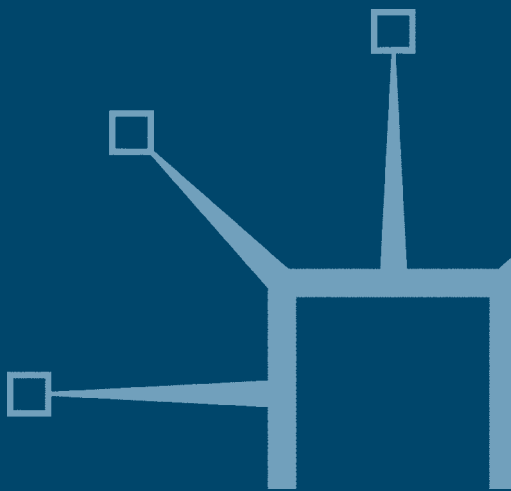
palgrave
macmillan

Foreign Investment and Socio-Economic Development in China

The Case of Dongguan

Godfrey Yeung



Studies on the Chinese Economy

General Editors: **Peter Nolan**, Sinyi Professor of Chinese Management, Judge Institute of Management Studies, University of Cambridge, and Fellow of Jesus College, Cambridge, England; and **Dong Fureng**, Professor, Chinese Academy of Social Sciences, Beijing, China

This series analyses issues in China's current economic development, and sheds light upon that process by examining China's economic history. It contains a wide range of books on the Chinese economy past and present, and includes not only studies written by leading Western authorities, but also translations of the most important works on the Chinese economy produced within China. It intends to make a major contribution towards understanding this immensely important part of the world economy.

Titles include:

Thomas Chan, Noel Tracy and Zhu Wenhui
CHINA'S EXPORT MIRACLE

Sarah Cook, Shujie Yao and Juzhong Zhuang (*editors*)
THE CHINESE ECONOMY UNDER TRANSITION

Xu Dixin and Wu Chengming (*editors*)
CHINESE CAPITALISM, 1522–1840

Christopher Findlay and Andrew Watson (*editors*)
FOOD SECURITY AND ECONOMIC REFORM

Samuel P. S. Ho and Y. Y. Kueh
SUSTAINABLE ECONOMIC DEVELOPMENT IN SOUTH CHINA

Kali P. Kalirajan and Yanrui Wu (*editors*)
PRODUCTIVITY AND GROWTH IN CHINESE AGRICULTURE

Bozhong Li
AGRICULTURAL DEVELOPMENT IN JIANGNAN, 1620–1850

Alfred H. Y. Lin
THE RURAL ECONOMY OF GUANGDONG, 1870–1937

Dic Lo
MARKET AND INSTITUTIONAL REGULATION IN CHINESE INDUSTRIALIZATION

Jun Ma
THE CHINESE ECONOMY IN THE 1990s

Guo Rongxing
HOW THE CHINESE ECONOMY WORKS

Sally Sargeson
REWORKING CHINA'S PROLETARIAT

Ng Sek Hong and Malcolm Warner
CHINA'S TRADE UNIONS AND MANAGEMENT

Terence Tsai
CORPORATE ENVIRONMENTALISM IN CHINA AND TAIWAN

Michael Twohey
AUTHORITY AND WELFARE IN CHINA

Carl E. Walter and Fraser J. T. Howie
'TO GET RICH IS GLORIOUS!'
China's Stock Markets in the '80s and '90s

Michael Warner
CHANGING WORKPLACE RELATIONS IN THE CHINESE ECONOMY

Wang Xiao-qiang
CHINA'S PRICE AND ENTERPRISE REFORM

Xiaoping Xu
CHINA'S FINANCIAL SYSTEM UNDER TRANSITION

Yanni Yan
INTERNATIONAL JOINT VENTURES IN CHINA

Godfrey Yeung
FOREIGN INVESTMENT AND SOCIO-ECONOMIC DEVELOPMENT IN CHINA
The Case of Dongguan

Wei-Wei Zhang
TRANSFORMING CHINA

Xiao-guang Zhang
CHINA'S TRADE PATTERNS AND INTERNATIONAL COMPARATIVE ADVANTAGE

Studies on the Chinese Economy
Series Standing Order ISBN 0–333–71502–0
(*outside North America only*)

You can receive future titles in this series as they are published by placing a standing order. Please contact your bookseller or, in case of difficulty, write to us at the address below with your name and address, the title of the series and the ISBN quoted above.

Customer Services Department, Macmillan Distribution Ltd, Houndmills, Basingstoke, Hampshire RG21 6XS, England

Foreign Investment and Socio-Economic Development in China

The Case of Dongguan

Godfrey Yeung
Lecturer
School of Social Sciences
University of Sussex

Foreword by

Robert Ash
Chiang Ching-kuo Professor of Taiwan Studies
Co-ordinator, EU–China Academic Network (ECAN)
School of Oriental and African Studies
University of London

palgrave

First published 2001 by
PALGRAVE
Houndmills, Basingstoke, Hampshire RG21 6XS and
175 Fifth Avenue, New York, N. Y. 10010
Companies and representatives throughout the world

PALGRAVE is the new global academic imprint of
St. Martin's Press LLC Scholarly and Reference Division and
Palgrave Publishers Ltd (formerly Macmillan Press Ltd).

ISBN 0–333–77825–1

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources.

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

Library of Congress Cataloging-in-Publication Data
Yeung, Godfrey, 1967–
Foreign investment and socio-economic development in China : the case of Dongguan / Godfrey Yeung ; with foreword by Robert Ash.
p. cm. — (Studies on the Chinese economy)
Includes bibliographical references and index.
ISBN 0–333–77825–1
1. Investments, Foreign—China—Dongguan Shi. 2. Investments, Foreign—Social aspects—China—Dongguan Shi. 3. Dongguan Shi (China)—Economic conditions. I. Title. II. Series.
HG5790.D66 Y48 2001
338.951'27—dc21

00–053021

10 9 8 7 6 5 4 3 2 1
10 09 08 07 06 05 04 03 02 01

Printed and bound in Great Britain by
Antony Rowe Ltd, Chippenham, Wiltshire

To the memory of Professor Gordon White

This page intentionally left blank

Contents

List of Tables

Appendix tables

List of Figures

Foreword

China's size remains, as it has been throughout its modern history, a critical factor in all aspects of its development, creating political, social and economic tensions that have become increasingly evident in the wake of post-1978 reforms. The importance of regional investigation to address China's immense diversity is reflected in the many fine provincial-level studies that have been published in recent years. But whether viewed in demographic or physical terms, many Chinese provinces are themselves as big as average European countries. Nor can a single province provide a microcosm of the whole of China. Hence the need for greater disaggregate analysis, focusing on even smaller entities below the provincial level. It is precisely this kind of micro-geographical investigation that Dr Yeung's path-breaking study offers.

The adoption of radical open-door policies has been a defining feature of China's post-1978 reforms. By common consent, these policies have contributed much to the country's impressive recent growth record, although it is the coastal provinces – Guangdong, above all – that have benefited disproportionately from the huge inflows of overseas capital (particularly foreign direct investment). On the surface, Dongguan – a county-level city in Guangdong containing 1.5 million inhabitants and covering some 2500km^2 – might seem a distinctly minor focus for investigation of this phenomenon. The reality is quite different. Dr Yeung shows that Dongguan has absorbed well over 10 per cent of cumulative foreign investment in Guangdong since 1980. Given the latter's pre-eminent national role as a beneficiary of such inflows, the implication is that Dongguan on its own has accounted, on average, for about 4 per cent of annual inflows of foreign investment into China – and, at its peak, for almost 8 per cent. Indeed, Dr Yeung describes Dongguan as 'one of the fastest growing regions in the world'.

There already exists a rich literature on the nature, rationale and impact of foreign investment in China – much of it focusing on flows of capital between Hong Kong and the Pearl River Delta region (of which Dongguan is a part) in Guangdong. The thrust of such analysis has tended, quite reasonably, to be governed by what are normally thought of as the boundaries of conventional economic analysis. A notable feature of Dr Yeung's study is, however, its willingness to

address not only the economic impact of foreign investment in Dongguan, but also its social consequences and implications.

Readers will find in this book careful analysis of Dongguan's changing economic structure and its recent development strategies. Special consideration is given to its investment environment and the author shows how the attractiveness of the region to foreign (especially Hong Kong) investors has been influenced by locational, economic, administrative and 'cultural' factors. Through the detail made possible by the micro-geographical focus of this study, given vivid expression by the findings of the author's informal and candid interviews in Dongguan and Hong Kong, Dr Yeung's study highlights the complex, mutual interaction of these factors – something likely to be missed by more macro explanations of foreign investment behaviour.

The social implications of Dongguan's development strategy are most obviously captured in the analysis of changing regional differentials associated with its recent growth performance. No less interesting, and perhaps even more original, are the findings with respect to the impact of foreign-investment-driven growth on social values and behaviour in an environment in which local migrants and foreign entrepreneurs have come to assume a strong presence.

Dr Yeung's study, based as it is on hitherto unavailable archival sources (including rich statistical materials) and drawing on the author's direct experience of living and working in the region, is a valuable contribution to understanding the complex and mutually-reinforcing processes of social and economic change in contemporary China. The insights offered in this book will be of the greatest interest to all those involved with China, whether academically, commercially or professionally.

ROBERT ASH

Preface and Acknowledgements

The economic integration undertaken in southern China and its subsequent rapid economic growth has always fascinated me. I have had the privilege of observing and being involved in this integration process, both in southern China directly and indirectly in England. For various reasons – ranging from a desire to facilitate further economic reform in China, to official propaganda – some Chinese officials and Sinologists both over-emphasize (or even dramatize) the beneficial economic effects of the ongoing process of integration and understate its potentially negative socio-economic consequences. This 'win–win' ideology is further promoted by the mass media.

As one of the most important (and researchable) aspects of economic integration, the issue of foreign direct investment naturally became the focus of my research. I was surprised to find that the majority of the literature on the issue of foreign direct investment focused either on the macro (the whole of China) or meso-geographical scale (the provincial level). I believed that a detailed case study of a municipal or county-level region in southern China would shed more light on the interaction between the inflow of foreign direct investment and its socio-economic effects, both in qualitative and quantitative terms.

Based on twenty-six case studies, this book investigates the causes and socio-economic effects of foreign direct investment in the Dongguan municipality of southern China during the 1990s. The effects of foreign investment in Dongguan have been momentous. Between 1978 and 1997, the average annual growth rates of real gross domestic product (GDP) per capita, real industrial and agricultural output value, and export value were 13 per cent, 20 per cent and 30 per cent, respectively. Largely based on the fieldwork conducted between 1996 and 1997, this book illustrates (in Chapters 4 and 5) how the inflow of foreign capital has had both 'desirable' and 'undesirable' socio-economic effects. Despite the government's efforts, some of the welfare gains resulting from rapid economic growth have been offset by the increase in crime, the intensification of labour abuse (especially that of migrants), the generation of rent-seeking opportunities, the polarization of income and increased pollution (especially from industrial waste).

In addition to being the first comprehensive research based on primary quantitative and qualitative data undertaken in Dongguan, the book proposes a 'dynamic symbiosis' paradigm of foreign direct investment in Chapter 6 to investigate interaction between the political and socio-economic spheres, and their mutual dependence on and relationship with different players in the host country. Unlike the segmented analyses and asocial approaches associated with conventional Western theories of foreign direct investment, the proposed paradigm identifies the political and socio-economic relationships between different players in the host country. By applying the paradigm to Dongguan, the political and socio-economic impetus to foreign investment and the resultant effects are illustrated together with the interaction between and the influence of the various players. As the existing inflow of foreign investment based on personal connections begins to run out of steam, it is suggested that the government should promote a 'rule-of-law' society in order to control rent-seeking activities and enrich its human capital endowment.

A number of people and organizations contributed to the completion of this book. Generous financial support from the Suzy Paine Fund and Cambridge Political Economy Society Trust provided the necessary funding for my nine-month field survey in Dongguan, which subsequently constituted the empirical chapters of the book.

I would like to express my greatest gratitude to Professor Peter Nolan, the Sinyi Professor of Chinese Management at the Judge Institute of Management Studies, University of Cambridge, and the editor of this series, who has shown profound interest in my book. Without his dedication and countless hours of hard work in reading all my drafts, his valuable and critical comments, insights and encouragement, a mere two-page research proposal would not have developed into a book. Professor Malcolm Warner of the Judge Institute of Management Studies; Professor Robert Ash of the School of Oriental and African Studies at the University of London; and Drs Chris Bramall and Ajit Bhalla of Sidney Sussex College at the University of Cambridge also read through the manuscripts and provided numerous critical comments on all chapters. Moreover, Professor Ash kindly prepared the foreword of this book. Their valuable suggestions have certainly improved its readability.

Apart from all the people who granted my requests for formal and informal interviews, and the government officials who facilitated the field survey (who all prefer to remain anonymous), a number of scholars and friends have kindly lent a helping hand at different

stages of the research. Professors Barry Rider of Jesus College at the University of Cambridge, Adrian Wood and Hans Singer of the Institute of Development Studies at the University of Sussex, Doctors Vincent Mok at the Hong Kong Polytechnic University, Leo Cheung at the Hong Kong Baptist University and Alfred H. Y. Lin at the University of Hong Kong, Bilai Zhang, Anxu Wang, Doreen du Boulay, Fran Whittle and Iris Chan have all been particularly helpful. As usual, I bear the sole responsibility for all the remaining omissions and errors in this book.

I am deeply indebted to the unquestioning support of my parents and my wife, Juanita, over the years. Without their encouragement, spiritual support and financial sacrifice, the writing of this book would not have happened. After being elected as a research fellow of Sidney Sussex College, the support of other fellows and the Master allowed me to concentrate my energy on revising the manuscript for publication. The patience and support of the Publishing Director and the Senior Commissioning Editor (Nicola Viinikka) of Palgrave and the Editorial Services Consultant (Keith Povey) were also essential for the publication of this book.

Finally, I would like to pay tribute to Professor Gordon White, late professorial fellow at the Institute of Development Studies at the University of Sussex, who regrettably passed away during the writing of this book. This was a tremendous shock to me. Without the love and encouragement of Gordon when I was an M.Phil. student in the Institute, I might not have been able to finish my graduate education in a foreign country. It is very unfortunate that Gordon is unable to see the fruits of his support in the publication of this book.

GODFREY YEUNG

List of Abbreviations

ASEAN	Association for South-East Asian Nations
CCP	Chinese Communist Party
CJV	Contractual joint venture
DCs	Developed countries
DCFERT	Dongguan's Commission for Foreign Economic Relations and Trade
ECLAC	Economic Commission for Latin America and the Caribbean
EJV	Equity joint venture
EOI	Export-orientated industrialization
FDI	Foreign direct investment
GDP	Gross domestic product
HK	Hong Kong
HK$	Hong Kong dollars
IDP	Investment development path
JV	Joint venture
KW	Kilowatts
KWh	Kilowatts/hour
LDCs	Less developed countries
NIEs	Newly industrialized economies
OEM	Original equipment manufacturer
OLI	Ownership (O), locational (L) and internalization (I) advantages for foreign direct investment proposed by John Dunning
P&A	Processing and assembling
PRC	People's Republic of China
R&D	Research and development
RMB	*Renminbi*, Chinese currency, the unit is *yuan*
sanlai yibu	Foreign investment in forms of processing and assembling and compensation trade
sanzi qiye	Three forms of foreign-financed enterprise, including equity joint ventures, contractual joint ventures and wholly foreign-owned ventures
SEZ	Special Economic Zone
SMEs	Small and medium-sized enterprises
SOEs	State-owned enterprises

TNCs	Transnational corporation
TQM	Total quality management
TVEs	Township and village enterprises
USA	United States of America
US$	United States dollar
VAT	Value added tax
WFV	Wholly foreign-owned venture
WWII	The Second World War

Notes:
1 billion = 1000 million
1 US$ = 8.28 RMB in 1997
1 *mu* = 666.66m^2
Apart from well-known names, such as Mao Tse-tung, all the Chinese terms in the text are in Mandarin (*pin-yin* system) rather than Cantonese (Yale romanization system).

1
Introduction

> Where is the field of study of international capital flows head[ing]? ... Some useful insights might be gained by economists' efforts to understand and integrate into their own thought structures the work of political scientists ... In short, the field is likely to yield many more Ph.D. theses, articles and books. (Grubel, 1982, pp. 18–19)

Globalization was a fashionable term in the 1990s.[1] Its impact on the emerging markets of less developed countries (LDCs) was a bone of contention during the contagious financial crises that began in Thailand before diffusing into other Southeast and East Asian countries. These events suggest that we have overestimated our understanding of the dynamic nature of globalization and the case of foreign direct investment (FDI). Grubel (1982, pp. 18–19) is correct in pointing out that inter-disciplinary research can enhance our understanding of this issue.

The attractiveness of China for foreign investors has been increasing as the memory of the universally condemned Tiananmen Square 'Incident' in 1989 has faded. As the world's second-largest recipient of FDI after the United States of America (USA), for the fourth consecutive year, in 1997 there was US$45.3 billion capital flow into China.[2] Apart from the trade surplus, the capital injection via FDI is one of the most significant factors contributing to the doubling of China's foreign exchange reserves within two years (SCMP, 1997a, 1997c, 1998i).[3]

Labour-intensive, low-technology and low-value-added manufacturing relocated from Hong Kong are the generally perceived characteristics of foreign-financed firms in the Pearl River Delta. But how can we reconcile the fact that a number of transnational corporations (TNCs) in different industrial sectors selected Dongguan as (one of) their

manufacturing bases in China?[4] Why did they not select other parts of the Pearl River Delta for their manufacturing bases, such as Shenzhen Special Economic Zone (SEZ), which is adjacent to Hong Kong? What are the theoretical implications of this phenomenon? To what extent did the inflow of FDI contribute to the average growth of 13 per cent in the real gross domestic product (GDP) per capita in Dongguan between 1978 and 1997? What are the other socio-economic effects of this rapid economic growth in Dongguan?

1.1 Research objectives

This research investigates the causes and effects of foreign investment in Dongguan municipality (*dejishi* or prefectural city),[5] hereafter called Dongguan for the sake of simplicity, which is located between the Shenzhen and Guangzhou municipalities in Guangdong province. To investigate the favourable factors that encourage foreign entrepreneurs to invest in Dongguan, three research propositions (based on the Dunning's OLI framework), are outlined:[6]

(i) foreign entrepreneurs invest in Dongguan because of its ownership-specific advantages;
(ii) they invest in Dongguan because of its locational advantages; and
(iii) they invest in Dongguan because of its internalization advantages.

To study the socio-economic implications of foreign investment in Dongguan, seven research questions on domestic industry, industrial efficiency, infrastructure, economic restructuring, economic growth, labour abuse and connections are outlined:

(i) To what extent does the inflow of foreign investment facilitate the development of domestic-funded industries in Dongguan?
(ii) To what extent does the inflow of foreign investment lead to the improvement of industrial efficiency by introducing competition, new skills and technology?
(iii) To what extent does the inflow of foreign investment accelerate infrastructure development in Dongguan, particularly with regard to energy (electricity supplies), transportation (motorway network) and telecommunications?
(iv) To what extent does the inflow of foreign investment assist the sectoral restructuring of Dongguan from a primary producing to a manufacturing orientated economy?

(v) To what extent does the inflow of foreign investment accelerate the economic growth of Dongguan?
(vi) To what extent does the inflow of foreign investment contribute to labour abuse (by employers) in Dongguan?
(vii) To what extent does the inflow of foreign investment foster the roles of *guanxi* (connections) in Dongguan?

1.2 Terminology defined

Before proceeding to outline the research methodology, several definitional issues about FDI and the types of foreign investment in China must be clarified.

FDI can be measured in terms of stocks and flows. FDI stocks are estimated by the net balance of cumulative FDI inflow over a period of time, which is useful to illustrate the overall investment pattern of foreign investors (and the structure of international production) in the host country. FDI inflow and outflow is the injection of foreign capital into, and withdrawal of foreign capital from the host country *within* a given period of time. Thus it is useful to indicate the possible changes in the foreign investment pattern. Therefore, the inward FDI flow data reveal the current strength of location-specific advantages of the host country, while the outward FDI flow figures disclose the current capacity of ownership-specific advantages of the host country. In addition, the relationship between FDI stock and FDI flow is interdependent. By definition, the net inflow of FDI increases the stock of FDI. The stock of FDI *per se* may generate an outflow of FDI in the form of profits, which may be reinvested, thus adding to the stock. The size of these profits in turn depends on the size, rate of return and the vintage of investment stock (UNCTAD-DTCI, 1995, pp. 12–13).

Unlike conventional definitions of FDI: 'the act of acquiring assets outside one's home country' (Grubel, 1987, p. 403) or the 'cross-border expenditures to acquire or expand corporate control of productive assets' (Froot, 1993, p. 1), the official Chinese counterpart incorporates three forms of direct foreign-invested enterprises – *sanzi qiye*, that is, equity joint venture (EJV); contractual (or co-operative) joint venture (CJV); and wholly foreign-owned venture (WFV) – and joint exploration of resources (category II, item 4 in Table 1.1).[7]

An EJV is a limited liability company jointly managed by Chinese and foreign partners in proportion to the size of their respective investment. The EJV is usually engaged in long-term investment and any profit distributed according to the equity shares of its partners. The

Table 1.1 Categories of foreign investment in China

Formal classification		*Alternative classification*
I	Foreign loan (*duiwai jiekuan*)	
1	Loan from foreign government	
2	Loan from international financial organization	No alternative classification
3	Exports credit, includes sellers' credit	
4	Loan from foreign banks	
5	Bonds and stocks issued overseas	
II	Foreign direct investment (*waishang zhijie touzi*)	
1	Equity joint venture (EJV) (*hezi jingying qiye*)	
2	Contractual joint venture (CJV) (*hezou jingying giye*)	*sanzi qiye*
3	Wholly foreign-owned venture (WFV) (*waishang duzi jingying qiye*)	
4	Joint exploration of resources or co-operative development (*hezou kaifa ziyuan*)	No alternative classification
III	Other foreign investment (*linglei waishang touzi*)	
1	International lease (*guoji zulin*)	No alternative classification
2	Compensation trade (*buchang maoyi*)	
3	Processing and assembling (P&A) (*jiagong zhuangpei*)	*sanlai yibu*

Source: SSISCGP, 1996, p. 31.

CJV includes an array of flexible long-term contractual arrangements in the management of and profit-sharing between the Chinese and foreign partners, but are not designated as EJV. The parties involved contribute specific resources and perform the tasks prescribed in the contract; usually no new entity is established (the CJV is not a taxable entity and the parties are taxed separately). Therefore the CJV is not included in the conventional definition of FDI (Ho and Huenemann, 1984, p. 29; Chen, 1986, p. 3; UNCTC, 1988, p. 55). However, the CJV can be a legal entity with its own board of directors and even limited liability in some cases (see Table 1.2). Under these circumstances, the distinctions between an EJV and a CJV are blurred. Moreover, the contractual period of a CJV can be very short – for example, five years. Under a WFV, the venture is completely owned by foreign investors but the duration of its investment contract requires government

Table 1.2 A synopsis of CJV and EJV

	CJV	*EJV*
Type of co-operation	By contract	By equity
Registered capital/ funding method	All registered capital and equipment provided by foreign investor on interest-free terms Foreign investor provides majority of registered capital and equipment on interest-free terms plus a small capital investment from Chinese partner Registered capital converted from equipment and facilities provided by foreign and Chinese partners	Both Chinese and foreign partners must invest a certain amount of capital in the venture and this determines their equity shares
Legal entity status	May or may not be a legal entity venture	A legal entity venture
Organization of venture	Established a board of directors under a legal entity venture Established co-operative management committee under a non-legal entity venture	Established a board of directors
Management of venture	Managed by either partner or by third party appointed by the venture	Managed by both partners General manager appointed by board of directors
Revenue distribution	By contract	By equity share
Taxation	Foreign and Chinese partners taxed separately before 1 July 1991 Can be taxed separated or together for non-legal entity venture	Responsibility of venture

Table 1.2 A synopsis of CJV and EJV *(continued)*

	CJV	*EJV*
Assets distribution after contract expiry	Net value of assets in venture belong to Chinese partner (no reimbursement to foreign partner)	Net value of venture assets distributed according to equity share of foreign and Chinese partners

Sources: Liu and Zhen, 1992, pp. 64–80; Pei, 1996, pp. 85–6.

approval. The net profits and expatriate income of employees can be taken back to the home country (Ma *et al.*, 1994, pp. 143–7).

The official Chinese definition of foreign investment incorporates three main categories: foreign loan; FDI; and other foreign investment as shown in categories I to III in Table 1.1. However, this book focuses on two aspects of foreign investment: *sanzi qiye* (items 1 to 3 of category II, Table 1.1) and *sanlai yibu* (items 2 (compensation trade) and 3 (processing and assembling (P&A)) of category III, Table 1.1). Other forms of foreign investment such as various forms of foreign loans in China are not the focus and will not be discussed in this book.

The three forms of P&A (*sanlai*) include *laijian zhuangpei*, *lailiao jiagong* and *laiyang jiagong*, while the compensation trade is referred to as *yibu*. In *laijian zhuangpei*, Chinese partners receive a net fee to assemble supplied components according to a design provided by foreign investors. In *lailiao jiagong* (contract processing), Chinese partners receive a net fee to process supplied raw materials into finished products, according to the foreign investors' requirements, and deliver them to foreign partners for exportation. It is *de facto* a form of CJV. In *laiyang jiagong* (import processing), Chinese partners produce and export the finished products according to a sample supplied by foreign investors. In the case of import processing, foreign-funded firms have to import raw materials and export finished products on their own account. In principle, the major difference between P&A and other joint ventures (JVs) is that the output of the former investment arrangement is produced for export only. Those firms intending to target the domestic market are advised to convert P&A contracts into EJVs or CJVs.[8] Apart from demanding more resources, EJV and CJV generally offer greater scope for financial and managerial autonomy and internalization than P&A. Compensation trade is also called 'parallel trade' as Chinese partners import equipment and technology funded by foreign investors'

loans and repay it with product (rather than money) in instalments after the equipment becomes operational. It can be regarded as a form of barter trade (Liu and Zhen, 1992, pp. 71–2).

There are generally two categories of contracts in P&A: 'priced' and 'non-priced'. In 'priced' contracts, the value of imported equipment is deducted from the P&A fee and the machines belong to the Chinese partners after the expiry of contracts. In 'non-priced' contracts, Chinese partners do not pay explicit charges for using the imported equipment, which belongs to foreign partners. In the official statistics, the P&A value usually excludes the value of imported 'non-priced' equipment. Therefore, the figure is under-reported. Unless specified otherwise, the P&A figures reported in this book include the 'non-priced' value.

Moreover, it is necessary to distinguish between 'utilized foreign investment' (*shiji liyong waizi*) and 'approved or contracted foreign investment' (*getong guiding liyong waizi*) in official Chinese statistics. Utilized foreign capital is the *actual* value of investment that has already materialized, while contracted foreign capital is the *pledged* value of investment. Although the latter is often used to project the extent of foreign investment, it includes a number of aborted projects and thus tends to overestimate the real extent of investment inflows.

Furthermore, official Chinese statistics do not distinguish between investment originating from China *vis-à-vis* that from other countries of origin. A portion of investment in China classified as Hong Kong origin is in fact the reinvestment of capital originating from China via overseas subsidiaries or shell companies in Hong Kong in order to enjoy preferential taxation and other privileges intended exclusively for foreigner investors.[9] Some analysts in Hong Kong estimate such reinvestment value at HK$30 billion (Goodman and Feng, 1994, p. 191), while others estimate that it makes up 25–40 per cent of the foreign-financed firms in China (Levy, 1994, p. xv; Lu and Tang, 1997, p. 2; SCMP, 1998b).[10] However, the real amount of reinvestment is unknown. It is very difficult to make an accurate estimation as the capital usually comes from subsidiaries based in Hong Kong, which is likely to be partially owned by Hong Kong-based conglomerates in the form of interlocked share-holding. Apart from reinvestment by companies originating in China, foreign investment figures may be exaggerated by local and provincial governments to impress the central government.[11] The book value of imported equipment and technology may be exaggerated by TNCs to gain a higher equity share than their Chinese partners, lower taxes arising from larger capital expenditure, and depreciation credits

(UNCTAD-DTCI, 1995, p. 59).[12] Moreover, the statistics may include those inoperative JVs used for scams, such as importing duty-free goods, or to assist foreign travel (Levy, 1994, pp. xviii–xix; Sung, 1995, p. 65). To avoid further confusion and distortion by using various forms of data manipulation, unless otherwise indicated, this book defines *foreign investment as capital inflow into China*, basically the same definition as used by official Chinese statistical publications.[13]

1.3 Research methodology

An inter-disciplinary approach is used to conduct a holistic analysis of the causes and effects of foreign investment in Dongguan. Dunning's eclectic paradigm of international production and other theories are used as a theoretical framework to explain the favourable factors for foreign investment and its effects in Dongguan. This essentially addresses the three research propositions and seven research questions outlined in section 1.1 above.

To maintain the reliability of the statistical database at the highest possible standard, it is synthesized and then cross-checked with at least one item of published material, including official documents for internal circulation, published by the Dongguan government. Where there is lack of supportive evidence (for example, data gathered from the field), these data are regarded as estimation and this is specified explicitly.

Apart from the statistical database and information compiled from published and unpublished official reports, the inductive field survey approach (case studies based on semi-structured interviews and site observation) is used to collect information on the changing nature of the investment environment and its socio-economic effects in Dongguan since the economic reforms of 1978. Through the survey, it is possible to investigate the qualitative aspects of foreign investment and economic development of Dongguan, which are not represented by ordinary statistical methods.

From November 1996 to June 1997, I visited and interviewed the owners or factory managers of twenty-six foreign-financed enterprises located in seven towns in Dongguan.[14] The sample firms ranged across the following manufacturing sectors – plastics and metal products; textiles and clothing; toys; leather products; jewellery; electrical appliances; electronic products; printing; and paper products (see Table 1.3). Two notable omissions from the sample are the woodwork (furniture) and food-processing sectors. Moreover, the overwhelming majority of the sample are investors of Hong Kong origin engaged in P&A invest-

Table 1.3 Characteristics of 26 case studies in Dongguan

	Towns						
Characteristics	*Humen*	*Fenggang*	*Shilong*	*Laiobu*	*Tangxia*	*Changan*	*Xiegang*
Investment format							
EJV	1	1	1	–	–	1	–
P&A	14	4	1	1	1	–	1
Sources of investment							
Hong Kong	14	4	2	1	1	1	1
Other	1	1	–	–	–	–	–
Industrial sectors							
Plastics and metal products	2	2	–	–	–	–	–
Textiles and clothing	5	–	2	–	–	1	–
Toys	–	–	–	1	–	–	–
Leather products	3	–	–	–	–	–	–
Electrical appliances	5	1	–	–	–	–	–
Jewellery	–	1	–	–	–	–	–
Electronic products	–	1	–	–	1	–	–
Printing Paper products	–	–	–	–	–	–	1
Number of workers							
<50	2	1	–	–	–	–	1
51–500	12	1	1	–	1	1	–
>501	1	3	1	1	–	–	–
Total cases	15	5	2	1	1	1	1

Source: Compiled from the field survey.

ment. Most of the firms investigated (fifteen cases) are located in Humen town. In terms of industrial sectors, textile, and clothing (eight cases) and manufacturing of electrical appliances (six cases) account for more than half of the total firms interviewed. In terms of employment size, the medium-sized firms (51–500 workers) represent more than two-thirds of the cases. However, it is arbitrary and even misleading to use the number of workers to determine the size of firm, as a large-scale, highly automated firm might employ only 200 workers, while a medium-sized labour-intensive clothing firm might employ 500 or more. The majority of the firms investigated belong to the class of

small and medium-sized enterprises (SMEs), if capital value and size of factory premises are used to determine the size of firm.

To better understand the operation and difficulties that may be encountered by foreign-financed firms in Dongguan, I worked part-time on a voluntary basis in a Hong Kong-funded P&A metal products manufacturing firm for six weeks, through April/May 1997. This valuable experience not only allowed me to co-ordinate one particular P&A order for the firm, but also provided numerous opportunities to talk informally to various people, including the owner, factory managers, technicians and assembly workers (mainly migrant workers). Moreover, the work experience enabled me to observe the firm in operation for an extended period, which is more informative than the rather limited observation allowed during a conventional 'guided tour'.

To assess the socio-economic impact of foreign investment in Dongguan, I travelled to most towns in Dongguan between November 1996 and June 1997. In addition to field observation, I talked to people, from all walks of life, living or working in Dongguan – such as local government officials, cadres, local residents and expatriates (including Hong Kong-based workers and migrant workers). This valuable primary information is presented in Chapters 4 and 5.

Time and resource constraints were the main reasons for selecting the twenty-six foreign-financed firms as case studies in this book. Every Sinologist knows that securing appropriate personal connections is the necessary, and probably the most important, precondition for conducting a field survey in China. This is especially the case in firm visits and interviews, and explains why the majority of interviewed firms are located in Humen town.[15] The use of non-random sampling is, in fact, commonly employed by Sinologists – for example, Child (1994), Warner (1994, 1995), Lin (1996) and MacBean (1996). Lin (1996, p. 169) uses his personal connections to identify and conduct interviews in twenty-two overseas companies originating in China, while MacBean (1996, p. 197) argues that, in China, it is 'not possible to construct a random sample' of foreign trade corporations to be interviewed formally.[16]

To facilitate conversation in a friendly environment, all interviews were conducted in a semi-structural and informal manner (unaccompanied by government officials). Apart from a number of essential questions, I let the interviewees guide the conversation as the situation allowed.[17] The advantage of this approach is that more information is collected than might be expected from a formal question-and-answer interview. The comprehensive sixty pages of A4-sized, single-spaced typed interview scripts compiled justifies this argument.

Apart from factual information about the firm (for example, date of establishment, equity proportion, contractual term, foreign exchange retention rate, types of imported technology, origins and number of Chinese or foreign partners, recruitment, remuneration and training of workers), the interviews focused on the causes and effects of foreign investment in Dongguan. The four issues and their corresponding questions in the semi-structured interview were as follows:[18]

1. The past and present investment environment in Dongguan, based on the OLI framework.
   - (i) Why did the firm invest in Dongguan rather than other areas in southern China?
   - (ii) What was the most important factor which contributed to the decision to invest in Dongguan? (Does it fit into the OLI model?)
   - (iii) What are the opinions of factory managers on the foreign investment policy promulgated by the local government? How does the government attract foreign investment, especially in the provision of incentive policies, such as tax holidays?
   - (iv) Which aspects of the investment environment in Dongguan have deteriorated or improved since the firm was established (for example, land costs, labour costs, labour turnover, labour productivity, infrastructure, and so on)? What are the opinions of factory managers?
2. The socio-economic effects of foreign investment in Dongguan.
   - (i) What are the opinions of factory managers about the productivity of local and migrant workers?
   - (ii) How and to what extent is the inflow of foreign investment related to the economic growth and restructuring in Dongguan?
   - (iii) What are the effects of foreign investment on the complementary and rival industries in Dongguan?
   - (iv) Is *guanxi* playing a role in the operation of the firm? If yes, please illustrate it with examples.
   - (v) Are there any other socio-economic effects of concern to the firm, such as pollution?
3. The difficulties encountered by foreign-financed firms in Dongguan.
   - (i) Is there any bureaucratic red tape at the local, municipal and provincial level of government? What would the firm do to overcome it?

(ii) Is there any (illegal) administrative intervention, legitimate and illegitimate surcharges (taxes) from the government? What would the firm do if there was?
(iii) Are there any conflicts between Chinese and foreign partners?
(iv) Are there any other difficulties or conflicts that cannot be resolved? Who would the firm ask for assistance if there were?

4. Prospects for Dongguan.

(i) Will the firm expand its present investment in Dongguan? Why/Why not?
(ii) Will the firm discuss briefly its prospects or those of industry in Dongguan?

1.4 Significance of this book

As one of the 'Four Little Tigers' (*sixiaohu*) in Guangdong province, Dongguan has been one of the fastest growing cities in the Pearl River Delta since the implementation of the open policy in 1979.[19] As the national symbol of P&A (Vogel, 1989, p. 175), Taiping administrative region (*guanliqu*) of Humen town in Dongguan was also the site for the first (Hong Kong-funded) P&A firm (manufacturing handbags) in China, established in September 1978 (NFRB, 1988; DBS, 1998, p. 15).[20] With its excellent location and strong ethnic linkage with the overseas Chinese population in Hong Kong, Dongguan is able to attract a significant amount of foreign investment (especially that originating in Hong Kong, Taiwan and Macau).[21]

The effects of foreign investment in Dongguan have been momentous. Between 1978 and 1997, the average annual growth rates of real GDP per capita, real industrial and agricultural output value and export value were 13 per cent, 20 per cent and 30 per cent, respectively. Despite the government's efforts, some of the welfare gains consequent upon rapid economic growth have been offset by the aggravation of crime, the intensification of labour abuse in the form of long working hours and non-payment of wages (especially of migrants), the generation of rent-seeking opportunities, the polarization of income, and increased pollution (particularly from industrial waste).

Despite the significance for foreign investment policy, only a small amount of research has been conducted in Dongguan. Most, if not all, of the literature in Dongguan consists of Chinese official internal reports, which are not accessible to the general public in China (such as Gao, 1994; Liu, 1994; Jing-tu Ye, 1994; Ye, Zhang and Liu 1994) In

the literature published in English, no systematic and in-depth research has been published on the relationship between foreign investment and the socio-economic development of Dongguan.[22] In fact, I do not know of any comprehensive study about the socio-economic causes and effects of foreign investment conducted on a micro-geographical scale (for example, municipal level) in China, even taking into account the Chinese official internal reports. This bizarre phenomenon is caused partly by the scarcity of information and the difficulties of data accessibility. Unlike the Shenzhen SEZ, which has had its own statistical yearbook (also available outside China) since the early 1980s, official statistics on Dongguan were scarcely comprehensive and most of them were not disclosed until 1998. This explains why the bulk of the literature is either confined to macro- or meso-geographical scale studies – such as the general study of FDI and economic development in southern China conducted by Lau *et al*. (1996) and Lardy (1996) – or else focus on the characteristics of certain industries or investment categories – for example, Child and Yan (1997) on the management characteristics of Sino-foreign JVs; or Ho (1996) on the household economy (*geti jingji*).

With the assistance of several high-ranking cadres (who wish to remain anonymous to prevent any possible reprimand) in the Dongguan government, I was able to collect and synthesize a statistical database based on the *Statistical Yearbook of Dongguan* and other statistical publications of the Dongguan Bureau of Statistics, of which a portion of the data are previously unpublished. The synthesized database is used to illustrate the change of Dongguan's economic structure through export-orientated industrialization (including the development of new industries), and the commercialization of agriculture. It also illustrates other effects which may have been caused (at least in part) by the inflow of foreign investment; to name a few – the development of infrastructure; the change in the nature of production factors (including the inflow of immigrants); the change in living standards; the mentality of local people and migrants; and the increasing geographical differentiation of economic growth.

Apart from the synthesized database, this research is the first systematic and in-depth investigation into the causes and consequences of foreign investment to have been conducted in Dongguan. The abundant primary information gathered from the semi-structured interviews shows not only the favourable investment factors based on the OLI framework, but also delineates the socio-economic consequences of foreign investment at micro-geographical level (at township or even

at village level) from different perspectives. The experiences of Dongguan not only illustrate the effectiveness and deficiencies of the economic growth-orientated policy in foreign investment adopted by the local government during the 1980s, but also sheds light on the applicability of various Western FDI theories in explaining the development of Dongguan. Most of the first-hand information is unlikely to be revealed by either macro-statistics or causal observation.

