially energy relative to machinery) in the 1970s. All of them can be explained by the formula: $V = P_o Y_o - P_i X_i$, where V is a measure of net value (respectively, value added, rent, trade balance) expressed in terms of quantities of commodities Y_o (industry output,

energy produced, machinery imports) and X_i (energy inputs, production inputs, energy exports) and socialist prices (P_o and P_i) expressed in rubles (NVA and RE) or transferable rubles (ISEEE). The measurement of these flows can be transformed into world-market terms using prices P^*_o and P^*_i to generate value (V^*) in world-market prices.²¹

In the case of NVA, socialist planners arranged arbitrary ruble prices so that the value of output ($P_o Y_o$) would be greater than that of the inputs used ($P_i X_i$) and, therefore, V (value added in rubles) would be positive. But the prices of manufacturing outputs in rubles were higher than world-market prices by the tariff t_i and those of energy were below by the implicit export tax t_m . McKinnon shows that if either t_m or t_i is sufficiently high, or both are, and if the relatively cheap X_i (energy) is used profligately (as it was in the USSR), then it is possible for $V^* < 0$.²² That is, industries would appear to be covering their costs in ruble terms, but were subtracting value when their activities were measured by world-market relative prices.

RE (V) is the difference between value of the output of energy ($P_o Y_o$) and the true costs of its production ($P_i X_i$).²³ Total rent is made up of: After-tax profit; formal taxes; informal taxes (for example protection payments); subsidies; and excess production costs (conscious overstatements to siphon off value). The 'rent management system' refers to the rules and practices governing the disposition of rents by the government and other actors in the politico-economic system.

With respect to ISEEE, V is the value of the balance of trade between Eastern Europe and the USSR in transferable rubles, which is supposed to be close to zero. The price of Eastern European machinery (the main Soviet import) is higher than the equivalent world price by the mark-up t_i , whereas the prices of Soviet energy exports are below those of the

²¹The mathematical descriptions of these hidden processes in Soviet industry are presented and discussed in Christopher Davis, 'Hidden Processes in Soviet Industry, 1965–1991. Second Economy, Negative Value Added, Rent Extraction and Trade Subsidization', Oxford: Oxford Economic and Social History Working Papers (2014).

²²The original formulation of NVA can be found in Ronald McKinnon, 'Foreign Trade, Protection, and Negative Value Added in a Liberalizing Socialist Economy', in: Ronald McKinnon, *The Order of Economic Liberalization. Financial Control in the Transition to a Market Economy*, Baltimore, MD: John Hopkins Press (1991), pp. 162–186.

²³Clifford Gaddy and Barry Ickes, 'Resource Rents and the Russian Economy', *Eurasian Geography and Economics* 46, no. 8 (2005), pp. 559–583. In their analysis of RE, the authors use the term R_t (rent) instead of V , $P_t Q_t$ (value of output of energy) instead of $P_o Y_o$, and C_t (true cost of extraction) instead of $P_i X_i$.

world market by the subsidy factor t_m . As with NVA, if t_i and t_m are sufficiently high, and if the relatively cheap X_i is exported by the USSR in large quantities, then it is possible for $V^* < 0$.²⁴

15.3 Soviet industrial policies and performance in the post-war period (1945–1980)

Throughout the post-war period, Soviet industry performed well in quantitative terms, but fell below international standards in efficiency, productivity, quality of output, technological innovation and trade competitiveness (see indicators in Figure 15.1). By the end of the 1970s even high-priority Soviet industries, such as defence, could not keep up with their equivalents in market economies.

The early Soviet post-war period: 1945–1964

Early post-war Stalinist industrial policies resulted in a shift in the branch structure away from the military, with a massive de-mobilization and conversion of defence industry, and recovery of civilian industrial production. Industry's share of GDP declined from 35 per cent in 1945 to 30 per cent in 1950. The index of production (1913=100) shown in Table 15-A.1 (see Appendix) increased from 302 in 1945 to 427 in 1950.²⁵ The fourth five-year plan (FYP) for 1946 to 1950 placed emphasis within civilian production on heavy industry over consumer goods, but the share of producer goods in total industry output dropped from an exceptionally high 75 per cent to 69 per cent. Plan targets for heavy and defence industries were consistently over-fulfilled, whereas those of the low priority consumer goods industry were not achieved (see Table 15 A.2, Appendix).²⁶ By the end of the 1940s, there was a re-militarization of the economy, reflected in the successful effort to produce an atomic bomb. The fifth FYP was adopted for the years 1951 to 1955, but only partially implemented. By the early 1950s the Soviet Union had become the third largest producer of steel in the world and one of the largest for weapons. However, Soviet per capita indicators of industrial development remained low by European standards,

²⁴Michael Marrese and Jan Vanous, *Soviet Subsidization of Trade with Eastern Europe. A Soviet Perspective*, Berkeley, CA: Institute of International Studies (1983).

²⁵Mark Harrison, 'Soviet Industrial Production, 1928 to 1955. Real Growth and Hidden Inflation', *Journal of Comparative Economics* 28, no. 1 (1999), pp. 134–155; Davis (1999), *Russia*.

²⁶Zaleski (1980), *Stalinist Planning*.

as did measures of mechanization in industry, efficiency and labour productivity.

Following the death of Stalin in 1953, the Soviet government under Malenkov adopted the 'New Course', which was aimed at reducing the priority of heavy and defence industries and raising that of consumption. The fifth FYP was revised to increase targets for consumer industrial goods and agriculture. For example, actual production in 1952 and the new target for 1955 were: sewing machines 805 and 2,615 thousand units; radios and televisions 1,332 and 4,527 thousand units.²⁷ However, the performance of consumer industries did not improve as planned due to the imbalances created by the abrupt changes to the central plans and inadequate adjustment mechanisms. As a result of the combination of poor economic performance and leadership struggles, Malenkov was removed from power in 1955 and CPSU First Secretary Nikita Khrushchev became the Soviet leader.

During the Khrushchev period (1957 to 1964) the sixth FYP was replaced by a seven-year plan covering the years 1959 to 1965, the management of the economy was de-centralized to Regional Economic Councils, and there were reductions in the size of the armed forces and in procurement of conventional weapons. In this period, industrial output grew at an average rate of 8 per cent per annum and its production index doubled (see Tables 15-A.1 and 15-A.2, Appendix).²⁸ The high priority military R&D programme and defence industry produced innovative space and defence technologies, such as the Sputnik satellite and intercontinental ballistic missiles. However, serious underlying problems remained due to the unreformed character of the economic system. Industrial growth remained 'extensive' in nature and decelerated from 10.2 per cent between 1951 and 1955, to 8.3 per cent between 1956 and 1960, and then to 6.6 per cent between 1961 and 1965.²⁹ The quality of manufactures and the technological levels of civilian industries remained low by world standards. Poor industrial performance and a related stagnation in living standards contributed to the replacement of Khrushchev by Leonid Brezhnev in 1964.

²⁷ Alec Nove, *An Economic History of the USSR*, 2nd ed., Harmondsworth: Penguin Books (1989), p. 318.

²⁸ Mark Harrison, 'Soviet Economic Growth since 1928. The Alternative Statistics of G.I. Khanin', *Europe-Asia Studies* 45, no. 1 (1993), pp. 141–167.

²⁹ According to Gregory and Stuart (1995), *Comparative Economic Systems*, p. 321, 'Extensive growth is the growth of output from the expansion of inputs (land, labour, and capital). Intensive growth is the growth derived from increasing output per unit of factor input, that is, from the better use of available inputs'.

Industrial policy and industrialization in the mature Soviet command economy during the superpower arms race (1965–1980)

The CPSU leadership under Brezhnev re-centralized economic decision making and maintained state ownership of productive assets, and mandatory planning remained the primary coordination mechanism.³⁰ Key goals of Soviet industrial policy were to accelerate technological innovation, expand the production of sophisticated weapons, and produce more consumer goods to provide better material incentives for the labour force.

Unsuccessful attempts were made to reform the economy in 1965, 1973 and 1979.³¹ Plans for industry were made less ambitious, and greater efforts were made to improve calculations using new computers. But plans continued to be inconsistent and, therefore, subject to continual revisions during their implementation. The priority protection system became more formalized in organizations such as the State Planning Committee (Gosplan) and the Military Industrial Commission (MIC). Some civilian branches considered vital for progress (for example natural gas and oil) were awarded high priority status (see Section 4.a). Consumer industries and social services retained their low priority status. In order to accelerate scientific-technological progress, the government established the State Committee of Science and Technology, a national programme of quality control for industrial products (*znak kachestva*), and Scientific-Production Associations through the amalgamation of industrial enterprises, R&D institutes and construction bureaus.³²

Repeated attempts were made to improve the functioning of industrial enterprises. The 1965 Kosygin reforms called for fewer plan targets, new market-linked success indicators (for example sales and profits) and bonuses, decentralization of investment financing and direct horizontal links between firms.³³ However, these reforms did not address

³⁰See Table 13.6 in Davis (1999), *Russia*, pp. 348–349, for a description of the Brezhnev era economic system.

³¹Michael Ellman, *Planning Problems in the USSR. The Contribution of Mathematical Economics to their Solution 1960–1971*, Cambridge: Cambridge University Press (1973); Pekka Sutela, *Economic Thought and Economic Reform in the Soviet Union*, Cambridge: Cambridge University Press (1991).

³²Ron Amann and Julian Cooper (eds.), *The Technological Level of Soviet Industry*, London: Yale University Press (1977); Ron Amann and Julian Cooper (eds.), *Industrial Innovation in the Soviet Union*, London: Yale University Press (1982).

³³Berliner (1976), *Innovation Decision*; Edward A. Hewett, *Reforming the Soviet Economy*, Washington, DC: Brookings Institution (1988); Sutela (1991), *Economic Thought*.

entrenched deficiencies in the economic system and were undermined by a hostile bureaucracy.³⁴ Soviet firms continued to function in a shortage economy, but with weakened ministerial control. Managers took advantage of softening budget constraints to make high wage and bonus payments, launch excessive numbers of investment projects, and neglect the task of improving energy efficiency.

The Brezhnev regime's industrial policies were successful according to some performance indicators. The output of Soviet industry increased three-fold (Table 15-A.1, Appendix) and the production of key commodities, such as natural gas, grew substantially (Table 15-A.2, Appendix). Industry's share of GDP increased from 27 per cent in 1965 to 33 per cent in 1985. Despite plans to develop consumer goods industries, their share of total industrial production remained around 25 per cent. There were failures in programmes to accelerate technological progress, improve industrial efficiency and shift to intensive growth. The average annual growth rates during 1976 to 1980 of the outputs of total industry (1.8 per cent) and machine-building and metalworking (MBMW) (1.3 per cent) were far below their values in the period 1966 to 1970 (6.3 and 7.1 per cent). The dynamic efficiency of Soviet industry, measured by labour and capital productivity, worsened.³⁵

Soviet industrial policies enabled the USSR to catch up with the major industrial countries in terms of manufacturing capacity (see Table 15-A.3, Appendix).³⁶ By 1980 the Soviet Union became the world's leader in

³⁴Gertrude E. Schroeder, 'The Soviet Economy on a Treadmill of "Reforms"', in: US Congress Joint Economic Committee, *Soviet Economy in a Time of Change*, Washington D.C.: USGPO (1979), pp. 312–340; and 'Soviet Economic "Reform" Decreases. More Steps on the Treadmill', in: US Congress Joint Economic Committee, *Soviet Economy in the 1980s. Problems and Prospects*, Washington, D.C.: USGPO (1983), pp. 65–88.

³⁵Dynamic efficiency is measured by the differences between the growth of real output and that of inputs of labour (labour productivity), capital (capital productivity) or their weighted average (total factor productivity) (Gregory and Stuart (1995), *Comparative Economic Systems*, pp. 321–326). The accelerating negative growth of capital productivity in the USSR implies that the leadership persisted in expanding the capital stock despite evidence of a falling rate of return on investment that, in a market economy, would signal the need for contraction.

³⁶Laurie Kurtzweg, 'Trends in Soviet Gross National Product', in: U.S. Congress Joint Economic Committee, *Gorbachev's Economic Plans*, vol. 1, Washington, DC: USGPO (1987), pp. 126–165; Central Intelligence Agency, *The Impact of Gorbachev's Policies on Soviet Economic Statistics*, Washington DC: CIA SOV 88-10049 (1988); Central Intelligence Agency, *Handbook of Economic Statistics, 1991*, Washington DC: CIA CPAS 91-10001 (1991).

the production of crude steel (148 million metric tons (MMT)) and oil (603 MMT). On the negative side, the USSR lagged behind the USA in the sophistication of its manufacturing technologies: by four to six years in microprocessors and by three to five years in computer-operated machine tools.³⁷ Diminishing competitiveness was reflected in a contraction of the small Soviet share of total OECD imports of manufactures (0.8 per cent in 1965). Overall, the Soviet Union was a declining world power in industrial terms by 1980.³⁸

15.4 Impacts of state priorities on sectors of Soviet industry during 1965 to 1980

The priority rankings of industrial sectors and related degrees of protection (see Section 15.2) were important determinants of operating conditions and performance. This feature of the Soviet system is illustrated by the comparison of the high-priority defence industry and low-priority medical industry.