According to Dunning's eclectic paradigm of international production, the favourable factors for foreign investors in Dongguan can be categorized under the OLI (ownership, locational and internalization advantages) framework: for example, low production costs, a developed physical and social infrastructure, local sourcing and catering for the Chinese market, and subcontractual and pseudo integration. None the less, the paradigm is unable to explain the dynamic interaction between foreign investment and the investment environment at the micro-geographical level. It also fails to explain three particular factors affecting foreign investment in Dongguan: (i) overseas Chinese ethnic linkage and personal connections; (ii) business culture; and (iii) regional differences within Dongguan in the implementation of foreign investment policy.

Apart from being the first comprehensive research based on primary quantitative and qualitative data undertaken in Dongguan, this book contributes to the literature by proposing a 'dynamic symbiosis' paradigm of FDI. Unlike the segmented analyses and asocial approaches associated with conventional Western FDI theories, the proposed paradigm identifies the political and socio-economic relationships between different players in the host country. By applying the paradigm to Dongguan, the political and socio-economic causes of foreign investment and their effects are analyzed, together with the interaction of the various players. Subsequently, the delicate relationship and mechanism of the so-called 'Chinese crony capitalism' is revealed. As the existing connection-based '*guanxi*-network' foreign investment begins to run out of steam, it is suggested that the government should promote a 'rule-of-law' society, control rent-seeking activities and enrich its human capital endowment.

This book contributes to the literature by addressing the vacuum in the micro-geographical scale studies of the causes and effects of foreign investment in Dongguan. It not only enriches the general FDI studies of the Pearl River Delta of China, but also provides an unprecedented, detailed, factual and theoretical account of the political economy of foreign investment in Dongguan.

Several aspects of this research must be clarified. First, some effects of foreign investment on development, such as income distribution and

the drain of capital in the form of repatriation of profits, will not be discussed in detail because of data limitations.[23] Second, the macroeconomic effects of FDI on the host country, such as the effects of the internationalization strategy of TNCs in the development of China, is beyond the scope of this book, as it focuses on a detailed micro-geographical study of Dongguan.

1.5 Organization of the book

The theoretical justification for the research propositions is presented in Chapter 2. In Chapter 3, a brief (economic) history of Dongguan is presented, with an analysis of the economic structure in Dongguan based mainly on the synthesized statistical database.

Chapters 4 and 5 are largely based on primary information gathered from the synthesized statistical database and the semi-structured interviews conducted in Dongguan. The discussion of the research propositions on ownership, locational and internalization advantages of foreign investment, the causes of foreign investment in Dongguan, and the applicability of the international production paradigm of FDI and its implications are analyzed in Chapter 4. In Chapter 5, research questions on domestic industry, industrial efficiency, infrastructure, economic restructuring, economic growth, labour abuse and connections are analyzed. Other aspects of the socio-economic effects of foreign investment in Dongguan are also analyzed. The competitive approaches of foreign-financed firms, the environmental impacts of rapid economic growth, the work environment and industrial safety, the mentality of local people and migrants are some aspects of socio-economic impacts of foreign investment that are investigated.

Finally, the major findings of the book are summarized in Chapter 6. The practical experience of nearly two decades of foreign investment and economic reform in Dongguan is examined. The theoretical implications of this study (such as the so-called 'Chinese crony capitalism') and the proposed 'dynamic symbiosis' paradigm of FDI are highlighted before presenting the policy agenda.

Notes

1. Globalization is a process of widening the extent and form of cross-border transactions which deepen the economic interdependence between the participating players (countries) (McGrew, 1992, p. 23; Dunning, 1997, pp. 33–4). It is driven mainly by the spread of transnational corporations through the international flow of capital and the new international division of labour (or world-wide intra-firm division of labour). The process of

economic integration among nations is accelerated by the ease of transferring money and companies between boundaries (stateless corporation) through the advancement of technology (Kogut and Gittelman, 1996, pp. 1649–53; Hu, 1996, p. 1664). Dicken (1998, p. 5) argues that both internationalization and globalization co-exist, but they differ in their processes: '*Internationalization processes* involve the simple extension of economic activities across national boundaries. It is, essentially, a *quantitative* process which leads to a more extensive geographical pattern of economic activity. *Globalization processes* are *qualitatively* different from internationalization processes. They involve not merely the geographical extension of economic activity across national boundaries but also -– and more importantly -– the *functional integration* of such internationally dispersed activities.' Typical proponents of globalization include Reich (1991), Barnet and Cavanagh (1995) and Ohmae (1985, 1990, 1995). For sceptical views on globalization, refer to Hirst and Thompson (1992, 1996), Ruigrok and Van Tulder (1995) and Gray (1998).

2. According to a World Bank estimate, China accounted for 40 per cent of the US$110 billion FDI flow into the LDCs, while Mexico, which ranked second, accounted for only US$6.4 billion in 1996. Based on the survey of 3000 TNCs world-wide, the annual *World Competitiveness Report* compiled under the World Economic Forum ranked China as the most favoured location for FDI in 1998–9. According to the report, its giant market size, the potential for sustainable growth in the next decade and the cheap labour force rather than taxation incentives are the main aspects of China attractive for FDI (SCMP, 1997b, 1997c). The FDI inflow into China was expected to remain at around US$45 billion in 1998 as the increased investment from North America and Europe is able to compensate the 12 per cent decline of FDI inflow from Asia because of the financial crisis (SCMP, 1998d).
3. With more than US$145 billion in its treasury in December 1998, China ranked second to Japan in the world in terms of foreign exchange reserves. If the US$89.6 billion of foreign exchange reserves in Hong Kong is included, the US$234.6 billion of reserves in China is marginally higher than the US$215.9 billion in Japan (HKS, 1997b; SCMP, 1998c, 1999e).
4. Examples of TNCs are Nestlé (coffee), Nokia (mobile phones), Duracell (batteries), AST Computers, Samsung and Hitachi, while examples of regional conglomerates are the subcontractors for Nike (training shoes), original equipment manufacturers (OEMs) for Gucci watch and Hong Kong-funded Vtech, and so on.
5. In 1985, Dongguan was upgraded from county status to dependent city status, *xianjishi*, under the *de jure* jurisdiction of Huiyang prefecture. It was further granted the status of prefectural city in 1988 (Vogel, 1989, pp. 248–50).
6. These three research propositions also reflect the usefulness of Western FDI theories in explaining the experience of Dongguan. See Chapter 2 on the theoretical rationales of the research propositions.
7. The conventional FDI embraces WFV and EJV (items 1 and 3 of category II in Table 1.1), which is usually established through (i) mergers and acquisitions with another company; (ii) a direct subsidiary (greenfield FDI); (iii) an

EJV; and (iv) buying a controlling stake of the public listed company, in the host country. In the literature, there is some confusion about the Chinese definition of FDI. For example, Zhang (1987, p. 7), Leung *et al*. (1991, p. 278), Lee (1993, p. 121), Hannan (1995, p. 312) and Zhang (1996, p. 481) classify *sanlai yibu* as FDI.

8. In reality, there are numerous variations within *sanzi qiye* and *sanlai yibu*. The final arrangement of a venture is determined by negotiation between Chinese and foreign investors (Thoburn *et al*., 1990, pp. 16–19; Thoburn *et al*., 1991, pp. 540–1). For example, P&A operation is based on the practice of subcontracting (*chenbao*) and Chinese government forbids *chenbao* in the operation of EJV. However, a number of EJVs are still operating based on *chenbao*. This is especially true of those EJVs converted from P&A contracts (Liu *et al*., 1992, p. 38). Moreover, a number of Hong Kong-originating small to medium-sized foreign-financed enterprises (classified as WFVs by definition) in Guangdong are registered as 'collective enterprises with P&A operation' to avoid the minimum investment capital requirement and bureaucracy required by the WFV law.
9. In some cases, recipients of foreign exchange loans from the Bank of China are classified under 'foreign investment' (Thoburn *et al*., 1990, p. 5). This is possible because Chinese laws governing foreign investment, such as the *Chinese–Foreign Equity Joint Venture Law*, the *Chinese–Foreign Contractual Joint Venture Law* and the *Foreign Capital Enterprise Law*, do not define clearly what kind of company can be considered as 'foreign' (Wang, 1995, p. 247). This reinvestment phenomenon may be more prominent in Guangdong because of the liberal interpretation of rules by its local authorities. Moreover, some investment in China of Hong Kong origin may come from the foreign-financed JVs or subsidiaries based in Hong Kong. This speculation is plausible, as Hong Kong is a highly globalized city with investment from a number of TNCs. Thus the investment figures by country of origin should be treated as general benchmarks rather than as absolutely accurate data.
10. Four China-originating subsidiaries in Hong Kong invested approximate US$1.5 billion in China, which accounted for approximately 14 per cent of all FDI inflow during the first three-quarters of 1993 (Lin, 1996). In 1994, there were 4500–4600 overseas-Chinese-funded enterprises (excluding Hong Kong) in 130 countries, 2800 of them being trading firms (UNCTAD-DTCI, 1995, p. 56; Tseng and Mak, 1996, p. 142). Tseng and Mak (1996, p. 144) estimate that the overseas outward investment from Guangdong is about US$200 million.
11. However, some analysts in Hong Kong estimate that the utilized foreign investment in P&A in Guangdong was 14 to 12 times higher than the official figures in 1990 and 1991, respectively (Liu *et al*., 1992, pp. 34–6). This underestimation is caused largely by the exclusion of the 'non-priced' equipment value imported under P&A in the official statistics on foreign investment.
12. In 1994, the State Administration for Import and Export Inspection investigated 5570 FDI projects and revealed that the actual value of its imported equipment was US$1.8 billion instead of the US$2.23 billion committed by the contracts. To monitor overvaluation, the State Administration for

Import and Export Inspection and the Ministry of Finance instituted the *Administrative Procedures for Appraising Foreign Invested Property* to inspect the fulfilment of contractual commitments in early 1994 (UNCTAD-DTCI, 1995, p. 59).

13. For the sake of intertemporal comparison, in this book Hong Kong-originated investment in China is regarded as foreign capital inflow. This is the case even though Hong Kong has been a part of China's sovereignty since 1 July 1997.
14. Apart from three interviews conducted in Hong Kong, all other interviews and visits were conducted in Dongguan (interview notes may be obtained from the author on request). Originally, the questionnaire survey was employed (as a supplement to case studies) to ask decision-makers of foreign-financed enterprises to identify the favourable (pull) factors for investment from a prepared list. The proportional allocation procedure and stratified random sampling methods were used to select 20 per cent (520 copies of questionnaires) of foreign-financed enterprises in each sector and in every town of Dongguan. Under the proportional allocation procedure, the sample size is divided among the strata (various non-overlapping groups within the population) in proportion to strata size. The advantage of this method is that it can provide a 'self-weighting' sample, since the sampling fraction is the same in each stratum. Thus one is more likely to achieve a representative sample of the population compared to the simple random-sampling method. The sample population was based on the most-recent (1996) directory compiled by the Office of the Dongguan's Industrial Census, the most authoritative and up-to-date database available at that time. None the less, the questionnaire survey was abandoned, as the return rate of less than 3 per cent would lead to non-representative results.
15. The major shortcoming of conducting field surveys in a number of local areas -– the survey results reflect geographical constraints and thus reveal a specific rather than a general pattern -– is overcome by the surveys' detail. Though the selected case studies are not generated from a random sample, there is no reason to suggest that there is any systematic bias for or against certain industrial sectors or regions.
16. The experience of preparing interviews and firm visits in Dongguan highlights the difficulty of conducting fieldwork in China. In one meeting, a senior village officer and his associates publicly proclaimed that I was a 'spy of a foreign country', probably trying to collect vital information to promote the 'peaceful revolution' to overthrow the socialist regime. After a series of careful explanations and promises made by my middlemen in Dongguan, the officer still accused the author of planning to conduct 'business espionage activities'. Afterwards, I learned from my informants that the officer was investigating whether this book would be published and circulated in China. Apart from the usual attitude of secrecy towards a foreigner (although I am native Chinese) conducting research in southern China, the anti-corruption policy enforced by the central government may have contributed to the difficulties I experienced. After a number of highly publicized anti-corruption cases and graft scandals, such as the demise of the former Beijing Chinese Communist Party (CCP) Secretary, Chen Xitong, arrested for accepting bribes and embezzling US$2.2 billion of

public funds, and the sensitive timing of the fieldwork (it was conducted just before the reunification of Hong Kong in 1997 and at a time when much attention was focused on Hong Kong and southern China), officials (especially those involved in corruption or other forms of power abuse) were extremely reluctant to talk to foreign visitors on sensitive topics.

17. Each interview lasted for at least one hour.
18. Not every question would be asked during the interviews as the list was prepared for all interviewees, such as factory managers, workers, government officials, and so on.
19. To parallel the 'Four Little Dragons' (Hong Kong, Taiwan, Singapore and South Korea) in Southeast Asia, the 'Four Little Tigers' are the four fastest-growing municipalities or dependent cities (Zhongshan, Shunde, Nanhai and Dongguan) in the world, with an average annual growth rate of 16.7 per cent between 1981 and 1991 (Fitzgerald, 1996, p. 8).
20. Thoburn *et al*. (1990, p. 18) report that *lailiao jiagong* contracts were recorded in Shunde county, Guangdong province in 1978, even before the establishment of SEZs in China.
21. The descendants of immigrants from Dongguan account for an estimated 700 000 people (more than 10 per cent of the local population) in Hong Kong, and another 200 000 overseas Chinese abroad (Fitzgerald, 1996, pp. 10, 13; DBS, 1998, p. 3).
22. This claim is based on an extensive literature survey in major university libraries in Hong Kong and England by the author during this research. The result of the literature survey is verified by conversations with several Sinologists. Thoburn *et al*. (1990), Thoburn *et al*. (1991), Chiu (1995), Fitzgerald (1996) and Zhang and Hung (1996) covered Dongguan in the study of FDI in southern China. Based on a household survey conducted in 1992, Li (1997) also investigated the relationship between migration and the income determination of Dongguan and Meizhou, Guangdong province. However, none of these studies is comprehensive. Refer to Chapter 2 of Yeung (1998) for further details.
23. Capital outflow from LDCs is a very important issue. However, it is neither the focus of this book nor are adequate data available to enable a detailed discussion (as the *yuan* is still inconvertible).

2
Theoretical Foundation

To provide the theoretical grounds for the research propositions outlined in Chapter 1, the major Western FDI theories and the socio-economic effects of FDI are examined in sections 2.1 and 2.2 of this chapter, respectively.

2.1 Western theories of FDI

In general, the Western FDI theories can be divided into six schools of thought: macroeconomic theory; industrial organization theory; location theory; product life-cycle theory; internalization theory; and the eclectic paradigm of international production.[1]

MacDougall–Kemp macroeconomic theory

Based on a neo-classical framework (perfect competition, one commodity and homogeneous capital), MacDougall (1960) and Kemp (1962, 1969) argue that FDI is a result of *capital arbitration*: capital will flow from the lower return-rate country to the higher return-rate country until the marginal productivity of capital is equalized (see Table 2.1).[2]

Rather than analyzing the causes of investment, as with other FDI theories, MacDougall–Kemp's model analyzes the welfare effects of FDI in the home and host countries. In any two countries (A and B) and a single homogeneous commodity (capital) world, *CD* (MPK_A) and *EG* (MPK_B) are the marginal productivity of capital in the home (country A) and host (country B) countries respectively (see Figure 2.1). Imagine that O_AQ and O_BQ are the initial capital endowments in the home and host countries respectively. The lower marginal productivity of capital (R_A) in the home country than in the host country (R_B) will lead to an inflow of capital from country A to country B until the return rate is

Table 2.1 A typology of theories of foreign direct investment

Theories	*Approaches*	*Limitations*
MacDougall–Kemp macroeconomic theory	Assume perfect competition, one commodity and homogenous capital Capital arbitrage: capital flow from countries of lower return to those of higher return will equalize its marginal productivities To analyse the welfare effects of FDI in the home and host countries	Does not distinguish FDI and foreign indirect portfolio investment Does not consider FDI in forms of technology, marketing and skill Static and partial equilibrium model Unable to explain two-way investment and TNCs
Industrial organization or market structure approach	Under oligopoly, the FDI pattern can be explained by ownership-specific advantages of TNCs on: Technology superiority, including management and marketing skills Exclusive control (or on favoured terms) of inputs in the host countries Economies of scale and diversification of risks Overcomes capital market imperfection	Limited on ownership-specific factors and unable to explain Japanese-type FDI, which is based on locational factors rather than oligopolistic market structure, technological orientation and product differentiation
Location theory	FDI by TNCs can be explained by locational advantages in host countries based on: Availability and real costs of production factors Targeting of host countries' markets By-passing trade restrictions Government-favoured policies on FDI	Focused on 'where' the FDI activities are concentrated: country-specific
Product life-cycle theory	Ownership and location-specific advantages determine the production site of a commodity: New product stage: an innovative oligopolist based in the home country	Unable to explain the FDI in non-standardized products, overseas markets' products and non-export substituting Does not consider the rate of change and time-lag between stages

Table 2.1 A typology of theories of foreign direct investment *(continued)*

Theories	*Approaches*	*Limitations*
	Maturing product stage: a mature oligopolist based in the host country with high income elasticity of demand and similar consumption pattern to the home country Standardized product stage: uniform products manufactured in LDCs for export purposes	The three stages are interdependent rather than independent International business approach based on American experience instead of the general pattern
Internalization theory	FDI is used to reduce transaction costs and internalize non-pecuniary externalities in goods or factor markets: Significant time-lags caused by lack of future market to co-ordinate interdependent markets Discriminatory pricing on intermediate product is not feasible in host country An indeterminate or unstable bargaining situation caused by a bilateral concentration of market power Inequality between buyer and seller caused by imperfect information on product's nature or value Government intervenes in international markets and opportunities for transfer pricing, tax havens arise	Transaction cost approach based on microeconomic (sectoral analysis), which neglects the macroeconomic effects of FDI on national and international economies

Table 2.1 A typology of theories of foreign direct investment *(continued)*

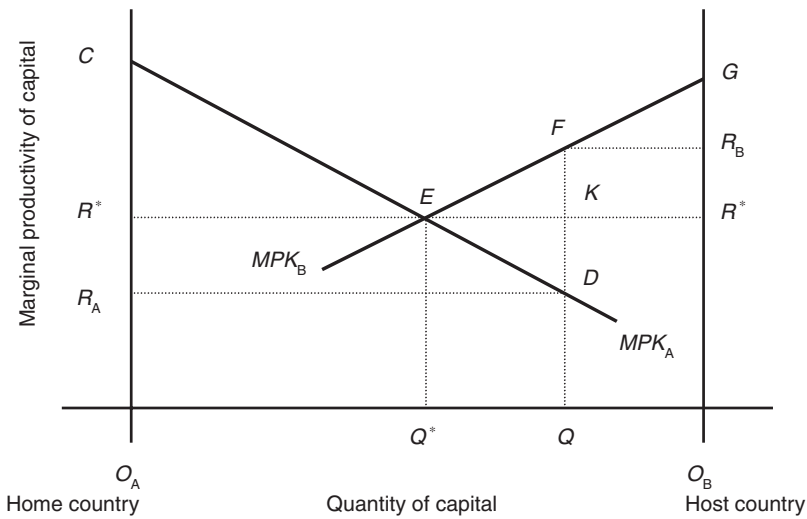
Theories	*Approaches*	*Limitations*
Eclectic paradigm of international production	Summarizes all the above theories and highlights three determinants of FDI – the OLI paradigm: Ownership-specific advantages over its rival firms in the host country's market Locational advantages in the host country over direct exportation (from the home country) and licensing to foreign firms Internalization advantages over licensing (via franchised) to foreign firms	International business approach based on microeconomic or sectoral analysis of the FDI pattern of TNCs but neglects the macroeconomic effects of FDI on national and international (or home and host) economies A framework which embraces/synthesizes most FDI theories rather than provides a new theory *per se*

Sources: Compiled from Chen, 1983, pp. 17–41; Santiago, 1987, pp. 318–19; Grubel, 1987, pp. 403–6; Narula, 1996, pp. 11–36.

equalized at R* (where Q^*Q of capital in country A is invested in country B) (Chen, 1983, pp. 18–19; Grubel, 1982, pp. 5–7, 1987, p. 404).

Consequently, the output and income levels of home and host countries change. The new output quantity in country A is O_ACEQ*, which is smaller than O_ACDQ before the capital outflow (see Figure 2.1). The new output quantity in country B is O_BGEQ*, which is larger than O_BGFQ before the capital inflow. Therefore, the quantity of total world output is increased by *EFD* (in which *EFK* is attributed to country A, and *EKD* is affiliated with country B). In terms of income level, both countries gain from the movement of capital. The total income of country A is O_ACEQ* plus *EKQQ** (the return of investment in country B), while the total income of country B is O_BGFQ plus *EFK* (Chen, 1983, pp. 18–19; Grubel, 1982, pp. 5–7, 1987, p. 404).[3]

Moreover, there is a change of capital and labour income in both countries. In country A, the labour income decreased from R_ADC to R^*EC, while the capital income increased from O_AR$_A$DQ to O_AR*KQ (in which O_AR*EQ^* is local income and EQ^*QK is income generated from country B) (see Figure 2.1). By the same token, in country B, the labour income increased from FR_BG to ER^*G, while the capital income decreased from O_BR$_B$FQ to O_BR*KQ (Chen, 1983, pp. 18–9; Grubel, 1982, pp. 5–7, 1987, p. 404).



Sources: Chen, 1983, p. 18; Grubel, 1982, pp. 6–7, 1987, p. 404.
Figure 2.1 Output and welfare effects of capital flows

The usefulness of MacDougall–Kemp's framework is limited by the fact that it is a static (disregards technological changes) and a partial-equilibrium model (one-commodity world) (see Table 2.1). Moreover, the assumption of homogeneous capital implies an inability to distinguish any differences between FDI and foreign indirect portfolio investment. As the model considers FDI as financial capital only, it does not consider the diffusion of technology and skill that is usually associated with FDI. (Chen, 1983, pp. 18–19; Grubel, 1982, pp. 5–7, 1987, p. 404).

Industrial organization theory

Under oligopoly, Hymer (1960, 1966, 1972), Caves (1971, 1974) and their associates (including Kindleberger, 1969; Knickerbocker, 1973) argue that *ownership-specific advantages* associated with TNCs motivate them to establish subsidiaries instead of exporting to or licensing in the host countries (see Table 2.1). Examples of ownership-specific advantages are as follows (Chen, 1983, pp. 22–4):

- Technological superiority, including management and marketing skills.
- Exclusive control (or on favoured terms) of inputs (natural resources, finance or skilled labour) in the host countries.
- Economies of scale and diversification of risks (Cohen, 1975).
- Ability to overcome capital market imperfection, such as the effects of exchange rate fluctuation on the repayment of loan (Aliber, 1970, 1972).

The theory of industrial organization adopts the firm- or industry-specific approach to analyze the characteristics of TNCs and that market structure. It explains why (American-type) FDI is predominant in a particular sector of industry but it may be unable to portray a general pattern of FDI (see Table 2.1). In fact, some Japanese scholars (for example, Kojima (1977, 1978, 1985) and Ozawa (1979a, 1979b)), criticize its inability to explain Japanese-type FDI, which is based on locational factors rather than oligopolistic market structures, technological orientation and product differentiation.

Location theory

Rather than being confined to the allocation of resources in a country, as with the traditional location theory, the FDI by TNCs can be explained by the following *locational advantages* in the host countries (Dunning, 1973) (see Table 2.1):

- Availability and the real costs of production factors.
- Targeting for host countries' markets.
- Bypassing trade restrictions, such as avoiding tariffs of the host countries.
- Government favourable policies toward FDI, for example, lower tax rates.

The location theory can be taken as a framework complementary to the theory of industrial organization, since the country-specific analysis in the former approach is able to supplement the industry-specific analysis in the latter (Chen, 1983, pp. 25–6).

Product life-cycle theory

Vernon (1966, 1971, 1974, 1977, 1979), by developing the product life-cycle theory, was the first to investigate the relationship between FDI and technology.[4] He argues that the manufacturing site of a commodity is determined by the ownership and location-specific advantages of the firm (see Table 2.1):

(i) *New product stage* An innovative oligopolist base which produces in the home country, since the demand for a new product is too small elsewhere.
(ii) *Matured product stage* As the expansion of production in the home country becomes too expensive, the mature oligopolist invests in a host country with high income elasticity of demand and similar consumption patterns to the home country.
(iii) *Standardized product stage* Since the product is uniform and its competition is based on price, the product is manufactured in LDCs for export.

Although the theory of product life-cycle considers changes in technology, it is not a dynamic theory, since the rate of change and the time-lags between product stages are not considered (see Table 2.1). Moreover, the three product stages are interdependent in reality. It is also unable to explain FDI in non-standardized products and products for overseas markets (instead of the home country market) (Chen, 1983, pp. 28–9).

Internalization theory

According to Hennart (1977, 1982) and Buckley and Casson (1976, 1985), FDI is used by TNCs to *reduce transaction costs* and internalize non-

pecuniary externalities in product and factor markets (Chen, 1983, p. 30) (see Table 2.1):[5]

- Lack of a future market to co-ordinate interdependent markets and results in significant time-lags.
- Discriminatory pricing on intermediate product (to explore market power efficiently) is not feasible in the host country.
- An indeterminate or unstable bargaining situation caused by a bilateral concentration of market power.
- Inequality between buyer and seller because of imperfect information about a product's nature or value.
- Government intervention in international markets, and opportunities for transfer pricing and tax havens arise.

The application of a microeconomic transaction cost approach by the internalization theory enables an analysis of the effects of internalization in TNCs through commercial or pseudo-economies of scale derived from transfer pricing, tax havens and exchange-rate manipulation. None the less, Kojima (1973, 1975, 1978, 1982) argues that this approach neglects the macroeconomic effects of FDI on national and international economies (see Table 2.1).

Eclectic paradigm of international production

The international production paradigm of FDI (the OLI paradigm), which postulates that ownership-specific, locational and internalization advantages are dominant factors affecting the pattern of FDI, is developed by Dunning (1977, 1979, 1980, 1981a, 1981b, 1983, 1993a, 1993b, 1997) and modified by his associates, including Narula (1993, 1996) and Ozawa (1992) (see Table 2.1).[6]

The rationales for FDI are clearly presented in Table 2.2. The *ownership-specific advantages* (O) are the prerequisite for contractual resource transfers, exportation or FDI by TNCs in the home country – that is, the exclusive production and technical expertise – and managerial and marketing skills possessed by TNCs in the home country being superior to those of its rival firms in the host country. Through exporting to or investing directly in the host country, TNCs in the home country can reduce their transaction costs and internalize externalities in factor or product markets. These *internalization advantages* (I) are larger than the benefits from licensing production expertise to foreign firms. Moreover, the theory postulates that TNCs moved out of their country of origin because the pull factors of *locational endowments* (L), such as low labour costs and preferential investment incentives avail-

Table 2.2 A taxonomic summary of country, industry and firm-specific OLI

	Structural variables		
OLI	*Country: home-host*	*Industry*	*Firm*
Ownership	Factor endowments, market size and character Government policy towards innovation, protection of proprietary rights, competition and industrial strcture Government controls on inward direct investment	Degree of product or process technological intensity Nature of innovations Extent of product differentiation Product economies: for example, economies of scale Imortance of favoured access to inputs and/or markets	Size, extent of produciton,process or market diversification Extent of enterprise is innovatory (marketing-orientated), or value security and/or stability Extent of economies of joint production
Internalization	Government intervention and extent of policies encouraging TNCs to Internalize transactions (through transfer pricing) Government policy on mergers Differences in market strcutures between countries (with respect to transaction costs, enforcement of contracts, buyers' uncertainty) Adequacy of technological and educational communications Infrastructure in host countries and ability to absorb portfolio resource transfers	Extent of vertical or horizonal integration (need to control sourcing of inputs or markets) Extent of internalizing advantages can be captured in contractual agreements Extent of local firms having complementary advantages to those of foreign firms Extent of opportunities for output specialization and international division of labour exist	Organizational and control procedures of enterprise Attitudes to growth and diversification (the boundaries of a firm's activities) Attitudes towards subcontracting or contractual ventures: for example, licensing, franchising, technical assistance agreements Extent to which control procedures can be built into contractual agreements

Table 2.2 A taxonomic summary of country, industry and firm-specific OLI *(continued)*

	Structural variables		
OLI	*Country: home-host*	*Industry*	*Firm*
Location	Physical and psychic distance between countries Government intervention in forms to tariffs, quotas, taxes and assistane to foreign investors or to own TNCs	Origin and distribution of immobile resources Transport costs of intermediate and final good products Industry-specific tariff and non-tariff barriers Nature of competition between firms in industry The divisibility of industrial activities and functions Significance of 'sensitive' locational variabless: for example, tax incentives percentage of labour in total costs	Management strategy towards forign involvement Age and experience of foreign involvement (position of enterprise in product cycle) Psychic distance variables: for example, culture, language, legal and commercial framework Attributes towards centralization of certain functions: for example, R&D, regional office and market allocation Geographical structure of asset portfolio and attitude to risk diversification

Source: Dunning, 1981b; 1982, pp. 86–7.

able from the host country, are stronger than those in the home country. In other words, TNCs select FDI because it can reap the locational advantages enjoyed by local industry in the host country, in which direct exportation and licensing cannot be obtained (Dunning, 1981b; 1982, pp. 85–6).

Moreover, Dunning (1981b; 1982, pp. 85–8) suggests that the change of net capital inflow or outflow of a country is determined by its changing economic structure in terms of industry- and firm-specific OLI compared with other countries. Various conditions of country-, industry- and firm-specific OLI are summarized in Table 2.3. In fact, Dunning (1981b) suggests that countries tend to pass through five different stages of development according to their propensity to net inward or outward investment. This propensity is determined by the extent and pattern of the ownership-specific advantage of each country's indigenous firms, its location-specific advantages and the internalization advantages, relative to the OLI endowments of other countries. A country's net international direct investment position is indicated by the investment development path (IDP). One country's IDP is related systematically to its stage of development relative to the world (Narula, 1996, p. 15).[7] The IDP can be derived for every country and it assumes implicitly that the development of the global economy is hierarchical (Ozawa, 1996, p. 142).

Two particular constraints must be considered in applying Western FDI theories. First, most of the above FDI theories emphasize only the causes of the foreign capital inflow, with the exception of MacDougall–Kemp's model. Second, most deductive FDI theories are formulated to explain the investment pattern of TNCs. Therefore they may not be fully applicable in Dongguan. The majority of investment in Dongguan originated from Hong Kong, Macau and Taiwan. As the investment is small to medium in scale, it does not possess the same

Table 2.3 The OLI characteristics of FDI exports and licensing

	Advantages		
Means of TNCs	*Ownership*	*Internalization*	*Foreign location*
FDI	✓	✓	✓
Exports	✓	✓	×
Contractual resource transfers	✓	×	×

Source: Dunning, 1981b; 1982, p. 86.

ownership-specific (such as monopoly power in production or technical know-how) and internalization advantages as do American and European-based TNC counterparts.[8] However, this does not undermine the usefulness of FDI theories for reference purposes, nor their applicability in Dongguan, since the locational advantages (especially low labour and land costs) in China are expected to be prominent. The literature generally suggests that the location of foreign investment in China is affected by factors such as the large Chinese market, a good export base (with China's export quotas), low labour costs, low rent, proximity to the target market, available of trained labour, supply of raw materials, investment incentives, location of qualified partners, infrastructure, proximity to Hong Kong, and so on (Sit, 1991, pp. 567–70). In Guangdong, the business-minded population and flexible bureaucracy, good infrastructure (especially telecommunications, road networks and electricity supplies), the increasing maturity of the market economy and the large domestic market in China are the favourable factors for attracting FDI (Levy, 1994).

Moreover, ownership-specific advantages in the form of managerial and marketing skills (in a package of product design, quality control, marketing and established overseas customer networks) associated with small to medium-sized foreign firms investing in China may be more sophisticated than their Chinese counterparts. Because of the high transaction costs in collecting licence fees in the highly protected market (with the problem of intellectual property privacy or the cost of maintaining high product quality), the internalization advantages over product licensing may also have contributed to foreign investment in Dongguan. The above rationales provide a theoretical explanation of the three research propositions on locational, ownership and internalization advantages outlined in Chapter 1.

2.2 Socio-economic effects in the host country

In terms of socio-economic effects, foreign investment influences the host country in at least seven aspects: domestic industry, industrial efficiency; infrastructure; economic structure; economic growth; labour condition; and the role of connections.[9]

Domestic industry

The inflow of foreign investment in LDCs is a *double-edged sword* for the development of local industry. On the one hand, the inflow of foreign investment may crowd out less resourceful local private invest-

ment by competing head-to-head in financial markets (Bos *et al.*, 1974; Lall and Streeten, 1977; Hughes and Dorrance, 1987). The inflow of foreign capital and technology may also discourage the development of technical expertise in local firms, which will have a long-term negative impact on host-country development (South Centre, 1997, p. 37). On the other hand, the inflow of foreign capital *per se* leads to an increase in local credit supply (capital stock), output and employment. For example, TNCs may allow the host country access to the international financial market (UNCTAD-DTCI, 1995, pp. 142–4). Moreover, new foreign investment projects may generate a market large enough for the development of complementary industries (for example, supplies of parts and components) in the host countries (ibid., pp. 203–6). In Taiwan, the sourcing of foreign affiliates from local subcontractors was an important factor contributing to the establishment of an export-orientated electrical and electronics industry in the 1960s and 1970s (Dahlman and Sananikone, 1990). In Mexico, thirty-seven out of sixty-three foreign manufacturing affiliates have subcontractual agreements with other local components suppliers, according to a survey conducted in 1990 (UNCTC, 1992, p. 43).

Under certain assumptions, Buffie (1993) argues that FDI in a protected and domestic market-orientated manufacturing sector will crowd-out domestic investment, while FDI in an export-orientated primary or manufacturing sector will crowd-in local investment and subsequently lead to higher employment and income. Jansen (1995, p. 199) suggests that the crowding-in or crowding-out effects of FDI in host countries are determined by the equilibrium of domestic finance, local factors and commodity markets.

From the above, it is expected that the inflow of foreign investment will generally crowd-in local investment for complementary, and even competing, industries in Dongguan, given the fact that there is an excess supply in the factor market (for example, migrants provide low-cost labour), enormous potential in the commodity market, and relatively accessible credits for foreign investment projects. The proliferation of township and village enterprises (TVEs) and their robust performance in the Pearl River Delta supports this postulation.[10] Based on a questionnaire survey of 116 JVs, Wu (1995) concludes that employment-creation and the demonstration effect are the two major effects of *sanzi qiye* in the Guangdong economy. However, this does not rule out the existence of crowding-out effects generated by foreign investment, in particular a number of TVEs (and even state-owned

enterprises–SOEs) were forced to close down or were in financial difficulties during the period of financial retrenchment policy (1989–93) promulgated by the Beijing government.

Industrial efficiency

Foreign investment is different from other forms of capital inflow, since it is not simply a transfer of funds, but also induces a series of *externalities* (intangible assets) which trickle down in the form of innovatory capabilities (through the possible globalization of research and development (R&D) facilities and the training of employees), new technologies and skills, management and marketing expertise (Graham and Krugman, 1991, p. 58; UNCTAD-DTCI, 1995, pp. 148–88; Blomqvist, 1996, p. 224; South Centre, 1997, p. 36).[11] Unlike foreign aid or commercial bank loans, which may be targeted at the public and non-tradable sector of the economy, FDI usually aims at the private tradable sector, which is likely to adopt technological innovation (Van Wijnbergen, 1986; De Melo, 1988). The widespread adoption of ISO standards as a benchmark of quality and international competitiveness by Brazilian companies is an example that illustrates the effects of TNCs on domestic industrial efficiency (UNCTAD-DTCI, 1995).

Through the demonstration effects and the diffusion of expertise, therefore, it is expected that the inflow of foreign investment will increase industrial productivity by *within-sector restructuring* (upgrading the competitive assets from low-technology, low-productivity, low value-added and labour-intensive industry to higher-technology, higher-productivity, higher value-added and knowledge-based industry) in the host country.[12]

Child (1994, pp. 265–6), Ji (1996, p. 13), Kueh and Ash (1996, p. 165) and Ding (1997, pp. 101–2) suggest that FDI by TNCs assists the development of domestic industries (including the complementary industries) in China and improves their efficiency through the introduction of modern managerial skills, new production technologies and injection of capital for new investment, as well as assisting infrastructure development. Tuan and Ng (1995, p. 393) also claim that the inflow of foreign investment has led to an increase in labour productivity in Guangdong. Without the welfare legacy (such as the 'iron rice bowl' employment system) and associated inflexibility inherited from the planned economic system, it is also expected that the productivity improvement in TVEs is higher than in SOEs.

Infrastructure

The infrastructural development of a country is crucial to its economic development. The World Bank estimates that a 1 per cent increase in the stock of infrastructure is associated with a 1 per cent increase in GDP. On average, LDCs spend 4 per cent of their national output and 20 per cent of their total investment on infrastructure development (IBRD, 1994, pp. 1–2).

Despite accounting for 40 per cent of FDI flow into LDCs, FDI in China is far from balanced in terms of its composition. The World Bank estimates that China will require US$600 billion of investment in infrastructure development by 2010. The Bank identifies three main reasons for lack of interest in infrastructure projects among foreign investors (IBRD, 1997c, pp. 22–3):

(i) a weak institutional framework and the perception of a profitability ceiling (the government regulates an unwritten rule of maximum return rate of investment in foreign-financed projects);
(ii) uncertainty over national and provincial responsibilities on FDI project approval; and
(iii) absence of project performance guarantees, which lead to difficulties with commercial lending.

The World Bank argues that China has to improve the transparency of regulations and institutions to attract FDI towards infrastructure sectors with longer gestation periods (ibid., pp. 19–20). Apart from location, the physical infrastructure plays an important role in the management of fifty-nine Sino-foreign JVs in Beijing, Shanghai and Guangdong. Child and Stewart (1997, pp. 18–21) found that the managers of parent companies visited Guangdong JVs three times more often than did their counterparts in Shanghai and Beijing. Thus it appears that foreign partners of JVs are more likely to exercise a higher level of monitoring of their firms in Guangdong than in Beijing and Shanghai.

As with the experience of other LDCs, the rapid inflow of foreign investment within a short time can lead to a *bottleneck* in the infrastructure. This is particularly the case in the areas of transportation, telecommunications and energy.[13] Chaotic traffic congestion and a shortage of electricity are the most common kinds of bottleneck. The capitals of LDCs, such as Bangkok in Thailand and Manila in the Philippines, have experienced these problems. The development of infrastructure improves the investment environment, which in turn is likely to

increase the attractiveness of the host country for foreign investment. There is no reason to expect that Dongguan is an exception.

Economic restructuring

The inflow of foreign investment assists the *sectoral restructuring* of the host country. It will lead to the development of domestic industries and an improvement in the efficiency of local industry. The inflow of foreign capital might be accompanied by the establishment of new industries, which might not emerge naturally from locally-funded enterprises or from the upgrading of existing domestic industries. Therefore, the inflow of foreign investment contributes to the sectoral restructuring of the host-country economy (Gereffi and Newfarmer, 1985). Under globalization, TNCs are able to access a wider pool of resources and information, and thus provide a mutually reinforcing package of tangible and intangible assets to its affiliates in the host countries. TNCs also provide a number of essential assets (such as marketing, product design and quality control) to facilitate the export-orientated development strategy that might be pursued by the host country.

TNCs played a role in the restructuring of Indonesia, Malaysia, Thailand and the Philippines. Even in the textbook case studies of economic restructuring based on indigenous capabilities, such as Japan, South Korea and Taiwan, TNCs also played an important role. For example, Japanese automobile manufacturers learned mass production techniques from the JVs with foreign TNCs immediately after the Second World War (WWII), while Korean electronics industrialists acquired the technologies of integrated circuits, semiconductors and dynamic random access memory (DRAM) chips through original equipment manufacturing (OEM) arrangements, licensing and forming of JVs with TNCs from the 1960s onwards (Bloom, 1992; Ozawa, 1994, p. 37; UNCTAD-DTCI, 1995, pp. 228–56).[14]

Moreover, the successful restructuring and economic development of the host country cultivates an environment that encourages it to develop its own TNCs. Investment from traditional TNCs combined with outward investment from the NIEs eventually led to an interactive TNC-assisted restructuring process among a number of regional economies via demonstration effects, learning, emulation, FDI, technological flow and other TNC-related assets. This form of dynamic growth in Asia is known as the 'flying-geese' paradigm (the Southeast Asian 'flying- geese' pattern of the development of international trade and investment), which states that the development of Japan, Taiwan,

Hong Kong, Singapore and South Korea in East Asia cultivated a number of TNCs, and its economic successes forced labour-intensive industries to spill over into Indonesia, Malaysia, Thailand, and the Philippines, and then further to China, Vietnam, India and Pakistan (UNCTAD-DTCI, 1995, pp. 256–60).[15]

The foreign investment from Hong Kong, Taiwan and other Asian countries in China led to the development of cross-border networks of intra-industry and intra-firm specialization, which in themselves assist the regionalization of FDI-induced trade flows of intermediate, capital and consumer goods (Kirkpatrick, 1994, p. 193). The inflow of FDI is likely to restructure the economy, dictated by political-ideological priorities during the pre-reform era towards a structure based more on the market (McMillan, 1993). Since the factor endowments of Dongguan include abundant labour and land, and since a large proportion of investment of Hong Kong origin goes into manufacturing, it is plausible to suggest that the Hong Kong-based investors transfer their labour-intensive, export-orientated assembling and manufacturing industries from Hong Kong and thus contribute to the sectoral restructuring of Dongguan's economy.

Economic growth

The negative effects of FDI in the economic development of LDCs are characterized by the dependency school headed by André Gunder Frank (1966, 1967, 1969) and his colleagues at the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). *Dependencias* argue that the growth of metropolitan economies (DCs) was sustained by the inflow of surplus in the form of unequal exchange (trade), repatriation of profits from FDI, and technological and debt dependency from the colonial or neo-colonial LDCs (satellite economies) (Amin, 1976). Repatriation of profits from mining and plantation investments owned by TNCs are classical examples of metropolitan–satellite exploitation. Between 1960 and 1968, the US- based TNCs remitted on average 79 per cent of their net profits from Latin America (Barnet and Müller, 1974, pp. 153–4). Through transfer pricing (by setting input prices high and intra-firm output prices low), the TNCs can also reduce their taxation payment to the host country's government (Elson, 1988). Therefore, *dependencias* argue that the development of metropolitan (DCs) lead to the 'development of underdevelopment' in colonial economies (LDCs). To attain sustainable growth and development, LDCs have to sever their links with DCs (Portes, 1976; Dos Santos, 1971). Wallerstein (1979, 1991) proposes a

similar dependency argument in his world systems theory, which states that the capitalist world system is organized to ensure the inflow of surplus from peripheral countries (LDCs) to core countries (DCs). The peripheral countries strive to upgrade towards the status of semi-peripheral and core countries, while those core countries are trying to preserve their status as DCs in a zero-sum game (since Wallerstein argues that the economic growth of one country is at the expense of that of the others).[16]

However, FDI can be an engine for growth via physical capital formation, human capital development, transfer of technology and expertise, market expansion and foreign trade (South Centre, 1997, pp. 36–7; IBRD, 1997c, pp. 20–1). The capital inflow *per se* will lead to an increase of foreign reserves and (probably) domestic credit supply, which trigger-off *multiplier and accelerator effects* on income and investment in the host country.[17] The positive interaction between capital inflow, investment and growth is *de facto* the central tenet of the two-gap model (Chenery and Strout, 1966; Taylor, 1993).[18] The two-gap model is supported by Husain and Jun (1992), who find a significant positive effect for FDI in the growth variable in pooled data for the countries of the Association for South-East Asian Nations (ASEAN) between 1970 and 1988. Other empirical cross-country studies also support the positive linkage between the rise of capital inflow, investment level and economic growth – for example, Papanek (1972) and Newlyn (1977).[19] However, Gupta and Islam (1983) reported an insignificant effect of a FDI variable in growth in a set of cross-country and time-series data for a large group of LDCs between 1950 and 1973. The contradictory findings between these two studies may in fact be caused by differences in the sampling countries and the period of study. Therefore, Jansen (1995, p. 197) suggests that the ultimate effects of FDI on growth may be dependent on the characteristics of the host country and the period of study.

As one of the most popular locations for foreign investors in the Pearl River Delta, Dongguan has enjoyed high growth rates since the 1980s. The literature generally argues that there is a positive correlation between the inflow of capital and economic growth, so the *dependencias* argument is not sound in this case. For example, Zhang (1987, pp. 9–10) and Huang (1995, p. 225) suggest that FDI induces economic growth in China by introducing advanced technology in manufacturing and knowledge in management to JVs and domestic enterprises. A survey in 1991 revealed that about 40 per cent of technologies imported by foreign partners were more advanced than their domestic

counterparts, and about 4 per cent of them were unavailable in China (Huang, 1995, p. 225). Chen *et al.* (1995, pp. 696–701) and Shan *et al.* (1999, pp. 147–9) also suggest that FDI is positively associated with economic growth, industrial output growth, an increase in total fixed asset investment, and efficiency of local industries.

International division of labour

Following the wisdom of the dependency theory, Landsbery (1979) and Fröbel *et al.* (1980, pp. 403–5) argue that the export-orientated industrialization (EOI) is a form of exploitative New International Division of Labour, since the TNCs investment is driven by the provision of cheap labour in the LDCs. As the EOI in LDCs is highly dependent on foreign capital and technology, the development of local industry is impeded by the continual search and relocation of TNCs on sites with lower labour costs.[20] Therefore, FDI intensifies the uneven and dependent development of LDCs.

Moreover, the labour shortage and tightening of environmental legislation in the home country are two further major push factors that contribute to the relocation of environmentally-polluting and resource-consuming industries through FDI in the LDCs, which generally have less stringent controls to regulate those industries (pull factors in the host country). As the Japanese economy developed, labour shortages and increasing environmental controls led to the shifting of its economic structure from pollution-prone and energy-consuming heavy and chemical industries to higher value-added, knowledge-intensive industries. The economic restructuring in Japan was facilitated by policies promoting labour-intensive FDI in the host countries (for example, the 'Four Little Dragons', followed by the Southeast Asian countries, China and Vietnam) (Meyer, 1995, p. 4).

The most commonly reported incidents of labour abuse in foreign-financed firms in China include forced overtime working, fines, threats, physical punishment or dismissal for disobedience, rationed toilet breaks, and sexual harassment (Potter and Potter, 1990, pp. 316–22; Howard, 1991, pp. 101–7; Chan and Senser, 1997, pp. 106–7). Ignorance of health and safety measures, such as having poor lighting and ventilation, unprotected machinery and exposure to toxic chemicals, are also common. The membership of migrant workers in the government-controlled labour union is less than 10 per cent (FEER, 1994, p. 34; Lever-Tracy *et al.*, 1996, pp. 275–6).

The most publicized incidents of labour abuse involved the deaths of more than 200 workers (mainly migrants) in a series of fire accidents

that occurred in foreign-financed firms in Shenzhen, Dongguan, Zhuhai and Fuzhou between 1991 and 1994. It was widely reported that migrant workers were locked inside their accommodation quarters at night to prevent pilfering (Lever-Tracy *et al.*, 1996, pp. 275–7).

Lever-Tracy *et al.* (1996, p. 274) argue that labour abuse does exist in foreign-financed firms in southern China but that the bargaining position between workers and employers is *two-sided* rather than one-sided. This is mainly because a large proportion of migrant workers come from several different provinces, and those coming from the same province establish their own networks for collective bargaining and information-sharing (Huang, 1998, pp. 59–60). Moreover, their bargaining position is strengthened by the shortage of semi-skilled labour.

Connections

Five elements of traditional culture have been identified as playing a significant role in the operation of businesses in China: seniority and hierarchy; group orientation; family relationship; personal connections; and 'face' (*mianzi*, which includes reputation) (Lockett, 1988; Child, 1994, pp. 249, 288; Child and Lu, 1996, pp. 4–5).

Guanxi, or connections, is a distinctive characteristic of the Chinese business community. *Guanxi* is usually based on either *ethnic relationship (kinship)* or *personal friendship with long-term reciprocity*: the 'concept and practice straddles a broad range of kinds of personalised, continuing reciprocity, combining instrumentalism and personal feelings. It operates within the sphere of the bureaucracy and the plan as well as in that of market relations. It involves both personally selective favours between those of unequal power, patron and client, employer and employee, and mutual aid and relational contracting between equals' (Lever-Tracy *et al.*, 1996, p. 57).[21]

A brief discussion on the relationship between personal connections, 'crony capitalism' and corruption is useful to clarify its ambiguity. Under 'crony capitalism' or 'cronyism', business transactions are largely based on *personal connections and political patronage* rather than on purely financial grounds and entrepreneurial abilities (Krugman, 1998; Chang, 1999, p. 1).[22] Corruption can be defined generally as 'the use of public office for private gain' (Gary and Kaufmann, 1998, p. 7). Thus corrupt acts include extortion, bribery, influence peddling, nepotism, fraud and embezzlement (ibid. and Klitgaard, 1998, p. 4).[23] By definition, 'crony capitalism' includes connections, but it may or may not involve corruption. Moreover, 'cronyism' has to be *selective* and is

not applicable to every business transactions (Chang, 1999, p. 28). By applying Karl Polanyi's concept of reciprocity, Lever-Tracy *et al.* (1996, p. 56) argue that *corruption is not part of guanxi*, since it involves extortion (a demand for bribes under the potential threat of unpleasant consequences or harassment) rather than mutual benefit.[24]

Based on an extensive survey conducted during the 1990s, Lever-Tracy *et al.* (1996, pp. 133–76) suggest that the Chinese diaspora (ethnic linkage, especially *guanxi*) can be utilized from two main perspectives: external and internal networks.[25] With the aid of an external network (outside China), a firm can secure supplies and distribution channels, raise capital or find new partners for diversifying business ventures, and so on. An internal network inside China can not only act as an alternative and effective way of navigating unfamiliar bureaucratic structures and avoiding the pitfalls of hidden internal procedures and documentation, but also forms collective bargaining and information collection channels on the ever-changing regulations on foreign investment.[26]

The significance of connections for Chinese business is supported by the literature – for example, Walder (1987), Smart and Smart (1991), Naughton (1992), Björkman (1996), Lin (1996), Child and Yan (1997). Walder (1987, pp. 260–1) shows that firms in Guangdong aim to cultivate non-market, horizontal exchange relations with other enterprises. This results in the formation of new forms of horizontal and vertical integration. Naughton (1992, pp. 266–7) discloses that twenty-two SOEs tend to transact on the basis of *guanxi* (especially the long-term co-operative reciprocal relationship in terms of reliable supplies) rather than nominal market price. Based on interviews with twenty-four Finnish companies involved in the marketing and sale of industrial goods in China, Björkman (1996) argues that firms with the 'right' people and good *guanxi* have competitive advantages. Some interviewers even claim that province X belongs to company Y, since the head of the provincial purchasing bureau is a good friend of the company director (Björkman, 1996, p. 70). Lin (1996, p. 173) suggests that overseas firms with origins in China gain competitive advantage by investing in China, over the foreign investors without connection since they have a close relationship with the Chinese authorities. Moreover, they are able to enjoy the privileges intended exclusively for foreign investors (thus giving them an advantage over domestic firms). Based on interviews with sixty-seven Sino-foreign manufacturing JVs in Beijing, Tianjin, Shanghai, Hangzhou and Guangdong, Child and Yan (1997, p. 21) found that relationship-building between Chinese partners contributes to the profitability of JVs.

From the above comments, it is theoretically sound to expect the inflow of foreign investment to lead to the development of domestic-funded complementary industry; an improvement of industrial efficiency; an acceleration in the development of infrastructure; economic restructuring; economic growth; the intensification of labour abuse; and the fostering of the role of connections in Dongguan. The above discussion, therefore, provides a theoretical rationale for the seven research propositions on the consequences of foreign investment in the host country – domestic industry; industrial efficiency; infrastructure; economic restructuring; economic growth; labour abuse; and connections – outlined in Chapter 1.

Notes

1. It is unrealistic to review all the theories on capital flow in this section. Readers interested in theories of international capital flow and 'alliance capitalism' can refer to Grubel (1982) and Dunning (1997), respectively.
2. Casson (1982, p. 52) argues that it is an extension of the Heckscher–Ohlin theory of trade, where one factor of production (capital) is mobile.
3. The actual income of country B is larger, since it can levy part of *EKQQ** as tax.
4. Different models and theories of the relationship between FDI and technology were developed in the 1970s, but it was not until the 1980s that the dynamic interplay between them was examined systematically.
5. Non-pecuniary externalities exist in natural market imperfections, while pecuniary externalities arise from structural market imperfections characterized by monopoly or monopsony (Hennart, 1991, p. 84). Interested readers on transaction cost and internalization theories can refer to Kaldor (1934), Coase (1937), Penrose (1959), McManus (1972), Lall (1973), Magee (1977), Casson (1979), Williamson (1985) and Buckley (1985).
6. The eclectic theory of international production can be regarded as a synthesis of the above five theories rather than a new theory *per se*. Dunning (1993b) renames the term 'theory' as 'paradigm', since this is a more appropriate term to explain the reactions of firms to cross-border market failure.
7. The IDP concept was first developed by Dunning (1981b) and has been revised and extended by Dunning (1986, 1988a, 1988b, 1993), Narula (1993, 1996) and Dunning and Narula (1994, 1996).
8. This is also one of the weaknesses of conventional FDI theories, in explaining the LDCs-based or newly industrialized economy (NIEs)-based FDI pattern.
9. For the effects of outward investment in the home country, see UNCTAD-DTCI (1995, pt. 2).
10. TVEs include collective, administrative region-owned, joint-operated and other forms of private-owned enterprises located in villages (Zhang *et al.*, 1995, p. 729).
11. Increasing international competition, the liberalization of regulatory frameworks regarding foreign participation in local research facilities, and the strengthening of intellectual property rights are the driving forces toward

the greater dispersion of R&D activities within the TNC system (UNCTAD-DTCI, 1995, pp. 149–51). About half of the world's patents granted belong to the 700 largest industrial firms in the world (most of them TNCs) (Cantwell, 1994, p. 2). About 60 per cent of textile exports from Taiwan were marketed by Japanese trading companies during the early 1960s (Dahlman and Sananikone, 1990, p. 44). International production can enhance the indigenous industry's productivity via spillovers and competition effects, provided that the gap between TNCs and domestic enterprises is not insurmountable. The impacts of intangible assets in the host country are also determined by the extent of the forward and backward linkages between foreign affiliates and local firms. For the impact of tangible and intangible assets in the semiconductor industry of host economies, see UNCTAD-DTCI (1995, pp. 138–40).

12. But it is not easy to measure the change in industrial productivity with any accuracy (Helleiner, 1989).
13. The inflow of FDI also has politico-strategic implications for the ownership of the infrastructure and natural resources of the host country (South Centre, 1997, p. 39).
14. The employment share of the electronics industry by foreign affiliates in South Korea reached its peak (70 per cent) in 1984, while its corresponding share of exports reached three-quarters in 1986 (UNCTAD-DTCI, 1995, p. 250).
15. The 'flying-geese' paradigm was originally conceptualized as a general theory of economic development of the Japanese textile industry from the sequential triple-step of importation, domestic production and exportation of products during the nineteenth and twentieth centuries by Kaname Akamatsu (1935, 1961, 1962; see also Yamazawa, 1990; Yamazawa *et al.*, 1991; Ito, 1998, pp. 183–200). It is basically an inductive model based largely on the Japanese experience of industrialization (Blomqvist, 1996, p. 217). Kiyoshi Kojima (1958, 1973, 1975, 1990) pioneers the application of the 'flying-geese' paradigm to analyze the role of TNCs systematically by investigating the interactive path of FDI-enhanced trade and economic growth between developed countries (DCs) and LDCs (UNCTAD-DTCI, 1995, pp. 258–60). Readers interested in the 'meso-IDP' (contrasted with the 'macro-IDP' developed by John Dunning) developed from the 'flying-geese' paradigm can refer to Ozawa (1996).
16. Refer to South Centre (1997, pp. 42–54) for other potential negative macro-economic effects in the host country.
17. According to a survey conducted by the Division on Transnational Corporations Investment in the United Nations Conference on Trade and Development, there is evidence to suggest that TNCs' affiliates in LDCs are more export-orientated than are local firms (especially in manufacturing). The higher export propensities among TNCs' affiliates may exacerbate foreign exchange shortages in the short run, as exports are accompanied by high import propensities (especially during the initial state of investment). However, the foreign affiliates are expected to help the host country integrate into the global economy and in the long run strengthen the foreign country's foreign reserves via stronger exports (UNCTAD-DTCI, 1995, pp. 214–19).

18. By criticizing the original two-gap model which assumed that all capital inflow would be used to finance investment, Griffin (1970) argues that part of the capital inflow would be consumed, which would lead to the decline of domestic savings. Eventually, the increase in investment will be less than the proportion of the increase in capital inflow. Moreover, the capital inflow may lead to an appreciation of currency in the host country (since the demand of host country currency is increased) and this may have a negative impact on its export competitiveness.
19. The relationship between FDI and economic development involves a comparison of two phenomena at different levels of economic analysis: FDI is basically a microeconomic or firm-specific activity, while economic development is a macroeconomic or country-specific phenomenon (Gray, 1982).
20. Nayyar (1978) finds that TNCs prefer to invest in LDCs with political stability and labour docility. For example, a government ready to outlaw strikes and ban labour unions will be more attractive to TNCs than one that is weak.
21. *Guanxi* (connections), *mianzi/lien* (face), *renqing* (favour given by others) and *xinyong* (trust) are interdependent in Chinese communities. Readers interested in these concepts and their roles in Chinese entrepreneurism can refer to Redding and Ng (1982), Redding (1993), Hu (1994), Chen (1995a), Lever-Tracy *et al*. (1996) and Luo (1997).
22. The term 'crony capitalism' was first used in the 24 August 1981 issue of *Time* to refer to the financial predictions of former President Ferdinand Marcos of the Philippines. It is a problematic term, since it has negative connotations and is usually associated with the East – for example, *guanxi* in China; *keiretsu* in Japan; and *semibankirshchina* in Russia (IHT, 1998, p. 9). In reality, many companies in the West show features of 'crony capitalism'. One typical example is the close collaboration between Microsoft and Intel, the 'Wintel' league who virtually monopolize the computer software and hardware sectors and who collaborated with Disney and General Electric to develop interactive multimedia programmes and broadcasting projects (Stewart, 1998, p. 80).
23. Refer to Mauro (1997–8), Robinson (1998), Tanzi and Davoodi (1998) and Wei (1999) on the relationship between corruption and economic development.
24. Polanyi (1957) categorizes society by the way it distributes social products: market relations, redistribution and reciprocity.
25. It included in-depth interviews with thirty-six Australian-Chinese and forty ethnic Chinese in Hong Kong, and another questionnaire survey of 400 managers of foreign-financed firms in Nanhai and Panyu in Guangdong province, and Quanzhou and Xiamen in Fujian province.
26. Despite the signing of the Memorandum of Understanding on China Market Access with the USA in 1992, hidden documentation still exists (especially in the telecommunications sector) (Carver, 1996, p. 21).

3
The Economy of Dongguan

This chapter is divided into two main parts. The first part (sections 3.1 and 3.2) introduces and briefly reviews the history and economic structure of Dongguan. The second part (sections 3.3 and 3.4) describes Chinese foreign investment policy and foreign investment patterns in Dongguan since 1979.

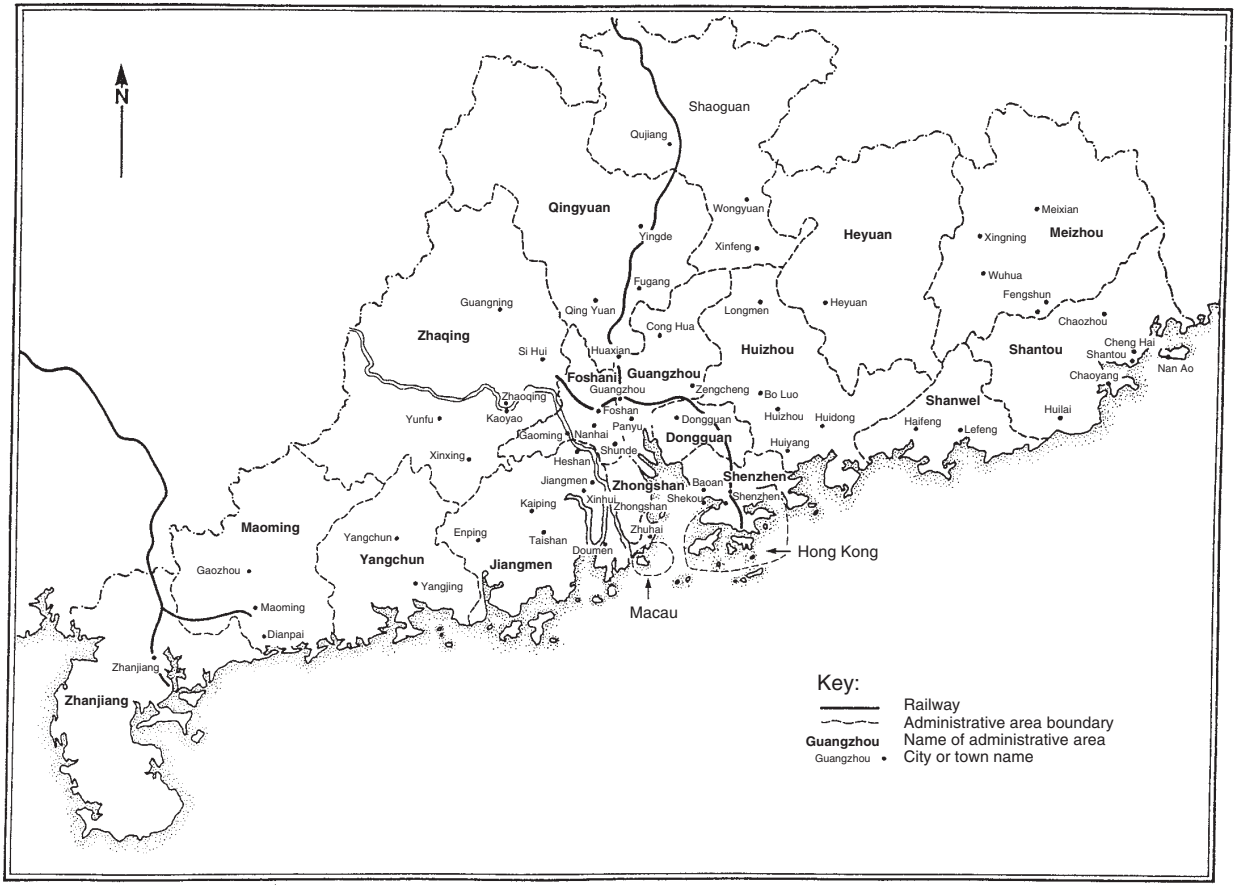
As is mentioned in section 1.3, all the statistical data reported in this chapter, unless otherwise specified, originate from official reports and statistics published by the Dongguan Bureau of Statistics.

3.1 Historical background

Dongguan is located in the middle of the Shenzhen-Guangzhou economic corridor in the Pearl River Delta of China.[1] To be more specific, it is 60km south of Guangzhou (the capital of Guangdong province) and 97km north of Shenzhen (located adjacent to the New Territories of Hong Kong) (see Figure 3.1).

According to historical records, people began to inhabit the coastal area of Dongguan – known then as Donggong – since more than one thousand years ago. The area was first established as Dongguan county during the ancient 'Three States' period, in AD 224 (Liu and Zhen, 1992, p. 1). Since it is located to the east of Guangzhou and produced a water-grass called 'guan', it is therefore called 'eastern guan' or Dongguan in Chinese (HRC, 1988, p. 26).

With its long history and strategic location, it is to be expected that Dongguan has a rich historical past. The most important period was when the Qing dynasty's imperial commissioner, Lin Zexu, destroyed 1.4 million kg of British opium (largely shipped by the East India Company) between 3 June and 25 June 1839 in Humen, which triggered



Source: Thoburn *et al.*, 1990, p. xii.

Figure 3.1 Location of Dongguan

the first Opium War with Britain.[2] The Opium War led eventually to the Treaty of Nanking, by which Hong Kong Island was ceded to Britain.[3] Dongguan was also used as the headquarters of the 'East Pearl River Guerrilla Forces against Japanese Aggression' during WWII (DMBFT, 1988).

After the establishment of the People's Republic of China (PRC) in 1949, Dongguan was governed by the Dongguan County Revolutionary Committee before the formal establishment of the Dongguan county government in July 1980. In September 1985, the 1700-year-old city was upgraded by the State Council to a county-grade city, under the jurisdiction of Huiyang of Guangdong province, and included in the Pearl River Delta Open Economic Area. Dongguan was further upgraded to a prefectural-grade city under the direct jurisdiction of Guangdong province, on 7 January, 1988 (Liu and Zhen, 1992, p. 1; DMBFT, 1988). At the time of writing, Dongguan is divided into thirty-three administrative towns or districts (called 'people communes' before September 1983) within its 2465km^2 area. In addition to Guancheng, the capital city, there are 587 administrative regions (called 'production brigades' before September 1984) under the administration of another thirty-two towns or districts.[4]

Dongguan is one of the most significant native villages for overseas Chinese originating from Guangdong. When the imperial Qing economy was in difficulties, a number of farmers were tempted to leave in the hope of earning a better living overseas.[5] Such early migration was usually part of the 'coolie trade' or slave trade (called *maizhuzai* in Cantonese). Most Chinese labourers worked in the goldmines and on railway construction in the USA and Australia. After the end of the slave trade in the USA and Australia during the nineteenth century, the slave traders shifted their attention to plantations in the central and southern states of America (Zhu *et al.*, 1986, pp. 57–63, 170–9; Yang *et al.*, 1987, pp. 441–6).

The three most common forms of early migration were through (i) contract work, (ii) agency work; and (iii) self-financed migration. In contract work, potential migrants signed labourer contracts – for periods ranging from five to eight years – with foreign companies. The workers were not allowed to return home until the end of the contract period. Agency work meant that potential migrants signed labourer contracts agreeing that their transport costs could be deducted from their wages. In both cases, the contracts gave employers total control over the workers. It was *de facto* a 'slave contract for life' (*maishenqi*). In the case of agency work, because the horrendous interest rates charged

the majority of workers simply could not repay their debts and died overseas. In the case of self-financed migration, migrants were financially supported by their local, and sometimes their overseas, relatives (Yang *et al.*, 1987, pp. 441–2).

Since the slave trade was big business, it was common for foreign companies to collaborate with local thugs and gangsters, and sometimes with corrupt Chinese officials, to engage in illegal activities. The employment agencies used various means, ranging from promises of attractive wages, through gambling traps to kidnapping, tempting farmers who dreamed of a brighter future. The abduction of slaves was particularly common after 1857, when a joint British–French force occupied Guangzhou. This explains why most of the slave trade originated in and was organized from Guangdong. Between 1855 and 1872, an average of 12 872 Guangdong people were smuggled overseas via Hong Kong every year. In the nineteenth century, the number increased to more than 50 000 per annum (ibid., pp. 442–3). The continued economic hardship at home also promoted large-scale emigration to Southeast Asian countries between 1912 and 1935. In 1926, the number of emigrants of Guangdong origin peaked at 200 000 (Zhu *et al.*, 1986, p. 61).

3.2 Historical overview of Dongguan's economic structure

For the sake of comparison, the historical overview of Dongguan's economy is divided into three periods: the Imperial; the Maoist; and the Transitional economies.

The imperial economy

With its subtropical climate – the average annual temperature is 22°C and average annual rainfall 1788mm, with 339 frost-free days – the Pearl River Delta's fertile soil in Dongguan is ideal for cultivation. In fact, 662 different crops, 30 types of fruit and 185 Chinese medicinal herbs are grown in Dongguan. The total output of paddy rice in Dongguan was ranked second after Zhongshan in Guangdong during the 1930s (Lin, 1997, pp. 42, 46).

Apart from cultivation, the rich marine resources along the 61.4km of coastal line, with its 134 species of fish, varieties of crab, shrimp and other shellfish also played a significant role in the traditional agriculture-based economy. The development of fish rearing and raw silk industries during the late 1800s and early 1900s is an example of commercial agriculture. To fulfil export markets in the USA and Europe,

some of the paddy fields in Dongguan were excavated to build fish ponds (the fish feeding on nightsoil and cocoon waste) and others transformed into mulberry fields, the leaves of which are used to feed silkworms (ibid., p. 70).

Dongguan is known as the 'home of fish, fruit and grain' as its paddy grain, vegetables, fish, pineapples, oranges, bananas and lychees are still its most popular agricultural products. The lychees of Dalang are the most famous in China (HRC, 1988, p. 31). Moreover, the livestock, poultry and traditional indigenous Chinese processed foods – such as dried salt duck – have a role in the local economy too (Liu and Zhen, 1992, pp. 2–4). Humen town was the major food production centre in Dongguan. Apart from the paddy grain, it was famous for agricultural products, including fish from Daning, crab from Humen and dried salt duck from Baisha (HRC, 1988, p. 27).

Besides its agricultural products, Dongguan has been a trading county since the Ming Dynasty through the export of traditional fireworks, silk, pearls, ivory and water-grass products (DMBFT, 1988). The significance of Dongguan in the Pearl River Delta is shown through its large number of trading markets (*xushi*). In 1602, twenty-nine of the 176 trading markets on the Pearl River Delta were located in Dongguan. The number of trading markets increased to eighty-three during the Qing dynasty (Huang, 1985, pp. 199–200). The highly commercialized history of Dongguan paved the way for it to participate in international trading markets, which will be discussed later in this book.

Shilong, located in northern Dongguan, was one of the most important counties in southern China. The accessibility of its location – adjacent to the Dong River and beside the important north–south Beijing–Shenzhen railway – meant it had been an important nexus for business people since the late Ming dynasty (Yang *et al.*, 1987, p. 240–1). In fact, Shilong was known as the 'Four Big Counties' in Guangdong province (Ye, 1986, pp. 99–100).[6] In addition to Shilong, Taiping in Humen was another major trading port in Dongguan (Ye, 1989). This was partly because the East India Company merchant ships smuggled opium ashore here. Ironically, the role of Dongguan as a trading port for the Western world was enhanced after the Opium War (SCMP, 1997d). It is therefore likely that drug money from the flourishing opium trade contributed to Dongguan's economic growth during the 1830s.

The early emigrants from Dongguan probably also played a significant role in the development of its rural economy. During the

1900s, Guangdong people accounted for about 70 per cent of all overseas Chinese emigrants, and their remittances sent back to Guangdong accounted for about 85 per cent of the total cash flow into China (Lin, 1997, p. 156).[7] Since the money-lenders charged 10 per cent to 150 per cent interest rates in Guangdong, it was common practice for Chinese emigrants to send back cash to support their relatives in China (ibid., pp. 148–9).[8] Between 1900 and 1937, it was estimated that an average of 300 million *yuan* was sent per annum by Guangdong emigrants. This figure may be an underestimation since it does not include remittances returned through private channels – for example, by returning migrants. A proportion of these remittances was used for investment purposes. Between 1875 and 1926, 6681 enterprises were established and funded by the remittances sent home by Guangdong emigrants (ibid., pp. 157–60).

One of the most prominent entrepreneurs in Dongguan was Zhen Lanfang, the 'King of Firecrackers'. In the early 1900s, Mr Zhen, a local resident in Dongguan, established the Zhen Tai Ji Hao in the Huangcun district of Dongguan. This was the first manufacturing firm to mass produce firecrackers and fireworks in China. In 1916, Mr Zhen established the Guang Mo Long Company in Mongkok. As the first firecracker manufacturing firm in Hong Kong, Guang Mo Long virtually monopolized the market, and its products were exported to North America, Australia, South Africa, Japan and Southeast Asian countries. To satisfy the increased demand, Mr Zhen opened another firm in Kowloon City, Hong Kong. With more than 1000 workers, the new firecracker manufacturing firm was one of the largest firms in Hong Kong in the 1910s. In 1926, he further expanded his business by establishing another three firms (each employing more than 4000 workers) in Macau. Moreover, Mr Zhen purchased his own cargo ship to transport the semi-finished goods between Hong Kong, Macau and Guangdong. At its peak, about 20 000 workers were employed by the 'Firecracker Kingdom' of Mr Zhen. Before WWII, Mr Zhen's 'Kingdom' virtually dominated the firecracker market in China and Southeast Asia. As one of the richest people in Hong Kong, Mr Zhen was included in *Who's Who in Hong Kong*. The company collapsed after the Japanese invaded Southeast Asia, China and Hong Kong, and as a result of the devastating effects of WWII on the global economy (Zhen *et al.*, 1987, pp. 287–8; HRC, 1988, pp. 28–9).

In the 1990s, about 900 000 of the overseas Chinese population (700 000 in Hong Kong and Macau, and another 200 000 in sixty-five different overseas areas and countries) originated from Dongguan.

It is suggested generally that a large proportion of Dongguan's population migrated to Hong Kong and other countries during WWII and the civil war between the communists and nationalists (Liu and Zhen, 1992, pp. 1, 15; DMBFT, 1988; DBS, 1998, p. 3). Moreover, Dongguan officials estimated that about 20 per cent of their young people left for Hong Kong as illegal emigrants during the 1960s and 1970s (Vogel, 1989, p. 176). The large number of overseas emigrants of Dongguan origin is related to the inflow of foreign investment during the economic reform era; this will be discussed in Chapter 4.

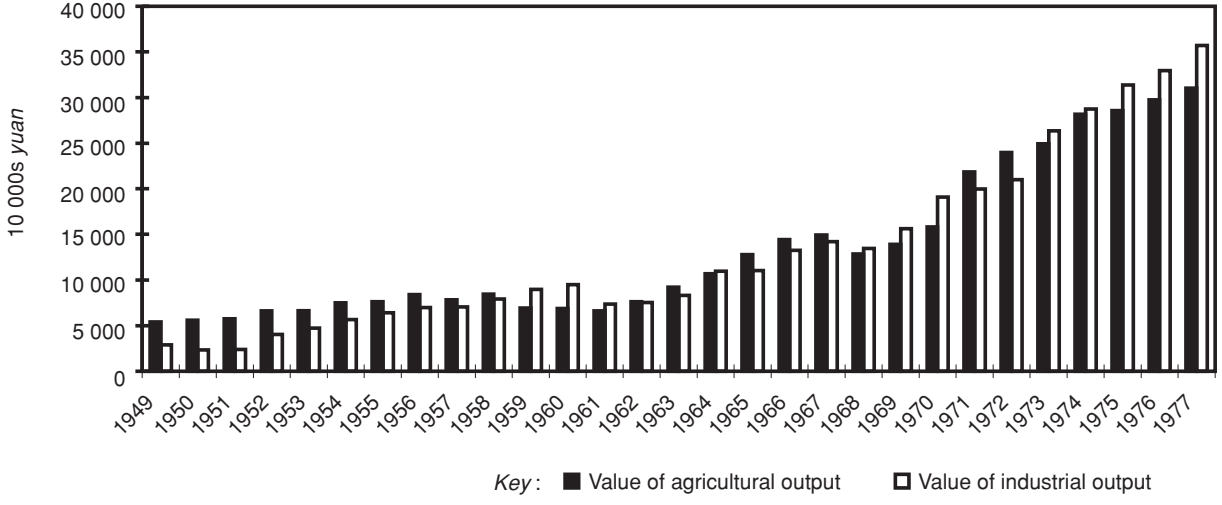
The Maoist economy: 1949–77

After the establishment of PRC in 1949, the economy of Dongguan continued to develop in accordance with its natural endowments and traditional industries. The analysis of the economic structure of Dongguan is hampered by a lack of official statistics relating to the Maoist era.[9] There are no records of gross domestic product (GDP) or national income. However, the gross value of industrial and agricultural output and the export value are available.

In terms of real value, the dominance of agriculture in the Dongguan economy began to fade from the mid-1950s onwards as the value of industrial output accounted consistently for a similar share in the gross value of industrial and agricultural output (see Figure 3.2).[10] The share of light and heavy industrial output in the gross value of industrial and agricultural output increased from around 30 per cent and 3 per cent respectively, to over 40 per cent and around 10 per cent respectively between 1949 and 1977. This tendency was supported by the faster average annual growth rate in the value of industrial output (10 per cent) than the corresponding figures in agriculture (6.75 per cent) and the gross value of industrial and agricultural output (7.8 per cent) during the pre-reform era.[11] This suggests that some industrialization occurred in Dongguan during the pre-reform era, even under the isolation policy begun by Mao Tse-tung.

The general pattern of economic growth in terms of industrial and agricultural growth rates in Dongguan was generally compatible with both the political and economic development in China. In fact, economic development in Dongguan can be divided into three periods: 1949–60, 1961–72 and 1973–77 (see Figure 3.2).

In the 1950s, the 13.72 per cent average annual growth rate in the real value of industrial output was offset by the 2.97 per cent growth rate in the value in agricultural output (see Figure 3.2). The sudden upsurge in the value of industrial output in 1959–60 coincided with the



Notes: 1949–69 based on 1957 constant prices; 1970–7 based on 1970 constant prices.
Source: Calculated from the synthesized database.
Figure 3.2 Real value of industrial and agricultural output, Dongguan, 1949–77

Great Leap Forward (1958–60), when large-scale famine was widespread in China as the central government pushed blindly for rapid industrialization.[12] The annual growth rate in the real value of heavy industrial output in Dongguan ranged from 37 per cent to over 80 per cent between 1958 and 1960, before falling dramatically to –44 per cent or lower in 1961. Rapid industrialization was at the expense of value of agricultural output, which fell from 84 million *yuan* in 1958 to 69 million *yuan* in 1959. Even the local government exaggerated the value of industrial output during the Great Leap Forward, motivated by political pressure. The tripling of the real value of industrial output from 23 million *yuan* in 1950 to 73 million *yuan* in 1961, and its per capita value of 33 *yuan* in 1950 to 91 *yuan* in 1961 suggested that Dongguan experienced a decade of rapid industrialization during the 1950s.

In the 1960s, Dongguan experienced a sudden decrease in the real value of industrial output, from 95 million *yuan* in 1960 to 73 million *yuan* in 1961 (see Figure 3.2). The unexpected fluctuation in the value of heavy industrial output supports the suggestion of data fabrication mentioned above – that is, the value of heavy industry output increased dramatically, from 14 million *yuan* in 1959 to 23 million *yuan* in 1960, before dropping to 13 million *yuan* in 1961 (the corresponding per capita value was 18 *yuan* in 1959, 29 *yuan* in 1960 and 16 *yuan* in 1961). Despite the disruption of the Cultural Revolution in the late 1960s, the average annual growth rate in the real value of agricultural output reached 7.8 per cent. Subsequently, real value of agricultural output doubled to 139 million *yuan* in 1969. The corresponding growth rate in the value of industrial output was 6.68 per cent.