The high-priority Soviet defence industry

Throughout the 1965 to 1980 period, the high-priority status of the Soviet defence industry was a key determinant of its relative success.³⁹ Supra-ministerial bodies (for example the MIC) coordinated the defence programme, and military departments played influential roles in the planning and supply agencies and in the Communist Party's central bureaucracy. Special organizational arrangements were made to achieve high quality in military production (for example by basing military inspectors in factories) and to promote rapid technological innovation (for example by creating powerful weapons design bureaus).

³⁷United States Department of Defense, *Soviet Military Power 1987*, Washington, DC: USGPO (1987).

³⁸Christopher Davis, 'Economic Influences on the Decline of the Soviet Union as a Great Power. Continuity Despite Change', in: David Armstrong and Erik Goldstein (eds.), *The End of the Cold War*, London: Frank Cass (1990b), pp. 81–109.

³⁹Jacques Sapir, *L'Economie Mobilisée*, Paris: Editions La Découverte (1990); Christopher Davis, 'The High-Priority Military Sector in a Shortage Economy', in: Henry S. Rowen and Charles Wolf Jr. (eds.), *The Impoverished Superpower. Perestroika and the Soviet Military Burden*, San Francisco: Institute for Contemporary Studies (1990a), pp. 155–184; Peter Almquist, *Red Forge. Soviet Military Industry since 1965*, New York: Columbia University Press (1990); Christopher Davis, 'The Defence Sector in the Economy of a Declining Superpower. Soviet Union and Russia, 1965–2000', *Defence and Peace Economics* 13, no. 3 (2002), pp. 145–177.

The core of the Soviet defence industry was made up of the 12 ministries and 1,100 enterprises subordinate to MIC.⁴⁰ Supplies of defence firms came from 3,500 civilian factories, most of which operated without high-priority protection. In the mid 1980s, the defence industry labour force (about 10 per cent of the national total) consisted of 7.2 million manufacturing and social sector workers in the MIC network and 2.8 million in the civilian economy. Of these, 4.1 million were involved in military production. The military R&D network contained 900 research institutes and design bureaus. Military foreign trade organizations exported and imported growing quantities of weapons and military equipment. The USSR also had a *spetsinformatsiya* system that was tasked with collecting foreign military-related technology on a covert basis that could help the military and the defence industry.⁴¹

With respect to the priority indicators of Table 15.1, the Soviet leaders' preference ordering was lexicographic, with defence needs being satisfied fully before those of less important branches. The Soviet government tended to respond quickly in its plan formulation to sort out problems that had emerged in the defence industry, and made use of generous norms in defence planning and budgeting. Employees in the defence industry and military R&D received high wages and substantial benefits in kind. During plan implementation, high-level party and state bodies made energetic efforts to ensure that defence goals were achieved. Defence factories had relatively 'soft' budget constraints and usually obtained planned supplies despite the chronic shortages in the civilian economy. Defence industry enterprises were required to maintain large input inventories and reserve production capabilities in connection with war mobilization programmes.

The defence industry produced large and increasing volumes of weapons, reflecting the 'quantity drive' endemic to the shortage economy (see Table 15.3). Each year it produced about 3,000 tanks, 1,200 fighter aircraft and ten submarines.⁴² From 1965 to 1980, there were substantial increases in the annual production of helicopters from 80 to 750 and of surface-to-air missiles from 5,200 to 50,000.

⁴⁰Central Intelligence Agency, *The Soviet Weapons Industry. An Overview*, Washington DC: CIA DI 86-10016 (1986).

⁴¹Central Intelligence Agency, *Soviet Acquisition of Militarily Significant Western Technology. An Update*, Washington DC: CIA (1985).

⁴²Central Intelligence Agency (1986), *The Soviet Weapons Industry*; United States Department of Defense (1987), *Soviet Military Power*; Almquist (1990), *Red Forge*; Davis (2002), *The Defence Sector*.

Table 15.3 Developments in the Soviet defence industry, 1965–1980 (in number of pieces)

	1965	1970	1975	1980
Defence industry production				
ICBMs	100	380	150	200
SAMs	5200	25000	40000	50000
Fighters/fighter bombers	850	1000	1200	1300
Helicopters	80	390	630	750
Tanks	2600	3300	2500	3000
Armed forces military equipment				
Tanks	28000	38000	42000	50000
Ground Forces helicopters	300	800	1550	2000
Air Force fighter/attack aircraft	2300	2850	3550	5000
Major surface combatants	170	221	236	289
ICBMs	281	1472	1469	1338
Total strategic nuclear warheads	882	2327	3565	7488
Military exports				
Total arms exports (in million US \$)	700	2400	4000	17000
Share of world arms exports (in %)	10	28	31	39

Source: Davis (1988b), p. 157.

The Soviet defence industry produced substantial quantities of civilian consumer durables (televisions, calculators), capital equipment (passenger aircraft, railway wagons) and intermediate goods (chemicals, electronic components). By 1980 civilian goods accounted for 40 per cent of the total production of defence firms under the MIC.

Defence industry enterprises and military research institutes became increasingly unable to satisfy the demands of the Soviet armed forces for world-class weapons systems, despite their advantages. One problem was that the growing complexity of weapons production made the defence industry increasingly reliant on civilian branches with low-quality standards. Among other problems were: uneven quality of enterprise management; failures in defence industry planning; flaws in product designs; shoddy workmanship; and slack discipline of employees. Most defence industry managers were risk averse and in favour of continuing production of established weapons systems with relatively simple designs. As a result, the pace of Soviet defence-related technological progress lagged behind that of NATO countries and by 1980 the

USSR had technological superiority over the USA in only four of 29 major deployed weapons systems.

The low-priority Soviet medical industry

The Soviet medical industry (pharmaceuticals and medical equipment) was at the lower end of the priority ranking scale. During 1965 to 1980, medical products were made in several hundred factories in twenty different ministries.⁴³ The most important of these was the Ministry of Medical Industry USSR (MMI), which produced 80 per cent of domestically-consumed medicines and 70 per cent of medical equipment. A second important institution was the Ministry of Health USSR. In 1980 its 83 small factories produced simple pharmacy products. The Main Administration of the Microbiological Industry managed industrial enterprises engaged in the production of antibiotics, vitamins and prepared medicines.

The enterprises of the MMI produced over 6,500 different medical goods in 1975. During 1967 to 1982, 430 medicines and around 1,500 types of medical technology and equipment were introduced into production. The index (1970=100) of total production of the Soviet medical industry rose substantially, from 53 in 1965 to 265 in 1980 (Table 15.4), which reflected a rise in its value from 662 million rubles to 3,302 million rubles. In terms of branch output value, antibiotics was in first place and prepared medicines was in second. However, growth by five-year plan period fell over time, from 88 per cent over 1966 to 1970 to 58 per cent over 1976 to 1980.

An evaluation of the medical industry using the indicators of Table 15.1 indicates that Soviet planners treated this branch as a residual claimant on resources and accepted trade-offs at the margin.⁴⁴ The government did not intervene decisively to correct recognized problems. The plans and budgets of medical industry were based on relatively stingy financial and physical norms/coefficients, and the wages paid to workers were below average for all industry. During plan implementation, there was regular under-fulfilment of plans for outputs, inputs

⁴³Christopher Davis, *Opportunities in the Soviet Pharmaceutical Market*, Richmond: Scrip Country Report (1985); Christopher Davis, *The Soviet Medical Industry during 1970–86. Structure and Performance*, Birmingham: Consulting Report (1986); Christopher Davis, *The Pharmaceutical Industry and Market in the USSR and Its Successor States. From Reform to Fragmentation to Transition*, Richmond: Scrip Country Report (1993).

⁴⁴Davis (1985), *Opportunities*, Davis (1986), *Soviet Medical Industry*, and Davis (1993), *Pharmaceutical Industry*.

Table 15.4 Soviet medical industry production, 1965–1980

	1965	1970	1975	1980
	Production index (1970=100)			
Synthetic medicinal substances	54	100	147	218
Antibiotics and organic preparations	42	100	174	315
Vitamins	39	100	247	395
Prepared medicinal substances	61	100	152	228
Medical equipment	61	100	148	229
Medical glass and plastic products	62	100	159	231
Total output	53	100	168	265
	Production index (start of five year period=100)			
Total output	n.a.	188	168	158

Source: Davis (1985), p. 22.

and investment. The budget constraints of pharmaceutical and medical equipment factories were relatively 'hard' and they were not allowed to maintain large inventories of inputs. The intensity of shortages in this branch was high relative to that in the defence industry.

Due to its functioning as a low-priority branch in a shortage economy, the medical industry was afflicted by serious problems. Many industrial enterprises possessed buildings that were not specifically designed for pharmaceutical production and provided unhygienic, corrosive and cramped working environments. Of the 26 factories which produced prepared medicines in 1975, only four met official building standards. The share of machinery and equipment in the capital stock of the medical industry in 1975 was 41 per cent, versus 46 per cent for all of industry and 55–60 per cent in Western pharmaceutical factories. All medical industry branches used manual labour for tasks that would have been carried out by machines in the West. Much of the machinery and equipment of the industry was obsolete and had little automated control, which generated above-norm repair, raw materials and energy costs. The industry also experienced chronic shortages of intermediate goods. For example, in 1978 the Ministry of Agriculture provided the MMI with only one-third of the planned supply of medicinal herbs. In 1971 the Erevan Chemical-Pharmaceutical Factory remained idle for 262 days because of various shortages of inputs. The industry had poor labour discipline, wide-spread absenteeism, and low labour productivity. In sum, empirical evidence confirms the low-priority status of the Soviet medical industry.

15.5 External aspects of Soviet industrialization

International influence of the Soviet model of industrialization

The Soviet industrial model was influential throughout the world in the post-war period. Variants of the Stalinist political-economic system and its industrial policies were imposed on the occupied countries of Eastern Europe (Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland and Romania). Furthermore, the Soviet approach to industrialization was initially adopted by Albania, China, North Korea and Yugoslavia, although these countries subsequently established their own variants of socialism. From the late 1950s onwards, the Soviet Union became increasingly involved in the Third World and encouraged countries there to base their industry on public ownership, planning, and emphasis on the producer goods branches. Countries that attempted to adapt the Soviet industrial model to their conditions, such as India and Egypt, were supported by technical assistance and subsidized supplies of machinery and equipment.

With respect to Europe, in certain phases of post-war industrial recovery, many countries made use of industrial policies and organizational arrangements that had some similarities to those of the USSR, such as state ownership of heavy industry (steel, coal, electricity, automobile manufacturing, shipbuilding) and use of national planning (although usually it was indicative, rather than compulsory).⁴⁵ Despite the increasingly strong criticisms of Soviet-style industrial arrangements, Europe did not move decisively away from them until the 1980s.

Détente, oil crises and the expansion of USSR industrial trade in the 1970s

Until 1970, Soviet hard-currency industrial trade with the West was modest in scale and tended to generate small deficits and modest hard currency debt (about \$600 million in 1971), as shown in Table 15.5.⁴⁶ The share of energy in total exports (22 per cent) was three times greater

⁴⁵James Foreman-Peck and Giovanni Federico (eds.), *European Industrial Policy. The Twentieth-Century Experience*, Oxford: Oxford University Press (1999); Davis (1999), *Russia*.

⁴⁶William H. Cooper, 'Soviet-Western Trade' in: US Congress Joint Economic Committee, *Soviet Economy in the 1980s. Problems and Prospects*, Part 2, Washington, DC: USGPO (1983), pp. 454–478; John McIntyre, 'The U.S.S.R.'s Hard Currency Trade', in: U.S. Congress Joint Economic Committee, *Gorbachev's Economic Plans*, Vol. 2, Washington, DC: USGPO (1987), p. 478.

Table 15.5 Developments in Soviet hard currency trade, 1970–1980 (in million US \$)

	1970	1975	1980
Exports			
Total	2405	9453	27874
Oil	387	3170	12123
Natural gas	1	220	2710
Machinery and equipment	123	450	1227
Imports			
Total	2711	14257	26060
Agricultural products	613	3914	8804
Machinery and equipment	927	4593	6039
Trade balance			
Total	–306	–4804	1814

Source: John McIntyre (1987), p. 478.

than that of machinery and equipment (6 per cent), whereas machinery and equipment made up 34 per cent of imports.

In the new era of détente in the early 1970s, socialist countries were given better access to Western trade credits and technology. Several countries, including the USSR, adopted variants of the ‘import-led growth’ strategy, which resulted in them borrowing funds to purchase larger quantities of Western machinery and equipment in the hope that this would enable them to modernize their industry and eventually to pay off their debts by exporting more competitive manufactures to hard-currency markets.⁴⁷

However, the Soviet trade pattern changed radically as a result of the substantial increases in energy prices following the OPEC embargo in 1974 and the Iranian revolution in 1979. Soviet terms-of-trade improved by 12 per cent in 1973, 48 per cent in 1974 and 34 per cent in 1979. Largely as a result of favourable price changes, the value of Soviet exports of energy products rose from \$388 million in 1970, to \$3,390 million in 1975, and then to \$14,833 million in 1980. This enabled the

⁴⁷ Philip Hanson, ‘The End of Import-Led Growth? Some Observations on Soviet, Polish and Hungarian Experience in the 1970s’, *Journal of Comparative Economics* 6, no. 2 (1982), pp. 130–147.