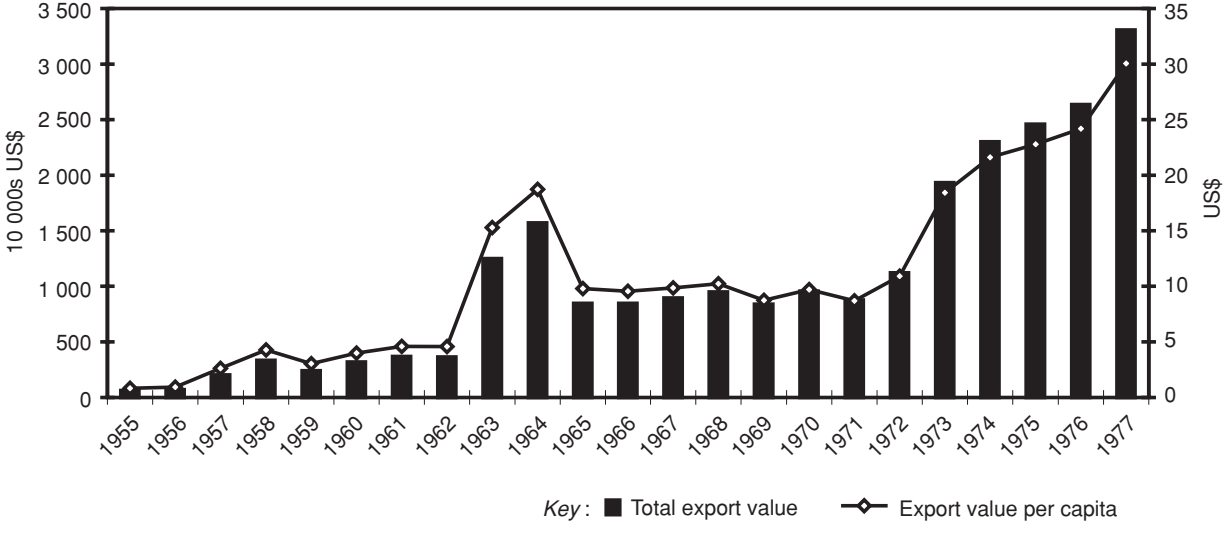
In the 1970s, the relative political stability at the end of the Cultural Revolution in China led to continued positive annual growth rates in all categories of industrial and agricultural proxies in Dongguan. For example, the average annual growth rate in the real value of agricultural output was 10.38 per cent and the respective rate in the value of industrial output 10.39 per cent. From 1973 onwards, the real value of industrial output and the per capita value (which increased from 251 *yuan* in 1973 to 324 *yuan* in 1977) in Dongguan increased by 30 per cent within five years (see Figure 3.2). The rapid growth of industrial output value in Dongguan was mainly supported by the 38 per cent growth in the value of light industrial output – to 290 million Y*uan* in 1977 – and the 32 per cent increase in the value of light industrial output per capita, to 264 *yuan* in 1977.

Before describing the export pattern, the two categories of official trade figures must be differentiated: the first is from the Dongguan's

Commission for Foreign Economic Relations and Trade (DCFERT) and the other comes from the Customs. The figures reported by the DCFERT are likely to be lower than the Customs' figures, as these only report the trading value of the export and import trading companies under its jurisdiction. The Customs' figures are more accurate however, as all trade, including that of business trading outside the jurisdiction of Dongguan's Commission for Foreign Economic Relations and Trade, are under its administration.[13] Since the majority, if not all, trade was conducted through the government-owned trading companies during the Maoist period, there should be few discrepancies between the figures from the DCFERT, and the Customs. However, Customs' figures were only available from 1990 onward and thus the long-term trading pattern of Dongguan cannot be seen. Therefore, unless otherwise stated, the import and export figures mentioned in this book come from the DCFERT.

In terms of export value, it seems that there was a correlation between the politico-economic atmosphere of China and the local economy at that time. Apart from the dramatic slowdown in export values during the mid- and late 1960s related to the decline of agricultural output and the famine that occurred during the Great Leap Forward, there is little information to explain the pattern of annual growth rate, which ranged from –46 per cent to 242 per cent between 1955 and 1977 (see Figure 3.3). From the export figures *per se* and the available information presented above, it can be speculated that agricultural products and traditional industries contributed to 30 per cent of average annual export growth rate, which propelled the absolute export value to increase by 53 times, from US$625 000 in 1955 to US$33 million in 1977.[14] Unfortunately, lack of official statistics on the composition and destination of exports does not permit further investigation into export patterns.

In terms of export value per capita, it is surprising to discover that the level attained by Dongguan was similar to that of South Korea. In 1960, the export value per capita of US$3.99 recorded in Dongguan was lower than the US$5.07 recorded in South Korea. The per capita value of Dongguan and South Korea remained more or less the same until 1965: US$9.8 in Dongguan compared to US$9.09 in South Korea. None the less, the arrival of the Cultural Revolution in 1966 effectively closed Dongguan's doors and its export value per capita remained stagnant, while South Korea achieved sustainable growth until 1996. After the peak of the Cultural Revolution, the export value per capita of Dongguan at US$11 was about a sixth of that of South Korea (US$64)



Source: Calculated from the synthesized database.

Figure 3.3 Value of total export and export per capita, Dongguan, 1955–77

in 1972. In 1977, the export value per capita of Dongguan (US$30) was less than a third of that of South Korea (US$332) (IBRD, 1996).

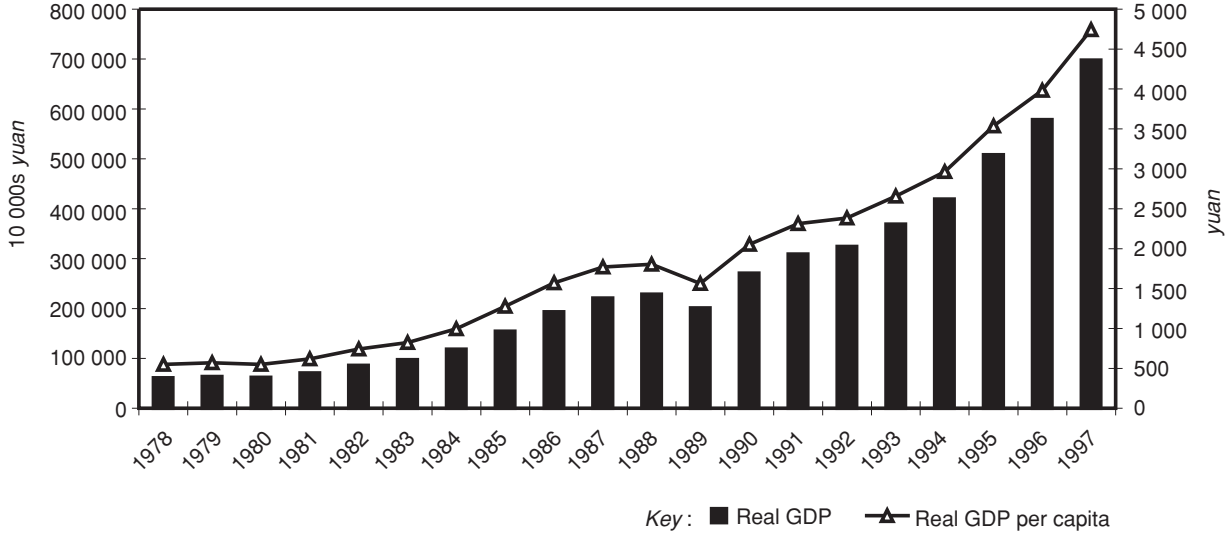
The transitional economy: 1978–97

After the implementation of the open policy in 1978, Dongguan was transformed into an export-orientated manufacturing-based economy through processing and assembling (P&A)-induced industrialization and outward-orientated commercial agriculture during the first stage of economic reform up to the late 1980s (the 'first industrial revolution').

To cope with the increase in political and financial autonomy after being upgraded to municipal status in 1988, Dongguan invested heavily in the construction and improvement of its infrastructure, in particular transportation (roads), power supplies (electricity), and telecommunications (telephones). The increased investment in the infrastructure naturally increased the attractiveness of Dongguan to larger-scale foreign investment; therefore the second phase of the reform policy (the 'second industrial revolution') focused on higher value-added and higher technology *sanzi qiye* (EJVs, CJVs and WFVs) and their supporting service sectors implemented since the mid-1990s (DMG, 1995, p. 43).

The result of economic reform in Dongguan is shown by an array of extraordinary economic statistics. The real GDP and real GDP per capita growth rate reached double figures each year, with the exception of five years: 1978–80, 1987–89 and 1992.[15] Though it went up and down over the years, the average annual growth rate of 14 per cent of real GDP and 13 per cent of real GDP per capita between 1978 and 1997, made it one of the fastest-growing regions in the world. Apart from years of negative growth in 1979–80 and 1988–89, all the other years of the transitional economy era had positive growth rates.

The rapid growth experienced during the first decade of reform in Dongguan is more impressive when compared with the second phase of reform when Dongguan gained its prefectural city status in 1988 (see Figure 3.4). During 1978–87, the real average annual growth rate of GDP and real GDP per capita were 16 per cent and 14 per cent, respectively. Consequently, real GDP increased by 3.6 times to 2.21 billion *yuan* in 1987. Even though the base value of 550 *yuan* of real GDP per capita was not particularly high in 1978, it increased three times to a respectable 1768 *yuan* in 1987. In 1988–97, the real average annual growth rate of GDP decelerated to 13 per cent, and the corresponding figure for real GDP per capita was 11 per cent. As a result, real GDP increased a further three times to 6.98 billion *yuan* in



Notes: Real GDP is calculated from retail price index of Dongguan bacause consumer price index only available from 1984 onwards.
Source: Calculated from the synthesized database.
Figure 3.4 Real GDP and real GDP per capita, Dongguan, 1978–97

1997. Despite the much higher base value of real GDP per capita of 1803 *yuan* in 1988, it leapt forward by 2.6 times to an impressive 4742 *yuan* in 1997.

The highest annual growth rate in real GDP and real GDP per capita in Dongguan occurred rather unexpectedly, in 1990, a year after the Tiananmen Square 'Incidents' took place (see Figure 3.4). The annual growth rate of nominal GDP and nominal GDP per capita decreased dramatically, from 14 per cent and 13 per cent in 1987 to –12 per cent and –13 per cent in 1989, respectively. Apart from the strong economic recovery experienced in 1990, the deflationary pressure (inflation was at 22.6 per cent in 1989 with deflation at 5.1 per cent in 1990, according to the retail price index) induced by the central government's retrenchment policies was able to reconcile the unusually high growth rate. The central government's credit-squeeze policy, especially on large-scale infrastructure and construction projects, probably contributed to the single-figure growth rate registered in real GDP and real GDP per capita in 1992. The double-figure annual growth rate of real GDP and real GDP per capita resumed from 1993 onwards. This resulted partly from the gradual relaxing of the credit-squeeze after the southern tour by the patriarch Deng Xiao-ping, who urged faster economic reform, and partly because of the 'China heat', when a number of TNCs rushed into China.[16]

During the two decades of reform in Dongguan, real GDP jumped by more than 11 times to 6.98 billion *yuan*, while real GDP per capita increased by almost nine times to the all time high of 4742 *yuan* in 1997 (see Figure 3.4). In terms of US$, the nominal GDP per capita in Dongguan increased by almost eleven times between 1978 and 1997. In 1978, the nominal GDP per capita value of US$223 in Dongguan was approximately the 1969 level of South Korea (US$240) but much lower than the 1960 level of Hong Kong (US$391) and Singapore (US$430).[17] In 1997, the nominal GDP per capita value of US$2420 recorded in Dongguan reached the 1975 level of Hong Kong (US$2270) and Singapore (US$2505), and the 1985 level of South Korea (US$2311). Therefore, the pattern of rapid economic growth in Dongguan is similar to that of Hong Kong, Singapore and South Korea during the 1960s and 1980s. This was achieved when the local population increased by 32 per cent from 1.11 million in 1978 to 1.47 million in 1997 and during the massive devaluation of *renminbi* against the US dollar from 2:1 in 1978, to 8.28:1 in 1997.[18]

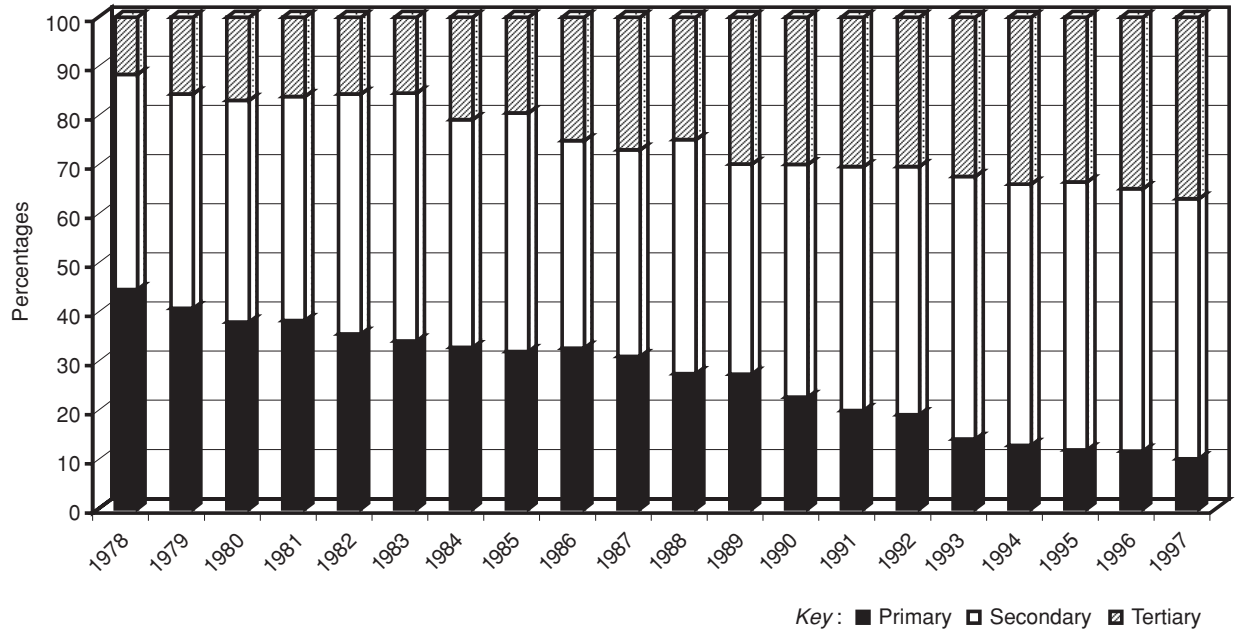
Even including migrants (or more correctly, temporary workers who enter Dongguan to work without going through procedures to transfer

their household registration) to Dongguan when data are available, the average annual growth rate in real GDP per capita between 1987 and 1997 was still respectable at 5 per cent.[19] Despite the austerity policy implemented nation-wide and the first that the number of migrants in Dongguan doubled during the 1990s, the real GDP per capita doubled, from a relatively high figure of 1371 *yuan* in 1990, to 2391 *yuan* in 1997. That is to say, the *high growth rate in Dongguan was able to offset the dramatic inflow of migrants* from other regions. Given the fact that the population of migrants in Dongguan expanded by almost 93 times, from 15 622 in 1986 to about 1.45 million in 1997, which is as large as the local population, the developmental path of Dongguan does obviously deserve a more in-depth investigation (DBS, 1996a, pp. 98–100; DBS, 1998, pp. 182–4).[20]

The change in the economic structure of Dongguan is discussed from three aspects: GDP composition; industrial and agricultural output value; and export value. In terms of real GDP composition, rapid industrialization resulted in the expansion of the secondary and tertiary sectors (see Figure 3.5). The primary sector's share decreased from 45 per cent in 1978 to 31 per cent in 1987, before further diminishing to an all-time low of 10 per cent in 1997. Obviously, the implementation of the 'second industrial revolution' policy accelerated the diminishing share of the primary sector in Dongguan's GDP. The secondary sector's share increased from 44 per cent in 1978 to 53 per cent in 1997 while the tertiary sector's share tripled from 12 per cent in 1978 to 37 per cent in 1997. The boom in the service sector was contributed by improvements in the social infrastructure (hotels and restaurants) allowing it to accommodate and facilitate the inflow of foreign investment.

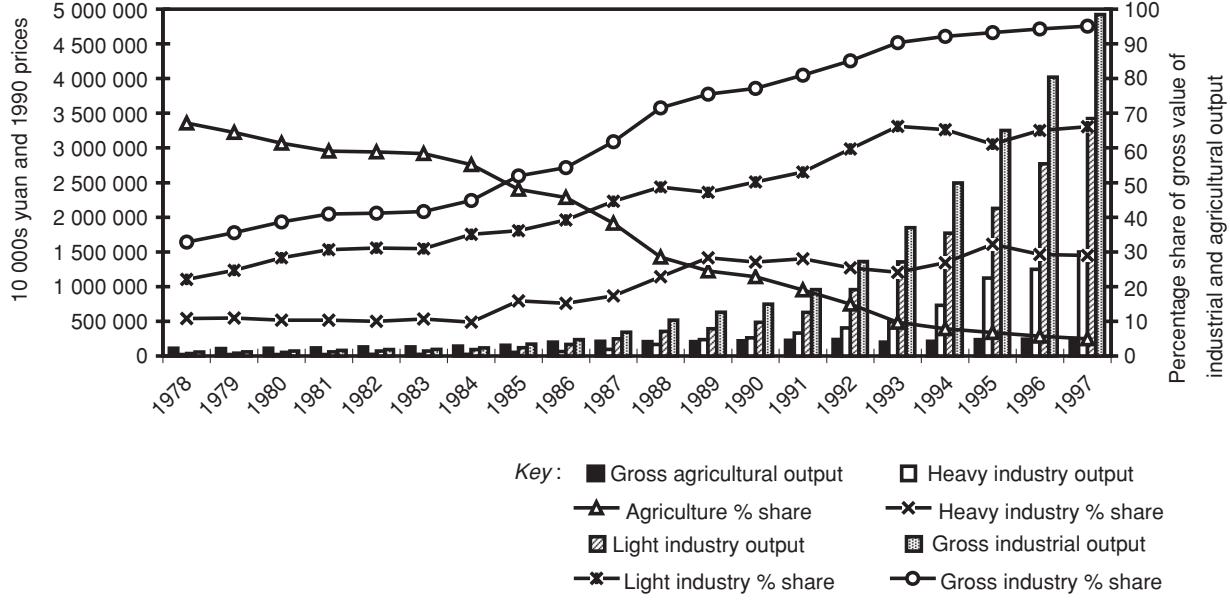
The real value of industrial and agricultural output sheds more light on the dynamics of industrialization in Dongguan. The value of the industrial output, in 1990 prices increased by 89 times, from 550 million *yuan* in 1978 to 49.19 billion *yuan* in 1997, while the value of the agricultural output in 1990 prices, only doubled, from 1.12 billion *yuan* in 1978 to 2.53 billion *yuan* in 1997 (see Figure 3.6).[21] The industrial output per capita value increased by 68 times from 495 *yuan* in 1978 to 33 437 *yuan* in 1997 while the value of agricultural output per capita increased only 1.7 times from 1012 *yuan* in 1978 to 1721 *yuan* in 1997.

Rapid industrialization in Dongguan was propelled by the boom in light industry from the mid-1980s onwards (see Figure 3.6). The value of light industry increased dramatically, from 370 million *yuan* in 1978



Source: Calculated from the synthesized database.

Figure 3.5 Composition of real GDP, Dongguan, 1978–97



Notes: Based on 1990 constant prices.
Source: Calculated from the synthesized database.
Figure 3.6 Real value of industrial and agricultural output, Dongguan, 1978–97

to 2.44 billion *yuan* in 1987, which was even higher than the gross value of agricultural output of 2.1 billion *yuan*. The value of heavy industrial output was relatively stagnant during the early 1980s, before overtaking the gross value of agricultural output in 1989. Obviously, the P&A-induced industrialization of the 'first industrial revolution' implemented by the Dongguan government was a success. The value of light industrial output increased continuously to 34.21 billion *yuan*, and its per capita value reached 23 250 *yuan* in 1997, which was almost 70 times higher than the 333 *yuan* in 1978. The value of heavy industrial output also increased continuously to 14.99 billion *yuan*, and its per capita value reached 10 186 *yuan* in 1997, which was almost sixty-three times greater than the 162 *yuan* in 1978. The further growth of heavy industry is compatible with the second stage of economic reforms in Dongguan, where the government attempted to develop higher-value-added foreign investment rather than to rely on low-value-added, labour-intensive assembly sectors in light industry. It also suggests that the development of light and heavy industries is complementary in the sense that further economic development required contributions from both.[22] Subsequently, Dongguan developed diversified light and heavy industries, including textiles (spinning and weaving), garments, plastics, toys, leather and resin wares, electronics, electrical appliances, electric engines, machinery, building materials, metalwork, pharmaceuticals, chemicals, paper making, printing, furniture, daily necessities, foodstuff, art and handicrafts (DMBFT, 1988).

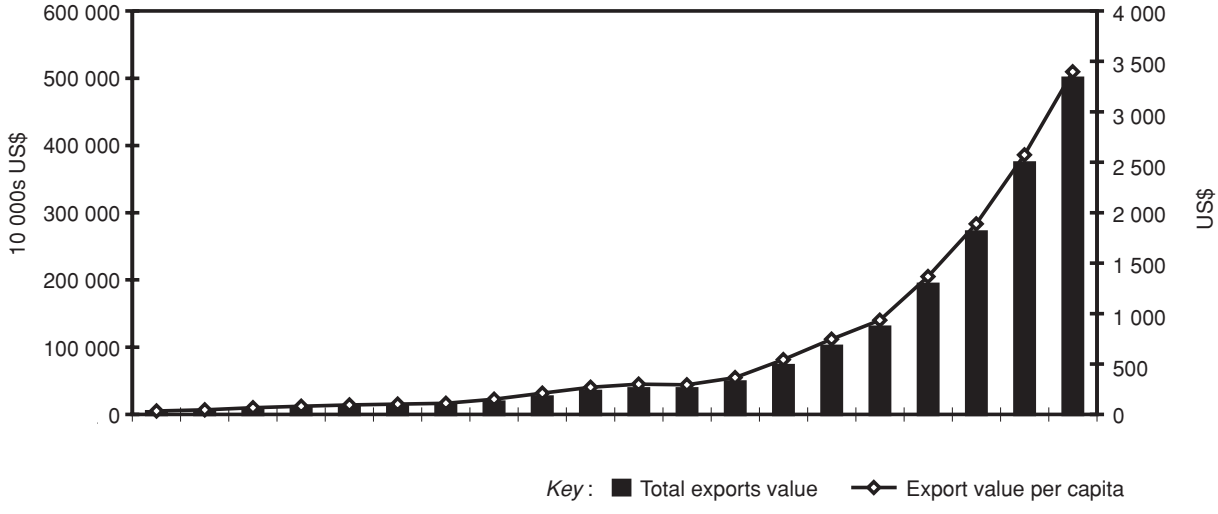
The result of rapid industrialization is clear when the above figures are transformed into proportions of gross value of industrial and agricultural output (see Figure 3.6). First, there was a continuous increase in the share of gross value of industrial output and a steady decrease in the share of the gross value of agricultural output. Second, the gross value of industrial output was higher than the gross value of agricultural output for the first time in 1985, when the polarization of value in the industrial and agricultural output accelerated. Third, the share of the gross value of industrial output increased almost threefold, from 33 per cent in 1978 to 95 per cent in 1997, while the share of the gross value of agricultural output dropped dramatically, from 67 per cent in 1978 to 4.9 per cent in 1997. Moreover, both light and heavy industries contributed to industrialization by increasing their share about threefold in gross value of industrial and agricultural output, from 22 per cent and 11 per cent, respectively, in 1978 to 66 per cent and 29 per cent, respectively, in 1997.

Furthermore, the nominal industrial value-added per capita of Dongguan developed a similar rapid growth pattern to that experienced by Hong Kong, Singapore and South Korea during the 1960s and 1970s. In 1980, the value-added per capita of industry in Dongguan was US$58, similar to the 1968 level in South Korea (US$53) but much lower than the 1960 level in Hong Kong (US$130) and Singapore (US$74). In 1997, the industrial value-added per capita of US$853 in Dongguan reached the 1975 level in Singapore (US$854), the 1976 level in Hong Kong (US$809) and the 1983 level in South Korea (US$854) (IBRD, 1996).

As a result of export orientation, the export value of Dongguan increased 127 times, from US$39 million in 1978 (Customs figure, US$56.83 million in 1990) to almost US$5 billion in 1997 (Customs figure, US$11.37 billion in 1997): an average annual growth rate of 30 per cent (see Figure 3.7).[23] Apart from 1984 and 1989, when economic retrenchment occurred because of the over-heated Chinese economy, each year had a double-figure annual growth rate of export value. During the first stage of economic reform, export values increased by almost ten times, to US$380 million in 1989. The growth rate of export value remained high during the second stage of economic reform, when it increased by another ten times between 1990 and 1997. Moreover, the export value per capita increased eight times, from a mere US$35 in 1978 to US$295 in 1989, before increasing by another eleven times to US$3397 in 1997.

As with GDP per capita and industrial value-added, the pattern of export per capita value in Dongguan emulates the export-orientated industrialization experienced by the 'Four Little Dragons' from the 1960s onwards. At US$35, Dongguan's export per capita value in 1978 was much higher than the US$5 of South Korea in 1960, but much lower than the US$277 of Hong Kong and the US$700 of Singapore in 1960. In 1997, the US$3397 export value per capita in Dongguan reached the 1975 level in Singapore (US$3489), 1978 level in Hong Kong (US$3299), and US$437 *higher* than the 1997 level in South Korea (US$2960). If the Customs rather than the DCFERT's figure is used, the US$7727 export value per capita in Dongguan was higher than the 1979 level in Singapore (US$7485) and reached the 1986 level in Hong Kong (US$8109) (IBRD, 1996, 1998). The above provides a prima-facie case to suggest that government policy played an important role in Dongguan's economic development.

Apart from economic growth, Dongguan also achieved a tremendous improvement in *social development* in terms of health care, education



Notes: Exports per capita is calculated from local population only.
Source: Calculated from the synthesized database.
Figure 3.7 Value of total exports and exports per capita, Dongguan, 1978–97

and living standards. There was a tremendous improvement in health care during the 1960s, when the number of hospital beds increased from 179 in 1952 to 953 in 1960 (see Table 3.1). The majority of medical practitioners were Chinese doctors, accounting for 87 per cent of all doctors in Dongguan. By 1970, the number of hospital beds had increased to 1476 and the number of Western doctors increased to 145, but the number of Chinese doctors decreased to 253.[24] The improvement in medical health care continued during the economic reform era when the number of hospital beds increased by 2.5 times, from 2207 in 1980 to 5505 in 1997. The corresponding hospital beds per thousand increased from 1.96 to 3.74. Even when the total population almost doubled to include the migrant population, the number of hospital beds per thousand was remained more or less the same at 1.89 in 1997. The dominance of Chinese doctors switched to Western doctors from 1980 onwards. The number of Western doctors increased from 377 in 1980 to 1773 in 1997, while the number of Chinese doctors increased from 148 in 1980 to 317 in 1997. The corresponding Western doctors per thousand increased from 0.33 to 1.21 (0.61 if migrants are included). The improvement in health-care facilities is illustrated by a decrease in the mortality rate from 6.22 per thousand in 1965 to 4.95 per thousand in 1970. The mortality rate reduced to 4.41 per thousand in 1997 (the infant mortality rate was below 11 per thousand in 1995). Partly because of the enforcement of the single-child policy, the birth rate dropped from 24.41 per thousand in 1980 to 16.50 per thousand in 1997.

In education, the investment in schooling by the Dongguan government resulted in a huge increase in the number of students (see Table 3.1). This was especially the case in secondary schools. In 1952, there were only seven secondary schools and fewer than 4000 students in Dongguan. In less than a decade, the number of secondary schools increased by four times to twenty-eight, and the number of students increased by four times to 15 118. During the period of reform, the number of secondary schools and students doubled, from 49 schools and 55 215 students in 1980 to 89 schools and 122 826 students in 1997. The corresponding number of secondary teachers increased, from 3025 to 5555, but the student–teacher ratio also increased slightly, from 18.25 to 22.11, respectively. Similar but less impressive growth rates were also recorded in the number of primary schools and their student and teacher numbers. Moreover, Dongguan's first tertiary educational institute was opened in 1994. In 1997, it had 123 teaching staff and 2025 students.

Table 3.1 Social indicators for Dongguan, 1952–97

Proxies	*1952*	*1960*	*1970*	*1980*	*1990*	*1997*
Population (millions)						
Local	0.72	0.80	0.99	1.13	1.32	1.47
Migrants	–	–	–	–	0.66	1.45
No. of hospitals	6	4	5	6	6	7
No. of hospital beds	179	953	1 476	2 207	3 866	5 505
(per 1000)[1]	0.25	1.19	1.50	1.96	2.93	3.74
(total per 1000)	0.25	1.19	1.50	1.96	1.95	1.89
No. of doctors						
Western doctors	10	60	145	377	925	1 773
(per 1000)	0.01	0.08	0.15	0.33	0.70	1.21
(total per 1000)	0.01	0.08	0.15	0.33	0.47	0.61
Chinese doctors	N/A	411	253	148	252	317
(per 1000)	N/A	0.52	0.26	0.13	0.19	0.22
(total per 1000)	N/A	0.52	0.26	0.13	0.13	0.11
Mortality rate (per cent)	N/A	6.22[2]	4.95	5.10	4.76	4.41
Birth rate (per cent)	N/A	35.86[2]	25.55	24.41	17.07	16.50
No. of schools (per cent)						
Primary	325	N/A	N/A	N/A	570	586
Secondary	7	28	34	49	81	89
Tertiary	–	–	–	–	–	1
No. of teachers						
Primary	N/A	N/A	N/A	6 022	6 785	7 518
(student/teacher ratio)	N/A	N/A	N/A	25.72	23.97	29.51
Secondary	N/A	N/A	N/A	3 025	3 397	5 555
(student/teacher ratio)	N/A	N/A	N/A	18.25	20.81	22.11

Table 3.1 Social indicators for Dongguan, 1952–97 *(continued)*

Proxies	*1952*	*1960*	*1970*	*1980*	*1990*	*1997*
Tertiary	–	–	–	–	–	123
(student/teacher ratio)	–	–	–	–	–	16.46
No. of students[3]						
Primary	70 359	130 397	118 128	154 871	162 664	221 838
Secondary	3 939	15 118	60 150	55 215	70 707	122 826
Tertiary	–	–	–	–	–	2 025
Enrolment rate (%)	N/A	N/A	N/A	98.85	99.94	99.99
Graduation rate (%)						
Primary	N/A	N/A	N/A	73.40	95.35	99.90
Lower secondary	N/A	N/A	N/A	25.40	44.14	87.35
Higher secondary	N/A	N/A	N/A	7.20	31.20	60.00
Ownership rate of durable goods (in units/100 households)						
Colour television	N/A	N/A	N/A	22[4]	92	116
Refrigerator	N/A	N/A	N/A	22[4]	84	106
Washing machine	N/A	N/A	N/A	56[4]	54	108

Notes: 1. In health proxies, per thousand data are based on local population and total per thousand data are based on total population (local plus migrants population).
2. 1965 data.
3. Number of students includes migrants' children but the exact proportion is unclear.
4. 1985 data.

Source: Compiled and calculated from the synthesized database.

Dongguan had a very high primary school enrolment rate, which increased from 98.85 per cent in 1980 to 99.99 per cent in 1997 (see Table 3.1). The proportion of students pursuing further education also increased. In 1980, 73.4 per cent of primary school graduates continued to secondary school education, and the proportion increased to 99.9 per cent in 1997. The proportion of lower secondary school graduates continuing to higher secondary school education increased from 25.4 per cent in 1980 to 44.14 per cent in 1990. After seven years, the rate almost doubled to 87.35 per cent. The proportion of higher secondary school graduates continuing to college and technical education increased dramatically, from 7.2 per cent in 1980 to 60 per cent in 1997. Obviously, increasing numbers of children in Dongguan completed secondary school education and more than half of them went on to tertiary education.

The improvement in Dongguan's living standards was reflected in the tremendous increase in the ownership of contemporary durable household goods.[25] The colour television ownership rate increased by more than four times, from 22 units per 100 households in 1985 to 92 units per 100 in 1990 (see Table 3.1). Similar growth rates appeared for refrigerators. In 1997, the ownership rates for colour televisions, refrigerators and washing machines all exceeded 100. In other words, it is not uncommon for a family to own more than one colour television set, refrigerator and washing machine in Dongguan.

Is all the above evidence indicative of another 'miracle' in southern China?

Dongguan's achievements compared to Guangdong's and China's

Before jumping to a hasty conclusion and proclaiming Dongguan to be the champion, it is necessary to compare its achievements with those of Guangdong and China.

As Dongguan is a tiny city, it is to be expected that its share of real GDP as part of Guangdong and China is negligible. In 1997, Dongguan's 1.47 million local population and 2465km^2 of land accounted for 2.1 per cent of the total population and 1.39 per cent of total land area in Guangdong province, and 0.12 per cent of total population and 0.02 per cent of total land area in China as a whole. However, Dongguan accounted for an average 3.7 per cent of real GDP in Guangdong and an average 0.24 per cent of real GDP in China. The average annual growth rate of real GDP in Dongguan was 14 per cent between 1978 and 1997, which is higher than the 12 per cent recorded in Guangdong and the 9 per cent registered in China (DBS, 1998; GBS, 1998; SSB, 1998).

It is not surprising to discover that the real GDP per capita in Dongguan is higher than that of Guangdong and China. The real GDP per capita in Dongguan was on average 1.8 times higher than that of Guangdong and on average 2.1 times higher than that of China during the economic reform era. In 1997, the real GDP per capita in Dongguan was double that of Guangdong and triple that of China. In terms of average annual growth rate, the 13 per cent average real GDP per capita growth rate in Dongguan between 1978 and 1997 was higher than the 11 per cent in Guangdong and 8 per cent in China (ibid.). In fact, Dongguan is an exceptional city in southern China.

The gross value of industrial and agricultural output in Dongguan as a percentage of Guangdong's increased from 2.74 per cent in 1978 to 4.56 per cent in 1997 – further evidence of the economic strength of Dongguan. Dongguan's increasing share of gross value of industrial output in Guangdong, from 2.09 per cent in 1978 to 4.7 per cent in 1997, and the corresponding decrease in share of gross value of agricultural output, from 4.48 per cent in 1978 to 2.87 per cent in 1997, illustrates its rapid industrialization. Dongguan's increasing share of the value in light and heavy industry output in Guangdong, from 3.04 per cent and 0.82 per cent in 1978 to 4.95 per cent and 4.22 per cent in 1997, also supports the hypothesis of Dongguan's rapid industrialization (ibid.).

Apart from the more than proportional share of GDP per capita and gross industrial output value, Dongguan's share of export value also accounted for a large percentage of Guangdong's: from 2.84 per cent in 1978 to the all-time high of 6.88 per cent in 1997. While the Dongguan government's trading company occupied less than 5 per cent of the total trading companies export value in Guangdong, the P&A in Dongguan accounted for up to 36 per cent of total Guangdong P&A export value in 1992, before dropping to less than 10 per cent. Moreover, the *sanzi qiye* share in Dongguan of the total *sanzi qiye* export value in Guangdong increased from 2.73 per cent in 1984 to 10.28 per cent in 1997 (ibid.). Obviously, this reflected the export-orientated nature of Dongguan's economy.

3.3 Foreign investment policy

Before describing foreign investment patterns in Dongguan, it is useful to summarize briefly the foreign investment reform policy of the Beijing and Dongguan governments.

Central government policy

Since 1979, the Beijing government has introduced a number of measures to encourage foreign entrepreneurs to invest in China. For example, the State Council issued twenty-two Articles (*Provisions of the State Council of the People's Republic of China for the Encouragement of Foreign Investment*) in October 1986, to encourage foreign investment in *sanzi qiye*, particularly in the high-technology-intensive and export-orientated sectors. In this section, the measures to encourage foreign investment are summarized in three categories: policies on *sanzi qiye*, P&A, and foreign entrepreneurs.

The following privilege policies apply to foreign investment on *sanzi qiye* (EJVs, CJVs and WFVs) (Liu and Zhen, 1992, pp. 34–46, 103–4, 165–9):

- Two tax-free years after the first profit-making year and a 50 per cent reduction during the following three years for *sanzi qiye* with a contract life of ten years or longer.
- For ventures engaged in agricultural sectors or established in remote or mountainous regions, an additional 15 to 30 per cent concession on profit tax may be granted by the Finance Bureau for a further ten years. Moreover, 40 per cent of tax payable would be reimbursed if investors reinvested their profits in China on a project for a period of five years or longer.
- Operation losses incurred by *sanzi qiye* may be recovered from the profit tax payable in the subsequent five financial years.
- *Sanzi qiye* engaged in infrastructure construction with investments of fifteen years or longer are eligible for five tax-free years and a further five years at a 50 per cent reduction, additional to the 15 per cent profit tax rate offered. For ventures in financial difficulties after the expiry of the tax-free period, the tax-concession period may be extended with the approval of the Finance Bureau.
- Exemption from tariffs (import duties) and Value-added Tax from December, 1984 onwards:[26]

  (i) machinery and components purchased by foreign investors or venture capital as specified in venture contracts;
  (ii) machinery and components unavailable locally; and
  (iii) The raw materials, components and packing materials specified in venture contracts to produce final products for export.

For foreign investment in P&A, the following privilege policies apply (ibid.):

- Tax exemption on profits for the first three profit-making years for P&A (free from profit submission for SOEs involved).
- Exemption from tariffs and Value-added Tax for the importation of raw materials, components, tools and machinery specified by P&A contracts as well as the exportation of finished products.
- Import permits waived for the importation of machinery and tools specified by P&A contracts.
- Exemption from property tax for three to five years on foreign-investor-owned factory premises.

The following privileges apply to foreign entrepreneurs or employees working in foreign-financed firms in China (ibid.):

- Any overseas income exempt from income tax for foreigners based in China for more than one year, or who have worked in China for more than five years but do not intend to live in the country permanently.
- A 50 per cent concession on payable income tax for foreigners working in foreign-financed enterprises.
- Interest generated from savings accounts in Chinese banks is income-tax-free.
- Any foreigners living in China for less than 90 days per year are exempted from paying income tax.

The Dongguan government policy

Apart from the central government's policies considered above, the Dongguan government has five policy measures which maintain its competitiveness over other regions to attract foreign investment (ibid.; DMBFT, 1988; Ou-yang, 1994, pp. 79–80):

1. In addition to the preferential policies implemented by the state on the Pearl River Delta Economic Development Area, enterprises with practical difficulties can apply for additional preferential treatment or tax-concessions:[27]

- Local government profit tax is waived on profits of 250 000 *yuan* or less. There is a 30 per cent concession on local government tax on profits of over 250 000 *yuan*. For non-productive or non-scientific

investment projects, there is a 30 per cent concession on local government tax on profits between 250 000 and 1 million *yuan* (no concessions for amounts over 1 million *yuan*).

- A 15–30 per cent concession on profit tax may be granted by the Finance Bureau for those ventures with a contract life of ten years or longer when their tax-exempt period has expired.

2. Priorities on arrangement of loan, water and power supplies and other supporting infrastructure. Unauthorized charges and price increases are strictly prohibited.
3. There are additional concessions to foreign investors for profit-sharing (on *sanzi qiye*).
4. A preferential land usage fee gives land ownership rights for fifty years or more, while large-scale investments can apply for over fifty-year land ownership rights.
5. A simplified bureaucracy and improved administration efficiency (rather than approvals from numerous bureaux) is organized through:

- Institutionalized foreign investment administration via 'one stop' contract negotiation through two specialized organizations established by the Dongguan government in September, 1978: the Dongguan Head Office for Foreign Investment (for *sanzi qiye*) and the Dongguan External Processing and Assembling Office (for P&A). The two offices consist of officials and delegates from various government departments, including the Planning Committee, Economic Committee, External Economic Relations and Trade Committee, banks and other industrial and commercial departments who deal with foreign investment and the setting-up of factories. Sub-offices have also been set up at the township level to facilitate the administrative affairs of P&A, increase flexibility, and reduce the time-lag in the negotiation of foreign-financed projects.[28]
- Simplified documentation is achieved by clear and transparent guidelines: foreign investment projects must be approved or rejected within thirty days.[29]
- An ideology shift from the bureaucracy at the centre of power to concentrating on services to foreign investors. The two offices for foreign investment worked every day, including Sundays and public holidays, during the 1980s (a five-day work week was returned to in the 1990s). In a number of cases, especially small-scale P&A investments, which do not require municipal or provincial government

approval, the negotiation, signing and verification of contracts, application for commercial permits, tax certificates and Customs documents can be completed within one working day.