USSR to increase its imports of Western machinery and equipment from \$927 million in 1970 to \$6,039 million in 1980.

15.6 Hidden processes in the Soviet economy

The second economy (SE) and Soviet industry

In the post-war period, the USSR had a substantial SE that involved industrial firms as both customers and suppliers.⁴⁸ The economy was chronically afflicted by excess demand disequilibria in official markets and resultant shortages of goods and services due to policy errors, inaccurate planning, rigidity of prices and economic shocks (for example harvest failures).⁴⁹ The unmet demand in official markets spilled over into flexible price private markets, which were motivated to supply desired goods and services by substantial rewards in cash and kind, despite risks. The SE was able to produce and distribute commodities because of slack social control, corruption, and widespread theft of materials, capital equipment and labour time.

The size of the Soviet SE was difficult to measure, but one authoritative study based on large surveys of family budgets estimated that between 1969 and 1990, 13–20 per cent of household incomes came from the second economy and 19–27 per cent of expenditures were made in it.⁵⁰ In 1980, ‘informal’ production of all types accounted for about 13 per cent of GDP.

Industrial firms engaged in both quasi-legal and illegal SE activities. The former category included the barter trade in capital and intermediate goods that was carried out between firms by their *tolkachi* (fixers) to overcome the deficiencies in the industrial goods rationing system by moving surplus inventories in one firm to another with shortages to enable the latter to fulfill plan targets.⁵¹ A second type of industrial

⁴⁸The Berkeley-Duke project on, ‘The Second Economy of the USSR’ generated 51 Occasional Papers that are listed at <http://public.econ.duke.edu/Papers/Treml.BDOP.html> (date accessed 20 February 2013) and provide substantial information.

⁴⁹Davis (1988), *The Second Economy*.

⁵⁰Byung-Yeon Kim, *Fiscal Policy and Consumer Market Disequilibrium in the Soviet Union, 1965–1989*, Oxford: University of Oxford (1996); Byung-Yeon Kim, ‘Informal Economy Activities of Soviet Households. Size and Dynamics’, *Journal of Comparative Economics* 31, no. 3 (2003), pp. 532–551.

⁵¹These practices were studied theoretically by Richard Ericson, ‘The “Second Economy” and Resource Allocation under Central Planning’, *Journal of Comparative Economics* 8, no. 1 (1984), pp. 1–24, and some empirical evidence has been provided

activity was the 'shadow' production in state factories that was for illegal private trade and was based on the diversion (theft) of state property. This involved the falsification of production and supply records and the bribing of the regulatory agencies. According to Trembl and Alexeev, these practices weakened the mechanisms of central control and planning by distorting information about the true state of the economy and thereby contributed to growing de-stabilization in the 1980s.⁵²

Negative value added (NVA) in Soviet industry

Despite the substantial increases in world-market prices for energy in the 1970s, the Soviet Union did not significantly raise its domestic ruble prices of energy products, so substantial differences developed between these prices. A Soviet study in the late 1980s converted domestic ruble prices into world prices using a numeraire based on 1,000 kilowatt hours of electricity. This showed that the Soviet ruble price of oil was 32 per cent of the world price, whereas a screw-cutting lathe was 134 per cent of its world-market price and a colour television set was 300 per cent. The absence of feedback to firms that energy had become relatively more expensive contributed to increasing energy inefficiency in production processes. The energy usage to GDP elasticity remained greater than 1.0 throughout the 1970s.

The concept of NVA was popularized by McKinnon in the late 1980s, at a time when the command economies were collapsing and attention was focused on the economic transition process.⁵³ As a result, most empirical studies of NVA have focused on command economies in the late 1980s, or on transition economies in the early 1990s. For example, a study by Hughes and Hare found that there were NVA industries in three command economies in the late 1980s: Czechoslovakia (food processing, tobacco products, leather products), Hungary (food processing, iron and steel) and Poland (food processing, basic chemicals, cement

in the studies of Gregory Grossman, 'The "Shadow Economy" in the Socialist Sector of the USSR', in: *NATO Economics Directorate Colloquium, The CMEA Five-Year Plans (1981-1985) in New Perspective*, Brussels: NATO (1982), pp. 99-115, and Aron Katsenelinboigen, 'Coloured Markets in the Soviet Union', *Soviet Studies* 29, no. 1 (1977), pp. 62-85.

⁵²Vladimir G. Trembl and Michael V. Alexeev, 'The Growth of the Second Economy in the Soviet Union and its Impact on the System', in: Robert W. Campbell (ed.), *The Postcommunist Economic Transformation. Essays in Honor of Gregory Grossman*, Boulder, CA: Westview Press (1994), pp. 221-247.

⁵³McKinnon (1991), *Foreign Trade*.

and non-ferrous metals).⁵⁴ In the case of the USSR, the 1991 study by Duchene and Senik-Legionie calculated that four industrial sectors exhibited NVA in the late 1980s: food processing, consumer manufactures, construction, and chemicals. Similar results were obtained by Thornton and Mikheeva in their detailed 1991 study of the Far East region of the USSR in the same period. In sum, although there has not been a thorough study of the scale of NVA in Soviet industry in the second half of the 1970s, it is highly likely that it became a significant problem in a number of important industries.

Extraction and management of rents from the energy industry and their use in subsidizing Soviet industry

Rent extraction (RE) is the third 'hidden' industrial process.⁵⁵ Gaddy and Ickes have estimated that the magnitude of rents from the energy industry increased dramatically from the second half of the 1970s due in part to increases in natural gas production, but more importantly to the increases in energy prices (see Figure 15.3). These rents were close to zero in the early 1970s, but soared thereafter to about \$100 billion (2005 dollars) in 1976 to a peak of about \$340 billion (2005 dollars) in 1981, which was equivalent to 40 per cent of Soviet GDP.

An important task for the Soviet political leadership in the 1970s was to manage the transfer of value created in the resource sector to subsidize other components of the economy: NVA and unprofitable branches of Soviet industry and agriculture, living standards, and the economies of Eastern Europe. These transfers were concealed by the use of arbitrary ruble prices in measuring resource flows.

Soviet industry and the implicit subsidization of Eastern Europe

Soviet foreign trade was carried out on a relatively small scale in the 1960s. It was conducted on a bi-lateral basis using quantity-oriented plans and measured in transferable rubles. Turnover doubled in value over the decade from 10.1 to 22.1 billion rubles, with exports and imports evenly balanced. Machinery and equipment accounted for 22 per cent of USSR exports and 35 per cent of imports, whereas energy shares were 16 per cent and 2 per cent. In 1970 the socialist countries'

⁵⁴Gordon Hughes and Paul Hare, 'Industrial Policy and Restructuring in Eastern Europe', *Oxford Review of Economic Policy* 8, no. 1 (1992), pp. 82–104.

⁵⁵Gaddy and Ickes (2005), 'Resource Rents', and Clifford Gaddy and Barry Ickes, 'Russia after the Global Financial Crisis', *Eurasian Geography and Economics* 51, no. 3 (2010), pp. 281–311.

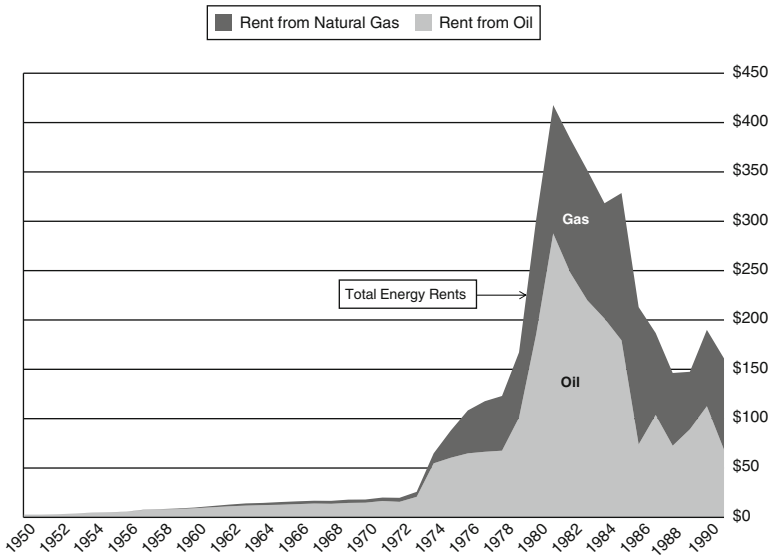


Figure 15.3 Estimates of rents extracted from the Soviet oil and gas industries, 1970–1990

Source: Prepared by the author from estimates made by Clifford Gaddy and Barry Ickes for their publication Gaddy and Ickes 2013.

share of Soviet exports and imports was 65 per cent, and this trade had a stable commodity composition.⁵⁶ CMEA foreign trade prices were supposed to be related to past world-market relative prices and stable over a five-year plan period.

During the period between 1970 and 1980, Soviet exports increased from 11.5 to 49.6 billion rubles, primarily due to rising energy prices, and imports rose from 10.6 to 44.5 billion rubles. The share of energy in total USSR exports increased to 47 per cent. The machinery and equipment share of total USSR imports declined slightly to 34 per cent, but it remained a high 44 per cent of imports from socialist countries. The socialist countries' share of Soviet trade turnover dropped to 53 per cent as both the USSR and Eastern Europe became more involved with the developed West.

During the initial years after the oil price shock of 1974, the CMEA continued to base its transferable ruble prices on conversions of

⁵⁶Josef M. van Brabant, *Socialist Economic Integration*, Cambridge: Cambridge University Press (1980); Marrese and Vanous (1983), *Soviet Subsidization*.

averages of 1966 to 1970 world-market prices. However, the CMEA pricing mechanism increasingly tended to overvalue substandard Eastern European machinery shipped to the USSR and undervalue Soviet energy exports. As a result, the Soviet Union unintentionally provided Eastern European countries with subsidies in world market terms that rose by a factor of four in 1974 to \$6.3 billion and remained high for the next several years. Another surge in energy prices at the end of the decade resulted in these subsidies rising again in 1980.⁵⁷ This meant that in the 1970s rents extracted from the Soviet energy industry not only subsidized domestic economic activities, but provided generous support to other socialist economies.

15.7 Conclusions about Soviet industrial policies and performance, 1945–1980

In the post-war period, Soviet industrial policies and the pattern of industrialization in the USSR had both distinctive features and similarities with those in other European countries. The USSR was committed to maximal state intervention and therefore occupied an extreme position in the spectrum of industrial policies. The success of its policies varied over time, as did foreign perceptions. For many years, Soviet ideology and theories concerning industrial ownership, structure, priorities, and labour relations exerted powerful influences on debates and practices in Western Europe. Soviet industrial policies played a key role in transforming a backward economy into a powerful, modern one capable of producing advanced civilian machinery and weapons. One result was that the USSR became a major market for European industrial exports. Another was that it increasingly posed political and military challenges that caused post-war European states to allocate substantial resources to the development of their armaments industries in order to maintain deterrent military capabilities.

The USSR was successful in achieving a number of its major goals of industrial policy. It accelerated the growth of industrial output, increased the share of industry in the economy, raised the share of heavy industry in total industry, expanded the capacity of the defence industry, developed some advanced military technologies and altered the regional distribution of industry to satisfy state-determined criteria. The instruments used to achieve these objectives included central planning,

⁵⁷Marrese and Vanous (1982), 'Soviet Policy Options'.

the priority protection system, government investment, rationing of key commodities, subsidies of industrial firms and sectors, protectionism using tariffs and the state monopoly of foreign trade, and covert acquisition of Western technology.

However, there were many deficiencies in the Soviet industrialization process: growth in industrial output was achieved on an 'extensive' basis; features of the economic system generated chronic inefficiency and shortages in the industrial sector; technological standards remained lower than those in capitalist economies; Soviet manufactures failed to achieve competitiveness in open markets; and branches of industry generated NVA. Some of these problems were temporarily alleviated by the priority protection arrangements or masked by the 'rent management system'. But by the late 1970s the sub-standard performance of industry was imposing growing burden on the Soviet economy and contributing to the 'stagnation' that eventually undermined the existence of the USSR.

Appendix

Table 15-A.1 Features of industry in the USSR, 1945–1980

	Unit	1945	1950	1960	1970	1980
Industrial output index	1913=100	302.3	427.1	1038.5	–	–
Industrial output index	1970=100	–	–	–	100.0	157.8
Industrial output index	1989=100	–	–	–	47.2	74.4
Industry share of GDP	in %	34.6	30.0	32.0	32.0	36.8
Industry share of investment	in %	33.8	43.5	36.0	35.2	35.3
Industry employment	millions	11.7	15.3	22.6	31.6	36.9
Civilian labour force	millions	76.0	97.6	110.1	125.6	147.3
Industry share of labour force	in %	15.4	15.7	20.5	25.2	25.1
Producer goods share of industrial output	in %	74.9	68.8	72.5	73.4	73.8
Consumer goods share of industrial output	in %	25.1	31.2	27.5	26.6	26.2

Sources: Christopher Davis (1999), pp. 319–397 provides detailed notes on the sources and methods used to calculate these indicators. The information is not repeated here due to space constraints.

Table 15-A.2 Production of industrial commodities in the USSR, 1945–1980

	Unit	1945	1950	1960	1970	1975	1980
Steel	mill. tons	12.3	27.3	65.3	115.9	141.0	148.0
Iron ore	mill. tons	15.9	39.7	105.9	195.5	233.0	245.0
Cast iron	mill. tons	8.8	19.2	46.8	85.9	103.0	107.0
Oil	mill. tons	19.4	37.9	147.9	353.0	491.0	603.0
Coal	mill. tons	149.3	261.1	513.2	624.1	701.0	716.0
Electricity	bill. kwhs	43.3	91.2	292.3	740.9	1039.0	1295.0
Natural gas	bill. met. cub.	3.4	6.2	47.2	197.9	270.0	406.0
Automobiles	thousand	5.0	64.6	138.8	344.2	1201.0	1327.0
Tractors	thousand	7.7	116.7	238.5	459.0	550.4	555.0
Cement	mill. tons	1.8	10.2	45.5	95.2	122.0	125.0
Cotton fabrics	bill. met. sq.	1.1	2.7	4.8	6.2	6.6	7.1

Sources: Christopher Davis (1999), pp. 319–397 provides detailed notes on the sources and methods used to calculate these indicators. The information is not repeated here due to space constraints.

Table 15-A.3 International comparisons of industrialization in the USSR in 1939, 1970 and 1980

USSR and leading industrial powers in 1939											
Country	Population (millions)	GDP per capita index (USA=100)	Industry share of GDP (%)	Industry share employment (%)	Steel output (MMT)	Oil production (MMT)	Electricity production (BKwHr)	Cotton fabrics (bill. M Sq)	Automobile production (thousands)	Share of manufacturing of top 20 countries (%)	Ratio of manufacturing output (USA=100)
USSR	180.6	34.1	31.0	16.1	17.6	30.3	43.2	2.6	20	9.8	28.8
USA	130.9	100.0	29.5	21.5	28.8	170.9	161.3	7.9	2889	34.0	100.0
Japan	71.4	41.2	32.3	23.3	7.0	0.4	34.1	2.9	2	5.7	16.7
Germany	43.4	84.5	50.0	35.4	23.7	0.7	61.4	1.9	275	13.8	40.7
France	41.9	72.3	36.0	27.1	8.0	0.0	22.1	1.4	182	4.8	14.0
Italy	43.9	52.4	31.0	22.8	2.3	0.0	18.4	1.1	59	3.0	8.9
UK	48.0	91.0	36.0	29.7	13.4	0.0	35.8	3.5	305	11.7	34.3
USSR and leading industrial powers in 1970											
Country	Population (millions)	GDP per capita index (USA=100)	Industry share of GDP (%)	Industry share employment (%)	Steel output (MMT)	Oil production (MMT)	Electricity production (BKwHr)	Cotton fabrics (bill. M Sq)	Automobile production (thousands)	Share of manufacturing of top 20 countries (%)	Ratio of manufacturing output (USA=100)
USSR	242.8	37.5	32.0	26.6	115.9	353.0	740.9	6.7	344	18.0	59.6
USA	205.1	100.0	29.5	26.8	119.3	475.3	1742.7	6.8	6547	30.2	100.0
Japan	104.3	63.6	32.5	27.7	93.3	0.8	359.5	2.6	3179	8.7	29.0
West Germany	60.7	80.3	39.6	41.2	45.0	7.5	242.6	0.9	3528	8.4	27.7
France	50.8	77.8	31.3	28.6	23.8	2.3	147.0	1.4	2458	5.8	19.2
Italy	53.7	64.0	34.5	27.7	17.3	1.4	117.4	0.8	1720	3.5	11.5
UK	55.6	72.0	32.1	37.2	28.3	0.1	249.1	0.7	1641	4.2	13.9

USSR and leading industrial powers in 1980

Country	Population (millions)	GDP per capita index (USA=100)	Industry share of GDP (%)	Industry share of employment (%)	Steel output (MMT)	Oil production (MMT)	Electricity production (BKwHr)	Cotton fabrics (bill. M Sq)	Automobile production (thousands)	Share of manufacturing of top 20 countries (%)	Ratio of manufacturing output (USA=100)
USSR	265.5	35.2	36.8	27.1	147.9	603.0	1293.9	7.1	1327	15.4	70.4
USA	227.7	100.0	29.0	22.5	101.5	430.0	2437.8	4.0	6376	21.9	100.0
Japan	116.8	71.8	39.4	24.9	111.4	0.5	577.5	2.1	7038	14.5	66.1
West Germany	61.6	84.0	37.5	34.5	43.8	4.7	368.8	0.7	3512	10.8	49.2
France	53.9	82.5	31.7	25.5	23.2	1.4	243.3	0.9	3487	6.3	28.9
Italy	56.5	71.9	36.5	25.7	26.5	1.8	185.7	0.9	1445	5.2	23.9
UK	56.0	69.9	31.6	29.4	11.3	78.4	284.9	0.4	924	5.0	22.9

Source: Christopher Davis (1999), pp. 319-397 provides detailed notes on the sources and methods used to calculate these indicators. The information is not repeated here due to space constraints.

References

- Almquist, Peter, *Red Forge: Soviet Military Industry since 1965*, New York: Columbia University Press (1990).
- Amann, Ron and Julian Cooper (eds.), *The Technological Level of Soviet Industry*, London: Yale University Press (1977).
- Amann, Ron and Julian Cooper (eds.), *Industrial Innovation in the Soviet Union*, London: Yale University Press (1982).
- Berliner, Joseph S., *Factory and Manager in the USSR*, Cambridge, MA: Harvard University Press (1957).
- Berliner, Joseph S., *The Innovation Decision in Soviet Industry*, Cambridge, MA: MIT Press (1976).
- Central Intelligence Agency, *Soviet Acquisition of Militarily Significant Western Technology: An Update*, Washington, DC: CIA (1985).
- Central Intelligence Agency, *The Soviet Weapons Industry: An Overview*, Washington, DC: CIA DI 86-10016 (1986).
- Central Intelligence Agency, *The Impact of Gorbachev's Policies on Soviet Economic Statistics*, Washington, DC: CIA SOV 88-10049 (1988).
- Central Intelligence Agency, *Handbook of Economic Statistics: 1991*, Washington, DC: CIA CPAS 91-10001 (1991).
- Converse, Ray, 'An Index of Industrial Production in the USSR', in: U.S. Congress Joint Economic Committee, *USSR: Measures of Economic Growth and Development, 1950-80*, Washington, DC: USGPO (1982), pp. 169-244.
- Cooper, William H., 'Soviet-Western Trade', in: U.S. Congress Joint Economic Committee, *Soviet Economy in the 1980's: Problems and Prospects*, Part 2, Washington, DC: USGPO (1983), pp. 454-478.
- Davis, Christopher, *Opportunities in the Soviet Pharmaceutical Market*, London: Scrip Country Report (1985).
- Davis, Christopher, *The Soviet Medical Industry During 1970-86: Structure and Performance*, Birmingham: Consulting Report (1986).
- Davis, Christopher, 'The Second Economy in Disequilibrium and Shortage Models of Centrally Planned Economies', *Berkeley-Duke Occasional Papers on the Second Economy in the USSR*, No. 12 (1988a).
- Davis, Christopher, 'The High Priority Defense Industry in the Soviet Shortage Economy', Palo Alto: Paper Presented at the Hoover-Rand Conference on "The Defense Sector in the Soviet Economy", (1988b).
- Davis, Christopher and Wojciech Charemza (eds.), *Models of Disequilibrium and Shortage in Centrally Planned Economies*, London: Chapman and Hall (1989).
- Davis, Christopher, 'Priority and the Shortage Model: The Medical System in the Socialist Economy', in: Davis, Christopher and Wojciech Charemza (eds.), *Models of Disequilibrium and Shortage in Centrally Planned Economies*, London: Chapman and Hall (1989), pp. 427-459.
- Davis, Christopher, 'The High-Priority Military Sector in a Shortage Economy', in: Rowen, Henry S. and Charles Wolf Jr. (eds.), *The Impoverished Superpower: Perestroika and the Soviet Military Burden*, San Francisco: Institute for Contemporary Studies (1990a), pp. 155-184.
- Davis, Christopher, 'Economic Influences on the Decline of the Soviet Union as a Great Power: Continuity Despite Change', in: Armstrong, David and

- Erik Goldstein (eds.), *The End of the Cold War*, London: Frank Cass (1990b), pp. 81–109.
- Davis, Christopher, 'The Pharmaceutical Industry and Market in the USSR and Its Successor States: From Reform to Fragmentation to Transition', *Scrip Country Report* (1993).
- Davis, Christopher, 'Russia: A Comparative Economic Systems Interpretation', in: Foreman-Peck, James and Giovanni Federico (ed.), *European Industrial Policy: The Twentieth-Century Experience*, Oxford: Oxford University Press (1999), pp. 319–397.
- Davis, Christopher, 'The Defence Sector in the Economy of a Declining Superpower: Soviet Union and Russia, 1965–2000', *Defence and Peace Economics*, 13, no. 3 (2002), pp. 145–177.
- Davis, Christopher, 'Hidden Processes in Soviet Industry, 1965–1991: Second Economy, Negative Value Added, Rent Extraction and Trade Subsidization', Oxford: Oxford Economic and Social History Working Papers (2014).
- Ellman, Michael, *Planning Problems in the USSR: The Contribution of Mathematical Economics to their Solution 1960–1967*, Cambridge: Cambridge University Press (1973).
- Ellman, Michael, *Socialist Planning*, 2nd ed., Cambridge: Cambridge University Press (1988).
- Ericson, Richard, 'The "Second Economy" and Resource Allocation under Central Planning', *Journal of Comparative Economics*, 8, no. 1 (1984), pp. 1–24.
- Ericson, Richard, *Priority, Duality and Penetration in the Soviet Command Economy*, Santa Monica: RAND Working Draft, WD-3445-NA (1988).
- Foreman-Peck, James and Giovanni Federico (eds.), *European Industrial Policy: The Twentieth-Century Experience*, Oxford: Oxford University Press (1999).
- Gaddy, Clifford and Barry Ickes, 'Resource Rents and the Russian Economy', *Eurasian Geography and Economics*, 46, no 8 (2005), pp. 559–583.
- Gaddy, Clifford and Barry Ickes, 'Russia after the Global Financial Crisis', *Eurasian Geography and Economics*, 51, no. 3 (2010), pp. 281–311.
- Gaddy, Clifford and Ickes, Barry 'Russia's Dependence on Resources'. In *The Oxford Handbook of the Russian Economy*, edited by Michael V. Alexeev and Shlomo Weber, Oxford: Oxford University Press (2013).
- Greenslade, Rush V., 'Industrial Production Statistics in the USSR', in: Trembl, Vladimir G. and John P. Hardt (eds.), *Soviet Economic Statistics*, Durham: Duke University Press (1972), pp. 155–194.
- Gregory, Paul R. and Robert C. Stuart, *Comparative Economic Systems*, 5th ed., Boston: Houghton Mifflin (1995).
- Grossman, Gregory, *Soviet Statistics on Physical Output of Industrial Commodities*, Princeton: Princeton University Press (1960).
- Grossman, Gregory, 'The "Second Economy" of the USSR', *Problems of Communism* 26, no. 5 (1977), pp. 25–40.
- Grossman, Gregory, 'The "Shadow Economy" in the Socialist Sector of the USSR', in: NATO Economics Directorate Colloquium, *The CMEA Five-Year Plans (1981–1985) in New Perspective*, Brussels: NATO (1982), pp. 99–115.
- Hanson, Philip, 'The End of Import-Led Growth? Some Observations on Soviet, Polish and Hungarian Experience in the 1970s', *Journal of Comparative Economics* 6, no. 2 (1982), pp. 130–147.