- The Dongguan government has the authority to approve foreign investments under US$30 million, if the equity share of the foreign investment is over 50 per cent, and 70 per cent of its output is for export.
- The Dongguan government has the authority to approve foreign investment under US$15 million (against US$30 million in SEZ and Guangzhou), if the equity share of the foreign investment is less than 50 per cent, and less than 70 per cent of its output is for export.
- The Dongguan government can approve WFVs if all the products are for export. However, it must get prior approval from the Guangdong Foreign Investment Commission if a portion of its products are for internal sales.

The formal policy implemented in Dongguan is similar to that in other regions in southern China. In fact, it is less favourable than in Shenzhen SEZ. None the less, policy implementation in Dongguan is more flexible, as the principle of 'sincerity, friendliness, equality and mutual benefit' is the motto when dealing with foreign investors (DMBFT, 1988).

3.4 Foreign investment in Dongguan

This section describes the foreign investment pattern in Dongguan with a preliminary assessment of its economic impact on the local economy.

The pattern of foreign investment in Dongguan

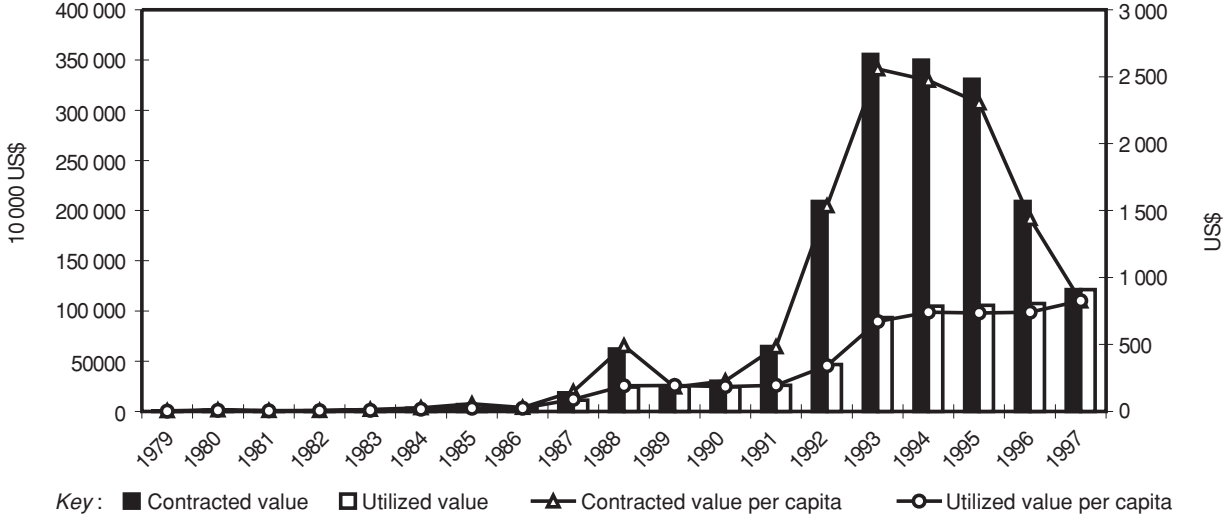
Up to 1990, more than 80 per cent of foreign investment contracts signed in Dongguan were for P&A. In 1997, 1492 P&A contracts still comprised the largest share of the 1685 foreign investment contracts signed. No other form of foreign investment comprised more than 25 per cent of the total number of foreign investment contracts at any time. In *sanzi qiye*, the number of WFV and EJV contracts increased rapidly in the 1990s (DBS, 1996a, 1998).

In terms of absolute value, Dongguan experienced an unprecedented rise in the value of contracted and utilized foreign investments. The contracted value of foreign investment in Dongguan increased by a

massive 747 times, from US$4.76 million in 1979 to an all-time high of US$3.55 billion in 1993, before dropping to US$1.21 billion in 1997 (see Figure 3.8). The utilized value of foreign investment also rose by an impressive 702 times, from US$1.73 million in 1979 to an all-time high of US$1.21 billion in 1997. The significant increase in contracted and utilized foreign investment value in 1988 may be related to the award of municipal status to Dongguan, through which its administrative and financial autonomy was enhanced. Apart from during 1989, the utilized value of foreign investment was higher in 1997 than the contracted value of foreign investment. This dramatic decline of contracted value of foreign investment was probably caused by increasing production costs (see Chapters 4 and 5) and the delaying of new investment by entrepreneurs after the disruption of the Asian financial crisis in mid-1997. The value of foreign investment increased significantly during the 1990s. In 1997, the cumulative contracted foreign investment in Dongguan reached US$17.92 billion, and the corresponding utilized value of foreign investment reached US$7.02 billion. In other words, about 39 per cent of the accumulated contracted value of foreign investment was realized in 1997. This suggests that the value of utilized foreign investment in Dongguan may maintain a high level in the near future, even if the contracted value of foreign investment diminishes rapidly.

In terms of per capita value, the growth of utilized foreign investment in Dongguan is as impressive as in Singapore.[30] In 1979, the utilized foreign investment per capita in Dongguan was only US$1.54, much lower than the US$8.51 recorded in Singapore in 1965 (when Singapore became an independent country). In 1997, the per capita value in Dongguan increased dramatically to US$825, which was even higher than the US$661 recorded by Singapore in 1986 (but lower than the US$1084 in 1987). Even when the migrant population in Dongguan is taken into consideration, the per capita value of US$416 recorded in 1997 attained the 1985 level of Singapore of US$409 (IBRD, 1996).

P&A monopolized the contracted value of foreign investment by accounting for more than 90 per cent of its total value between 1979 and 1982, before dropping below 50 per cent after 1989 (see Table 3.2). This is *de facto* the result of the P&A-induced industrialization policy of the Dongguan government during the 1980s. Apart from the simplicity of its administration, the foreign exchange retention policy enforced in the late 1980s stimulated the growth of P&A.[31] The sudden surge of EJV contracted value in 1988 may be related to Dongguan's change of



Notes: Per capita is calculated from local population only.
Source: Calculated from the synthesized database.
Figure 3.8 Total value and per capita value of foreign investment, Dongguan, 1979–97

administrative status mentioned above. As the Dongguan government had greater autonomy over its financial affairs and the acceptance of foreign investment projects, it was able to reduce the time required for processing documentation, such as the feasibility studies of EJVs. This argument is supported by the popularity of foreign investment in *sanzi qiye* during the 1990s. As with the number of contracts, the contracted value of WFV in Dongguan increased during the 1990s. In 1994, WFV contracted value reached US$1.2 billion and accounted for the largest share (34 per cent) of the total amount of contracted foreign investment, while at the same time, P&A contracted value dropped to US$477 million.

As with the contracted value, P&A also monopolized the utilized value of foreign investment in Dongguan by accounting for more than 90 per cent of its total value up to 1983, before dropping below 50 per cent in 1991 (see Table 3.2). The decline in P&A was attributed to the fact that most SMEs originating in Hong Kong had already relocated to southern China during the 1980s. For those who planned to invest in the 1990s, the investment scale was larger, and some may have preferred to invest in *sanzi qiye*, partly because of the reorientation of Dongguan policy from P&A to *sanzi qiye* during the second stage of economic reform, when the Singapore-style 'pioneer industrial policy' was promoted. Foreign investment in the form of *sanzi qiye* during the 1980s was attracted by the successful example of pioneering P&A investment. As the output of P&A firms must be exported, the popularity of *sanzi qiye* increased. This is especially the case with WFVs, whose value multiplied by 99 times within eight years to US$490 million in 1997. The WFV share of total utilized value of foreign investment also increased, from 2.03 per cent in 1990 to 40.37 per cent in 1997. It is unfortunate that a breakdown of *sanzi qiye* investment figures were not available before 1990, hence the analysis cannot be based on a longer time-frame.

In *sanzi qiye*, the utilized value of foreign investment (US$879 million) was higher than the contracted value of foreign investment (US$592 million) in 1997. This pattern does not appeared in P&A, where its contracted value of US$621 million was still almost double than that of the utilized value at US$335 million in 1997 (see Table 3.2). This tremendous increase in utilized value of foreign investment in *sanzi qiye* may reflect the increase in contractual value of such forms of investment during the early 1990s.

The large number of contracts combined with the small amount of foreign investment implies a low average value of registered capital in

Table 3.2 The composition of contracted and utilized foreign investment in Dongguan, 1979–97

	Types of investment (US$10 000)				*Total*
	EJV	*CJV*	*WFV*	*P&A*	
Contracted value					
1979	0	0	0	476	476
1980	0	0	0	1 055	1 055
1981	22	–	–	784	806
1982	16	–	–	771	787
1983	775	–	–	841	1 616
1984	2 204	–	–	1 013	3 217
1985	4 945	–	–	1 870	6 815
1986	1 805	–	–	1 593	3 398
1987	4 431	–	–	14 082	18 513
1988	19 666	–	–	42 507	62 173
1989	14 097	–	–	9 268	23 365
1990	7 201	6 111	4 522	12 346	30 180
1991	26 624	4 796	13 715	19 348	64 483
1992	62 138	75 289	41 678	29 720	208 825
1993	118 330	108 254	74 108	54 823	355 515
1994	106 711	74 783	120 509	47 700	349 703
1995	74 868	35 295	123 329	97 428	330 920
1996	49 755	12 744	83 551	62 811	208 861
1997	12 248	9 811	37 178	62 114	121 351
Cumulative total	505 836	327 083	498 590	460 550	1 792 059

Table 3.2 The composition of contracted and utilized foreign investment in Dongguan, 1979–97 *(continued)*

	Types of investment (US$10 000)				*Total*
	EJV	*CJV*	*WFV*	*P&A*	
Utilized value					
1979	0	0	0	173	173
1980	0	0	0	934	934
1981	7	–	–	528	535
1982	47	–	–	668	715
1983	30	–	–	871	901
1984	684	–	–	1 324	2 007
1985	1 383	–	–	1 511	2 894
1986	1 489	–	–	1 553	3 041
1987	2 074	–	–	9 185	11 258
1988	6 409	–	–	17 717	24 126
1989	8 390	–	–	16 559	24 949
1990	5 871	3 645	494	14 309	24 319
1991	8 436	3 227	3 013	11 478	26 154
1992	14 785	5 572	12 519	13 716	46 592
1993	33 122	19 384	26 741	14 181	93 428
1994	37 924	15 650	24 300	26 938	104 812
1995	31 314	14 983	20 950	38 418	105 665
1996	25 054	16 203	28 247	38 061	107 565
1997	27 500	11 434	49 026	33 467	121 427
Cumulative total	**204 518**	**90 098**	**165 290**	**241 589**	**701 495**

Notes: 1981–89, EJV value included CJV and WFV.
Source: Calculated from DBS, 1996a, 414–29; 1998, pp. 347–51.

each contract. With the exception of WFV in 1996, the average value of contracted foreign investment does not exceed US$5 million. This is well below the US$30 million ceiling approved by the Dongguan government without the prior approval of provincial and central governments. In 1997, the average contracted value of EJV was US$2.99 million; for CJV US$2.8 million; and for WFV US$3.18 million (DBS, 1996a, pp. 414–29; 1998, pp. 347–51). The average value of P&A investment per contract was less than US$40 000 before 1987, and the value did not average more than US$300 000 until 1993, which was about one-tenth of the value of CJV and WFV. There are at least two reasons which can explain the small average value of P&A investment. First, the minimum amount of P&A investment was low and the investment arrangement very flexible, making it ideal to attract the SMEs based in Hong Kong during the 'first industrial revolution' policy implemented in the 1980s. The economic growth of Dongguan and the subsequent government increase in the minimum amount of P&A investment explains why the average value of P&A contracts increased significantly in the 1990s. Second, some export-orientated regional conglomerates and TNCs chose the P&A investment form as a basis for trial production in China, since the time required to get approval for a P&A project is much shorter than that for a *sanzi qiye*. The successful P&A firms that planned to enter the Chinese market applied for and changed their investment forms to *sanzi qiye*. This explains the increasing popularity of *sanzi qiye*, and in particular of WFVs, in the 1990s.[32] In fact, some foreign investors were able to obtain the benefits of both P&A *and sanzi qiye* by registering one firm as P&A and another as WFV (or CJV/EJV) simultaneously. The P&A firm started trial production and ironed out any difficulties that might arise – even losses were acceptable and could be regarded as the 'tuition costs' of doing business in China. When the WFV project was approved, the management teams from P&A had already gained valuable experience and were able to take on the larger-scale WFV firm.

The above prima-facie evidence suggests that industrialization in Dongguan was induced by tremendous inflows of foreign investment. The significant role of foreign-financed firms is illustrated by their share of 21 per cent of the real value of industrial output in 1985. Moreover, the share of foreign-financed firms in real value of industrial output increased continuously to an all-time high of 83 per cent in 1995, before declining to 68 per cent in 1997. From another perspective, the 355 million *yuan* (at 1990 prices) of industrial output of

foreign-financed firms in 1985 increased by more than 95 times to 33.57 billion *yuan* (at 1990 prices) in 1997. Despite the decreasing proportion of new investment, the percentage of P&A in the gross value of industrial output in Dongguan increased from 16 per cent (269 million *yuan*) in 1985 to 38 per cent (12.2 billion *yuan*) in 1995, before declining to 21 per cent (10.9 billion *yuan*) in 1997. The flood of investment in *sanzi qiye* also led to its share in gross value of industrial output jumping from 5 per cent in 1985 to 46.1 per cent (note EJVs alone accounting for 30.58 per cent) in 1997 (DBS, 1996–8). From this, it is clear that foreign-financed firms dominated the industrial sectors in Dongguan during the 1990s.

Apart from the value of industrial output, foreign-financed firms also monopolized the export value of Dongguan in the 1990s (see Table 3.3). The total export value of foreign-financed firms increased by 1916 times, from US$2.34 million in 1979 to US$4.48 billion in 1997. In terms of proportion, the share of foreign-financed firms' export value in the total export value for Dongguan increased from 4.56 per cent in 1979 to an all-time high of 89.69 per cent in 1997. Obviously, state-owned trading companies, which used to monopolize Chinese imports and exports, experienced the harshest decline in Dongguan during the 1990s, when their share of total export value was reduced from a total monopoly of 100 per cent in 1978 to just 7.27 per cent (US$363 million) in 1997. During the 1980s, the export value of state-owned trading firms was eroded by the boom in P&A, whose share of total export value peaked at 48 per cent in 1984 before falling to below 30 per cent after this date. The rise of P&A in the export market is obviously related to the export-orientated P&A-induced industrialization policy in Dongguan. The significance of state-owned trading companies in the Dongguan export market declined continuously after their share fell below 50 per cent in 1989.[33] At the same time, the corresponding share of *sanzi qiye* almost doubled, from 12 per cent in 1988 to 21 per cent in 1989, before increasing steadily to an all-time high of almost 75 per cent in 1997. Undeniably, state-owned trading companies in Dongguan were replaced by the *sanzi qiye*. In fact, the rise of the *sanzi qiye* in the export market coincides with the timing of their arrival in Dongguan. Among the *sanzi qiye*, EJV is the most export- orientated, its share in total export value in Dongguan reaching over 30 per cent (US$399 million) from 1993 onward. As with the inflow of *sanzi qiye per se*, their significance for the export market reflects the success of the second stage of reform policy of the Dongguan government.

Table 3.3 The composition of export value in Dongguan, 1978–97

	Trading firms (US$10 000)		*Foreign-financed firms (US$10 000)*			
	SOE	*Local*	*EJV*	*CJV*	*WFV*	*P&A*
1978	3 938	–	–	–	–	–
	(100.00)	–	–	–	–	–
1979	4 903	–	–	–	–	234
	(95.44)	–	–	–	–	(4.56)
1980	5 919	–	–	–	–	1 815
	(76.53)	–	–	–	–	(23.47)
1981	6 523	–	–	–	–	2 650
	(71.11)	–	–	–	–	(28.89)
1982	7 509	35	–	–	–	3 336
	(69.02)	(0.32)	–	–	–	(30.66)
1983	7 268	33	–	–	–	4 889
	(59.62)	(0.27)	–	–	–	(40.10)
1984	6 623	32	–	200	–	6 431
	(49.85)	(0.24)	–	(1.51)	–	(48.40)
1985	10 651	63	265	534	–	6 634
	(58.69)	(0.35)	(1.46)	(2.94)	–	(36.56)
1986	15 520	308	940	429	–	8 819
	(59.65)	(1.18)	(3.61)	(1.65)	–	(33.90)
1987	19 213	504	1 755	1 666	–	10 732
	(56.73)	(1.49)	(5.18)	(4.92)	–	(31.68)
1988	21 057	569	2 981	1 837	–	11 669
	(55.25)	(1.49)	(7.82)	(4.82)	–	(30.62)
1989	15 050	534	6 285	1 803	–	14 377
	(39.55)	(1.40)	(16.52)	(4.74)	–	(37.79)
1990	15 818	992	10 934	2 423	82	17 845
	(32.89)	(2.06)	(22.73)	(5.04)	(0.17)	(37.10)
1991	17 285	2 106	16 494	7 430	1 010	28 221
	(23.83)	(2.90)	(22.74)	(10.24)	(1.39)	(38.90)
1992	19 945	1 907	27 359	9 815	3 359	39 002
	(19.67)	(1.88)	(26.98)	(9.68)	(3.31)	(38.47)
1993	20 766	2 273	39 889	14 358	9 080	43 404
	(16.00)	(1.75)	(30.74)	(11.06)	(7.00)	(33.45)
1994	26 961	3 981	66 828	23 071	24 913	47 498
	(13.95)	(2.06)	(34.58)	(11.94)	(12.89)	(24.58)
1995	34 065	6 905	90 357	35 718	52 276	51 714
	(12.57)	(2.55)	(33.34)	(13.18)	(19.29)	(19.08)
1996	31 859	9 233	134 760	47 035	89 513	61 608
	(8.52)	(2.47)	(36.03)	(12.58)	(23.93)	(16.47)
1997	36 317	15 208	171 647	49 206	152 489	74 938
	(7.27)	(3.04)	(34.34)	(9.85)	(30.51)	(14.99)

Table 3.3 The composition of export value in Dongguan, 1978–97 *(continued)*

	Trading firms (US$10 000)			*Foreign-financed firms (US$10 000)*		
	SOE	*Local*	*EJV*	*CJV*	*WFV*	*P&A*
Average	**16 360 (46.31)**	**2 793 (1.59)**	**43 884 (21.24)**	**13 966 (7.44)**	**41 590 (12.31)**	**22 938 (29.98)**
Cumulative Total	**327 190 (17.16)**	**44 683 (2.34)**	**570 495 (29.92)**	**195 525 (10.26)**	**332 722 (17.45)**	**435 815 (22.86)**

Notes: Figures in brackets are percentage share of total export value. (Totals may differ because of the rounding).
Source: Compiled and calculated from DBS, 1996–98.

It is crystal clear that export-orientated industrialization in Dongguan during the 1980s and 1990s was accelerated and sustained by the inflow of foreign capital. In contrast to the Maoist era, where economic development was politically orientated, the transitional economic development of Dongguan is linked to local government reform policies and the environment is favourable to domestic and foreign investment.

Does the above evidence sustain the 'Dongguan miracle' hypothesis?

Dongguan's attractiveness to foreign investors compared to Guangdong's and China's

Before concluding this chapter, it is imperative to compare Dongguan's attractiveness to foreign investors with that of Guangdong and China.

The impressive capital flows into Dongguan account for about 10 per cent of cumulative foreign investment in Guangdong province (see Table 3.4). The total number of foreign investment contracts signed in Dongguan accounted for 15 per cent of all contracts signed in Guangdong between 1980 and 1997. The P&A investment arrangement is particularly popular in Dongguan as it has accounted for 20 per cent of all P&A contracts signed in Guangdong. The percentage of EJV and WFV contracts increased to over 10 per cent in the 1990s (the total contract numbers for EJVs and WFVs is about 10 per cent, and 6 per cent for CJVs).

It must be pointed out, however, that there are some bizarre, if not illogical, P&A statistics. The number of foreign investment contracts

Table 3.4 Foreign investment in Dongguan as a percentage of foreign investment in Guangdong, 1980–97

	Types of investment				
	EJV	*CJV*	*WFV*	*P&A*	*Total*
Number of contracts					
1980	0.00	–	–	8.62	8.29
1985	6.77	–	–	4.36	4.66
1990	7.67	7.07	3.33	27.13	18.09
1991	12.79	4.42	3.47	33.81	19.70
1992	12.42	5.63	6.75	46.61	17.55
1993	11.20	5.04	7.42	86.07	16.58
1994	12.31	7.18	13.78	121.00	22.67
1995	12.31	8.07	15.24	200.96	33.38
1996	7.18	4.67	9.08	109.36	28.75
1997	3.63	4.71	6.26	10.76	9.57
Cumulative total	9.70	5.90	9.26	19.63	14.89
Contracted value					
1980	0.00	–	–	6.78	0.78
1985	2.47	–	–	7.92	3.05
1990	9.75	6.39	4.55	161.79	10.91
1991	14.74	3.26	8.41	201.63	12.89
1992	11.01	7.96	11.09	348.09	11.02
1993	10.91	6.77	11.72	1209.95	10.71
1994	15.91	6.36	22.45	1609.85	14.66
1995	9.17	3.66	17.55	2286.51	13.30

Table 3.4 Foreign investment in Dongguan as a percentage of foreign investment in Guangdong, 1980–97 *(continued)*

	Types of investment				
	EJV	*CJV*	*WFV*	*P&A*	*Total*
1996	9.14	2.47	16.90	1653.79	13.40
1997	5.89	4.02	11.83	49.97	13.63
Cumulative total	9.48	5.75	15.03	152.33	12.24
Utilized value					
1980	0.00	–	–	14.71	5.00
1985	2.68	–	–	18.06	4.83
1990	9.09	8.04	1.37	336.60	16.19
1991	10.73	6.08	5.95	187.70	13.88
1992	11.37	4.05	14.32	318.61	12.96
1993	11.76	6.65	15.14	656.83	12.42
1994	10.53	4.24	11.56	1245.98	11.13
1995	8.76	3.69	8.24	1399.56	10.35
1996	5.88	3.88	8.86	1335.47	11.25
1997	7.12	3.09	11.82	37.70	12.03
Cumulative total	7.99	4.31	10.67	142.41	11.86

Source: Calculated from the synthesized database.

signed in Dongguan was apparently larger than the corresponding number recorded in Guangdong between 1994 and 1996, which is logically impossible, as Dongguan is under the jurisdiction of Guangdong (see Table 3.4). Similar irregularities also appear in the statistics for contracted and utilized values of foreign investment. This phenomenon is compatible with the underestimation of official statistics on foreign investment argued by Liu *et al.* (1992, pp. 34–6) but contradicts the exaggeration of foreign investment hypothesis outlined by UNCTAD-DTCI (1995, p. 59). The figures may be reconciled through the rumours that the Dongguan Statistics Bureau systematically under-reported its statistics to the Guangdong Statistics Bureau for political or economic reasons. For example, it used to hide some sensitive or illegitimate foreign-financed projects for political reasons, or even through the receipt of bribes concerning certain projects.[34] It is unlikely that such irregularities are careless mistakes made by the Dongguan or Guangdong Statistics Bureaux, since they are not restricted to individual cases nor do they appear randomly. In fact, the abnormal pattern has only appeared for P&A between 1986 and 1996, for the contracted and utilized value of foreign investments, and the extent of under-reporting continue to increase until 1995. As the majority of P&A investment does not require the prior approval of the provincial government, it is much easier for local government to fabricate the reported statistics to fulfil their own political or economic agendas. The apparently 'normal' value of P&A in 1997 may be partly related to the national wide crackdown on false statistics by the State Statistics Bureau. If the above speculation holds any water, this can partially explain why it is difficult to access the official statistics published by the Dongguan Statistics Bureau.

Apart from the significant percentage of contract numbers, similarly impressive statistics are recorded for the contracted and utilized value of foreign investments. Dongguan accounted for 12 per cent of the total contracted and utilized value in Guangdong between 1980 and 1997 (see Table 3.4). The *sanzi qiye* played a significant role, as WFV accounted for over 10 per cent and EJV for about 10 per cent of cumulative contracted and utilized value of foreign investment in Guangdong.

The attractiveness of Dongguan to foreign investors is made crystal clear when its share of the total for China is revealed. In terms of contract numbers, up to 1997 Dongguan attracted 8.23 per cent of the total foreign investment contracts signed in China since 1979 (see Table 3.5). In terms of investment, Dongguan accounted for

Table 3.5 Foreign investment in Dongguan as a percentage of foreign investment in China, 1979–97

Year	*Number of contracts*	*Contracted foreign investment*	*Utilized foreign investment*
1979–83	149.28	0.61	1.81
1984	29.69	1.21	1.60
1985	20.34	1.15	1.74
1986	41.26	1.20	1.62
1987	36.90	4.99	4.87
1988	34.45	11.74	7.55
1989	16.25	4.17	7.36
1990	17.42	4.58	6.97
1991	12.61	5.38	5.99
1992	4.58	3.59	4.23
1993	3.74	3.19	3.40
1994	5.63	4.23	3.10
1995	8.31	3.63	2.82
1996	6.83	2.85	3.14
1997	8.02	2.38	3.35
Cumulative (1979–97)	8.23	3.45	3.43

Source: Calculated from the synthesized database.

3.45 per cent of the cumulative contracted value of foreign investment and 3.43 per cent of the total utilized value of foreign investment in China between 1979 and 1997. Though the average investment scale of each project may be relatively lower in Dongguan, there is no doubt about its relative large share in China, given the fact that Dongguan accounts for a small percentage of the total population and land area.

Dongguan compared to the 'Three Tigers' and Shenzhen

It may be argued that the above inter-regional comparison is biased because it does not consider regional disparities – that is, the low growth rates in the remote areas of Guangdong and other parts of China that offset the high growth rates of the coastal areas. For this purpose, a comparison between Dongguan, Zhongshan, Shunde and Nanhai municipalities/dependent cities, and Shenzhen municipality in Guangdong is presented below.

Apart from Shenzhen, which had at least double the value on most indicators, Dongguan is one of the most industrialized and export-orientated economies within Guangdong (see Table 3.6). At 103 235 *yuan* in 1997, the nominal GDP per capita (excluding migrants) in Shenzhen was about five times higher than that of Dongguan.

Table 3.6 A comparison of economic indicators of the 'Four Little Tigers' and Shenzhen, 1997

Indicators	*Four Little Tigers in Guangdong*				*Shenzhen municipality*
	Dongguan	*Zhongshan*	*Nanhai*	*Shunde*	
Local population (millions persons)	1.47	1.28	1.06	1.04	1.09
Nominal GDP (millions *yuan*)	29 470	220 95	25 147	22 425	113 001
	(100%)	(100%)	(100%)	(100%)	(100%)
Primary sector	3 000	2 305	2 412	1 725	1 579
	(10.18%)	(10.43%)	(9.59%)	(7.69%)	(1.40%)
Secondary sector	15 586	11 278	12 406	12 623	55 663
	(52.89%)	(51.04%)	(49.33%)	(56.29%)	(49.26%)
Tertiary sector	10 884	8 512	10 329	8 076	55 758
	(36.93%)	(38.53%)	(41.08%)	(36.02%)	(49.34%)
Nominal GDP per capita (*yuan*)	20 031	17 316	23 943	21 719	103 235
Gross industrial and agricultural output	51 725	51 615	47 770	54 535	146 713
value (1990 prices and millions *yuan*)	(100%)	(100%)	(100%)	(100%)	(100%)
Gross value agricultural output	2 532	2 472	1 853	2 640	1 046
	(4.90%)	(4.79%)	(3.88%)	(4.84%)	(0.71%)
Gross value industrial output	49 192	49 143	45 916	51 895	145 667
	(95.10%)	(95.21%)	(96.12%)	(95.16%)	(99.29%)
Exports (millions US$)	4 998	2 631	1 029	1 588	25 499
	(100%)	(100%)	(100%)	(100%)	(100%)
Trading companies	515	650	342	375	4 441
	(10.31%)	(24.71%)	(33.24%)	(23.61%)	(17.42%)

Table 3.6 A comparison of economic indicators of the 'Four Little Tigers' and Shenzhen, 1997 *(continued)*

Indicators	*Four Little Tigers in Guangdong*				*Shenzhen municipality*
	Dongguan	*Zhongshan*	*Nanhai*	*Shunde*	
Sanlai yibu	749	525	0	33	6 931
	(14.99%)	(19.95%)	(0.00%)	(2.08%)	(27.18%)
Sanzi qiye	3 733	1 456	687	1 180	14 127
	(74.70%)	(55.34%)	(66.76%)	(74.31%)	(55.40%)
Utilized foreign investment (millions US$)	1 516	554	276	397	2 872

Notes: * The figures for utilized foreign investment *included* the value of foreign loans, therefore the amounts appearing in this table are *higher* than the total value of utilized foreign investment. For example, the US$1.51 billion of utilized foreign investment in Dongguan included the US$301.36 million of foreign loan realized in 1997.
Source: Calculated and compiled from the synthesized database.

Obviously, the difference in real GDP per capita between Shenzhen and Dongguan would be lower when inflation and the migrant population are taken into consideration; for example, the migrant population in Shenzhen was about double the size of its local population, while the local and migrant populations in Dongguan were more or less equal. Though the absolute value of exports in Shenzhen was five times greater than that of Dongguan, the export-orientation of foreign-financed enterprises between the two were similar; that is, the exports from non-foreign-financed firms accounted for only 10 per cent and 17 per cent of total exports value in Dongguan and Shenzhen, respectively.

Shenzhen is expected to be more developed than the 'Four Little Tigers' as it developed much earlier than other regions in China during the reform era. As early as 1979, Shenzhen benefited from being one of the four SEZs (literally experimental areas for economic reform) in China. Apart from its strategic location (adjacent to Hong Kong) which enabled it to reap direct benefit from the first tier of economic diffusion on the relocation of manufacturing from Hong Kong, Shenzhen was one of the first cities in China to adopt a number of the most open reform policies. Dongguan, however, did not receive much attention from the central or provincial governments and was not offered financial or political autonomy until 1988, when it gained municipal status.

In 1997, all 'Four Little Tigers' were industrialized as the real value of industrial output accounted for more than 95 per cent of the gross value of industrial and agricultural output (see Table 3.6). Although gross value of industrial and agricultural output was below that of Shunde, Dongguan ranked first in nominal GDP, export value and foreign investment. In gross value of industrial and agricultural output (at 1990 prices), the 51.72 billion *yuan* recorded in Dongguan in 1997 was about 5 per cent lower than the 54.54 billion *yuan* in Shunde. Even though the nominal GDP value in Dongguan was about 31 per cent higher than Shunde and 17 per cent higher than Nanhai, the larger local population in Dongguan meant a lower nominal GDP per capita of 20 031 *yuan*, about 3900 *yuan* lower than Nanhai. The total export value of Dongguan at US$4.99 billion was 90 per cent higher than Zhongshan's, at US$2.63 billion. The exports value contributed by *sanlai yibo* and *sanzi qiye* in Dongguan were more than 140 per cent and 250 per cent higher than Zhongshan, respectively. The foreign-financed enterprises in Dongguan were also the most export-orientated of the 'Tigers' as the state or locally-owned trading companies accounted for just over 10 per cent of its total export value. In its

'Tigers'' counterparts, the state-owned trading companies accounted for at least 24 per cent of total export value. The attractiveness of Dongguan for foreign investment is demonstrated by the amount of utilized foreign investment: 2.7 times higher than the next highest 'Tiger' – Zhongshan.

Given its tiny geographical size and small population, it is undeniable that Dongguan was one of the most attractive cities in China for foreign investment during the late 1980s and early 1990s.

Notes

1. Administratively, the Pearl River Delta region has been expanded since 1980. In 1985, the region was officially designated the 'Pearl River Delta Open Economic Area' (*Zhujiang sanjiaozhou jingji kaifangqu*, called the 'small delta'), which incorporated four cities and twelve counties. In 1987, another three cities and eight counties were incorporated into the delta (called the 'big delta') and its area increased from 22 800km^2 to 42 600km^2 (Chan, 1995, p. 1).
2. Located in the south-west of Dongguan and adjacent to the eastern Pearl River Delta, Humen has long been host to the largest military presence in Guangdong (Ye, 1986, p. 100).
3. Readers interested on the history of the Opium War and the colonial history of Hong Kong are referred to Endacott (1964), Yang *et al*. (1987), Welsh (1993) and Chen (1994).
4. Refer to Appendix I for detailed information on the administrative towns in Dongguan.
5. Other emigrants were forced to leave Guangdong under threat of prosecution by the Qing dynasty government. They were either pirates or merchants who had violated the sea trade laws (Yang *et al*., 1987, p. 248).
6. The other three counties are Guangzhou, Foshan and Zhencun (Ye, 1986, pp. 99–100).
7. Since early studies on remittances sent by overseas Chinese to Dongguan are limited, this can only be inferred from the general pattern in Guangdong.
8. Refer to Lin (1997, pp. 140–56) for the various means of obtaining credit credit in the agricultural society in Guangdong during the early 1900s.
9. I was unable to find more detailed economic statistics relating to pre-reform Dongguan, even with the assistance of various high-ranking local officials.
10. The largest share of agricultural output was recorded in 1950, when it accounted for over 70 per cent in gross value of industrial and agricultural output. The value-added of industrial output in South Korea accounted for less than 40 per cent of the gross value-added of industrial and agricultural output up to 1966 (less than 60 per cent up to 1976 and less than 80 per cent up to 1987). The corresponding rates in Hong Kong and Singapore ranged between 80 per cent and 90 per cent from 1960 onwards (IBRD, 1996).
11. The corresponding average annual growth rate in the value of light and heavy industry output were 9.72 per cent and 18.69 per cent, respectively.

12. The 25 per cent average annual growth rate in the real value of heavy industrial output at that time is a manifestation of policies biased towards heavy industry during that period.
13. This does not include illegal trade in terms of smuggling, which was rampant during the 1990s.
14. As southern China is the major food supplier to Hong Kong, it is likely that the growth of Dongguan's agricultural exports from the 1950s onwards was related to the increase in the population of Hong Kong.
15. As a consumer price index is only available from 1984 onwards, the retail price index-based GDP deflator has been used to estimate the real GDP in Dongguan.
16. Some foreign investors tried to break the deadline on the cancellation of preferential tariff-free capital goods imported by foreign firms. Refer to pages 69–70 for more discussion of this point.
17. It must be emphasized that the purpose of intertemporal comparison of nominal GDP per capita between Dongguan and the other 'Dragons' is for illustration purposes only. There is no direct comparison, since a dollar in 1960 was more valuable than a dollar in 1978. A similar disclaimer applies to the intertemporal comparison between Dongguan and the 'Four Little Dragons' in this chapter.
18. There are two main causes for the increase in the local population: natural population growth (when the birth rate is higher than the mortality rate), and legal migration through the official transfer of residence permits to Dongguan.
19. All the estimates of GDP per capita published in official reports and statistics are based on local population only; that is, migrants are excluded.
20. The overwhelming majority of the migrant population are part of the labour force: 100 per cent of migrants were part of the labour force in 1986 and the rate remained very high, at 90 per cent, in 1997. During the 1990s, the number of migrant workers was larger than the local population workforce. In 1997, the 1.31 million migrant workers was about 150 per cent higher than the 876 000 local workforce. Obviously, the inflow of migrants was able to keep labour costs down and this contributed to the high growth rate of Dongguan (DBS, 1996a, pp. 98–100; DBS, 1998, pp. 181–4).
21. Figure 3.6 is based on 1990 constant prices, and is therefore different from Figure 3.2 (based on 1957 and 1970 constant prices). Because of the different base prices, these two figures are *not intertemporally compatible*. That is, the pattern of gross value of industrial output higher than the gross value of agricultural output between 1973 and 1977 in Figure 3.2 does not appear in Figure 3.6 until 1985. The main rationale for using 1990 constant price data in Figure 3.6 is mainly to reflect the changing pattern of gross value in the industrial and agricultural output on the same terms and with less distortion. In fact, the general pattern of gross value in industrial and agricultural output remains the same when 1970 and 1980 constant prices are used for 1978–79 and 1980–89, respectively, in Figure 3.6. The only difference is that the decline in the value of agricultural output was faster during the late 1970s and early 1980s.
22. This contradicts the general argument that heavy industry in China is obsolete and inefficient. From the evidence presented in Figure 3.6, this is obvi-

ously not the case in Dongguan, where the share of the value of heavy industry output has surged rapidly since the mid-1980s.

23. The decentralization of government-owned trading firms and the subsequent improvement in efficiency may have contributed to the growth in export value. Before the manager responsibility system was enforced in 1987, the Dongguan branches of government-owned trading firms were allowed to regulate their own export quotas. As the economy developed, the share of export value channelled through DCFERT in the total export value in Dongguan (the Customs' figures) diminished from 79.64 per cent in 1990 to 43.97 per cent in 1997 (DBS, 1998, p. 345). As mentioned earlier, the Customs figures are only available from 1990 onwards and this is why they are not used to chart Figure 3.7.
24. There were 1080 'barefoot doctors' (medical practitioners without appropriate training during the Cultural Revolution) in 1970.
25. See pages 191–6 for a further discussion of the living standards of the local population in Dongguan during the transitional economy era.
26. The Value-added Tax is used to replace the Consolidated Industrial and Commercial Tax. After 1 April 1996, China removed the tax-free status of imports of machinery and capital goods by foreign-financed enterprises (this may partly explain the sudden surge in foreign investment before the deadline). After protests from numerous foreign entrepreneurs, the government granted a period of grace to foreign-financed projects launched before 1 April 1996. For projects valued at less than US$30 million, the tariff (which can account for up to 40 per cent of the capital goods' value) exemption period was extended until the end of 1997, while the period of grace was extended until the end of 1998 for those projects valued at more than US$30 million. To encourage foreign investment in high-technology sectors and prevent the dramatic slowdown of foreign investment after the financial crises experienced in Asia during 1997, the Chinese government decided to give exceptional waivers of import duties to eighteen industries, including high technology and new technology industries, transport and telecommunications equipment, electric power generation, aviation, oil and petrochemicals, machinery, electronics, pharmaceuticals, medical equipment, textiles, metals and metallurgy, light industries, the service sector and agriculture, from 1 January 1998 onwards (FT, 1998a).
27. From December 1984 onwards, the taxation incentive in the economic and technological development zones of fourteen open coastal cities has been the same as SEZ: a 15 per cent tax rate (instead of the 33–35 per cent levied on locally-funded enterprises) and two years' tax-free period followed by three years with a 50 per cent tax reduction. In January 1999, Finance Minister Xiang Huaicheng announced that the lower 15–24 per cent tax rate granted to foreign investors in ten of the forty-four development zones would no longer be renewed when their terms expired in 1999. The preferential policies implemented in the other thirty-four development zones will be phased out over a four-year period. So the taxation privileges of foreign investors in all forty-four official development zones will end in 2003. The industrial park in Suzhou, in which the Singapore government is an investor, will be granted a special four-year winding-down period (SCMP, 1999b). As with other new Chinese policies, it is still too early to speculate

on the extent of the implementation of this policy (or whether it will be reversed later, as happened with the policy on import tariffs) and its effects on existing and potential foreign investors in development zones.