- Harrison, Mark, 'Soviet Economic Growth since 1928: The Alternative Statistics of G.I. Khanin', *Europe-Asia Studies* 45, no. 1 (1993), pp. 141–167.
- Harrison, Mark, 'Soviet Industrial Production, 1928–1955: Real Growth, Hidden Inflation and the "Unchanged Prices" of 1926/27', *Discussion Paper*: Department of Economics. Warwick: University of Warwick (1998).
- Hewett, Edward A., *Reforming the Soviet Economy*, Washington, DC: Brookings Institution (1988).
- Hughes, Gordon and Paul Hare, 'Industrial Policy and Restructuring in Eastern Europe', *Oxford Review of Economic Policy* 8, no. 1 (1992), pp. 82–104.
- Katsenelinboigen, Aron, 'Coloured Markets in the Soviet Union', *Soviet Studies* 29, no. 1 (1977), pp. 62–85.
- Kim, Byung-Yeon, 'Fiscal Policy and Consumer Market Disequilibrium in the Soviet Union, 1965–1989', Oxford: University of Oxford, D.Phil. Dissertation (1996).
- Kim, Byung-Yeon, 'Informal Economy Activities of Soviet Households: Size and Dynamics', *Journal of Comparative Economics*, 31, no. 3 (2003), pp. 532–551.
- Kornai, Janos, *Overcentralization in Economic Administration: A Critical Analysis Based on Experience in Hungarian Light Industry*, Oxford: Clarendon Press (1959).
- Kornai, Janos, *Economics of Shortage*, Amsterdam: North-Holland (1980).
- Kornai, Janos, *The Socialist System: The Political Economy of Communism*, Oxford: Clarendon Press (1992).
- Kurtzweg, Laurie, 'Trends in Soviet Gross National Product', in: U.S. Congress Joint Economic Committee, 'Gorbachev's Economic Plans: Volume 1', Washington, DC: USGPO (1987), pp. 126–165.
- Marrese, Michael and Jan Vanous, 'Soviet Policy Options in Trade Relations with Eastern Europe', in: U.S. Congress Joint Economic Committee, *Soviet Economy in the 1980's: Problems and Prospects*, Part 1, Washington, DC: USGPO (1982), pp. 102–116.
- Marrese, Michael and Jan Vanous, *Soviet Subsidization of Trade with Eastern Europe: A Soviet Perspective*, Berkeley: Institute of International Studies (1983).
- McIntyre, John, 'The U.S.S.R.'s Hard Currency Trade and Payments Position', in: U.S. Congress Joint Economic Committee, *Gorbachev's Economic Plans: Volume 2*, Washington, DC: USGPO (1987), pp. 489–503.
- McKinnon, Ronald, 'Foreign Trade, Protection, and Negative Value Added in a Liberalizing Socialist Economy', in: McKinnon, Ronald, *The Order of Economic Liberalization*, Baltimore: Johns Hopkins Press (1991), pp. 162–186.
- Nove, Alec, *An Economic History of the USSR*, 2nd ed., Harmondsworth: Penguin Books (1989).
- Rutland, Peter, *The Myth of the Plan: Lessons of Soviet Planning Experience*, La Salle: Open Court (1985).
- Sapir, Jacques, *L'Economie Mobilisée*, Paris: Editions La Découverte (1990).
- Schroeder, Gertrude E., 'The Soviet Economy on a Treadmill of "Reforms"', in: U.S. Congress Joint Economic Committee, *Soviet Economy in a Time of Change: Volume 1*, Washington, DC: USGPO (1979), pp. 312–340.
- Schroeder, Gertrude E., 'Soviet Economic "Reform" Decrees: More Steps on the Treadmill', in: U.S. Congress Joint Economic Committee, *Soviet Economy in the 1980's: Problems and Prospects*, Part 1, Washington, DC: USGPO (1983), pp. 65–88.
- Sutela, Pekka, *Economic Thought and Economic Reform in the Soviet Union*, Cambridge: Cambridge University Press (1991).

- Trembl, Vladimir G. and Michael V. Alexeev, 'The Growth of the Second Economy in the Soviet Union and Its Impact on the System', in: Campbell, Robert W. (ed.), *The Postcommunist Economic Transformation. Essays in Honor of Gregory Grossman*, Boulder: Westview Press (1994), pp. 221–247.
- United States Department of Defense, *Soviet Military Power 1987*, Washington, DC: USGPO (1987).
- Van Brabant, J., *Socialist Economic Integration*, Cambridge: Cambridge University Press, (1980).
- Zaleski, Eugene, *Stalinist Planning for Economic Growth, 1933–1952*, London: Macmillan (1980).

Index

Page numbers in *italics* refer to Figures
Page numbers in **bold** refer to Tables

- ACP (African, Caribbean and Pacific) states 239, 256–74
agreements 257–9
international trade 259–65
Kingston Conference 267–70
start of negotiations 265–7
towards final agreement 270–1
- Africa **78**, 78–9, 236–53, 256–8, **260**, **263**, 271–4
EEC industrial financing **258**
see also ACP (African, Caribbean and Pacific) states
- AGIP 147
- agriculture 22, 202, 206
ACP states 256, 258, **261**, 265, 267, 271
France 34, 69–70, 71–2, 74, 83
GDR 301, 312
Hungary 323, 325, 330–1, 333
Italy **135**, **154**
Soviet Bloc 281–2, 285–7, 289, 294, 296
Spain 167, **168**, 169
UK 22, **50**, **51**, 287
USSR 349, 361
West Africa 237, 239, 241–2, 247
West Germany 90, 91, 106, 107
- Airbus 230, 232, 233
- Albania 21, 285, 357
- Albert, Michel 224, 225
- Algeria 77, 78, **78**, 79
- aluminium industry 25, 36
Hungary 323, 324, 327, 328, 329
- American Motors **219**
- Andriessen, Frans 231–2
- Ariane 233
- ASEA 118, 130
- Asia **260**, 261, 262
- Asian Middle East **260**
- Associated African States and Madagascar (AASM) 257, **258**
- Association of the Overseas' Countries and Territories to the EEC 237–9, 241
- ATR 233
- Attlee, Clement 48, 49
- Audi 177
- Austria 39, 41, 280, 284, 289
electricity production 26
GDP 21, 43, **135**
industrial production 18, 19, 20
integration and convergence 19, 20, 21
national security 30, 31
planning 35, 37, 38
steel industry 25
- automotive industry 39, 219, **219**, **366–7**
France 39, 74, 80, 219, **219**, **366–7**
Germany 15–16, 39, 219, 219, 246, **366–7**
Hungary 323, 326, 327, 328, 329
Italy **219**, **366–7**
Japan **219**, **366–7**
Spain 169, 174, 176–7, 177, 178, 180
truck manufacturing 244, 245, 292
UK 39, 55, 58, **219**, 219, **366–7**
USSR **366–7**
- Bahamas 262
- Balogh, Thomas 51, 52, 53–4, 57–9, 65
- Barnett, Joel 62, 63
- Barre, Raymond 223, 224
- Barroso, JMD 1
- Basic Oxygen Furnace 25
- Belgium 214, 216, 229, 257

- colonialism 188, 238, 257
- electricity production 26
- GDP 21, 43, 135
- industrial production 18, 18, 19, 20
- integration and convergence 19, 20, 21
- national security 31, 31
- original member of EEC 69, 79, 214
- planning 33, 35, 36, 37, 38
- steel industry 25
- Belot index 36, 37, 37, 38
- Benelux 165, 188
- Benn, Tony 55, 57, 60–2
- Berliet 245–6
- Bizonia 199
- Borsod Chemical Combine 327
- Bourquin, Maurice 198–9
- Brandt, Willy 221, 250
- Braun, Fernand 225
- Brazil 2
- Bretton Woods Institutions (BWI) 206
- Bretton Woods system 24, 33, 64, 75–6
- Brezhnev, Leonid 349, 350, 351
- Briggs, Minister of Commerce (Nigeria) 265
- British Leyland 55, 62
- British Motors 219
- Brittan, Samuel 60
- Brown-Boverly 130
- Bucy Report 291
- Bulgaria 288, 289, 292, 297, 357
 - GDP 21
 - industrial production 18
 - integration and convergence 21, 21
- Cabou, Daniel 250
- Caisse des Dépôts et Consignations 74
- Callaghan, James 52, 53, 54
- Cambridge School 58
- Cameroon 240, 241
- capitalism 4, 224
 - GDR 313
 - Marshall Plan 197, 205
 - Soviet Bloc 282, 284, 289
 - Spain 164, 165, 168, 169
 - Sweden 114
 - UK 49
 - USSR 339, 345, 364
- Caribbean states 259, 262, 263, 265, 271
- cartels 27, 34, 35, 40–1
 - crisis 79, 231
- Cassa per il Mezzogiorno (CASMEZ) 142
- Central and Eastern Europe (CEE) 209, 280, 281, 285, 288, 334
 - GDP 286, 297
- Centre for Industrial Development 271
- CEPAL 201
- chemical industry 40, 54
 - ACP 261, 262
 - France 74
 - GDR 303, 304, 306, 308, 310, 311, 312
 - Hungary 323, 324, 326–7, 328–9, 329
 - Italy 144, 147, 154, 155
 - Soviet Bloc 288, 293
 - Spain 174, 175, 177, 178
 - USSR 338, 340, 354, 356, 360–1
 - West Germany 107
- China 2, 287, 357
- Chrysler 219
- Citroën 219, 246
- Citroën-PSA 176, 177
- Clay, Lucius D 206
- coal industry and mining 24, 27, 96–8, 206, 216, 228
 - Denmark 25
 - France 72, 74, 206
 - GDR 303, 312
 - Germany 206, 228
 - Hungary 324, 326, 327, 329, 330, 334
 - Soviet Bloc 283, 287–8
 - Spain 22
 - state-owned industries 38–9, 48–9, 74, 90
 - Sweden 114, 119, 120, 125, 126, 128
 - UK 48–9, 292
 - West Germany 28, 28, 36, 90–2, 94, 96–8, 100–2, 107–8
- see also* European Coal and Steel Community (ECSC)

- Cold War 3–4, 7, 17, 44, 188, 207, 214
 colonies 238
 GDR 317
 international organizational
 innovation 201, 202
 leading ideas 204, 206
 Marshall Plan 192, 195, 196, 197
 Soviet Bloc 288, 291
 collectivization 282–3, 286, 290, 296, 331
 Colonna di Paliano, Guido 223–4, 225–6, 233
 Colonna Report (1970) 226–7, 229
 Comecon (Council of Mutual Economic Aid) 6, 197, 285, 291–2
 Hungary 326, 327
 Commissariat Général au Plan (CGP) 73–4
 Common Agricultural Policy (CAP) 4, 79, 220, 221, 233
 Common Market 16, 24, 187, 206, 213, 217
 competition 41
 GDP growth 42, 42, 43
 Marshall Plan 195
 shipbuilding 99–100
 Spain 177, 177
 transportation 27
 see also European Economic Community (EEC); European Union (EU)
 communications 1, 287, 290, 296
 see also telecommunications
 communism 40, 297
 CCE 285
 GDR 302
 Hungary 323, 330–1, 333
 Marshall Plan 195, 197, 204
 Soviet Bloc 285, 297
 USSR 339, 343
 Compagnie Générale Transatlantique and Messageries Maritimes 74
 competition 4, 8–9, 14–15, 24, 40–3, 44, 79–81
 EEC debates 215, 217
 France 77, 78, 79–81, 84–5
 GDR 301, 306, 307, 309–10, 315–16, 318
 Germany 27, 35, 40, 43
 motivation for industrial policy 218–19, 221–2
 sectoral support 231–2, 233
 Soviet Bloc 293–4
 state industries 39–40, 44
 Sweden 115, 117–18, 125, 127–30
 UK 40–3, 49–50, 58, 65
 USSR 337, 340, 343, 348, 352, 364
 West Germany 40, 41, 44, 89, 101, 104, 108
 Concorde 29, 230
 Confederation of British Industry (CBI) 57
 Confindustria 148–9
 Congo 240
 Convention of Association 257
 Coordinating Committee for Mutual Export Controls (CoCom) 291
 COST 230
 Council for Mutual Economic Assistance (CMEA) 302, 305–7, 309, 315, 317
 USSR 345, 362–3
 Crédit Agricole 74
 crisis industries (Sweden) 128, 131
 crony capitalism 168, 169
 Crosland, Tony 58
 Czechoslovakia 18, 21, 31, 357, 360
 GDP 21
 Soviet Bloc 289, 290, 292, 295
 Dahrendorf, Ralf 229, 233
 Daimler-Benz 219
 Danube (later Stalin) Iron Works 324
 Davignon, Etienne 231
 De Gaulle, Charles 4, 35, 81, 220, 222–3, 233
 De Havilland 233
 Debré, Michel 220–1
 decolonization 187–8, 196–7, 205, 206
 France 77–9, 82, 84
 West Africa 236, 241, 242
 defence industry 14, 17, 29–30, 31, 31, 32–4
 France 72–3, 74
 Soviet developments 354
 Sweden 118