28. The administrative chores of P&A include the negotiation of processing fees, import and export matters, applications for vehicle purchases, and foreign exchange retention. Other counties in the Pearl River Delta followed Dongguan's pioneering role in establishing offices for foreign investment after Dongguan's success in attracting P&A.
29. Central government regulations rule that the approval period for WFVs and EJVs is 90 days, and 45 days for CJVs.
30. The 647km^2 of land area in Singapore is about 26 per cent of the area of Dongguan. In 1997, Singapore's population was 3 million, slightly larger than the 2.92 million (including migrants) in Dongguan.
31. Instead of sending all foreign exchange to the central government, the surplus (the amount above the pre-determined amount of foreign exchange to be sent to the Beijing government) foreign exchange earnings could be retained locally. This policy increased the incentive for local governments and firms to establish P&A investment projects with foreign investors.
32. Other advantages of *sanzi qiye* over P&A included the accessibility of the local markets (selling locally instead of exporting all products) and a higher level of financial and managerial autonomy.
33. The local government-funded trading companies never played an important role in the export of Dongguan as their share never rose above 3 per cent.
34. Examples of sensitive or illegitimate reasons for under-reporting are to avoid unnecessary political attention being paid to the reform policy conducted in Dongguan (that is, to avoid jealousy from other regions) and to cover up projects that the local government was not authorized to approve, either because the industries caused pollution or the projects' capital exceeded the US$30 million ceiling. This speculation is supported by the fact that China's State Statistical Bureau uncovered 34 200 statistical irregularities submitted by local authorities in 1997, that were deliberately falsified, incomplete or distorted (HKS, 1998b). For example, trade data is distorted by the submission of forged export certificates to reclaim value added tax (VAT). Shipment of fake goods (for example, sand was poured into computer casings to replicate the weight of real computers to fool Customs officials), and even empty containers, inflate the export statistics (FT, 1999). Moreover, China's Premier, Mr Zhu Rongji, openly criticized provincial officials for reporting exaggerated statistics to please the central government. For example, all provinces, with the exception of Xinjiang autonomous region, reported 8 per cent or more economic growth, while the whole country only growth at 7.2 per cent in 1998 (FT, 1998d; SCMP, 1999h, 1999i).

4
The Investment Environment

In this chapter, the development strategy and investment environment in Dongguan are discussed in sections 4.1 to 4.5. The competitive advantages for foreign investors in Dongguan and the applicability of Western FDI theories are discussed in sections 4.6 and 4.7. As mentioned previously, all the information presented from this chapter onwards – unless otherwise specified – came from my field survey.

4.1 The development strategy of Dongguan

It is essential to review briefly the development strategy of the Dongguan government before assessing factors influencing the inflow of capital.

The 'first industrial revolution': the 1980s

During the first stage of economic reform in the 1980s, the Dongguan government implemented a 'first industrial revolution' development strategy to develop Dongguan into an export-orientated manufacturing economy through processing and assembly (P&A) industrialization and outward-orientated commercial agriculture.

As Dongguan was rich in natural resources but lacking an up-to-date infrastructure and capital to support advanced technology industries, the government exploited its comparative advantages of abundant supplies of labour and flat land. As a large proportion of the population were farmers with little experience in manufacturing, P&A was naturally the most cost-effective investment arrangement to establish the foundation of labour-intensive manufacturing and initiate industrialization (Gan *et al.*, 1994, p. 9). Moreover, foreign

investors utilized surplus labour and manufacturing capacity in local industries. In fact, a large proportion of P&A investment during the early reform period came from small overseas (Hong Kong) Chinese investors with ethnic connections in Dongguan. As capital was limited, some pioneers simply converted old buildings or abandoned warehouses into factory premises. Most P&A investment was in labour-intensive sectors, such as textiles and clothing, plastics products, metal and machinery, and shoe manufacturing (Liu and Zhen, 1992, p. 11). Although small-scale P&A investment projects are usually unskilled, labour-intensive and low in value-added, they nevertheless allow the local people to learn manufacturing skills and the local economy to accumulate capital.[1]

Apart from inviting foreign entrepreneurs to invest in Dongguan, the local government encouraged the development of export-orientated commercial agriculture and traditional industry.[2] Obviously, one of the main rationales for developing commercial agriculture is the valuable foreign exchange earned from exports, which can be used for further investment.

With the increase in political and financial autonomy after being upgraded to municipal status in 1988, the Dongguan government invested heavily in the development of the infrastructure, particularly in transportation (roads), power supply (electricity) and telecommunications (telephones). The Dongguan government found three ways to finance these capital-demanding infrastructure projects. First, the establishment of an infrastructure development fund through government treasury bonds, budgetary funds, bank loans and donations from the public. The municipal government financed the strategic inter-regional motorway, while the township and village governments financed the intra-regional roads. Second, the township and village governments generated revenue through toll roads and toll bridges which charged up to thirty *yuan* for a car. Third, the government reinvested the profits generated from SOEs in the development of infrastructure (Ye, 1994a, pp. 102–3). This financial arrangement not only decreased financial dependence on the provincial government for infrastructure development, but it also enabled the accumulation of a larger amount of capital than the municipal government alone would have been able to allocate from its budget. For example, more than 60 per cent of the 21.56 million *yuan* invested in road construction was raised by various means of public funds, with the government only contributing 8.28 million *yuan* from its budget between 1980 and 1984 (RCSO, 1989, pp. 39–41).

The 'second industrial revolution': 1990 and beyond

The Dongguan government learnt from the economic development experience of the 'Four Little Dragons' in Asia and subsequently laid down policy guidelines to attain the development level of the 'Dragons' by 2005.[3] The most important policy objective, the 'second industrial revolution', aims at transforming the economy dominated by low-value-added, labour-intensive manufacturing to higher-value-added, skill-intensive and higher technology industry (Ou-yang, 1994, pp. 74–84).

Under the policy guidelines of the 'second industrial revolution', two main objectives are pursued by the Dongguan government as part of the Ninth Five-Year Plan (1996–2000): (i) to attract foreign investment in high-value-added and high-technology sectors; and (ii) to improve the efficiency and competitiveness of locally-financed industry (DBS, 1996a, p. 25). To maximize the agglomeration effects, the government has implemented a 'ladder industrial structure' strategy, where the location of new investment is delineated into three categories according to its technological level: high-technology industry located in the city; medium-technology industry located in towns; and low-technology industry located in administrative districts (DMBFT, 1988).

As foreign-financed companies are usually less willing to invest in high-technology sectors, the Dongguan government realized that locally-financed industry must play an important role in initiating the crowding-in process. The government also realized that investment in risky high-technology sectors cannot rely totally on SOEs and collective enterprises because of their soft-budget constraints, debt burden and inefficient management. The privately-funded enterprises in Dongguan were selected by the government to kick-start the 'second industrial revolution' to try to crowd-in other complementary foreign-financed high-value-added and high technology industries. Since privately-funded enterprises do not have the welfare and debt burdens of their SOE counterparts, the government uses their entrepreneurship to assist the development of high-technology industry. In contrast to TNCs, which are looking for alternative low-cost investment opportunities, the sense of belonging and local knowledge of this group of entrepreneurs suggests that they will engage in long-term investment in Dongguan (DBS, 1996a, p. 25).

To support the privately-funded enterprises in developing high-technology and high-value-added industries, the Dongguan government implemented a Singaporean-style 'pioneer industrial policy' and set up a 'high-technology industrial zone'. The government gives

exemption from taxation, assistance in finance and human capital for privately-funded enterprises that invest in selected high-technology industries – for example, biotechnology, vehicle component manufacturing and so on. Apart from assisting high-technology firms to go public on the Hong Kong Stock Exchange, the Dongguan government is considering establishing a credit agency to pool local capital and grant low-interest credit to support the research and development (R&D) of pioneer industries (DMG, 1994, p. 220; DBS, 1996a, pp. 17, 25).

To further accelerate economic restructuring in Dongguan, the municipal government has encouraged a group of low-value-added, labour-intensive and resource-consuming locally-funded enterprises (including SOEs) to relocate in the less developed north-west of China. This strategy alleviates energy demand, particularly the pressure on electricity supplies, in Dongguan. It may also be able to alleviate poverty by directing capital inflows to north-western China, thus creating a mutually beneficial resource reallocation. That is, the industrial capacity of the north-western region will increase while the Dongguan-funded labour-intensive industries are able to maintain their competitiveness (DMGERC, 1994, pp. 23–4; Ye, 1994a, pp. 100–1; DBS, 1996a, p. 26). In these circumstances, the government initiated the 'flying-geese' relocation of low-value-added and labour-intensive industries to areas with low production costs. It can be argued that Dongguan government officials learnt from Hong Kong entrepreneurs, who moved their labour-intensive manufacturing firms into Dongguan during the 1980s to reap the benefit of low production costs.

4.2 Infrastructure

In this section, the discussion of infrastructure is focused on the 'three access and one level' (*santong yiping*) development policy implemented in Dongguan since 1980: transportation, electricity and telecommunications.[4] The policy states that transportation, electricity supply and telecommunications must be developed before the paddy-fields and building factory premises are reclaimed for foreign-financed firms (RCSO, 1989, p. 38). Other aspects of the infrastructure – such as water supply – have not played a vital role in the location of foreign investment in Dongguan and will only be described briefly.

Transportation

Accessibility is a significant locational factor considered by foreign investors, and Dongguan is no exception. With its particular geograph-

ical features and strategic location, roads play a more significant role than other means of transportation in Dongguan.[5]

Given the existing bottleneck of the Guangzhou–Shenzhen rail link, the railway cannot improve the accessibility of Dongguan dramatically without a tremendous injection of investment and long-term inter-regional co-operation. In fact, the development of the railway has been somewhat piecemeal. Between 1987 and 1990, the Dongguan government improved the passenger and cargo terminals in seven of the eight towns on the Guangzhou–Kowloon double-track railway route – Shilong, Chashan, Hengli, Changping, Tangxia, Zhangmutou and Genggang. A new station in Changping – the intersection point of the 174km Guangzhou–Shenzhen high speed route, Guangzhou–Meizhou–Shantou route and Beijing–Kowloon route – was opened (DMG, 1988–94).

The five major ports in Guancheng, Shilong, Mayong, Shatian and Humen play a supportive role in cargo and passenger transportation.[6] Apart from its strategic location on the Pearl River Delta, Taiping harbour in Humen town is well equipped to cope with passengers and cargo transhipment. After approval by the State Council as an open port in 1983, Taiping port established a range of Customs facilities, including Customs checkpoints, frontier security, zoological and plant quarantine, a commodities inspection centre, harbour superintendents, foreign shipping agencies and so on. The inspection centre for container trucks has been in operation since 1988. Under a directive from the State Council in June 1997, Taiping port merged with Shatian port and was renamed Humen port. The annual cargo handling capacities of the eleven berths (one berth can handle up to 35 000-tonne container vessels) in Humen port is about six million tonnes. Situated 47 km from Hong Kong and 48 km from Macau, the daily hovercraft service from Humen harbour to Hong Kong is a two-hour journey popular with Hong Kong people working in Humen (ibid.; DBS, 1998, p. 7).

Although Dongguan has 61.4km of coastline, only Humen, Xinwan and Changan towns are located at the mouth of the Pearl River Delta and have the potential to become large, deep-water ports. Moreover, ports also need roads to maintain their connection to other regions. With abundant room for further development, roads are an ideal way of improving accessibility and the investment environment of Dongguan within a short period of time.

The dominance of passenger transportation in the use of roads is illustrated by the 31-fold increase in passengers, from 3.62 million in

1980 to 112.73 million in 1997 (see Table 4.1). The percentage of passengers transported by road increased from 63 per cent in 1980 to almost 100 per cent in 1990. This resulted in a dramatic slump in numbers of sea passengers, from 2.1 million in 1980 to a mere 270 000 in 1997. To translate the absolute figures into intensity terms, the passenger intensity of road transport increased 61 times, from 82.85 million persons/km in 1980 to 5.09 billion persons/km in 1997, while the passenger intensity of sea transport decreased by 63 per cent, from 52.99 to 19.78 million persons/km.

Roads are also used more frequently than railways or waterways to transport cargo. Customs procedures allow container trucks to pass though one of three Customs checkpoints in Lok Ma Chau, Sha Tau Kok or Man Kam To. Although the three Shenzhen–Hong Kong border gates are not open 24 hours a day, cargo trucks are able to provide a

Table 4.1 Transporation of passengers and cargo, Dongguan, 1980–97

	1980	*1985*	*1990*	*1997*
Passengers transported	572	2 072	5 758	11 300
(10 000s persons)	(100%)	(100%)	(100%)	(100%)
By road	362	1 940	5 728	11 273
	(63.29%)	(93.63%)	(99.48%)	(99.76%)
By sea	210	132	30	27
	(36.71%)	(6.37%)	(0.52%)	(0.24%)
Passenger intensity	13 584	95 237	322 236	511 592
(10 000s persons/km)	(100%)	(100%)	(100%)	(100%)
By road	8 285	90 950	320 690	509 614
	(60.99%)	(95.50%)	(99.52%)	(99.61%)
By sea	5 299	4 287	1 546	1 978
	(39.01%)	(4.50%)	(0.48%)	(0.39%)
Cargo transported (10 000s	349	2 913	2 701	4 644
tonnes)	(100%)	(100%)	(100%)	(100%)
By road	51	1 922	1 571	2 748
	(14.61%)	(65.98%)	(58.16%)	(59.17%)
By sea	298	991	1 130	1 896
	(85.39%)	(34.02%)	(41.84%)	(40.83%)
Cargo intensity (10 000s	16 353	171 591	184 700	278 649
tonnes/km)	(100%)	(100%)	(100%)	(100%)
By road	1 479	113 038	72 162	126 336
	(9.04%)	(65.88%)	(39.07%)	(45.34%)
By sea	14 874	58 553	112 538	152 313
	(90.96%)	(34.12%)	(60.93%)	(54.66%)

Source: Calculated and complied from DBS, 1998, p. 305.

door-to-door delivery service, which is more efficient than water or rail routes, as no transhipment is required.

The significance of roads is obvious in cargo transportation. The share of cargo transported by road increased from 15 per cent in 1980 to 66 per cent in 1985, before declining to 59 per cent in 1997 (see Table 4.1). The amount of cargo transported by roads increased by 54 times, from 510 000 tonnes in 1980 to 27.48 million tonnes in 1997. At the same time, the amount of cargo transported by sea increased by 6.4 times, from 2.98 million tonnes to 18.96 million tonnes. To translate these absolute figures into intensity terms, the cargo intensity using road transport increased by 85 times, from 14.79 million tonnes/km in 1980 to 1.26 billion tonnes/km in 1997, while the cargo intensity in sea transport increased tenfold, from 148.74 million tonnes/km to 1.52 billion tonnes/km.

Within a single decade of tremendous investment by the Dongguan government, the roads in Dongguan were transformed from narrow, uneven, sandy or muddy lanes into cement- or asphalt-covered motorways connecting all the villages to the thirty-three towns and districts of Dongguan. As a result, the journey time from Hong Kong to Humen town was reduced from six hours in 1990 to less than two hours in 1997. The development of motor roads in Dongguan may be considered from two perspectives: general accessibility; and the strategic development of the motorway network.

In terms of general accessibility, the total length of road doubled, from 1225km in 1980 to 2330km in 1997 (see Table 4.2). As a result, the road/area density increased dramatically, from 49.7km/100km^2 in 1980 to 94.5km/100km^2 in 1997. Apart from building new roads and bridges, the quality of the roads improved tremendously as the total length of all-weather roads covered with cement or asphalt increased by 2.7 times, from 719km in 1980 to 1949km in 1995. Moreover, the proportion of graded to non-graded motor roads increased, from 28.98 per cent in 1980 to 89.57 per cent in 1997. The first-grade motorways were built from scratch in 1987, with 690km by 1997, accounting for 29.61 per cent of the total road length in Dongguan.

The watershed period of motor road development in Dongguan was 1991–92. In 1990–91, the total length of motor roads increased by 33 per cent, from 1325km to 1759km. This contrasted with the stagnant development of the 1980s, when the total length of motor road increased by only 15km over the period of five years up to 1985.[7] In 1992–93, the total length of motor roads increased by another 10 per cent, from 2055km to 2260km, while the length of first-grade motor-

Table 4.2 Development of roads, Dongguan, 1980–97

	1980	*1985*	*1990*	*1997*
Total road length (km)	1 225 (100%)	1 240 (100%)	1 325 (100%)	2 330 (100%)
All-weather roads (km)	719 (58.69%)	810 (65.32%)	1 032 (77.89%)	1 949* (83.65%)
Graded motor roads (km)	355 (28.98%)	490 (39.52%)	1 102 (83.17%)	2 087 (89.57%)
First grade	–	–	6 (0.45%)	690 (29.61%)
Second grade	–	58 (4.68%)	65 (4.90%)	362 (15.54%)
Third grade	–	61 (4.92%)	61 (4.60%)	139 (5.97%)
Fourth grade	355 (28.98%)	371 (29.92%)	971 (73.28%)	896 (38.45%)
Non-graded motor roads	870 (71.02%)	750 (60.48%)	223 (16.83%)	243 (10.43%)
Road density (km/100km^2)	49.70	50.30	53.75	94.50

Notes: *1995 data.
Source: Calculated and compiled from DBS, 1998, p. 304.

ways more than doubled, from 151km to 315km (DBS, 1996a, p. 335). The 315km of motorway is equivalent to about 50 per cent of the total length of all first-grade motorways in Guangdong.[8] The tremendous improvement in motor-road capacity in Dongguan is demonstrated by the doubling of the length of first-grade motorways to 679km in 1995.

The tremendous improvement in accessibility was achieved by a number of strategic major programmes carried out by the Dongguan government during the 1990s. In terms of inter-regional accessibility, the most significant development was the Guangzhou–Shenzhen superhighway and the Tiger Gate bridge (see Table 4.3). Providing 50km of motorway passing through ten different towns in Dongguan, the four-lane, two-way Guangzhou–Shenzhen–Zhuhai superhighway has improved the routes between Hong Kong, Dongguan and Guangzhou significantly. Instead of driving on second- and fourth-grade roads, the superhighway allows drivers travelling from Shenzhen to Guangzhou direct access to the best motorway in China. After its foundation stone was laid in 1992, the Sino-Hong Kong EJV Tiger Gate

Table 4.3 Taxonomic summary of major motor road developments, Dongguan, 1978–97

Period	*Major improvements/new developments*
Pre-1980	More than 60 per cent of roads in Dongguan were narrow, sandy or muddy lanes built for cycling Frequent flooding during summer typhoon seasons as Dongguan is located among the tributaries of the Pearl River and Dongjiang River deltas
1980–6	1980–5 Dongguan government invested 73.7 million *yuan* to build and upgrade 556 km of roads, and constructed 17 bridges (with total length of 2.33 km) over rivers and other low-lying areas Apart from Mayong town, all towns and villages accessible by road 1985 Journey time from Guangzhou to Dongguan reduced from four hours to just over one hour
1987–90	At end 1988, Donogguan government invested 558.73 million *yuan* in upgrading the four major motorways (from second- or fourth-grade) to first-grade cement paved motorway with 80 km/hour speed limits: Dongguan–Shenzhen motorway: 170 million *yuan* invested in 46.2 km motorway passing through Qiaotou, Changping, Zhangmutou, Tangxia and Fenggang towns before reaching Shenzhen Dongguan–Shilong motorway: 59.33 million *yuan* invested in 14.2 km motorway connecting Guancheng district and Shilong town Dongguan–Changan motorway: 102.4 million *yuan* invested in the 32 km motorway from Fucheng district to Dalingshan town and connecting to the Guangzhou–Shenzhen superhighway in Changan town Dongguan–Huizhou motorway: 128 million *yuan* invested in 40 km motorway passing through Guancheng, Fucheng districts, Liaobu, Dalang, Huangjiang, Zhangmutou, Xiegang towns of Dongguan and Huizhou of Guangdong Dongguan government invested 154 million *yuan* to build four first-grade ring-roads around Guancheng to alleviate traffic pressure in the city centre First ring-road: 3.65 km, to reduce density of traffic in city centre Second ring-road: 8.7 km, to connect first ring-road with four major motorways Third ring-road: 2.9 km, main road in new city centre

Table 4.3 Taxonomic summary of major motor road developments, Dongguan, 1978–97 *(continued)*

Period	*Major improvements/new developments*
	Fourth ring-road: 5.9 km, to divert cross-border traffic from Guancheng–Humen section of Guangzhou–Shenzhen superhighway to the Dongguan–Changan motorway All towns and villages in Dongguan accessible by motorway (Mayong town connected 1987)
1991–3	2.2 billion *yuan* invested 80 per cent of 24 complementary projects to four major highways finished: Dongguan–Huizhou motorway expansion project finished at end 1992 Huangcun–Changan section still under construction Wanjiang–Zhongtang section of diversion of Guangzhou–Shenzhen superhighway opened 30 April 1993 The 13 first-grade motorways network (268 km in total) connecting every town and district in Dongguan almost finished Dongguan–Zhangmutou motorway opened 1992 Humen–Changping motorway planned
1994–7	120 km Guangzhou–Shenzhen–Zhuhai superhighway built by Hong Kong's Hopewell Holdings completed July 1994 After three years of construction, the 4588-metre, six-lane, two-way Tiger Gate suspension bridge linking Sandy Head Fortress, Humen town to Nansha, Panyu city opened 9 June 1997. This will also connect to the Humen–Taiping expressway (connecting Humen, Changan, Baoan and Shenzhen) and the Guangzhou–Shenzhen superhighway. The bridge reduces the journey between Shenzhen and Zhuhai by 100 km, as drivers are no longer required to travel through Guangzhou

Note: Motor road projects commissioned by township and village governments excluded from this table.
Sources: Compiled from DMG, 1988–94; DBS, 1996a; DMBFT, 1988; Liu and Zhen, 1992; WHB, 1992; NFRB, 1983–85, 1989, 1992.

bridge in Humen was opened in 1997.[9] With a capacity of 10 000 cars per day, the bridge has not only greatly improved the accessibility of Dongguan and the Pearl River Delta, by reducing the travelling distance between Shenzhen and Zhuhai by 100km, but has also helped to alleviate traffic congestion in Guangzhou.

In terms of intra-regional accessibility, the most significant development includes the upgrading of four major motorways, and the construction of four ring-roads and thirteen motorway networks (see Table 4.3). The four major motorways were upgraded from 12-metre-wide second-grade to fourth-grade roads with capacities of 2000 to 5000 cars per day, to four-lane 32-metre-wide first-grade dual carriageways with capacities of 25 000 cars per day. The 36 metre-wide four-lane dual carriage first-grade ring-road around the Guancheng district alleviates traffic pressure in the city centre and improves links with Guangzhou and Shenzhen. The 268km of the first-grade motorway network has improved the transport capacity of the towns and districts in Dongguan enormously. This explains why there has been a significant increase in motor road access in terms of the length of first-grade roads as described above.

There is a consensus among foreign investors that transportation in Dongguan has improved dramatically over recent years. The costs of transportation are rising, but are still acceptable for the majority of interviewees.[10] There was still severe traffic congestion in 1993, but the situation was much better than in the late 1980s. For example, Hong Kong entrepreneurs complained that cars could be stranded on the motorway for up to four hours after a traffic accident as it was very difficult to locate a telephone along the road to call for help. This demonstrates the significance of telecommunications and their interdependence with road building for infrastructure development.

Electricity supply

The electricity supply plays a vital role in the location of foreign investment in Dongguan. During the early 1980s, Dongguan's electricity supply relied mainly on the province-owned thermal power plant in Shajiao, Humen town. Power shortages and electricity blackouts were common in southern China when the power plants found themselves unable to cope with the rising demand for electricity. Dongguan was no exception.

As with motorway development, large-scale investment in electricity power plants by the Dongguan government from the late 1980s reversed this situation of excessive demand. Apart from a number of small-capacity power plants operated by township governments, the Dongguan government has invested heavily in locally- and provincially-funded power plants to improve the power supply. Between 1987 and 1990, the Dongguan government invested US$247 million and 82 million *yuan* in building the Humen power plant, and expanded the

capacities of the Dongguan Sugar power plant and the City power plant in Guancheng district (see Table 4.4). The result was an increase of 386 340 kilowatts (kW) of generated capacity and 560 000 kW of power supply by various electricity stations. This translates into more than three billion kilowatt/hour (kWh) of annual capacity with all three power plants operating at peak capacity. Between 1991 and 1993, the Dongguan government injected another one billion *yuan* into the Humen power plant and 340 million *yuan* into the provincially-owned Shajiao power plant. This resulted in an additional 245 000 kW of power. Furthermore, the Dongguan government has improved the access of remote areas to the power supply through the construction of twenty electricity substations with varied capacities. The improvement in the stability and capacities of the electricity substations and electric cables has alleviated transmission loss. By 1991, all 509 administrative regions in Dongguan had installed their own electricity stations.

The rapid industrialization in Dongguan led to an increase in the total consumption of electricity by 58 times, from 149 million kWh in 1978 to 8.66 billion kWh in 1997. To match the increase in demand, the total electricity supply also increased by 58 times, from 163 million kWh in 1978 to 9.49 billion kWh in 1997. In spite of the enormous increase in supply, electricity consumption in 1997 was about 90 per cent of the total electricity supply (industrial consumption of electricity accounted for 65–75 per cent). As there was little excess capacity, unexpected surges of electricity demand still led to blackouts (DBS, 1998, p. 146).

To protect electrical appliances and equipment from instabilities in the electric current, anti-surge protection transformers are installed in both homes and factories. In most cases, when power cuts are expected, electricity companies inform users via leaflets and television advertisement, in contrast with the unannounced blackouts of the 1980s and the early 1990s. At the time of writing, suspension of the power supply is usually for purposes of routine maintenance or the installation of new cables and transformers.

The two main reasons why in-house electricity generators are installed by foreign-financed firms are, first, they act as a backup power system, especially to cover the 'power-off' period at weekends, when most firms continue to operate;[11] and, second, it is cheaper for companies to generate their own electricity in regions with high electricity charges. One clothing firm in Changan town reports that it can save up to 20 per cent of its electricity bill by using its own generator.

Table 4.4 Taxonomic summary of major electricity developments, Dongguan, 1987–93

Period	*Major improvements/new developments*
1987–90	Invested US$247 million and 82 million *yuan* to build new power plant in Humen and expanded two power plants in Guancheng, resulting in 386 340 kW of total electricity capacity in locally-owned power plants: Humen power plant: Hong Kong–WFV invested US$220 million in 260 000kW power plant in Humen Dongguan Sugar power plant: invested 51 million *yuan* to install further 25 000kW coal thermal power generator and complementary facilities to supplement existing 12 000kW generator, resulting in a rise of 120 million kWh per year (operating since 1990) City power plant: invested US$27 million and 31 million *yuan*c to install six 10 890kW diesel thermal power generators (65 340kW in total) and complementary facilities in addition to existing 24 000kW generator, resulting in a rise of 300 million kWh per year (in operation since 1990) Dongguan government invested 20 million *yuan* in two provincially-owned thermal power plants in Shajiao, Humen, with a rise of 85 000kW in its electricity generating capacity: Shajiao A: 3 × 200MW and 2 × 300MW generators with capacities of 1.2 million kW Shajiao B: Guangdong–Hong Kong EJV, 2 × 350MW generators with capacities of 700 000kW 20 electric substations built (one 220 000V; sixteen 110 000V; and three 35 000V transformers); making a total of 35 (two 220 000V; twenty-seven 110 000V; and six 35 000V transformers) The 110 000V cables from the 220 000V electricity substation in Dalang town improved electrical stability in Qingxi, Fenggang, Zhangmutou, Qiaotou, Xiegang, Qishi and Dalingshan towns Four 110 000V electric substations in Fenggang and Dalingshan, and one 35 000V electricity substation in Zhangmutou in operation since 1989 (with an increase of 133 000kV) 1990, total electricity supply 1.8 billion kWh/year (an average 5 million kWh/day)
1991–3	Guangdong–CEPA(HK) EJV Shajiao C (3 × 600MW thermal generators with capacity of 660 000kW) began construction in 1992, was completed in 1996

Table 4.4 Taxonomic summary of major electricity developments, Dongguan, 1987–93 *(continued)*

Period	*Major improvements/new developments*
	Dongguan government invested 340 million *yuan* in Shajiao power plant and a further one billion *yuan* in Hong Kong–WFV Humen power plant, resulting in an additional 245 000kW electricity supply
	First stage of Hong Kong–WFV Humen power plant in operation since 1992, resulting in an increase in supply of 186 000kW
	Dongguan government invested 300 million *yuan* in 29 construction projects for electricity substations and increased transformer capacities to 1.52 million kV
	993 km of newly-installed electric cables with capacity of over 10kV
	Electricity substations installed in all 509 administrative regions (villages) 1991
	Plan to build 100 000kW Tongwah power plant and city-owned 1 200 000kW power plant

Note: Electricity power plant projects commissioned by township and village governments excluded from this table.
Sources: Compiled from DMG, 1988–94; DBS, 1996a; DMBFT, 1988; Liu and Zhen, 1992; WHB, 1992; NFRB, 1983–85, 1989, 1992.

However, the noise made by the generator prevents it from being used continuously because the hotel adjacent to the firm complains about the noise. Rather than rely on in-house electricity generation, a Hong Kong-funded P&A children's fashion manufacturing firm in Humen town secured its stable power supply via a special cable from a power plant located nearby (at similar cost to the public power supply).

Despite the tremendous differentiation in electricity charges in different towns, and rising prices, these are not major factors in the locational choice for foreign investment in Dongguan as the stability and abundance of the power supply is the prime concern of foreign investors. The regional differentiation in electricity charges is illustrated by the 1.1 *yuan*/kWh in the Yantian administrative region of Fenggang town (adjacent to Shenzhen) and the 0.8 *yuan*/kWh in the Guancheng district (the capital of Dongguan). The rising cost of electricity can be interpreted as an inflation-indexed price adjustment in some towns. For example, the inflation-tied average annual 13 per cent price rise in Shilong town resulted in the price tripling from 0.4 *yuan*/kWh in 1988 to 1.2 *yuan*/kWh in 1997. But, the charge in Xiegang town increased five fold, to 1.3 *yuan*/kWh, between 1991

and 1997, which was higher than the inflation rate. Except in the energy-consuming sectors, all the interviewees agreed that the economic loss from failure to deliver goods on time (and the subsequent loss of customers) caused by unannounced power blackouts is much higher than the differences in electricity prices.

However, some foreign investors are dissatisfied with the differences in electricity charges. The regional differences in electricity charges are a result of different prices charged by local power plants. The distance between electricity generating stations and users may be another reason for price differences, as the energy lost during power transmission is passed on to customers. However, it is still not possible to reconcile the large intra-regional difference in charges. A typical example is Humen town. Electricity costs 0.89 *yuan*/kWh in Botou, in the Daning administrative region, but it costs 1.3 *yuan*/kWh in the Beishan administrative region, an adjacent village; and in Taiping administrative region, about ten minutes' drive away, it costs 0.66 *yuan*/kWh. It seems that local authorities have no formal guidelines for setting prices.[12]

Telecommunications

As one of the three priorities of development policy, the development of telecommunications is unprecedented in Dongguan's history. An automated switchboard for programmed telephone and optical-fibre cable communication systems was installed during the early 1980s. Through five different stages, the capacity of the automated switchboard increased by 51 times, from 11 400 sets in 1985 to 577 600 in 1997 (see Tables 4.5 and 4.6). The number of household telephone subscribers increased by 142 times, from 3000 in 1980 to 426 500 in 1997. In 1990, Dongguan was already the city with the highest teledensity (the number of telephones per hundred people) in China.

To improve the efficiency of the telecommunications system, city, village and long-distance telephone lines were combined into the first integrated automated digital telephone network in China through fibre-optic, digital-microwave or ordinary cables in 1989 (see Table 4.6). Subsequently, the city–village direct telephone and fax services came into operation. As alternative or supplementary communication devices, fax machines, pagers and mobile phones are rapidly gaining a market share. Given the high cost of mobile telephones for ordinary people, this device is not only an effective communication tool for those users who need to keep in touch with others at all times, but also acts as a symbol of wealth in the booming economy.[13]

Table 4.5 Telecommunications, Dongguan, 1980–97

	1980	*1985*	*1990*	*1997*
Telephone capacity				
Switchboard (in unit)	–	11 400	69 800	577 600
Long distance (in line)	–	–	2 100	15 000
Subscriber households				
Telephone	3 000	8 000	49 000	426 500
Fax	–	–	1 193	5 115
Pager	–	–	19 563	94 071
Mobile phone	–	–	546	152 933
Teledensity	–	1	4	32
Number of Telecommunications service centres	50	52	53	339
Gross value of telecommunications market (1990 prices and 10 000s *yuan*)	927	1 560	17 555	284 278

Source: Compiled from DBS, 1998, p. 307.

Apart from local connections, Dongguan started an international direct dialling (IDD) telephone service for direct dialling to a hundred domestic cities and seventeen foreign countries in 1986 (see Table 4.6). Within four years, the IDD service was connected directly to 250 cities in China and 150 foreign countries. Obviously, it also improved communication between local people (including expatriates working in Dongguan) as well as outsiders. To cater for the booming demand, the number of telecommunications service centres in Dongguan was increased, from 50 in 1980 to 339 in 1997 (see Table 4.5). This also resulted in a dramatic expansion in the real value of the telecommunications market, by an astonishing 307 times, from 9.27 million *yuan* in 1980 to 2.84 billion *yuan* in 1997.

Water supply

As one of the wettest provinces in China, Guangdong has a problem of access to clean drinking water rather than a water shortage. In 1988, Dongguan invested 80 million *yuan* in building a drinking water treatment plant in Fucheng district with a capacity of 120 000 tonnes per day. In addition to the existing facilities, the total drinking water supply reached 150 000–200 000 tonnes per day. With other drinking water treatment plants built by local governments, over 97 per cent of the population in Dongguan had access to clean drinking water for

Table 4.6 Taxonomic summary of major telecommunications developments, Dongguan, 1986–93

Period	*Major improvements/new developments*
1986	Postal and Telecommunications Bureau monopolized fixed line telephone service Dongguan started international direct dialling telephone service with direct dialling to 100 domestic cities and 17 foreign countries and regions
1987–90	Dongguan government invested 340 million *yuan* First, second and third stages of automated switchboard and optical fibre cable communication system with capacity for 20 000 sets, 30 000 sets and 60 000 sets of programmed telephones operated from 1987, 1989 and 1990, respectively Dongguan section of the IDD Guangzhou–Hong Kong cable circuit in use from 1988 1990, Dongguan subscribers able to dial IDD directly to 250 cities in China and 150 foreign countries and regions City, village and long-distance telephone lines combined into integrated automated digital telephone network via fibre-optic, digital-microwave or ordinary cables, 1989. Subsequently, city–town direct phone and fax services in use Terminals with capacity for 10 000 radio pagers, and cellular-telephone network with capacity for 300 mobile phones in operation since 1989
1991–93	Dongguan government invested 650 million *yuan* Long-distance automatic switchboard capacity increased by 1410 units to 3510 units of programmed telephones Fourth stage of automated switchboard with capacity for 200 000 sets of programmed telephones operating partially since 1992 Fifth stage of automated switchboard with capacity for 150 000 sets of programmed telephones under construction Radio pager stations increased from 1 to 12 (including 50 000-subscriber system installed by MTC Electronic Technologies of Canada); capacity increased by 150 000 to 200 000 units

Note: Telecommunications projects conducted by township and village governments are excluded from this table.
Sources: Compiled from DMG 1988–94; DBS 1996a; DMBFT, 1988; Liu and Zhen, 1992; WHB, 1992; NFRB, 1983–85, 1989, 1992.

domestic consumption or industrial purposes by 1997. Between 1991 and 1993, Dongguan invested 180 million *yuan* in 128 water conservation projects. It also made plans to build the first stage (400 000 tonnes per day) of a drinking water treatment plant with a capacity of one

million tonnes per day. The first stage of a 22 million-*yuan* investment in the city's first waste water treatment plant was begun in Tangxia town (DMG, 1988–94; DBS, 1998, p. 8).

4.3 Factors of production

The three factors of production – labour, land and capital – in Dongguan are discussed in this section.

Labour

Three aspects of labour in Dongguan are described: the labour profile, labour costs; and turnover.

The labour market can be divided into two broad categories: local and migrants. Most of the local workers in Dongguan are former farmers from the agricultural-based economy during the pre-reform era. At present, they usually work in foreign-financed firms or are engaged in private businesses, such as small-scale manufacturing firms or grocery shops. Most manual workers, especially the unskilled, are migrants from other counties of Guangdong or Sichuan, Hunan, Guangxi or Hubei, and from such distant provinces as Heilongjiang in northern China. Most are farmers aged under 20 for females, and under 30 for males. The average age of the newly-arrived migrant workers tends to get younger: 17 to 18 years old in the late 1990s.[14]

In terms of absolute numbers, migrants are the backbone of the labour force in Dongguan. In 1997, there were 1.31 million migrant workers (accounting for 91 per cent of its 1.44 local million population), 49 per cent higher than the 876 053 local workers (DBS, 1998, pp. 181–4). However, the generally perceived abundant supply of cheap labour is misleading, since there is a mismatch in the labour market: an excess demand for skilled female workers in the labour-intensive industries, and an excess supply of unskilled male and female workers.[15] The low level of adaptability and low productivity of migrants is understandable, as most are farmers with little or no working experience in the manufacturing sector. One foreign investor estimates that the productivity of one Hong Kong worker is equivalent to three migrant workers in Dongguan.

In 1997, an unskilled migrant worker earned about 300 *yuan* a month, while a skilled technical worker could earn up to 1000 *yuan* per month (usually through wage rises after working in the firm for years). The increase in wage is about 2 per cent higher than the inflation rate over time; for example, the average wage for an unskilled worker was

about 60 *yuan* per month in 1986.[16] Given the rapid depreciation of *renminbi* against the US from 1.5143:1 in 1980 to 8.2881:1 in 1997, the wage increase was in fact much lower in real terms for foreign investors.[17]

The geographical variation in wages can be significance. For unskilled workers, the monthly wage is 300–350 *yuan* in Tangxia town, 310–470 *yuan* in the Daning administrative region of Humen town; and 430–465 *yuan* in the Longyan administrative region of Humen town. For skilled workers or technicians, the monthly wage is 800–900 *yuan* in Xiegang town and 700 *yuan* in the Taiping administrative region of Humen town. In general, the wages of workers in Dongguan are 5–10 per cent of those of Hong Kong. Even when the low productivity of migrants is taken into consideration, the wages of workers in Dongguan are still about 70 per cent lower than their counterparts in Hong Kong.

In terms of worker turnover, the interval between workers changing jobs varies enormously, from a few days to more than ten years.[18] For example, several workers have been employed by a Hong Kong-funded P&A nylon-belt manufacturer for ten years. They began as unskilled workers before being promoted to technicians, and each earned 2000 *yuan* per month. In general, migrant workers tend to change jobs before settling down with a firm since 'most of the newly arrived migrant workers work for a few days to a few months and then exaggerate their work experience to get a higher paid job in another firm' (Field survey 1996–97). Ten to twenty *yuan* means much more to them than to the local people, as the majority earned less than 200 *yuan* in their hometowns. Apart from pursuing higher wages, frequent industrial accidents and conflicts between workers – such as fights between migrants from different regions – are another reason for the high worker turnover rate. After all, the prime target for migrants is to maximize revenues before going back to their native villages. As every worker searches for his or her ideal job, worker turnover rates generally range from high to very high in foreign-financed firms: 10 per cent during normal times, peaking at 50 per cent or higher after the Chinese New Year. Some migrants do not come back because of homesickness, while some move to other firms after securing their end-of-year bonus.