- USSR 337–8, 341, 342, 344,
348–50, 352–5, 363
- del Bo, Dino 223
- Deniau Memorandum 265, 266
- Denmark 4, 41, 115
- electricity production 25, 26
- GDP 21, 43, 135
- industrial production 18, 18, 20
- integration and convergence 20,
21
- national security 31, 31
- planning 37, 38
- productivity 19
- Department of Trade and Industry
(DTI) 59
- dependency theory 293
- Deutscher Gewerkschaftsbund 35
- Development Plan Commission
(Spain) 168, 168–9
- dictatorship 230, 281, 282
- Spain 162–3, 164, 165, 166, 179,
230, 281
- Durieux, Jean 242
- East Germany 8, 87, 105, 290
- industrial production 18, 18
- see also* German Democratic
 Republic (GDR)
- Economic Commission for Europe
200
- Economic Cooperation Organization
(ECA) 199, 200
- economic expertise 189–91, 207
- Geneva Conference 203–4
- international organizational
 innovation 198–200, 203–5
- Marshall Plan 197–8
- Economic System of Socialism 308
- economies of scale 38, 41, 44, 202
- GDR 304, 310
- Sweden 115
- UK 52, 53, 56, 57, 65
- EDF (French company) 83
- Edison Group 152
- Egypt 357
- Eichengreen, Barry 34, 35, 36, 118
- electricity 22, 25, 26, 26
- France 26, 74
- Hungary 324
- Italy 26, 152–3
- Soviet Bloc 284
- state industries 38, 39
- Sweden 114, 118
- West Germany 26, 97
- Emergency Economic Committee for
 Europe (EECE) 199, 200
- employment 14, 44, 230
- France 71, 71–2, 75–6
- GDR 305
- Hungary 331, 333, 334, 335
- Italy 149, 151, 152, 153
- Soviet Bloc 284, 287, 289, 297
- Spain 171, 172, 172, 175, 176,
178
- Sweden 120, 120, 121–2, 127–30
- UK 62–3, 64
- USSR 364, 366–7
- West Germany 101
- see also* unemployment
- Empty Chair crisis 220, 222
- Engels 282
- ENI 40
- Ente Nazionale per l'Energia Elettrica
(ENEL) 152–3
- environmental matters 91, 104,
177–8, 191, 238, 289
- EOEC 165
- equilibrium theory 51–2
- Erevan Chemical-Pharmaceutical
 Factory 356
- Erhard, Ludwig 90, 101, 221, 222
- Ericsson 118, 130
- Eurafrican free trade area 257–8
- Euratom 216, 223
- European Atomic Energy Community
(EAEC) 79, 200
- European Central Inland Transport
 Organization (ECITO) 199, 200
- European Coal Organization
(ECO) 199, 200
- European Coal and Steel Community
(ECSC) 4, 16, 24–5, 27, 215–17
- formation 79, 200, 203
- France 79
- Italy 140
- Marshall Plan 195
- merger 223
- Treaty 231

- European Commission 1, 79, 80, 214–15, 218, 221
 ACP states 256, 265–6, 267, 273
 strengthening and integration of industry 223–4, 225–6
 West Africa 241, 245, 246, 249, 250, 252
- European Council of Ministers 79, 199, 218, 220, 227, 229
 ACP states 265–6, 274
- European Court of Justice 79
- European Development Fund (EDF) 238–9, 240, 242, 243, 249, 251
 ACP states 265, 268, 271, 272, 274
 Africa 257, 257–8, 258
- European Economic Community (EEC) 4, 8, 24, 27, 213–33
 ACP states 256–74
 France 69–70, 78, 79–81
 international organizational innovation 198, 200
 Italy 140
 motivation for industrial policy 218–23
 origin 214, 215–16, 221
 strengthening and integration of industry 223–8
 subsidies for shipbuilding 99–100
 supporting specific sectors 228–32
 UK 64, 221
 vehicle for industrial policy 215–18
 West Africa 236–53
see also Common Market; European Union
- European Economic and Social Committee 272
- European Free Trade Area (EFTA) 24, 41, 200
- European Investment Bank (EIB) 217, 233
 ACP states 257, 258, 268, 274
 Africa 240, 240, 247–8, 249
- European Payments Union (EPU) 17, 24, 193, 200
- European Recovery Programme 140–1, 191, 194–5
see also Marshall Plan
- European Research and Development Committee (CERD) 229
- European Science Foundation (ESF) 230
- European Technological Institute 221
- European Union (EU) 4, 100
 France 70, 77, 79–81, 82, 84
 Soviet Bloc 285, 288, 289, 298
 Spain 162
see also Common Market; European Economic Community (EEC)
- exchange rates 64, 203, 206
 Bretton Woods 64, 75
 France 75, 84
- export processing zone (EPZ) 244, 250–1, 252
- exports 25, 193, 231, 294
 ACP states 256–7, 260, 261, 261, 263, 265–6, 271–2
 France 70, 78, 78, 79
 GDR 305–6, 308–10, 312–13, 315–16
 growth 42, 42, 43, 44
 Italy 134, 144, 147
 Soviet Bloc 279, 289, 291, 294, 295
 Spain 168
 Sweden 115, 116, 118, 120, 131
 UK 51, 63–5
 USSR 340, 345, 348, 353, 357–8, 358, 361–3
 West Africa 241–4, 246, 250–1, 252
 West Germany 94, 99, 102
- External Common Tariff (ECT) 257–8
- Fanfani, Amintore 221
- Federal Ministry of Economics (West Germany) 86, 90, 91, 101
- Federico, Giovanni 6
- fertilizer industry 244, 246–9, 261
- Fiat 153, 219
- Finance Corporation for Industry (FCI) 48, 54
- Finland 18, 21, 34, 37, 38
 GDP 21, 43, 135
- FINSIDER 23, 146–7
- Flory, Jean 224

- Fonds Industriel de Modernization (FIM) 75
- Food and Agricultural Organization of the UN (FAO) 198, 199
- Ford 219, 219
- Foreman-Peck, James 6, 9
- France 2-7, 27-8, 67-85, 188, 205-6, 366-7
- ACP states 256, 257, 267, 273
 - automotive industry 39, 74, 80, 219, 219, 366-7
 - coal industry 72, 74, 206
 - colonies 77-9, 82, 84, 188, 257
 - computers 288
 - EEC debates 213, 214, 216, 217, 232
 - electricity 26, 74
 - employment growth 71
 - fuel consumption 289
 - GDP 21, 43, 68, 69, 135, 136, 366-7
 - industrial production 18, 18, 20
 - integration and convergence 20, 21, 21
 - international organizational innovation 199, 203
 - Marshall Plan 73, 193
 - military success 279
 - modernization 73, 74, 75, 285
 - motivation for industrial policy 219, 220, 221-3
 - national security 29, 30, 31, 31
 - nationalization 74, 75, 284
 - new market environment 76-82
 - nuclear and aerospace industries 17
 - origins of EEC 69, 214
 - planning 15-17, 33-6, 37, 38, 123, 164-5
 - productivity 19
 - research and development 14, 29, 29, 44
 - restructuring by government design 70, 72-6
 - sectoral support 228-9, 230
 - service sector 79
 - Spain 65
 - standard of living 68, 69
 - state-owned industries 38, 39, 73, 74, 82, 84
 - steel industry 25, 203, 206
 - strengthening and integration of industry 223, 225-8
 - structural change (1950-75) 69-70, 71-2
 - West Africa 236-53
 - West Germany 14, 105
- France Télécom 83
- Franco, General 165, 166, 174, 178-80, 281
- Fraunhofer-Gesellschaft for Applied Research (FhG) 94
- free trade 216-17
- French Development Bank 247
- French Development Fund 247-8
- French Overseas Union 78, 78-9
- G77 260
- Gabon 240
- GDF 83
- General Agreement on Tariffs and Trade (GATT) 16, 40, 219, 231
- West Germany 101
- General Motors 176, 177, 219, 219
- Geneva Conference 203-4
- German Democratic Republic (GDR) 300-18, 357
- basic decisions 301-7
 - economic reforms in 1960s 307-11
 - gross investment quotas 313
 - Honecker years 311-16
 - see also* East Germany
- German Economic Commission (DWK) 302
- German Federal Marine 99
- German Research Foundation (DFG) 94
- Germany 2-3, 6-7, 13, 27-9, 188
- agriculture 287
 - automotive industry 15-16, 39, 219, 219, 246, 366-7
 - coal and mining 206, 228
 - competition 27, 35, 40, 43
 - EEC debates 213, 214, 232
 - electricity 26
 - exports from France 70, 79
 - GDP 21, 43, 68
 - growth 42

- Germany – *continued*
 integration and convergence 21, 21
 international organizational
 innovation 201–3
 Marshall Plan 192–3
 motivation for industrial policy 219, 221–2
 planning 33, 35, 37, 38, 165, 206
 productivity 19, 65
 recovery 18
 reunification 87
 sectoral support 231
 Soviet Bloc 279–83, 284, 287, 289, 291, 293–5
 standard of living 69
 state-owned industries 39, 284
 steel industry 25, 27–8, 28, 203, 206, 228
 strengthening and integration of industry 228
see also German Democratic Republic (GDR); West Germany
- Ghana 262
- globalization 1, 292, 296
 automotive industry in Spain 177, 180
 Marshall Plan 190, 207
- Golden Age 213, 312, 321
 Italy 136, 137, 141, 143
 Spain 163, 164, 166
- Gomulka, Stanislaw 64
- Gorbachev, Mikhail 296, 297
- Gosplan 195, 350
- Great Britain *see* United Kingdom (UK)
- Greece 3
 electricity 26
 GDP 21, 42, 42, 43, 44, 135
 industrial production 18, 18–19, 20
 integration and convergence 19, 20, 21, 22
 Marshall Plan template 192
 national security 30, 31
 planning 34, 37, 165
- gross domestic product (GDP) 21, 21, 68, 135, 136, 366–7
 CEE 286, 297
 France 21, 43, 68, 69, 135, 136, 366–7
- Germany 21, 43, 68
 growth 42, 42, 43, 44
 Hungary 21, 290, 321
 Italy 21, 42, 43, 68, 134, 135, 136, 137, 143, 143, 149, 151, 154, 366–7
 Japan 42, 68, 366–7
 national security 30
 planning 37, 38
 Portugal 21, 42, 42, 43, 135
 Russia 279
 Soviet Union 21, 42, 42, 283, 284, 286, 286, 290, 296–7, 297
 Spain 21, 42, 42, 43, 44, 135, 162, 170, 179
 Sweden 21, 43, 115, 116, 123, 123, 135
 UK 21, 43, 43, 64, 68, 123, 135, 136, 366–7
 USA 42, 68, 136, 366–7
 USSR 348, 351, 359–60, 364, 366–7
 West Germany 135, 136, 366–7
- gross fixed capital formation (GFCF) in the UK 50
- gross national product (GNP) 30, 32
 UK 49, 50, 51
- gross value added (GVA) data in Spain 171–2, 173
- Guichard, Olivier 220–1
- Guyana 265
- Hallstein, Walter 224, 226
- Heath, Edward 59, 227
- Heffer, Eric 61
- Hegedűs, András 325
- “High Authority” 216, 223, 231
- high technology industries 14, 214, 218, 221, 226, 232
 France 74–5, 288
 GDR 317
 sectoral support 228–33
 Soviet Bloc 288, 290–1
 Sweden 127
- Hitler, Adolf 281, 285
- Hoffman, Paul 200
- Honecker, Erich 308, 311–16, 317
- Hungarian Academy of Sciences 295
- Hungary 8, 295–7, 321–34, 335, 336

- economic growth 321–30
 fuel consumption 289
 GDP 21, 290, 321
 historical legacy 330–4, 335, 336
 industrial production 18, 18
 integration and convergence 21
 NMP 321–2, 323, 334, 335, 336
 NVA 360
 Soviet Bloc 280–1, 288–9, 290,
 291–2, 295–7, 321–2, 326, 330
 USSR 357
- IG Farben 40
 implicit price index 322
 implicit subsidization of East
 European economies (ISEEE)
 361–3
 USSR 345, 346–7, 361–3
 import substitution
 Africa 241–4, 245–7, 250–2, 261
 Soviet Bloc 292, 293, 295, 296
 imports 101, 280–1, 293
 ACP states 258, 261, 261–2, 263,
 270
 GDR 307, 308, 309, 315
 Soviet Bloc 280, 284, 291–3
 Spain 167, 168
 USSR 345, 347, 353, 358, 358–9,
 361–3
 India 2, 357
 Indian Ocean 263
 Indochina 77, 78, 78
 Industrial and Commercial Finance
 Corporation (ICFC) 48, 54
 Industrial Cooperation Committee
 267, 269, 271, 274
 Industrial Guarantee Corporation
 (IGC) 54
 industrial policy defined 14–17, 113
 Industrial Policy Sub-Committee 60
 Industrial Promotion Centre 269,
 274
 industrial relations 35
 Sweden 115–16, 126
 Industrial Reorganization Corporation
 (IRC) 49, 55, 57, 59
 industrialization 236–53
 ACP states 256–74
 EEC's development policy 238–41
 entanglement 236–8, 252
 export-oriented 241–4
 GDR 303, 304
 Hungary 322–6, 330–1, 332,
 332–3
 Italy 134–8, 142–4, 148, 150, 152,
 155
 Marshall Plan 207
 sectoral disbursement of EDF 240
 Senegal 244–51, 252
 Soviet Bloc 279–80, 282–3, 285–6,
 288–92, 294–5
 Spain 163–4, 167, 168, 169–72,
 175
 USSR 337–8, 344, 350–2, 357–9,
 363–4, 366
 inflation 39, 64
 France 76, 81, 84
 Sweden 115, 118, 122–3, 123,
 125
 INI 22
 Institut National de la Statistique et
 des Etudes Economiques (INSEE)
 72
 Institute for Economic Recovery (IRI)
 141–2, 145–6, 148
 Institute for Machine Tools 309
 Institute for Social Research (Rome)
 141
 Institut für Wirtschaftsforschung
 243
 International Air Transport
 Association (IATA) 199
 International Bank for Reconstruction
 and Development (IBRD) 199
 International Computers Limited
 (ICL) 56–7
 International Confederation of Free
 Trade Unions (ICFTU) 272
 international development aid 4–5
 International Financial Corporation
 247
 International Monetary Fund (IMF)
 75, 199
 international organizational
 innovation 191, 198–204
 investment control 138, 153, 155
 investment fund system 121–2, 124
 IPD 61, 62