Apart from a rumour about an impending war that raised the worker turnover rate to an all-time high during the first half of 1997, the mismatch between labour supply and labour demand leading to voluntary unemployment – the skilled (female) workers resign and search for jobs with better monetary and non-monetary remuneration – increases

production cost in terms of labour recruitment, and training, and product quality control.[19] For example, 200 out of 500 workers in a videotape manufacturing firm at Laiobu town left during the first six months of 1997. Moreover, a number of SMEs experienced tremendous difficulties in labour recruitment, as they cannot compete with the large foreign-financed firms in non-monetary remuneration, such as entertainment facilities, accommodation and the work environment.

None the less, there is still an abundance of migrant workers in Dongguan, and the overwhelming majority are willing to work overtime with little additional payment.[20] Besides being employed at a fraction of the wages of their counterparts in Hong Kong, a Hong Kong entrepreneur operating in Dongguan claimed, 'I just have to pay two to three *yuan* an hour more than the normal wage and 95 per cent of them are willing to work overtime. In Hong Kong, most workers are reluctant to work overtime even with double pay!' (Field Survey 1996–97). This provides a much greater degree of flexibility enabling the firm to accept large orders during the hectic peak season. Moreover, the apparent obedience of migrant workers is a result of 'informal collaboration' between the local government and foreign investors. Foreign investors are able to control and dismiss disruptive workers (even illegally) with the blessing of the local government bureau, since large-scale labour unrest or strikes would damage the reputation of the 'docile labour market' of Dongguan.

Land

In this section, the cost and ownership (development strategy) of land are discussed. The typical industrial site in Dongguan consists of two blocks – one the workplace and the other for accommodation. The premises are surrounded by walls and have a private car park on a piece of land several thousand m^2 in area. The quality of factory premises varies from good to very poor, because of the quality of original buildings and their routine maintenance.

The accessibility and geographical location of factory premises determines their rent. For example, it costs 4200 *yuan* per month in Qingxi town, 12 000 *yuan* per month in Yantian administrative region of Fenggang town, and 13 000 *yuan* per month in Xiegang town for ordinary-sized factory premises (about 16 000 m^2). In the Beishan administrative region of Humen town, it costs 10 000 *yuan* a month to rent small factory premises. Although the rising rate of rent for factory premises is almost twice that of inflation, it is still much cheaper (by 70–90 per cent) than in Hong Kong. For example, in Tangxia town, the rent increased fivefold from 25 *yuan*/m^2 in 1993 to 100 *yuan*/m^2 in 1997.

There are different views within the Dongguan government about whether to sell or rent land. Even though local government officials have agreed to build factory premises as a means of attracting foreign investment, there are some arguments about the ownership of land. On the one hand, some village officials insist that arable land has to be diverted to factory use and then rented to foreign-financed firms. The lower overhead costs of renting factory premises is attractive to the SMEs based in Hong Kong. The local government can keep the land and premises ownership rights (in accordance with 'socialism') and is thus able to generate a stream of income for further development. Conversely, other officials argue that foreign-financed firms have little incentive to stay in Dongguan, with labour costs increasing over time. Once all the paddy-fields have been reclaimed, the economic future of the region will be in question. Thus, they argue, it is better to sell the land to foreign investors and let them build their own premises. By doing this, the local government will 'kill two birds with one stone' by committing less investment funding and receiving a once-and-for-all lump sum revenue from the land sale. Moreover, the foreign-financed firms, especially SMEs, would have less incentive to move elsewhere in the next fifty years of tenure of land ownership, since the fixed investment would be relatively large.[21]

Capital

As mentioned before, the 'first industrial revolution' development strategy of the Dongguan government was to attract labour-intensive small to medium-sized manufacturing from Hong Kong during the early 1980s. Because of the higher minimum amount of investment in *sanzi qiye*, most SMEs from Hong Kong were registered as being in collective ownership and P&A, even if they were operated as WFVs (with the exception that factory managers were appointed by the local government). Since a number of Hong Kong investors only moved their machinery into Dongguan, it was not uncommon to set up a P&A firm with a registered capital of 100 000 *yuan* during the early 1980s. This explains a large number of SMEs located in Dongguan that are not operating in the 'original' form of P&A, with foreign investors holding all the financial and managerial power while Chinese partners only lease the land and factory premises to their foreign partners (Liu and Zhen, 1992, pp. 10–11).[22] The 'alternative' form of P&A common in Dongguan is a way of overcoming the managerial and financial constraints associated with central government regulations for foreign investment. This demonstrates the flexibility of the Dongguan government regarding foreign investment.

With the growth of the economy over time, the 'second industrial revolution' development strategy of the Dongguan government from the mid-1990s onwards aims at attracting larger-scale skill-intensive foreign investment with higher value-added (DMG, 1995, p. 43). Local governments in Dongguan are being more selective about the types of foreign investment they prefer. A number of *sanzi qiye* investment projects in various sectors funded by Japanese, Taiwanese and European companies have been established in Dongguan. The P&A investment format is still welcomed by the government as it is regarded as being more flexible. In fact, some foreign firms invest under the P&A arrangement to test production sites in China. Coupled with inflation and economic growth, the unofficial minimum amount of registered capital for P&A was increased to 500 000–600 000 *yuan*. This is the practical minimum amount of investment as the electricity installation costs for a typical factory alone can be more than 100 000 *yuan*. As with other production factors, the real value of the minimum amount of investment for P&A varies geographically; for example, it was one million *yuan* in Qingxi town and 500 000 *yuan* in Changan town in 1997.

The change in the appearance of the CCP secretary in the administrative region of Fenggang town reflects the new wealth of the township governments in Dongguan. The township government party secretary rode a bicycle and wore a pair of shorts to meet potential foreign investors in the mid-1980s. The foreign investors were treated to a VIP reception if they intended to invest 3 million *yuan* in the region and the corresponding memorandum of understanding was signed in the best hotel in Shenzhen.[23] The party secretary later graduated to a motorcycle and then a Toyota Crown by the mid-1990s. At the time of writing, he rides in a chauffeur-driven Mercedes-Benz limousine.

The experience of a government-funded sock-manufacturing firm in Longyan administrative region of Humen town illustrates the extent of large-scale investment by local government. With only thirty five knitting machines, the firm manufactured medium- to high-class nylon socks and cotton socks and children's socks for the domestic market. In 1995, the firm formed an EJV with a Hong Kong company. The EJV invested more than 60 million *yuan* to expand its production capacity by importing eighty computerized sock-knitting needle machines and 200 automatic sock-making machines from Italy and Japan. It also moved into newly-built factory premises in the new industrial zone (with an area of 13 000 m^2). Because of its now highly automated

manufacturing process, the firm employs many fewer workers (just over 400) than other firms in the same sector. It has in-house R&D, product development and quality control departments, and has two brand names registered with the National Commerce Bureau. At present, the average annual production capacity is more than three million dozen socks, and sales have reached 100 million *yuan* per year.

Obviously, the change of government policy towards foreign investment resulted in a majority of smaller-scale P&A investment in the 1980s and the rise of larger-scale *sanzi qiye* and P&A investment in the 1990s, already mentioned in Chapter 3.

4.4 Bureaucratic red tape and the abuse of power

Despite the openness of the Dongguan government, bureaucratic red tape and power abuse associated with local government still exists. In this section, three aspects of bureaucratic red tape and power abuse experienced by foreign investors in Dongguan are discussed: miscellaneous charges; the nurturing of connections; and involuntary donations.

Miscellaneous fees

Miscellaneous fees are charges levied by local, provincial and central government under two general categories: 'soft' and 'hard' miscellaneous payments. 'Soft' miscellaneous payments are the administrative fees levied by various government bureaux, such as business registration fees, while 'hard' miscellaneous payments are for the infrastructure fund levied by public utility bureaux – for example, to contribute to the construction cost of motorways.

Foreign-financed firms in Dongguan must possess the following licences or certificates:

- Business registration permit.
- National tax certificate.
- Provincial (Guangdong) tax certificate.
- Certificate of Quality Licence for Export Commodities.
- Certificate of Quarantine Licence for Export Commodities (zoological and plant quarantine permits).
- Hygiene certificate.
- Labour insurance certificate.
- Health insurance certificate.

To employ workers, foreign-financed firms have to apply for the following permits on their behalf:[24]

- Temporary residence permit issued by the local Public Security Bureau, renewable every three months, six months or one year (this applies to migrants only).
- Employment permit issued by the Labour Bureau (this applies to migrants only).[25]
- Single card or planned maternity card for married employees, issued by the Labour and Planned Maternity Bureaux.
- Unemployment insurance and old age pension permits from the Social Insurance and Labour Bureaux.[26]

The local government imposes fines of 200–1000 *yuan* on those firms employing workers not having all the required permits.[27] In some cases, workers do not possess employment permits because their previous employers had not completed the appropriate application procedures before the employee resigned. Workers are usually employed on a temporary basis and employers do not sign formal employment contracts with them. In fact, some migrants prefer to work on a temporary basis as it allows them to job-hop.

By law, the amount of the miscellaneous charge is determined by the number of workers (for example, x *yuan* per worker) in the firm. In addition to a security fee (levied by the Public Security Bureau) and cleaning fee, the total miscellaneous fee for a foreign-financed firm can easily add up to over 100 *yuan* per worker per month.

In reality, the amount payable by foreign-financed firms is negotiable and varies geographically, partly because the local government realizes the negative impacts it has on the attractiveness of foreign investment once the law is fully implemented. Ultimately, it depends on *guanxi* as those firms with better connections can get a more favourable 'discount' on the fee payable. This is one of the reasons why local people are employed as factory managers and accountants in foreign-financed firms as they have the right connections to the local government. This also explains why a number of foreign-financed firms deliberately under-report the number of workers to the local government. A Hong Kong entrepreneur estimates that most foreign-financed firms report only 50–70 per cent of the actual number of workers for tax purposes and miscellaneous fee evasion. This claim is verified by the fact that all the firms interviewed have under-reported their numbers of employees to the local government by 30–80 per cent.

Unlike during the 1980s, when each of the miscellaneous fees was very high and there was a lack of documentation, the degree of transparency of regulations and of the various charges levied on foreign-financed firms is improving. A number of interviewees complained that departments could charge 'any amount of money' without legal grounds even during the late 1980s: 'they just drop by and demand the cash and you have to pay!' (Field Survey 1996–97). This is partly a result of the self-financing reforms, as most government bureaux explored every means to raise revenue, both legitimate and illegitimate. In response to constant complaints by foreign investors, the Dongguan government conducted a survey of foreign-financed firms on the legitimacy of the miscellaneous charges after Mr Li Jin-wei was elected as the Dongguan CCP secretary. All miscellaneous charges levied from foreign-financed and locally-funded enterprises must now be approved by the Dongguan municipal government (DBS, 1998, p. 83). In an effort to stamp out illegal charges, the corresponding authorities issue receipts for every item of miscellaneous charge.

Despite improvements in the transparency of the system, the general situation of miscellaneous charges has deteriorated in some regions. In an extreme case, a foreign-financed firm in Yantian administrative region of Fenggang town had to pay forty-six types of miscellaneous fees.[28] One was a 'postal delivery fee' charged by the telecommunications bureau. In addition to paying the postal fee, the firm had to pay an additional 'postal delivery fee' based on the number of workers, comprising six to eight *yuan* per worker per annum. This explains one reason why a firm only reports 20 per cent of its 200-strong workforce to the government. Though the absolute amount of some charges is small and the total amount of miscellaneous charges is similar to those of the past, the increase in the number of charges imposes additional administrative costs on the firm. Moreover, each firm in Yantian must purchase at least five copies of *Yantian Qiye* – a pictorial directory of enterprises located in Yantian, and published jointly by the Yantian Trade and Development Company Limited and the Yantian Industrial Development Company (both funded by the Yantian government) – at 400 *yuan* a copy. Again, foreign entrepreneurs have difficulty in comprehending the rationale behind such compulsory purchases. One likely answer is that the local government can profit from this publication. As there are about 350 firms of various sizes in Yantian, the local government can generate about 700 000 *yuan* revenue from the sales.

Furthermore, some local governments backdated the newly introduced charge by several months, even before the formal approval of

the municipal government had been given.[29] In other words, a firm could suddenly receive bills for some unknown charge for the previous six months as well as a fine for being late in paying it. This is another reason why foreign-financed firms employ local people as factory managers and accountants, as they have the connections and knowledge to deal with ever-changing regulations.

It is neither the miscellaneous charges *per se* nor the total amount of such charges that annoy the foreign investors in Dongguan. It is the ambiguity, variety and associated high transaction costs that frustrate foreign entrepreneurs. For example, by what criteria does the telecommunications bureau charge 6–8 *yuan* per worker per annum 'postal delivery fee' on top of the postal fee charged on each letter? Several entrepreneurs even suggested that they had been 'cheated by the local government'.

Connections cultivation

Branded as bourgeois during Mao's pre-reform era, entrepreneurs have enjoyed an intimate relationship with government officials in southern China in the reform era. It is well known that entrepreneurs used various methods of monetary and non-monetary tactics (including corruption) to cultivate connections with government officials, who hold power in various bureaux but receive artificially low salaries.

As legal representatives of Chinese partners under the investment (P&A) contracts and usually knowing government officials well, factory managers are naturally prime candidates to act as middle-persons to assist foreign investors in cultivating a relationship with local government officials.[30] In fact, the majority of factory managers in foreign-financed firms are local people with (very) close links to influential officials in local government. For example, the factory manager and production manager in a Hong Kong-funded P&A soft-toys firm are local residents and both are either close friends or former schoolmates or colleagues of senior officials in the Liaobu government.

The perception of a partisan and corrupt government is fuelled by its business role and the uneven implementation of laws. In general, there is very little administrative intervention from local government in the day-to-day operation of foreign-financed firms. However, some entrepreneurs accuse the Dongguan government of imposing unnecessary bureaucracy on foreign-financed firms. For instance, an application for a foreign investment project is more likely to be approved on time if the feasibility study is conducted by a specified consulting company which is an affiliated company of the Dongguan government. The original

rationale for setting up a consulting company is to standardize the criteria of feasibility studies and speed up the approval time for venture projects. None the less, the dual role – both as the governing body and a profit-making consulting company – of the Dongguan government naturally provides ammunition for conspiracy theorists to suggest that the standardization of procedures is *de facto* a golden excuse to raise revenue.

To implement labour and fire safety laws after a series of disastrous fire death in southern China during the late 1980s and early 1990s, the Labour and Fire Service Bureaux inspect foreign-financed firms in Dongguan frequently. They check fire safety facilities, labour insurance, and employment and other permits issued by the Public Security Bureau. Since the frequency of such inspections is again determined by the connections between owners and factory managers, the implementation of labour and fire safety laws is likely to encourage rent-seeking or even on-the-spot bribery to avoid hefty fines for violations of fire or labour regulations.

Although they have the right connections, some foreign investors are still frustrated by the 'black-box operation' adopted by some local governments in Dongguan: 'rule-of-the-people instead of rule-of-law'. In other words, the implementation of laws depends more on the individual interpretation and goodwill of local government officials, which leads unavoidably to geographical discrepancies and lack of transparency in the implementation of laws.

The bureaucratic red tape and opportunities for rent-seeking lead to higher operational costs for foreign investors and the perception of a corrupt government in Dongguan.

Involuntary donation or extortion?

A number of foreign investors air their grievances about the extent of involuntary donations. Requests for donations come from various bureaux and for a range of items – for example, donations to the Public Security and Fire Service Bureaux to install new facilities, donations for sports and *karaoke* competitions, and so on. In 1995, Public Security Bureau officials went to every foreign-financed firm in a town in Dongguan with 1000 *yuan* receipts for donations for the completion of the Public Security Bureau headquarters. In 1996, a Hong Kong manager had an unpleasant extortion experience in Dongguan. At midnight, five People's Armed Police officers armed with AK-47 rifles surrounded the factory premises and demanded to undertake an inspection. The Hong Kong manager had to pay 30 000 *yuan* for them to resolve the 'crisis'.[31] Obviously, this is extortion.

A violent shooting incident which occurred in Humen town supports the case for the extent of power abuse by the police force. A policeman from the local Public Security Bureau used his service pistol to shoot dead two brothers and injure another after a traffic dispute with a motorcyclist in Taiping administrative region. The policeman then fired his automatic AK-47 rifle from the police station to disperse the pursuing crowd before escaping. Subsequently, more than 300 villagers from Baisha administrative region (where the three brothers lived) carried the two corpses to the police station to petition for justice. The villagers took back the corpses after the local government had paid 350 000 *yuan* compensation and promised a thorough investigation into the conduct of the policeman (whom they managed to detain) (HKS, 1997a).

For another Hong Kong-funded P&A electric wire firm, however, there was no extortion from local bureaux as the owner or his relatives knew everyone in the local government and even in the criminal gangs. At the request of the gangs, he once allowed several migrant prostitutes to take refugee in his firm for several days while the local government carried out a national 'strike-hard' campaign for crime eradication.

Undeniably, the above incidents of power abuse by some officials tarnish the reputation of Dongguan.

4.5 Customs

The Customs policy and its effects on the investment environment of Dongguan are discussed in this section.

Transferred goods arrangements

To facilitate the operation of foreign-financed enterprises and relieve the pressure on transportation, the Dongguan government collaborated with the Customs to introduce a 'transferred goods arrangement' for foreign-financed firms.

With the prior approval of the Customs, the transferred goods arrangement allows a foreign-financed firm to sell and transport their finished goods directly to another foreign or locally-funded firm located in China, provided that the following conditions are fulfilled:[32]

(i) all the final products of the transferred goods are for export;
(ii) both companies have import licenses for the transferred goods; and

(iii) the quantity of the transferred goods is less than the quantity imported by the firm.

But the convenience of the transferred goods arrangement for foreign-financed firms is offset by other bureaucratic regulations imposed by the Customs in terms of cargo declaration and production contracts.

In general, there are two types of cargo declaration: 'centralized Customs declaration' (*jizhong baoguan*) and 'sealed Customs declaration' (*fengguan*). 'Centralized Customs declarations' are simpler in terms of procedure, and the cargo (usually destined for or originating from Shenzhen) can pass through any computerized checkpoints at the three border posts in Huanggang-Lok Ma Chau, Sha Tau Kok or Man Kam To. The 'sealed Customs declarations' procedure is more complicated, and the cargo is usually destined for areas outside Shenzhen. The cargo is sealed after passing through the local Customs in Dongguan before passing through one of the Sino-Hong Kong Customs points, where the documents have to be inspected again. Moreover, the second-line Customs at Shenzhen SEZ has the authority to inspect the cargo even it has already been inspected at the Sino-Hong Kong border or Dongguan Customs checkpoint.

While the P&A contract usually lasts for five years, production contracts for the importation of raw materials or semi-finished products must be renewed every six months. For every shipment of raw materials or finished products, foreign-financed firms have to apply for import or export declaration permits from the Customs. Foreign-financed firms have to submit monthly records of the importation of raw materials, the exportation of finished goods, and the quantity of raw materials held in stock in firms. The Customs declaration procedure (*hexiao*) is used to prevent any illegal reselling of tariff-free raw materials, machinery or semi-finished goods imported by foreign-financed firms or 'shell' trading companies for profit-making purpose. In reality, all this documentation imposes extra transaction costs on foreign-financed firms and provides golden rent-seeking opportunities for Customs inspectors. Whenever there is any discrepancy between import and export declaration forms, the Customs inspectors would regard undeclared goods (the raw materials not declared for sale to other foreign-financed firms as finished products) as sales for the local market. In addition to imposing a fine, the Customs inspectors would impose a surcharge of 40 per cent of the value of undeclared raw materials on the foreign-financed firm.[33]

Cargo inspection

To offset the relatively low salaries (less than 1000 *yuan* a month), Customs officials explore legal loopholes and illegal means to boost their incomes. It is generally suggested that the demand for unauthorized payments is especially rampant in January, as everyone is desperate to accumulate extra cash before the Lunar Chinese New Year at the beginning of February.[34]

Every interviewee, including the local factory managers, complained bitterly about the inefficient and corrupt practices associated with Customs. The three most common methods employed by Customs officials to generate revenue are as follows:

(i) *Data entry fee*: a Customs-affiliated company charges 70 *yuan* to enter the information on the import or export declaration form into a computer (this is equivalent to about six days' wages for a migrant worker in Dongguan);
(ii) *Truck inspection fee*: 500 *yuan* or more;[35] and
(iii) *Fines for false or incorrect declarations*: the cargo is impounded and fines imposed for any intentional or unintentional discrepancies between import or export declaration documents and the cargo in terms of weight and content.

From the above, it can easily be estimated that the minimum Customs charge is 570 *yuan* if a truck is selected by the officials for inspection.

Fines for false or incorrect declarations are legitimate, since it is a way of discouraging foreign-financed firms from engaging in illegal reselling of tariff-free raw materials to local firms.[36] However, the lack of transparency about the reasons for fines only enhances the corrupt image of Customs. No matter what the rationale is behind the truck and cargo impoundment enforced by the Customs inspectors, the documentation *per se* is an improvement. Since the procedure is official, it at least provides a way for foreign investors to trace and negotiate the release of the detained cargo.

The experience of foreign investors

As with the miscellaneous fees discussed above, the standardization process itself has improved the Customs documentation but has had little impact on the prevention of rent-seeking and other instances of the abuse of power. With the temptation of easy money – as there are tens of thousands of container trucks passing through the

Hong Kong–Shenzhen border every day – the existence of power abuse by Customs inspectors for rent-seeking purposes is not surprising.

The experience of a soft-toy manufacturing firm in Laiobu town illustrates a typical example of power abuse by some Customs inspectors in Shenzhen. In 1996, the firm paid 20 000 *yuan* to Customs officials after a container of Christmas toys exported to the USA was detained for three days because the toys had no stuffing inside, and therefore did not exactly match the P&A production contract referring to stuffed toys. In June and July 1997, the same firm was forced to pay 25 000 and 20 000 *yuan* for two separate shipments, because Customs officials found that the eyes of the soft toys were made of a material other than plastic, again differing from the product description defined in the production contract. The firm had to pay, because it would have cost even more if the cargo had been detained by the Customs longer. Apart from the storage fee for the container levied by the Customs, 'it is better to not make any profit or even lose some money on one deal rather than lose the customer by being unable to deliver the cargo on time' (Field Survey 1996–97). In another incident, the Customs officials took out and weighed four tons of cartons to check for any possible discrepancy with the declared weight on the Customs declaration document. Afterwards, when they found no mismatch, they charged the firm 180 *yuan* for transport costs.

Moreover, a number of entrepreneurs and factory managers revealed that Customs officials tend to target valuable cargo to inspect, especially electronic components and toys. In one incident, the inspectors opened every box and counted the number of integrated circuit (IC) chips in a truck. In another incident, the officials detained the truck and sent samples of its chemical cargo for laboratory testing before releasing it three days later. Logically, smugglers have a greater incentive to transport higher-value cargo over the border illegally and it is the duty of the Customs authorities to prevent such activities. From the conspiracy theory perspective, Customs officials can extract their unauthorized payments more easily when the cargo involved is valuable, as the owner has more to lose by risking the delay of shipment while the cargo is detained.

It is time-consuming and costly to deal with the Customs authority. When they detain a truck on the border, for whatever purpose, it takes time to resolve the problem and monetary payment is almost unavoidable. To avoid traps set by investigators from the central government, there is usually no direct exchange of cash between foreign investors and Customs officials. Generally factory managers act as go-betweens

and this may inflate the payment as they usually take a commission for their task that is, pocket a portion of the money by over-reporting the amount to be paid.

A 'win–win' game?

There is a 'delicate balance' between foreign investors and Customs officials. On the one hand, most Customs officials know the rules of the game and usually charge a 'standard price' to release a cargo. On the other hand, no foreign investors dare complain, as most of them are afraid of being subjected to revenge from the Customs officials or fear exposure of their own illegal activities. One of the most common illegal activities engaged in by foreign investors is under-reporting of the quantity of raw materials in import permits so that the under-reported quantity of tariff-free raw materials can be resold at a profit. The stakes are simply too high and peer pressure too strong not to play the game by the rules. Therefore both foreign investors and Customs inspectors are engaged in 'win–win' illegal activities: foreign investors are willing to pay to cover up their under-reporting of imported raw materials, while Customs officials are content to ask for unauthorized payments.

Even though the connections of foreign investors and factory managers is important, it does not that imply everything will be trouble-free, as Customs officials 'can turn the tables without apparent reason and it makes things very difficult to deal with. This is especially the case when someone deliberately violates the rules [by asking for too much money]' (Field Survey 1996–97). Customs officials work on two shifts, and most checkpoint inspectors will transfer from day to night shift, or vice versa, every six months before being transferred to another post the following year. Thus some Customs inspectors may try to maximize their gains within that time and it is very difficult for foreign-financed firms to establish a 'working relationship' with them. Obviously, efforts to maintain Customs as an efficient institution is partially obstructed by the artificially low salaries of civil servants and the bad reputation associated with a group of corrupt Customs officials. This definitely mitigates against the investment environment in Dongguan.

Distinct from the 'early birds' of the early 1980s, the majority of foreign investors are now well-informed and realize the 'hidden' transaction costs of doing business in China before establishing their firms. The bottom line is that the relocation of manufacturing to southern China, and in Dongguan particularly, is one feasible way for them to maintain their competitiveness.

4.6 Favourable investment factors in Dongguan

Before discussing the eleven major favourable investment factors in Dongguan for foreign investors, four points have to be clarified. First, the arguments presented below do not only explain the rationales of foreign (Hong Kong) entrepreneurs selecting Dongguan for their firms' location, but also partially explains why foreign entrepreneurs invest in Dongguan instead of elsewhere inside or outside China. Second, the favourable factors are inter-dependent rather than independent. Third, the following factors are summarized from the interviewees' scripts and so do not include the favourable investment factors that may be considered by other foreign investors. Fourth, the following characteristics are not unique among the foreign-financed firms in Dongguan; that is, some of them may appear in other regions which are popular with Hong Kong investors, such as Shenzhen and Guangzhou. However, the competitive advantages of foreign-financed firms in Dongguan may be higher than in other regions because of the high concentration of Hong Kong-funded firms in Dongguan and the relatively 'flexible' policy on foreign investment implemented by the Dongguan government.[37] In fact, the demonstration effects of competitive advantage for foreign-financed firms in Dongguan are likely to crowd-in more foreign investment in Dongguan, *ceteris paribus*.

Subcontractual and pseudo integration

Rather than operating as individual small-scale firms independently, a number of foreign-financed SMEs in complementary and substitute (industrial) sectors located in close proximity collaborate informally to achieve economies of scale and dynamic flexibility through the following means:

(i) by *subcontracting* one firm's order to a network of complementary and substitute firms. This practice allows a firm to accept bulk orders beyond its production capabilities and capacity. For example, the owner of a plastic toy firm can accept an order for electronic toys with the knowledge that he/she can secure the supply of tailor-made electronic components at short notice. The transaction cost is lower and the time-lag shorter than searching for a component supplier and bargaining for a price. Moreover, the firm can subcontract part of its order to other substitute firms located nearby to meet a tight deadline;

(ii) through *informal collaboration* among firms located nearby, in particular for *sourcing and transportation*. The unit cost of raw material sourcing and transportation is lower because of the discounts offered by ordering in bulk and combining goods from different firms into a single shipment;

(iii) by the *sharing of raw materials, tools, machinery and spare parts* in case of emergency. This allows the network members to enjoy a greater degree of flexibility. Instead of waiting days and weeks for the arrival of raw materials or spare parts for machinery, a telephone call to the network firms can solve the problem within minutes. A firm in Fenggang town was able to continue production after borrowing an electricity generator from another firm located nearby during the suspension of electric power over a weekend. Moreover, this arrangement obviously reduces the costs of an excessive inventory of raw materials; and

(iv) the *sharing of P&A production contracts* with member firms in the same sector to allow the prompt import of raw materials, resources, semi-finished goods and the export of finished goods. This form of informal contractual transaction (usually an under-the-table transaction between friendly firms) is able to circumvent the bureaucracy associated with the Customs authority and the intrinsic constraints of P&A production contracts. The time-lag in the production contract approval process lowers competitiveness and profit margins for new products. As one entrepreneur put it, 'the first one to jump into the pool is going to reap the cream of the profits while the second one can only have the leftovers from the first' (Field Survey 1996–97).

Since every production contract has its own predetermined import–export quota and lasts for six months, it is common for export-orientated foreign-financed firms to over-use or under-use their quotas during the peak and non-peak seasons, respectively. This is especially the case when a firm receives a larger than usual order and has to deliver the goods with a tight time schedule. Under these circumstances, the foreign-financed firm experiencing a situation of over-use of its quota can borrow a production contract from another firm which has under-used its quota to transport the raw materials and goods to and from Hong Kong. The foreign-financed firms with under-used quotas are happy to lend their friends a helping hand as their unused quota has little value to them at the time. Financial incentives are usually involved in contract borrowing, and the amount varies tremen-

dously from case to case. In fact, this is a form of connection cultivation with Hong Kong characteristics.

Apart from contract borrowing based on friendship, some entrepreneurs explore the niche markets arising from the inherent constraints of P&A production contracts. Some transport companies (usually based in Hong Kong) offer a package of services, including P&A production contracts and transportation from Hong Kong to Dongguan, for some specific firms (for example, textile firms) who are without, or have over-used, their own P&A production contract quotas. However, the premium for such a package is even higher than transport costs *per se*: HK$3200 versus HK$1300–1500 for a 5-tonne truck from Hong Kong to Dongguan.

Through the informal collaboration and subcontracting network, the agglomerated network of firms is not only able to enjoy certain aspects of economies of scale belonging to large-scale firms, but can also maintain flexibility within each individual firm. This form of networking is *de facto* the dynamic characteristic of Hong Kong-style SMEs, which allows a network of SMEs to engage in 'David versus Goliath' warfare by competing with the large-scale firms. Through the network, one Hong Kong entrepreneur claimed that 'a firm with one million dollars of capital is able to accept an order valued at ten million dollars' (Field Survey, 1996–97).

The successes of network firms has naturally crowded-in substitute and complementary industries, which are likely to enhance the remodelling process of Hong Kong-style SME practices in Dongguan as foreign investors attempt to exploit the ownership-specific advantages of economies of scale and the internalization advantages of lower transaction costs in searching and bargaining for component supplies and the prompt delivery of cargos. The agglomeration of complementary and substitute SMEs based on commercial pragmatism can be called 'subcontractual and pseudo integration'.

Local sourcing and targeting of the Chinese market

The agglomeration of complementary industries implies the proximity of suppliers of raw materials, components (packaging, such as cardboard boxes on plastic bags), or semi-finished goods. The proximity of complementary industries allows foreign-financed firms to source inputs locally and target the Chinese market.

On the one hand, local sourcing reduces transport costs and the time-lag for the shipment of raw materials or semi-finished products from foreign-financed firms. The ordering and billing paperwork

between suppliers and customers is usually carried out in the Hong Kong offices and the goods are delivered by appropriate firms located in Dongguan. In other words, the Hong Kong offices are responsible for ordering, marketing, financing and other necessary administrative tasks, while the firms in Dongguan are responsible for production. This division of labour reflects the comparative advantages of Hong Kong and Dongguan, and this is the rationale explaining why foreign-financed firms maintain offices in Hong Kong.

On the other hand, foreign-financed firms can cater for existing customers by locating their manufacturing bases in Dongguan. This is especially the case with complementary industries, such as packaging materials suppliers, as most of their customers' manufacturing bases have already relocated to southern China. For example, three-quarters of the total output of a Hong Kong-funded cardboard box manufacturing firm in Xiegang town supplies foreign-financed firms located in Dongguan or elsewhere in southern China. The transport and time costs are prohibitively high (especially in the case of an urgent order) for the cardboard boxes to be transported from Hong Kong to China. To serve their existing customers, the pull is becoming irresistible for entrepreneurs who hesitate about relocating their manufacturing bases in Dongguan from Hong Kong. Moreover, the potential market is much bigger in China.

The demonstration effects of existing firms is likely to further encourage the agglomeration of industry as foreign investors explore the locational advantages of establishing their manufacturing bases in Dongguan.[38]

Systematic urban planning and supporting social infrastructure

Apart from conventional economic factors, systematic urban planning with a supportive social infrastructure also plays a significant role in the locational decision-making of foreign-financed firms.

With the negative press reports (on crime, prostitution and so on) in the late 1980s, a number of Hong Kong technicians and managerial personnel were reluctant to work in southern China.[39] In addition to the monetary reward (the net wage of China-based personnel was usually twice that of their counterparts in Hong Kong during the 1980s), they wanted to live comfortably in China. The availability of Hong Kong-style social and entertainment facilities, such as restaurants, night clubs, hair-dressing salons, *karaoke* bars, discos, bowling alleys and roller-skating rinks, make Hong Kong people feel at home. It is estimated that about 100 000 expatriates (mostly Hong Kong people)

work in foreign-financed firms in Dongguan. The interaction of the demand-pull (expatriates demand it) and supply-push (the provision of facilities) of modern entertainment and living facilities attracts even more expatriates to work in Dongguan. Obviously, the existence of a social infrastructure in terms of a comfortable living environment and the proximity of ample entertainment facilities is important for expatriates working in foreign-financed firms.

The systematic urban planning of Longyan administrative region in Humen town and Changan town illustrates the attraction of the strategic infrastructure layout and supporting social infrastructure for foreign investors. In Longyan, roads in the new industrial and residential zones are laid out in a grid system. There is a well-equipped kindergarten and primary school with large grounds, including a hall, playground, soccer field, accommodation blocks for teachers and so on. Apart from the wide, straight motor roads that are normal in other towns in Dongguan, the Changan township government has invested heavily in the improvement of the environment. For example, the green belt alongside every major road and good public hygiene (not the lidless rubbish bins that are commonly found elsewhere) made it one of the cleanest towns in southern China. This is one of the reasons why it has been able to attract 1300 foreign-financed enterprises, a number of which are JVs with TNCs or the subsidiaries of regional conglomerates.

In addition to providing relaxation and entertainment for Hong Kong employees, the hotels located in every town centre provide an ideal place for business meetings with potential customers. Instead of travelling for an hour or two back to Hong Kong, customers can stay overnight in nearby hotels and discuss business in night-clubs after visiting the firm. The 800 *yuan* per room per night charge in the luxury 5-star Silver City hotel in Guancheng district is a fraction of the cost of accommodation in Hong Kong.

From the above, the comfortable living environment and its associated ample social and entertainment facilities can be interpreted as an unorthodox locational factor for foreign investment in Dongguan.

Ethnic networks and personal connections

Ethnic networks and connections cultivated with local officials are usually inter-related. With the right connections, a foreign-financed firm can not only secure 'favourable' terms for miscellaneous charges and the foreign exchange retention rate, but can also resolve problems with the Customs authorities. In fact, a number of Hong Kong

entrepreneurs established firms in their native home villages in Dongguan after suggestions from their relatives. Other interviewees were persuaded by their colleagues or friends from the Dongguan government.

To cite three examples, each with a different level of connections or ethnic network in affecting the locational decisions of foreign investors. The owner of a Hong Kong publicly-listed company, who has two EJV clothing manufacturing firms in Dongguan, is a friend of Mrs Wu Yi, the former Minister of Foreign Trade and Economic Co-operation in China. The head of a Hong Kong-funded P&A cardboard box manufacturer selected his brother-in-law's native village in Xiegang town to locate the firm as he felt assured that 'the channel to local government was always available' for him (Field Survey 1996–97). Humen town is the native village of the owner of a Hong Kong-funded P&A electric wire manufacturing firm. He knows every officer in the local authority and the factory premises are rented from his relatives. In fact, Dongguan officials estimate that about half of the Hong Kong-based P&A contracts come from former Dongguan residents who emigrated decades earlier (Vogel, 1989, p. 176). The significance of *guanxi* for the selection of investment location is compatible with the survey results reported by Lever-Tracy *et al.* (1996) and Huang (1998, p. 59).

This locational advantage of Dongguan based on kinship and connection is unlikely to be disclosed in the questionnaire survey as most foreign investors are reluctant to reveal their personal ties to outsiders.

Channels of communication

To improve the investment environment, some open-minded local governments have established communication channels exclusively for foreign investors.

The officials in Changan township government have an unusually bold and open attitude to foreign investment. To facilitate the articulation and mutual understanding of policies implemented by central and local governments, the Foreign Entrepreneurs and Investment Association has been established. There are three regular meetings a year, with representatives of the foreign investors, Customs and local government officials. Apart from being a discussion forum, the meetings provide a feedback mechanism for foreign investors and allows them to air their opinions and complaints about the existing investment environment. Subsequently, a number of guidelines to minimize the chance of illegal levies have been issued by the local government.

In response to a request from foreign investors, the Changan government conducted a human resource survey of foreign-financed firms to evaluate the labour market in 1996. As a result, the government encouraged secondary-school students to study subject areas where there was excess labour demand – for example, human resource management.

The availability of a formal channel of communication with local government officials may be regarded as an internalization advantage for foreign investors as it reduces the information costs for clarifying and understanding new policies.

Commercial organization

A number of Hong Kong entrepreneurs have established non-profit commercial organizations in Hong Kong to strengthen their collective bargaining and marketing positions.

Despite the relative openness (in terms of flexibility on policy implementation) of the Dongguan government, the establishment of an autonomous formal organization in China is still an issue too politically sensitive to be approved. A group of Hong Kong entrepreneurs tried in vain to establish a chamber of commerce in Xiegang town, but were prohibited from doing so by the local government. However, the township government does not object explicitly when an informal organization is established in China without registration.

To take account of political sensitivity, some Hong Kong entrepreneurs have established a chamber of commerce in Hong Kong. They publish their own marketing brochure to attract local and foreign-financed industries to invest in the area, and have formed an alliance of collaborating firms – for example, Yantian Industrial City in Fenggang town. For collective bargaining, the Hong Kong Small and Medium Business Association organizes a number of trips to Shenzhen and Dongguan to promote dialogue with Customs and local government officials.

Obviously, the collective marketing and lobbying activities organized by autonomous commercial organizations in Hong Kong are able to reduce transaction costs and improve the lobbying effectiveness that would otherwise have to be undertaken by individual firms. This is a form of internalization advantage for foreign investors.

Competitive retention rate of foreign exchange

The P&A fee is the value-added of the finished products, usually the difference between the import value of raw materials and the export

value of the finished products. Foreign-financed firms have to pay a P&A fee in foreign currency (usually in Hong Kong dollars) through Chinese banks in Hong Kong to the local External P&A Office in China. A portion of the foreign exchange remittance is retained for a time by the local (village) authority (there is a discrepancy between the official and local authority exchange rates) before converting it into *renminbi* and depositing it in the accounts of the foreign-financed firms.[40]

It appears that there are no concrete guidelines on the percentage of foreign exchange retention by different township governments.[41] For example, the foreign exchange retention rate in Tangxia town was 22 per cent in 1997. That is, 22 per cent of the foreign exchange remitted from foreign-financed firms was levied by the Tangxia township government as foreign exchange retention, of which 19 per cent was the village authority's charge and the other 3 per cent Tangxia government's charge. The 'real' RMB–HK$ exchange rate offered by Tangxia town (0.78:1) is in fact 29 per cent points lower than the open market exchange rate of 1.07:1. In Changan town, the foreign exchange retention rate was 25 per cent in 1997, which is three percentage points higher than that in Tangxia town.

None the less, the RMB–HK$ foreign exchange retention rate offered by local governments in Dongguan is usually between 0.7:1 and 0.8:1, generally 10–20 per cent points lower than other areas in the Pearl River Delta, with a rate of 0.6:1–0.7:1. The lower the foreign exchange retention rate (that is, if one HK$ can be exchanged for more RMB), the less the transferred amount of precious foreign exchange required of the foreign investors, the stronger the locational advantage.

Low land and labour costs

As with foreign investment in other LDCs, the low land and labour costs are significant locational advantages for foreign investors in Dongguan.