- Iran 147, 251, 358
- Ireland 2, 4, 188
 electricity 26
 GDP 21, 42, 43, 44, 135
 industrial production 18, 18, 20, 20
 integration and convergence 20, 20, 21, 21
 national security 31
 planning 34, 37, 37, 38
- Irfis 153
- ISVEIMER 153
- Italian Research Centre Europe 140–1
- Italy 3, 5, 7, 134–56
 automotive industry 219, 366–7
 competition 40
 dictatorship 281
 economic miracle years 143–9
 economic planning 149–54
 EEC debates 213, 214, 216, 217, 232
 electricity 26, 152–3
 GDP 21, 42, 43, 68, 134, 135, 136, 137, 143, 143, 149, 151, 154, 366–7
 growth rate 280
 industrial production 18, 18, 19, 20, 20
 integration and convergence 19, 20, 20, 21, 21
 international trade 294–5
 Mezzogiorno 16, 142, 148, 150, 155, 178, 217, 285
 motivation for industrial policy 221
 national security 31, 31
 original member of EEC 69, 79–80, 214
 planning 34, 36, 37, 37, 38, 165
 policy and convergence 23
 productivity 19, 149, 152
 sectoral support 229
 service sector 135, 154
 Somalia 257
 Soviet Bloc 289
 standard of living 69
 starting point after war 139–43
 state holding company 17
 state-owned industries 38–9, 40, 138, 144–8, 150, 153, 155, 156, 284
 steel industry 25, 146–7, 154, 155
 strengthening and integration of industry 223
 USSR 366–7
- Ivory Coast 240, 241, 252, 262
- Jaguar 230
- Jamaica 262
- Japan 75, 169, 270, 285, 366–7
 automotive industry 219, 366–7
 GDP 42, 68, 366–7
 productivity 19
 shipbuilding 99, 128
 standard of living 69
- Jay, Douglas 55
- Joseph, Keith 60, 62
- Kádár, János 326, 333
- Kaldor, Nicholas 51–3, 58, 63–5, 202, 204
- Keith, Kenneth 55
- Kennedy Round 219
- Keynes, John Maynard 5, 205, 281
- Khrushchev, Nikita 326, 349
- Kiesinger, Chancellor 221
- Kindleberger, Charles P 202, 204
- Kingston Conference 267–70
- Konjunkturinstitutet 114
- Kossuth, Lajos 280–1
- Kosygin, President 350
- La Malfa, Ugo 150
- Labour Foundation 35
- Latin America 42, 260, 261, 262
- Layton, Christopher 225, 229
- League of Nations 198
- Leclerc, Edouard 81–2
- Lenin 282
- Lever, Harold 63
- Leyland Motor 219
- liberalization of trade 9, 15, 17, 22, 41, 221
 Italy 140–1, 144
 Spain 164–7, 168, 179
 Sweden 115
- Libya 147
- List, Friedrich 280

- LKAB 114, 126
 Lomé Convention 239, 256, 267, 269–74
 López-Bravo, Gregorio 167
 Luxembourg 31, 69, 79, 214
- Maastricht Treaty 87, 233
 Macmillan Group 48
 macroeconomics 5, 33–4, 44, 122–5, 201, 285
 France 73, 84
 GDR 305, 310
 Italy 143, 143, 149, 155
 Marshall Plan 196
 Spain 163, 179
 Sweden 113, 114, 118, 122–3, 123, 124–5
 Malenkov, President 349
 manufacturing 1–2, 7, 366–7
 ACP states 260, 261, 261–2, 263
 Africa 258, 261
 France 70, 71, 366–7
 GDR 305–6, 314
 Hungary 323–4, 325, 326
 Italy 144–5, 146, 155, 366–7
 productivity 18, 19
 Senegal 244, 245–6, 247–8
 Spain 169–70, 172, 174, 176
 Sweden 115, 117–18, 119, 120, 125, 126, 127–9, 131
 UK 49, 50, 51, 51, 52–4, 60, 63–5, 366–7
 USSR 347, 349, 352, 353, 364, 366–7
 Marjolin, Robert 222–4, 226, 227, 233
 markets, plans and policy 32–8
 Marshall, George C 195, 198, 202
 Marshall Plan 2, 3, 17, 22, 187–8, 190–8, 207
 France 73, 193
 global template 191–8
 international organizational innovation 200, 202
 Italy 140, 141, 146
 planning Western economies 204–5, 207
 Sweden 123
 ‘technological’ 221
- Marx, Karl 282
 Marxism-Leninism 339
 Mattei, Enrico 147
 Mauritania 240
 Mauritius 262
 Max Planck Society 94
 McKinnon, R 360
 Meacher, Michael 62–3
 mechanical engineering 29
 GDR 301–3, 304, 305–6, 308–11, 313–15, 317
 Hungary 324, 327–9, 329
 Mediocredito Centrale 153
 medical industry 355–6, 356
 USSR 338, 340, 341, 342, 352, 355–6, 356
 Mercedes-Benz 176
 microelectronics 127, 316
 Military Industrial Commission (MIC) 350, 352–4
 military spending *see* defence industry
 mining *see* coal industry and mining
 Ministry of Agriculture (France) 83
 Ministry of Finance (France) 73, 75–6, 81–2
 Ministry of Health (USSR) 355
 Ministry of Industrial Affairs (Hungary) 331
 Ministry of Industry (France) 73, 74–5, 83
 Ministry of Industry (Sweden) 127
 Ministry of Medical Industry (USSR) 355, 356
 Ministry of Presidency (Spain) 168
 Ministry of Technology (MinTech) 49, 56–7, 59
 Mitchell, Dr Joan 60
 Mitterrand, François 75
 modernization 281
 Africa 236, 241, 247–8
 France 73, 74, 75, 285
 GDR 301, 305, 307, 311, 313, 315
 Italy 142, 145, 146–7, 148, 151, 154
 Soviet Bloc 283, 285–8, 295
 Spain 176
 UK 48–9, 51, 55, 56–7
 West Germany 102
 Molotow, Vyacheslav 202
 Monnet, Jean 199, 203

- monopolies 16, 57–9
 Monopolies Commission 58, 59
 Montedison 153
 Morocco 78
 Multi-Fibre Arrangement (MFA) 231
 multinationals 130, 213, 225, 230
 Spain 177, 180
 Mussolini 224, 281
 Myrdal, Gunnar 117, 200, 201,
 202–3, 204

 Nagy, Imre 323, 324–5
 National Corporation for Company
 Reconstruction and Development
 (NATCORD) 53
 National Economic Development
 Council 17, 34
 National Economic Development
 Office ('Neddy') 49
 little Neddies 49, 54, 56
 National Enterprise Board (NEB) 49,
 55, 60–1, 62
 National Hydrocarbon Agency (Italy)
 145, 147–8
 National Institute of Industry (Spain)
 167, 177
 National Planning Office (Hungary)
 331
 National Protective Association
 (Hungary) 281
 National Research Development
 Corporation 56
 nationalization 17, 26, 38–40, 284
 ACP states 260, 269
 France 74, 75, 284
 GDR 314
 Italy 146, 152, 284
 Sweden 114, 117, 127, 128, 129
 UK 48, 49, 55, 59, 284
 West Germany 105, 284
 NATO 221, 291, 354
 negative value added (NVA) 360–1
 USSR 338, 345, 346–8, 360–1, 364
 net material product (NMP) 321–2,
 323, 334, 335, 336
 Netherlands 39, 115, 118, 214, 238,
 279
 colonialism 188
 electricity 26
 GDP 21, 43, 135
 industrial production 18, 20, 20
 integration and convergence 20,
 20, 21
 national security 30, 31, 31
 original member of EEC 69, 79,
 214
 planning 33, 34, 35, 36, 37, 38
 productivity 19
 sectoral support 229
 steel industry 25
 transportation 27
 Neuer Plan 281
 New Economic Mechanism 296
 New Economic System 307
 New International Economic Order
 (NIEO) 260
 New Steel Plan (Italy) 146
 Nigeria 262, 265, 271
 Nissan 219
 NJA 114, 128, 130
 N'Krumah, Kwame 260
 North Korea 357
 Norway 41
 electricity 25, 26
 GDP 21, 43, 135
 industrial production 18, 20, 20
 integration and convergence 20,
 20, 21
 national security 31, 31
 planning 33, 34, 37, 38
 nuclear energy 14, 17, 29, 206, 214,
 216
 France 74
 numerical control (NC) 309–11

 Opel 177
 ordoliberalism 221–2
 Organization of European Economic
 Cooperation (OEEC – now OECD)
 17, 29, 199, 216
 French exports 78, 78–9
 international organizational
 innovation 198, 199, 202–3
 Marshall Plan 195
 military spending 32
 Sweden 123
 USSR 352
 Ortolí, François-Xavier 231

- Pacific Islands 259, 263
 Part, Antony 61
 Peugeot 219
 pharmaceutical industry
 Hungary 326, 327, 328
 USSR 355–6, 356
 Piano Pieraccini 151
 planning 165, 191, 202, 204–7, 222
 Africa 243, 246–7
 basic decisions 301–7
 economic reforms 307–11
 France 15–17, 33–6, 37, 38, 123, 164–5
 GDR 300–18
 Greece 34, 37, 165
 Honecker years 311–16
 Hungary 324
 Italy 34, 36, 37, 37, 38, 165
 Marshall Plan 196
 Soviet Bloc 281–2, 283, 284–5, 296
 Spain 34, 36, 37, 37, 38, 163–6, 179, 181
 Sweden 33–4, 35, 37, 38, 116–17, 123, 130
 USSR 338, 340, 342–3, 345, 347, 350, 353–7, 359–60, 363
 Planning Commissariat (France) 35
 Poland 18, 21, 31
 GDP 21
 GDR 304
 NVA 360–1
 Soviet Bloc 281, 289, 297
 USSR 357
 Pompidou, Georges 227
 Portugal 41, 230
 colonialism 188
 electricity 26
 GDP 21, 42, 42, 43, 135
 industrial production 18
 integration and convergence 21
 national security 30, 31
 planning 34, 37, 38, 165
 Powell Duffryn Group 53
 Prate, Alain 223–4, 225
 Prebisch, Raul 201, 242, 252
 Preobrazhenski, Evgeny 282
 Production Aid Programme 247–8, 249
 productivity 9, 14, 19, 44
 agriculture 22
 competition 41, 42
 GDR 301, 306, 308, 311, 315
 Germany 65
 Hungary 334, 335, 336
 international organizational innovation 199
 Italy 19, 149, 152
 manufacturing 18, 19
 planning Western economies 204–6
 policy and convergence 22, 23
 Soviet Bloc 289, 295
 state-owned industries 39
 Sweden 19, 118–19, 121, 124–5, 126, 126–7, 131
 UK 19, 48, 50–4, 64–5
 USA 13, 18, 19, 19, 65
 USSR 343, 348–9, 351, 354, 365
 Programme of Industrial and Technology Policy 226
 protectionism
 Ireland 20
 Italy 144
 Soviet Bloc 280
 Spain 167, 176, 179
 Sweden 114–15
 USSR 340–2, 343, 346–7, 350, 352, 364
 West Germany 100, 101
 Prussia 280
 PTT 74
 railways 27, 39, 93, 114
 Rákosi, Mátyás 324
 Ramphal, Shridath 265
 Reagan, Ronald 224
 Reconstruction Finance Corporation (RFC) 54
 Regional Development Fund 4
 Renault 74, 84, 176, 177, 219, 219, 246
 rent extraction (RE) 361, 362
 USSR 338, 345–7, 361, 362, 363
 research and development (R&D) 4, 7, 8, 29, 29, 44, 103–4
 Concorde 29
 EEC debates 214
 France 14, 29, 29, 44

- research and development (R&D) –
continued
 GDR 307, 309, 310
 motivation for industrial policy
 218
 national security 29–30
 planning 36
 Sweden 117, 127, 128
 tax incentives 16
 UK 29, 29, 44, 53, 56, 57
 USSR 349, 350, 353
 West Germany 14, 29, 29, 89, 91,
 94–5, 103–4, 107
- restructuring 54–5
 UK 48–9, 53, 54–5, 56
- Rhen-Meidner model 118–21
- Rolls Royce 15–16, 59, 62, 63
- Romania 18, 21, 288, 292, 357
 GDP 21
- Rostow, Walt 201, 204, 236
- Rowthorn, Bob 64
- Russia 279, 280
 GDP 279
 Soviet Bloc 279, 280, 283, 294
- Ryrie, WS 62, 63
- SAAB 118
- Sanu, E Olu 271
- Saraceno, Pasquale 141
- Saraceno Report 151
- Scandinavia 165, 188, 294
- Schiller, Karl 92, 97
- Schuman Plan 203
- Scientific-Production Associations
 350
- SEAT 177
- second economy (SE) 359–60
 USSR 338, 339, 345, 346, 346,
 359–50
- security 14, 17, 29–31, 31, 32
- self-employment in France 67, 71–2
- Senegal 237–40, 240, 241, 244–51,
 252
- Senghor, Leopold 248, 250
- service sector 2, 79, 125
 Italy 135, 154
 Soviet Bloc 287, 289
 Spain 164, 167, 178
 UK 2, 50, 51, 52–3, 60, 63
- shipbuilding industry 228, 231,
 233
 Italy 38
 Sweden 128, 129
 UK 55, 57, 59
 West Germany 91, 96, 98–100,
 101, 102, 107–8
- shortage economy 300, 338, 343–4,
 344, 351, 356
- Simca 219
- Sinigaglia, Oscar 146–7
- small and medium enterprises (SMEs)
 1, 35, 48
 ACP states 268, 270
 GDR 314
 Soviet Bloc 288
 Spain 176, 178
 West Germany 90, 104
- SNCF 74, 83
- social market economy in Germany
 43, 44, 89–90, 105, 217
- Socialist Unity Party (SED) 303, 308,
 311–12, 317
- Société d'études du développement
 économique et social 243
- Société industrielle d'engrais du
 Sénégal (SIES) 247, 248, 249
- Somalia 257
- South and East Asia 260
- South Korea 2
- Soviet Bloc 6, 279–98, 300
 GDP 283, 284, 286, 286
 Hungary 280–1, 288–9, 290,
 291–2, 295–7, 321–2, 326, 330
 main characteristics 286–94
 origins of industrial policy
 279–86
 road towards collapse 294–8
- Soviet Council for Mutual Economic
 Assistance 24
- Soviet Union 3–4, 6, 8, 14, 16, 33,
 205–6
 Berlin Blockade 17
 Cold War 196, 204
 GDP 21, 42, 42, 283, 284, 286,
 286, 290, 296–7, 297
 GDR 301, 303, 304, 312, 315,
 317
 Gosplan 195

- integration and convergence 21–2
- international organizational
 - innovation 204
 - national security 29, 30, 31
 - Soviet Bloc 283–4, 286, 287–8, 290, 296, 297–8
- Spain 3, 7, 162–80, 181, 280, 294
 - automotive industry 169, 174, 176–7, 177, 178, 180
 - developmentalist policy 170–8
 - dictatorship 162–3, 164, 165, 166, 179, 230, 281
 - electricity 26
 - GDP 21, 42, 42, 43, 44, 135, 162, 170, 179
 - growth and structural change 166–70
 - industrial production 18
 - integration and convergence 21, 22
 - national security 31, 31
 - planning 34, 36, 37, 37, 38, 163–6, 179, 181
 - regions 163–5, 168, 169, 170–4, 175, 176–8, 179–80, 181
 - service sector 164, 167, 178
 - state-owned industries 17, 22, 39, 44
- Spinelli, Altiero 224–5, 226–7, 229–30, 233, 273–4
- Sputnik 4, 29, 349
- Stabex 256, 272
- Stalin, Josef and Stalinism 282, 283, 285, 288, 295, 303
 - Hungary 324, 333
 - USSR 337, 339, 348, 349, 357
- standard of living 68, 69, 74
- State Committee of Science and Technology 350
- state ownership 16, 33, 38–40, 44
 - France 38, 39, 73, 74, 82, 84
 - GDR 302, 305, 310
 - Greece 22
 - Italy 38–9, 40, 138, 144–8, 150, 153, 155, 156, 284
 - Spain 17, 22, 39, 44
 - Sweden 39, 114, 117–18, 127, 129–30, 131
 - UK 38, 39, 49, 62
 - USSR 339–40, 342–3, 350, 357, 363
 - utilities 22, 39
- State Planning Commission (GDR) 302, 312
- State Planning Committee (Gosplan) 195, 350
- Statsföretag 127–8
- steel industry 22, 25, 27, 39, 203, 206
 - ACP states 261
 - EEC debates 216, 228
 - France 25, 203, 206
 - GDR 302–3, 304, 304–5, 308, 312
 - Germany 25, 27–8, 28, 203, 206, 228
 - Italy 25, 146–7, 154, 155
 - national policy 27–8, 28
 - policy and convergence 23, 24–5
 - sectoral support 228, 231, 233
 - Soviet Bloc 283, 287–8, 289
 - Spain 176, 180
 - Sweden 128, 129–30
 - USSR 348, 352
 - see also* European Coal and Steel Community (ECSC)
- Steelwork 80 project 130
- strikes in Sweden 115–16, 126
- Studebaker 200
- subsidies 3, 15–16, 80, 128, 129–30, 361–3
 - ACP states 258
 - France 82–3
 - GDR 312
 - Hungary 330
 - Italy 138, 144, 150, 153–4, 155–6
 - Senegal 248, 249
 - Spain 168, 168–9, 171
 - state-owned industries 39, 40
 - Sweden 121–2, 126, 128, 129–30, 131
 - UK 48, 53, 56
 - USSR 338, 345, 357, 361–3
 - West Germany 28, 90, 93, 97–101, 103–4, 106–8
- supranational policies 6–8, 14, 24
- Surinam 262
- Svenska Stål 128
- Svenska Varv 128
- SVIMEZ 142

- Sweden 7, 26, 41, 113–31, 289
 1950s and 1960s 116–25
 1970s 125–30
 GDP 21, 43, 115, 116, 123, 123,
 135
 historical roots 114–16
 industrial production 18, 18, 19,
 20
 integration and convergence 19,
 20, 21
 macroeconomic performance
 122–5
 national security 31, 31
 planning 33–4, 35, 37, 38 116–17,
 123, 130
 productivity 19, 118–19, 121,
 124–5, 126, 126–7, 131
 Soviet Bloc 291
 state-owned industries 39, 114,
 117–18, 127, 129–30, 131
 wage policy 116, 118–19, 119,
 120, 120–2, 124–5, 126, 126–7,
 130–1
- Switzerland 21, 25, 26, 30, 41
 GDP 21, 43, 135
 national security 30, 31, 31
 planning 32, 36, 37, 38, 44
- TAKRAF 314
- taxation 3, 15, 16, 26, 33, 194
 ACP states 258
 France 80, 81
 Hungary 330
 Italy 144, 151, 155
 Spain 167, 171, 176, 179
 Sweden 121–2, 124, 131
 UK 53, 56
 USSR 347
 West Germany 97, 106
- telecommunications 230, 287, 291
 Hungary 326, 328, 329
- Televerket (Telia) 118, 130
- textile industry 100–3, 228, 231,
 233, 292
 France 71, 72, 78
 Sweden 120
 UK 48, 54, 292
 West Germany 28, 91, 96, 100–3,
 108
- Thatcher, Margaret 224
- Third World 4–5, 7–8, 188, 204, 272,
 285, 357
- Togo 240
- Tornado 233
- Toulemon, Robert 224, 225, 226
- Toyota 219
- trade unions 15–16, 17, 35–6, 49,
 88, 102
 Sweden 115–16, 118–22, 124–5,
 127, 131
- Trades Union Congress (TUC) 35
- transportation 1, 27, 39
 Hungary 326, 330
 Italy 146, 151
 Soviet Bloc 279, 287, 288
 Spain 176
 UK 49, 50, 51, 53
 West Germany 93
- Treaty of Paris (1951) 216
- Treaty of Rome (1957) 24, 27, 41,
 216–18, 224, 231
 ACP states 257, 257
 colonialism 238
- Treaty of Trianon 330
- Trinidad and Tobago 262
- Trotsky, Leon 282
- truck manufacturing 244, 245, 292
- Truman Doctrine (1947) 192
- Tunisia 78
- Turkey 18, 26, 31, 34, 165
- Ulbricht, Walter 308, 311, 315, 316
- UNCTAD 263
- unemployment 17
 France 70, 71–2, 76, 80
 Italy 149
 Sweden 121, 123, 123, 129
 UK 62–3, 64
see also employment
- UNESCO 198
- Union des industries de la
 Communauté européenne
 (UNICE) 219–20, 225, 229, 272
- United Kingdom (UK) (including
 Great Britain) 2, 6–7, 77, 105–6,
 188, 206, 366–7
 1950–1974 48–65
 ACP states 256, 267

- agriculture 22, 50, 51, 287
 automotive industry 39, 55, 58,
 219, 219, 366–7
 colonies 188, 236, 239
 competition 40–3, 49–50, 58, 65
 disputing policy 59–64
 EEC debates 214, 232
 EFTA 41
 electricity 26, 26
 enclosure 282
 GDP 21, 43, 43, 64, 68, 123, 135,
 136, 366–7
 GFCF 50
 GNP 51
 industrial production 13, 18, 18,
 19, 20
 integration and convergence 19,
 20, 21, 21, 22
 international organizational
 innovation 199
 joining EEC 4, 221, 227, 229, 232
 manufacturing 49, 50, 51, 51,
 52–4, 60, 63–5, 366–7
 Marshall Plan 193
 military success 279
 modernization 48–9, 51, 55, 56–7
 monopolies 16, 57–9
 motivation for industrial policy
 220, 221
 national security 29–30, 31, 31, 32
 nationalization 48, 49, 55, 59, 284
 nuclear industry 17
 planning 33–6, 37, 37, 38, 165
 policy and convergence 22
 productivity 19, 48, 50–4, 64–5
 research and development 29, 29,
 44, 53, 56, 57
 restructuring 54–5
 Rolls Royce 15–16
 sectoral support 228–9, 230
 service sector 2, 50, 51, 52–3, 60, 63
 Soviet Bloc 284, 292
 standard of living 68, 69
 state-owned industries 38, 39, 49,
 62
 strengthening and integration of
 industry 225, 227, 228
 United Nations 195, 198, 200–1,
 236, 260
 United Nations Development
 Programme (UNDP) 200
 United Nations Economic
 Commission for Europe (UN-ECE)
 199–204, 206
 United Nations Economic and Social
 Council (ECOSOC) 199, 201
 United Nations Expanded Program for
 Technical Assistance (EPTA) 200
 United Nations Internal Children's
 Fund (UNICEF) 199
 United Nations Regional Economic
 Commission for Europe 201
 United Nations Relief and
 Rehabilitation Agency (UNRRA)
 17, 199, 200
 United Socialist Soviet Republic
 (USSR) 201, 337–64, 364, 365,
 366–7
 external aspects of industrialization
 357–9
 features of industry 364
 GDP 348, 351, 359–60, 364, 366–7
 hidden processes 359–63
 influences 339–40, 340, 341–8
 planning 338, 340, 342–3, 345,
 347, 350, 353–7, 359–60, 363
 policies and preferences 348–52
 production of commodities 365
 state priorities 339–41, 341,
 342–4, 348–50, 352–6
 United States of America (USA) 2, 3,
 14, 270
 ACP states 272
 automotive industry 219, 219,
 366–7
 compared with Soviet Bloc 287–91
 compared with Sweden 123
 compared with USSR 352, 355,
 366–7
 competition 40, 58, 65
 EEC debates 213, 214, 232
 European integration 17, 22
 exports 193
 fuel consumption 289
 GDP 42, 68, 136, 366–7
 international organizational
 innovation 199, 202
 Italy 146

- United States of America (USA) –
continued
 Marshall Plan 187, 192–7, 207
 motivation for industrial policy
 218–21
 national security 30, 31
 planning 36
 planning for Western economies
 204, 206
 productivity 13, 18, 19, 19, 65
 research and development 29, 29
 standard of living 69
 state-owned industries 39
 strengthening and integration of
 industries 225, 227–8
 technology 23–4, 103, 287, 288,
 290, 291
 Upper Clyde Shipbuilders (UCS) 59,
 63
 Upper Volta 240
 utilities 16, 19, 82–3, 114, 127, 145
 state ownership 22, 39
- value added (ACP states) 260, 271
 Varga, Istvan 296
 Vattenfall 118, 130
 Verdoorn's Law 52–3, 64
 Volkswagen (VW) 15–16, 176, 177,
 219, 219
 von der Groeben, Hans 221, 222,
 226, 233
- Werner Report (1970) 80
 West Germany 7, 14, 44, 86–108,
 366–7
 Africa 238, 245, 246, 250–1
 automotive industry 219, 219,
 366–7
 Berlin Blockade 17
 competition 40, 41, 44, 89, 101,
 104, 108
 conceptual framework 89–93
 EEC debates 217
 electricity 26, 97
 GDP 135, 136, 366–7
 GDR 306, 309, 310, 313
 industrial production 18, 18, 20,
 20
 integration and convergence 20,
 20
 Italy 134
 motivation for industrial policy
 221
 national industrial policy 27,
 28–9, 29
 national security 29–30, 31, 31
 original members of EEC 69,
 79–80, 214
 planning 33, 35–6, 37
 practices of industrial policy
 93–104
 research and development 14, 29,
 29–30, 89, 91, 94–5, 103–4, 107
 state-owned industries 39, 44
 strengthening and integration of
 industries 227
 Williams, Shirley 60
 Wilson, Harold 53, 54, 59, 61, 221,
 227
 Woolwich Engineering firms 62–3
 World Bank 165
 World Health Organization 198, 199
 World Trade Organization 101
- Yaoundé Conventions 239–41,
 244–7
 ACP states 257, 258–9, 265, 268
 Yugoslavia 21, 26, 31, 230, 357
 Soviet Bloc 285, 297
- Zaire 240, 241, 262
 Zambia 262