The low cost of production factors was especially noticeable during the early and late 1980s; for example, 60 *yuan* a month for an unskilled worker in 1986, 7 *yuan*/m^2 per month for rent and 300–400 *yuan* per month for a technician in 1991. At the time of writing, the monthly wage is about 300 *yuan* for an unskilled worker and about 10 *yuan*/m^2 per month for the rent of factory premises, which is still less than 10 per cent of that in Hong Kong. The high production costs in Hong Kong force low-value-added, labour-intensive manufacturing sectors to move to southern China where cheap, unskilled labour is abundant

and constantly replenished by the inflow of migrants from northern and western China.

Competition from the pioneers with production bases in southern China since the early 1980s and the locally-funded firms in China and other Southeast Asian countries has accelerated the relocation of manufacturing from Hong Kong to southern China. In contrast to the workers in Hong Kong, there are plenty of migrant workers in Dongguan who are more than happy to work overtime. This explains why the attractiveness of the labour market for foreign investors does not fade even with low productivity, rising wages and higher worker turnover, which are all well publicized. After all, the total cost of employing four workers (for example, two for sewing and another two for quality checking in a clothing manufacturing firm) is still 80–90 per cent less than employing one skilled sewing worker in Hong Kong, with the same level of productivity. More importantly, employers have a greater level of flexibility of production, which is one of the greatest assets of the SMEs. The prompt delivery of quality goods at bargain prices is definitely one of the most important competitive factors in the commercial world.

Strategic location with an accessible transportation system

In addition to Shenzhen, Dongguan is an ideal place for foreign investors because of its accessible and efficient transport network, discussed in section 4.2. Since the majority of foreign-financed firms have their marketing, finance, administration and liaison offices in Hong Kong, Dongguan is within 'striking distance', so far managerial staff based in Hong Kong, for example, a half- or one-day return trip to the firm in Dongguan is possible. In case of emergency, Hong Kong staff can 'present themselves personally at the firm within two to three hours' (Field Survey 1996–97). Those towns nearest to Hong Kong and with direct access by rail or motorway are generally more popular with foreign investors, for example, Humen, Changan, Fenggang, Tangxia and Zhangmutou. This locational advantage is one of the reasons why the majority of Hong Kong-funded firms are located in southern rather than western or northern China, where labour costs are even lower.

Flexibility and openness of the Dongguan government

To improve the locational advantage and compete for foreign investors with other regions, the Dongguan government maintains a high level of administrative flexibility under the foreign investment laws (P&A) passed by the central government. In general, the local government

has a 'superficial role' of ownership in order to appoint factory managers, accountants, treasurers, stock-keepers and customs declaration officers, while foreign investors have full control of the production and day-to-day management – foreign investors are treated as entrepreneurs and allowed to make profits. This is in contrast to the 'iron-fist' approach adopted by 'some towns in southern China, where a cargo will be held up by Customs if the firm has any overdue payments to the local government'.

To centralize and simplify administrative procedures for foreign investment, the Dongguan government established the Dongguan External P&A Office in 1978. Through the decentralization of administrative power, the Dongguan government has improved its efficiency in administering foreign investment. Most of the administration, taxation and Customs procedures can be processed and applied for through administrative region authorities, with the exception of contractual documents, which have to be processed by Guancheng district government.

Apart from the standardization procedures adopted by the Dongguan government, some township governments implement policies of special privilege to attract foreign investors. For example, foreign investors were granted three years instead of the usual two years of tax-free 'holiday', and exemption from miscellaneous fees were offered by Liaobu, Changan and Xiegang governments up to the early 1990s. Wang (1995, pp. 244–5) also observed similar phenomena elsewhere in the Pearl River Delta, where local regulations were implemented long before they were approved by the central government, to maintain the inflow of foreign investment.

Social stability

Social stability, and in particular the low crime rate, is another locational advantage of Dongguan for foreign investors. The crime rate in Dongguan was so low during the 1980s that local people went to bed without locking their doors. With the inflow of migrants and the development of the local economy, however, the crime rate in Dongguan increased rapidly during the 1990s. There was some improvement during the late 1990s, as the government has become aware that the safety of foreign investors is vital for capital to continue to flow into the area.

The crime rate now fluctuates between good and bad in Dongguan. In Humen town, crime has increased rapidly during the 1990s. There have been regular break-ins, and most foreigners do not dare go to

remote areas after 10 pm. A car-jacking at gunpoint by two migrants at night is an illustration of the rise in violent crime. Foreigners take extra care in the capital of Dongguan, Guancheng district, as it has the highest crime rate.

By contrast, Changan has one of the lowest crime rates in Dongguan. The number of crimes decreased dramatically after the establishment of the 'safe civilized district' (*anquan wenming xiaoou*) in Changan town. The 'safe civilized district' is a comprehensive neighbourhood watch area with patrols of hired security guards. Each household contributed money (for example, a 45 *yuan* per month management fee) to build a wall around several residential blocks with a security gate. Apart from security, the district management company also undertakes cleaning. In Fenggang town, the Hong Kong owner of a P&A metal mould factory can walk along the streets at midnight without worrying about his safety. He also does not have to worry about extortion from gangsters as the local Public Security Bureau enforces the law strictly.

4.7 Applicability of the eclectic paradigm of international production

After summarizing the favourable investment factors for foreign investors in Dongguan, it is time to assess the applicability of the international production paradigm of FDI.

In general, all the favourable investment factors can be categorized according to OLI (ownership, locational and internalization advantages) framework. This is especially the case for conventionally favourable factors for foreign investment – for example, low labour and land costs, economies of scale, and targeting of the host country market. This is not unexpected, as most (if not all) of the push–pull factors for investment can be classified under the broadly defined OLI framework. Therefore, it is suggested that the three OLI research propositions are acceptable: foreign investors invest in Dongguan because of its ownership, locational and internalization advantages.

None the less, the classification of investment factors into O, L or I is more controversial. To name a few examples, the practice of P&A production contract sharing and the subsequent reduction of transaction costs can be classified as locational rather than an internalization advantage. This is because a firm with an over-used production quota may not be able to find another firm in the same sector with an under-used production quota in an area other than Dongguan. This is why

pseudo integration is one of the competitive advantages of foreign-financed firms in Dongguan and not in other areas of southern China. The ethnic networks and personal connections of foreign investors can be classified as an internalization rather than locational advantage, as the personal ties of foreign investors are able to reduce dramatically the information and transaction costs originating from bureaucratic red tape.

Moreover, the OLI framework of the international production paradigm of FDI is able to explain the general picture of the FDI pattern in the country. It is also useful to formulate the research questions in a structured interview. However, it may be less useful for a semi-structured interview, except for producing a checklist of a number of relevant parameters for FDI. From the discussion in this chapter, the theory is unable to explain the following factors satisfactorily:

(i) *the ethnic networks and personal connections*, which itself cannot be quantified meaningfully without losing its unique role and nature in foreign investment;
(ii) *business styles* or culture: flexible pragmatism allows the establishment of subcontractual and pseudo integration; the role of *feng shui*, and so on;[42] and
(iii) *regional differences* within Dongguan in the implementation of foreign investment policies by local authorities, as illustrated by the retention rate of foreign exchange, the levy of miscellaneous fees and so on.

To conclude, it seems that the eclectic paradigm of international production *per se* is unable to explain satisfactorily the dynamic interaction between foreign investment and the investment environment at a micro-geographical level. It is, in fact, not surprising to discover that the grand theory does not fit into a local geographical scale comfortably, as it was originally formulated to analyze macro phenomena. Furthermore, the semi-structured interviews conducted in an informal manner and in a friendly environment were able to collect much more detailed information from the interviewees than the formal and rather rigid framework implied by the theory. In fact, the flexibility of the semi-structured interview allows interviewees to point out factors that neither the theory nor the investigator realized its significance of, for example, *feng shui*. Therefore, the international production paradigm of FDI is less useful in the case study research approach; in particular, for semi-structured interviews.

Notes

1. Refer to section 5.3 for further discussion.
2. Although its role in the economy is diminishing, traditional industry is still prosperous. For example, Dongguan fireworks won the Gold Jupiter prize in the 1986 International Fireworks Competition in Canada (DMBFT, 1988).
3. See DMGERC (1994) for details of the Dongguan government's development strategy for the twenty-first century.
4. The unavailability of data is another reason why this book focuses on these three aspects of infrastructure development in Dongguan.
5. Since Dongguan is located in the middle of the Shenzhen–Guangzhou economic corridor, commuters travelling abroad can use Baiyun international airport in Guangzhou or Huangtian airport in Shenzhen. It take about 30–45 minutes by car from Huangtian airport in Shenzhen to Humen town, and from Baiyun airport in Guangzhou to Shilong town.
6. Shilong is 70 km from Hong Kong, but only 50 km from Macau. The 24-hour operating port and railway terminal is able to handle a million tonnes of freight volume per annum.
7. Road improvements carried out as the total length of all-weather roads increased from 719km in 1980 to 810km in 1985.
8. Dongguan, in fact, had more miles of paved motor road than other counties in Guangdong during the late 1980s (Vogel, 1989, p. 179).
9. The Guangdong Motorway Construction Company has 70 per cent, and Hopewell Holding in Hong Kong 30 per cent, of the 2.28 billion *yuan* equity with a thirty-year contract.
10. However, one carton manufacturer complained about the high cost of locally-operated cargo trucks. Using this service is necessary as factory trucks may not be able to deliver all the finished products to customers on time. Local drivers charge the Hong Kong-bound cargo truck rate of 800–900 *yuan* to transport goods in an 8-tonne truck from Dongguan to Shenzhen. At 2.2–2.8 *yuan*/litre of petrol and 1.8–2.2 *yuan*/litre of diesel, fuel prices in Dongguan are about a fifth of those in Hong Kong.
11. According to the labour laws, it is illegal to work on Sundays. For further details, refer to Chapter 5, pages 186–8.
12. Because of the differences in surcharges levied by local authorities, rural residents in Guangdong pay 1.3 *yuan*/kWh on average, compared with 0.96 *yuan*/kWh in the province as a whole. However, Guangdong province aims to eliminate this price difference by upgrading the rural electric power network and overhauling its system of power administration. The provincial government will invest nine billion *yuan* by 2002 for laying and improving 144 100km of low-voltage transmission lines, 48 200km of high-voltage wire, and the installation of 56 000 transformers. According to the governor, Mr Lu Ruihua, Guangdong will establish a unified electricity charge at 0.79 *yuan*/kWh when the upgrade is completed (SCMP, 1998o).
13. A legal cellular telephone costs about 4000 *yuan* or more, and the monthly subscription fee is a further 150–200 *yuan*. This is equivalent to two months' salary for a factory manager in a foreign-financed firm, or ten months' wages for a migrant worker.
14. Since the labour laws stipulate that the minimum working age is 16 years old, some under-age workers apply for jobs with false identity cards.

15. The majority of interviewees regard female workers as being more suitable in labour-intensive industries, because they think male workers are trouble-makers, getting involved in strikes, fights and other undesirable behaviour. This is especially the case with male migrants of Sichuan and Hunan origin.
16. Based on the consumer price index, the real wages of unskilled and skilled workers have increased by 13–15 per cent over time. Based on the retail price index, the real wages of unskilled and skilled workers have increased by 34–44 per cent over time.
17. Estimated from the quarterly value, the RMB to US$ exchange rate was 1.5143:1 in 1980; 3.0691:1 in 1985; 5.0026:1 in 1990; and 8.2881:1 in 1997.
18. The worker turnover rate has been rising rapidly since 1992, partly because of greater information being made available to migrant workers. Ironically, this is the result of a more developed labour market.
19. Refer to Chapter 5, pages 189–91, for further discussion of the causes and consequence of the war rumour.
20. Refer to section 5.8 in Chapter 5 for further discussion of China's existing labour laws and their implementation in Dongguan.
21. One foreign investor suggested that renting a factory premises is more flexible, since he could move out easily and thus have more bargaining power with the local government: 'For those foreign investors who buy up the land, the local government can eat them up bit-by-bit!' (Field Survey, 1996–97)
22. The original form of P&A are SOEs or collective enterprises which use their surplus production and labour capacities to process or assemble products for foreign investors. The daily managerial and financial power of the firms is still in the Chinese firms' hands.
23. According to one Hong Kong entrepreneur speaking about these days, the party secretary, when treated to a lobster dinner, apparently had never tasted lobster before.
24. As most migrants do not have enough cash to process the application, the firm employing them has to report to and pay the appropriate authorities before deducting the application fees from their wages in instalments.
25. Local people can work for any firm by producing their identity cards before signing an employment contract.
26. The *Regulations on Unemployment Insurance in Dongguan* was implemented from 1 January 1997 onwards. The monthly insurance premium is 1 per cent of the average monthly remuneration of all employees in the firm during the previous financial year (DBS, 1998, pp. 93–7).
27. To stem the inflowing tide of migrants (especially those who lost their homes in the severe floods in 1998) and reduce the numbers of unemployed workers in Guangdong (recently, some 100 000) the provincial government strictly enforced the regulations relating to temporary residence permits (SCMP, 1999a).
28. In Beishan administrative region of Humen town, the Public Security Bureau charges three security fees – village; Beishan administrative region; and Humen township security fees. Each of the thirty-eight McDonald's restaurants in Beijing has to pay thirty-one fees, most of which are unauthorized. According to the investigation conducted by the Beijing mayor's special tribunal, only two of the thirty-one fees are totally justified – such as the US$600–1200 per year trash collection fee – while eight are question-

able and seventeen are illegitimate. For example, the US$360–600 charge a year for 'spiritual civilization', a campaign led by President Jiang Zemin that has covered Beijing in banners telling people to be more civilized (IHT, 1997). In 1998, the central government disciplined 1273 local officials for levying illegitimate miscellaneous fees on enterprises. To improve the investment environment, the central government abolished 973 items of miscellaneous fees with a total value of 45 billion *yuan* per annum, and in 1998 the local governments removed another staggering 26 710 items of miscellaneous fees with a total value of 98.5 billion *yuan*. In six provinces (Guangdong, Jiangsu, Hebei, Henan, Hunan and Sichuan), the items of levied arbitrarily decreased by 30 per cent (HKS, 1999).

29. The central government also exercise backdated charges. In July 1998, the State Administration of Taxation announced that an 8 per cent VAT charge on the export value of import processing P&A firms (*laiyang jiagong*, where P&A firms import raw materials and export finished products on their own account) would be implemented from 1 January 1999. As the new VAT law is backdated by two years, this will have a tremendous impact on the import processing P&A firms (the VAT has not been budgeted in their export prices, since their imports and exports were VAT-free before the implementation of the new law). To circumvent the VAT, the P&A firms can changed from import processing to contract processing (*lailiao jiagong*, where P&A firms manufacture finished goods for clients who import their own raw materials). If the new VAT law is fully implemented, the Guangdong Provincial Foreign Economic and Trade Commission estimates that the backdating of VAT law will wipe off the combined 1997 profits of the import processing P&A firms. However, some analysts estimate that the real impact of this new VAT law would be limited, as most of the P&A firms in the Pearl River Delta are engaged in contract processing. The 'real' impact of the VAT law on import processing P&A firms is dependent on the proportion of materials and finished products that are actually imported and exported, respectively. Because of the slowing down of FDI and the lobbying efforts of Guangdong government, the State Council decided to grant a two-year extension of the so-called 'grandfather rule' (tax relief on VAT). The so-called 'grandfather rule', introduced on 1 January 1994, stated that the import processing P&A firms established before 1994 could have tax refunds for five years if they paid more taxes because of taxation reform at the beginning of 1994. The two-year extension allowed the import processing P&A firms to have refunded any extra VAT they may have had to pay up to 31 December 2000. The extension of VAT concessions to the pre-1994 import processing P&A firms also prevents the implementation of the 'exempt, set-off and refund' VAT calculation uniformly. That is, tax relief is not applicable to the import processing P&A firms established after 1994 as their export VAT is calculated according to the same criteria as that of locally-funded exporters (SCMP, 1998j, 1998m, 1998p).
30. The cost of relationship cultivation varies in different regions, partly because of the degree of willingness of officials in different local governments to accept gifts. The most common way used by Hong Kong entrepreneurs is to send gifts and have dinner with officials during the Lunar Chinese New Year.

31. The local Public Security Bureau does not have the authority to intervene as the People's Armed Police, People's Liberation Army and the Customs are under the direct jurisdiction of the central government in Beijing.
32. Since the cargo is delivered to customers in China directly instead of being exported to Hong Kong and reimported into China, the transferred goods arrangement lowers the transportation costs of foreign-financed enterprises.
33. The transferred goods arrangement imposes further additional administrative costs for firms' final products, which are components of other firms manufacturing process. For example, cartons are the finished product of a paper-printing firm, but just one packing material for other firms. Thus, these firms naturally do not give the customs declaration procedure for the paper-printing firm high priority.
34. The firms have to keep more petty cash for money payoffs and so become a prime target for burglaries.
35. Rumours circulating among factory managers claim that the inspection company shares its profits with the Customs at a ratio of 40:60 (though it is not clear who gets the 60 per cent) in exchange for the exclusive right to operate on the border.
36. Recent Customs rules classify P&A firms into four categories according to their past compliance with the re-export laws and the value of re-exports. The P&A firms classified as lower categories (categories C and D) are required to pay deposits on imported materials. Those P&A companies which dump products earmarked for export on to the domestic market will have their deposits confiscated (SCMP, 1999n).
37. Readers interested in the issue of competitive advantage can refer to Porter (1998).
38. Evidence in other countries also shows that locational advantages in terms of market size, production costs, labour skills, political and economic stability, and the regulatory framework are more important in the determination of TNCs' locations than policy incentives provided by the host countries (South Centre, 1997, p. 2).
39. In fact, wives discourage their husbands from working in China. Despite the wives' fears being well-founded (after a number of high-profile divorce incidents have been reported), the reluctance of Hong Kong people is weakening as almost the whole manufacturing sector, especially electronics, plastics, textile and clothing sectors, relocated to southern China during the 1990s.
40. This point was learned from a discussion with Ms Iris Chan.
41. The foreign exchange rate may also vary among different factories in the same area. As with the miscellaneous changes, it depends on the connections with the local government of factory owners and managers.
42. See Chapter 5, pages 161–2, for further discussion in the role of *feng shui* on locational choices for foreign investment.

5
The Socio-economic Impact of Foreign Investment

In this chapter, the socio-economic effects of foreign investment and its corresponding seven research questions are investigated from the following perspectives: economic structure; regional differentiation of growth; connections, management and competitive approaches of foreign-financed firms; infrastructure and environmental development; industrial safety; living standards and the mentality of local people and migrants.

5.1 Economic structure

In this section, the impact of foreign investment on the economic restructuring of Dongguan is discussed from four perspectives: diversification of industry; geographical agglomeration of industry; decline of agricultural land usage; and the commercialization of agriculture.

Economic restructuring

The dramatic development of the Dongguan economy has led to the establishment of new industries and changes in the economic structure. First, there was the establishment of new industry, in particular from 1990 onwards (see Table 5.1).[1] The newly established industries were confined to the high-technology, skill-intensive sectors. Although it had previously accounted for a meagre 0.2 per cent in the industrial output value in Dongguan, the chemical fibre sector developed into a 97.38 million *yuan* (at 1990 constant prices) industry by 1997. The specialized and measuring equipment sectors developed into 539.63 million *yuan* and 1.42 billion *yuan* businesses, respectively, within a decade. Subsequently, they accounted for 1.1 per cent and

Table 5.1 Percentage share of industrial output value by various sectors, Dongguan, 1980–97 (at 1990 constant prices)

Sectors	*1980*	*1985*	*1990*	*1997*
Labour-intensive, lower-skilled manufacturing				
Mining and forestry	1.42	1.38	0.28	0.31
Food and beverages	28.77	14.22	9.98	3.84
Textiles and garments	6.56	16.03	13.54	16.43
Leather products	0.49	2.53	2.74	5.24
Wood products and furniture	2.53	4.63	2.67	2.24
Paper products and printing	6.58	4.53	4.73	5.35
Sports equipment and stationery	0.91	3.58	3.44	4.51
Rubber products	0.10	0.07	0.59	0.48
Plastic products	1.94	3.19	4.18	6.44
Non-metallic mineral products	6.80	7.75	5.57	4.59
Metal products	2.15	3.74	1.93	3.03
Subtotal	**58.26**	**61.64**	**49.65**	**52.45**
Higher-technology, higher-skilled manufacturing				
Refinery and processing of metal	0.07	0.34	0.32	0.12
Chemical products	6.70	3.18	2.19	1.11
Pharmaceutical products	0.19	0.93	0.86	3.18
Chemical fibres	–	–	0.24	0.20
Machinery	6.13	6.92	5.20	1.11
Specialized equipment	–	–	2.07	1.10
Transportation facilities	0.74	1.19	2.40	0.60
Electrical machinery/equipment	3.99	7.01	7.59	8.29
Telecommunications equipment	0.54	0.64	8.30	17.17
Measuring equipment	–	0.37	0.02	2.90
Subtotal	**18.36**	**20.58**	**29.18**	**35.77**
Other				
Other manufacturing	23.21	17.28	7.32	6.52
Electricity and hot water supplies	0.03	0.07	13.00	4.54
Water supply	0.14	0.43	0.85	0.72
Subtotal	23.39	17.78	21.17	11.78
Total	**100**	**100**	**100**	**100**

Notes: The above figures are calculated with the value of real industrial output, which is smaller than the gross value of industrial output in Dongguan (it includes the output from administrative region, township and city government-owned firms, but excludes the output from WFVs). (Total does not tally because of rounding).
Source: Calculated from DBS, 1998, pp. 245–7.

2.9 per cent, respectively, of the industrial output value in 1997 (DBS, 1998, pp. 245–7).

Second, there was a consolidation of labour-intensive light industry over time (see Table 5.1). In the traditional light industries, such as

textiles and garment manufacturing, the shares in the real value of industrial output peaked in the mid-1980s. The share of textiles and garment industries in the real value of industrial output increased from 6.56 per cent in 1980 to 16.43 per cent in 1997. The significance of leather products, sports equipment (mainly footwear and sportswear) and plastic products (mainly toys) increased in Dongguan. The real output value of sports equipment increased by 380 times, from 5.83 million *yuan* in 1980 to 2.21 billion *yuan* in 1997. Subsequently, it accounted for 4.51 per cent of the industrial output value in Dongguan. The phenomenal rise in the output of sports equipment was relatively insignificant when compared with the 810 times growth of the real output value in leather products, from 3.17 million *yuan* in 1980 to 2.57 billion *yuan* in 1997 (its share in the value of industrial output also increased to over 5 per cent) (DBS, 1998, pp. 245–7).

Third, the 'backbone' industries changed over time (see Table 5.1), and the telecommunications equipment sector replaced the dominant role played by food manufacturing in the Dongguan economy. The 176 million *yuan* of real output value of food manufacturing in 1980 more than doubled, to 415 million *yuan* in 1997, while at the same time the value of industrial output in Dongguan increased by 76 times to 49.03 billion *yuan*. The above figures illustrate a dramatic drop in the proportion of the real output value of food manufacturing in industrial output value from 27 per cent in 1980 to below 1 per cent in 1997 (but the food and beverage sector still accounted for 3.84 per cent of the real value of industrial output in 1997). In telecommunications equipment production, the real output value increased by 2440 times, from 3.45 million *yuan* in 1980 to 8.42 billion *yuan* in 1997. Subsequently, its share in the industrial output value increased from 0.54 per cent to 17.17 per cent (ibid.).

The Dongguan economy was restructured from labour-intensive and lower-skilled light manufacturing into a higher-technology industrial sector which required semi-skilled to skilled labour. This was illustrated by the doubling of the share of higher-technology, higher-skilled manufacturing in the total value of real industrial output, from 18 per cent in 1980 to 36 per cent in 1997 (see Table 5.1). This provides a prima-facie case to support the research proposition on sectoral restructuring in Dongguan.

Geographical agglomeration of industry

There are no available statistics on the value of industrial output by different sectors and towns. The real value of industrial output in the

towns of Dongguan – even if the value of *sanzi qiye* is excluded – is used as a second-best proxy to reveal the geographical agglomeration of industry.

There is a tremendous difference in the real value of industrial output exhibited in the thirty-three towns in Dongguan. Guancheng, the capital of Dongguan, recorded the highest share of the total value of industrial output, accounting for 11.42 per cent (128 million *yuan*) in 1985 and 8.86 per cent (408 million *yuan*) in 1990. The dominant role of Guancheng district was replaced by Changan and Humen towns in 1997 (see Table 5.2). The 4.99 billion *yuan* of real value of industrial output in Changan town – representing 12.31 per cent of Dongguan's industrial output value in 1997 – was 44 per cent higher than the 3.46 billion *yuan* recorded in Humen, the town with the second-highest value. At the other end of the spectrum, Xinwan registered the lowest value of real industrial output between 1985 and 1995 (the lowest value of real industrial output in 1997 was Hongmei). By accounting for 0.3–0.5 per cent of the industrial output value of Dongguan over time, Xinwan recorded a mere 213 million *yuan* of real value of industrial output in 1997. This was about 17 per cent of the average township value, at 1228 million *yuan*. Hongmei and Xiegang were the other two towns in Dongguan that registered less than one percentage point in the industrial output value in Dongguan over time (DBS, 1998, pp. 162, 274).

The externality of geographical agglomeration of industry includes sub-contracting vertical integration and the establishment of complementary industry in Dongguan. Foreign investors are likely to select the area with an established infrastructure and complementary industries. Since a large proportion of output in foreign-financed firms is for export, the agglomeration of industry in the area does not lead to excessive competition for each other's domestic market share. In fact, there is a positive spillover effect of spatial agglomeration of industry on marketing. As mentioned in section 4.6, this is one of the locational advantages pointed out explicitly by foreign investors in Dongguan. For example, Humen town is famous for its fashion, clothing and leather shoe footwear centres (Tiger Industrial City), while the furniture city in Houjie town is popular with both foreign and local buyers.

The decline in agricultural land usage

As a result of industrialization (see Chapter 3, section 3.2), the share of agriculture in the gross value of industrial and agricultural output diminished dramatically, from 67 per cent in 1978 to 4.9 per cent in 1997.

Table 5.2 Real GDP and real industrial output in 33 towns in Dongguan, 1997

Towns/ districts, Dongguan	*Real GDP (based on retail price indices)*			*Value of real industrial output (1990 prices)**		
	Total (millions yuan)	*Per capita including migrants*	*Per capita excluding migrants*	*Total (millions yuan)*	*Per capita including migrants*	*Per capita excluding migrants*
Changan	210	1 302	6 490	4 990	30 929	154 158
Changping	390	2 586	6 496	1 754	11 644	29 249
Chashan	126	1 966	3 327	1 015	15 838	26 797
Dalang	178	1 799	2 999	655	6 625	11 043
Dalingshan	114	1 511	3 126	952	12 638	26 147
Daohao	150	2 272	3 000	1 039	15 733	20 777
Dongkeng	91	1 720	3 290	1 190	22 589	43 198
Fenggang	124	1 515	6 634	1 214	14 839	64 962
Fucheng	215	2 031	4 153	2 001	18 942	38 725
Gaobu	110	2 299	3 409	594	12 456	18 475
Guancheng	160	554	1 105	1 516	5 259	10 490
Hengli	147	3 013	4 654	952	19 516	30 143
Hongmei	43	1 743	2 308	92	3 707	4 908
Houjie	348	1 451	4 156	2 916	12 138	34 776
Huangcun	249	2 977	6 922	1 612	19 308	44 895
Huangjiang	129	2 492	7 566	917	17 664	53 641
Humen	459	2 148	4 778	3 457	16 171	35 969
Liaobu	207	2 099	3 565	643	6 526	11 085
Mayong	117	1 612	1 793	419	5 766	6 411
Qiaotou	195	4 228	6 569	1 094	23 746	36 897

Table 5.2 Real GDP and real industrial output in 33 towns in Dongguan, 1997 *(continued)*

Towns/ districts, Dongguan	*Real GDP (based on retail price indices)*			*Value of real industrial output (1990 prices)**		
	Total (millions yuan)	*Per capita including migrants*	*Per capita excluding migrants*	*Total (millions yuan)*	*Per capita including migrants*	*Per capita excluding migrants*
Qingxi	136	1 206	4 483	1 386	12 313	45 781
Qishi	168	3 218	4 704	888	16 992	24 838
Shatian	104	2 499	3 175	549	13 221	16 797
Shijie	145	2 241	4 231	725	11 203	21 153
Shilong	241	2 891	3 718	1 673	20 035	25 767
Shipai	99	1 759	2 699	660	11 697	17 947
Tangxia	274	2 921	8 511	1 521	16 199	47 195
Wangniudun	65	1 129	1 744	625	10 900	16 842
Wanjiang	125	1 431	2 008	912	10 440	14 654
Xiegang	65	2 030	3 739	468	14 519	26 748
Xinwan	28	1 547	2 019	213	11 934	15 580
Zhangmutou	131	2 556	6 472	1 176	22 981	58 191
Zhongtang	113	1 195	1 692	714	7 525	10 659
Mean	165	2 059	4 107	1 228	14 303	31 664
Standard deviation	94	732	1 878	957	5 904	26 396

Notes: * The value includes outputs of township-owned, administrative region-owned, co-operative and private-funded firms.
Source: Calculated from DBS, 1998, pp. 162, 274.

The inflow of foreign investment increased the demand for factory premises. This resulted in an acceleration of the decline of arable land, since paddy fields are ideal for catering to the excessive demand for flat land.[2] The total area of arable land in Dongguan decreased by more than 50 per cent from its all-time high at 1.49 million *mu* in 1953 to 663 013 *mu* in 1997 (1 *mu* is equivalent to 666.66m^2). Moreover, the average annual decrease rate of area of arable land increased by five times, from –0.56 per cent between 1949 and 1977 to –2.83 per cent between 1978 and 1997. The area of arable land decreased from 1.4 million *mu* in 1949 to 1.2 million *mu* in 1977, before further diminishing to 663 013 *mu* in 1997 (DBS, 1998, p. 205). Coupled with the increase in population, the population density increased by 210 per cent from 277 persons/km^2 in 1949 to 597 persons/km^2 in 1997, while arable land per capita decreased by 450 per cent, from 2.05 *mu* per person in 1949 to 0.45 *mu* per person in 1997. If the number of migrants is included, the population density increased to 1184 persons/km^2 and arable land per capita decreased to 0.23 *mu* per person in 1997.

The diminishing area of paddy fields was faster than the decrease in area of arable land. From the 1.28 million *mu* in 1952, the area of paddy fields diminished by 335 per cent continuously to reach 382 890 *mu* in 1997. Subsequently, the share of the area of paddy fields in the total area of arable land decreased from 89 per cent to 58 per cent (DBS, 1998, p. 205). The average rate of decrease among areas of paddy fields was 3.98 per cent per annum between 1978 and 1997. Apart from the levelling-off of arable land for industrial purposes, there was a reallocation of paddy fields for purposes other than cultivation. This tendency was more pronounced during the 1990s.

Commercialization of agriculture

During the period of rapid industrialization, traditional agricultural areas were transformed into a highly commercialized sector. Even with a double yield per year, the traditional food crops (mainly grains) have lower monetary returns than other crops and practices – for example, fruit growing and livestock rearing. Under the guidance of the market, the output of food crops decreased by 53 per cent, from 529 381 tonnes in 1980 to 246 901 tonnes in 1997, while the output of fruit increased by seven times, from 23 688 tonnes in 1980 to 165 016 tonnes in 1997. As with food crops, sugar-cane production decreased, from 447 318 tonnes in 1980 to 346 469 tonnes in 1997. In per capita terms, the 470kg per person of food crops in 1980 decreased to 168kg per person in 1997, while the 21kg per person of fruit in 1980

increased to 112kg per person in 1997 (see Table 5.3). The per capita value is even lower when the migrant population is included. In fish and livestock rearing, the output of seafood and meat increased by three to four times, from 25 445 and 27 652 tonnes in 1980 to 88 363 and 128 992 tonnes, respectively, in 1997 (DBS, 1998, p. 203). Subsequently, the per capita output of seafood and meat increased, to 60kg per person and 88kg per person, respectively, in 1997.

The productivity of agricultural products also illustrates the sectoral restructuring of the Dongguan economy. On the one hand, the productivity of food crops and sugar-cane decreased dramatically, from 1120kg per person and 1900kg per person in 1980 to 360kg per person and 370kg per person, respectively, in 1995 (see Table 5.3). On the other hand, the productivity of seafood and meat increased from 50kg per person and 60kg per person in 1980, to 110kg per person and 150kg per person, respectively, in 1995. The inflow of capital and

Table 5.3 Major agricultural output per capita and productivity, Dongguan, 1980–97

Major agricultural output per capita (kg/person)	*1980*	*1985*	*1990*	*1997*
Food crops				
Excluding migrants	470	404	375	168
Including migrants	–	–	250	85
Sugar-cane				
Excluding migrants	397	435	409	235
Including migrants	–	–	273	119
Fruit				
Excluding migrants	21	157	214	112
Including migrants	–	–	143	57
Seafood				
Excluding migrants	23	27	45	60
Including migrants	–	–	30	30
Meat				
Excluding migrants	21	27	47	88
Including migrants	–	–	31	44
Major agricultural product productivity (kg/person), 1995				
Food crops	1 120	910	830	360
Sugar-cane	1 900	980	910	370
Fruit	100	350	480	380
Seafood	50	60	100	110
Meat	60	60	100	150

Source: Calculated from DBS, 1998, p. 203.

technology in commercial agriculture in the form of genetic research and the introduction of new species contributed to the increase in productivity in fruit growing, fish and livestock rearing.

The change of diet of the population of southern China also contributed to the commercialization of the agricultural sector. As the living standards of people improve, they consume more seafood and meat but eat less rice (the substitution effect in rice is stronger than the income effect when incomes rise). This explains why there is a continual decrease of production in food crops and a continued increase of production in seafood and meat.

Given the export-led industrialization and commercialization of agriculture discussed above and in Chapter 3, it is suggested that the inflow of foreign investment facilitated the sectoral restructuring of the Dongguan economy, which evolved from a primary into a manufacturing economy.

5.2 Regional differentiation of economic growth

As with other LDCs, economic growth in Dongguan has been rapid but uneven. In this section, the regional differentiation of growth is discussed from four perspectives: the relationship between economic growth and foreign investment, the inter- and intra-township differentiations of growth, and the role of *feng shui* in foreign investment.

Economic growth and foreign investment

As the tremendous economic growth and foreign investment in Dongguan have already been discussed in Chapter 3, the statistical relations between them are only briefly analyzed here.

For intertemporal comparison between 1979 and 1997, all three variables (real GDP, contracted and utilized value of foreign investment) were converted into *renminbi*.[3] The Pearson correlation test indicates a highly positive relationship between the real GDP and foreign investment in terms of contracted and utilized value of investment. The correlation coefficients in real GDP and contracted foreign investment is 0.6498 and 0.9221 in real GDP and utilized foreign investment (99.7–99.99 per cent significance in a two-tailed test). The correlation coefficients are 0.8904 and 0.9291, respectively, if the estimation is based on periods of 1979 and 1995 (the contracted foreign investment decreased dramatically in 1996–7, distorting the value of coefficients). A high level of correlation is expected, as both variables experienced high growth rates over time. This is reflected in the

existence of positive first-order serial correlation (auto-correlation) in the residuals of simple linear regression equations between GDP and foreign investment.[4]

Given the statistically significant positive correlation between the growth in real GDP and the (contracted and utilized) value of foreign investment discussed above and in Chapter 3, it is suggested that the inflow of foreign investment acted as a catalyst for the rapid economic growth of Dongguan after the implementation of economic reform.

Inter-township differentiation

The inter-township differentiation of economic growth is analysed by looking at four variables: real GDP; industrial output; foreign investment; and export value.[5]

In terms of real GDP, Changping and Humen towns each accounted for more than 7 per cent of total real GDP of Dongguan in the 1990s.[6] In 1990, the 134 million *yuan* registered in Changping accounted for 7.5 per cent of the total GDP in Dongguan. Humen took the lead for the three years from 1991 – before Changping town regained the lead, with 256 million in 1994 and 304 million *yuan* in 1995. Apart from Humen and Changping, Houjie town also registered 5 per cent of real GDP over time. Hongmei was the town with the lowest amount of real GDP, accounting for just over 1 per cent (25 million *yuan*) of total real GDP from 1990, until it was replaced by the 0.67 per cent share (28 million *yuan*) of Xinwan town in 1995. In 1997, the share of Xinwan in the total real GDP declined to 0.51 per cent (28 million *yuan*) (DBS, 1998, p. 162).

In terms of real GDP per capita, the pattern of economic growth changed significantly. By achieving a below-average 22 per cent in real GDP, the small population in Huangjiang town pushed its real GDP per capita value to 21 per cent (2492 *yuan*, including migrants) and 84 per cent (7566 *yuan*, excluding migrants) above the average municipal level in 1997 (see Table 5.2).[7] Tangxia was the only other town with its real GDP per capita level (excluding migrants) at twice the amount of the average municipal level in 1997. By showing a slightly below-average 3 per cent in real GDP, the large population in Guancheng district saw its real GDP per capita value (1105 *yuan*, excluding migrants) fall to about 70 per cent below the average municipal level.[8]

As with the real GDP, Changan and Humen accounted for the largest shares in the value of real industrial output in 1997 (see Table 5.2). The 4.99 billion *yuan* recorded in Changan was 54 times higher than the 92 million *yuan* recorded in Hongmei, the town with the lowest value

of real industrial output. As with the real GDP per capita, the per capita value of real industrial output illustrated a different pattern from the total value. By achieving a below-average share of real value of industrial output at 25 per cent in 1997, the small population in Huangjiang pushed its per capita value of real industrial output to 23 per cent (including migrants) and 69 per cent (excluding migrants) above the average municipal level. The below-average municipal level of the real value of industrial output in Hongmei and Mayong towns translated into the lowest per capita value (both including and excluding migrants), respectively. This inter-township differentiation of growth was illustrated by the difference in per capita value of real industrial output value. For example, the 17 664 *yuan* (including migrants) and 53 641 *yuan* recorded in Huangjiang were almost five times higher than the 3707 *yuan* (including migrants) in Hongmei and more than eight times higher than the 6411 *yuan* (excluding migrants) in Mayong.

In terms of foreign investment, the popularity of each town for foreign investors is likely to relate to its real GDP and value of industrial output.[9] On the one hand, Tangxia town accounted for one of the largest shares, at 6.24 per cent (US$37 million) and 11.55 per cent (US$188 million), in the total value of contracted and utilized investment, and occupied a higher proportion of real GDP value (at 5 per cent) in 1997 (see Tables 5.2 and 5.4). About 7 per cent (US$106 million) of the total utilized value of foreign investment was generated in Humen, a town with the largest share of real GDP at 8.42 per cent, and the second-largest share of real value of industrial output at 8.53 per cent in 1997. In per capita terms, the value of contracted foreign investment in Tangxia was 227 (including migrants) and 299 per cent (excluding migrants) above the average township level. On the other hand, Hongmei town accounted for a mere 0.12 per cent (US$710 000) of the total contracted value of investment, and its real GDP and the value of industrial output were well below the average municipal level. With the lowest share of utilized value of foreign investment at 0.12 per cent (US$1.93 million), Xinwan produced the smallest share of real value of industrial output from 1985 onwards and recorded the smallest share of real GDP in 1997. In per capita terms, the contracted value of foreign investment in Hongmei was well below the average municipal level by about 84 per cent, while the utilized value of foreign investment in Xinwan was 82 per cent (including migrants) and 90 per cent (excluding migrants) below the average municipal level (DBS, 1998, pp. 357–8).

Table 5.4 Value of contracted and utilized foreign investment, 33 towns in Dongguan, 1997

Towns/ districts, Dongguan	*Value of contracted foreign investment in* sanzi qiye *(US$)*			*Value of utilized investment in* sanzi qiye *and P&A fee (US$)*		
	Total (US$ millions)	*Per capita including migrants*	*Per capita excluding migrants*	*Total (US$ millions)*	*Per capita including migrants*	*Per capita excluding migrants*
Changan	36	223	1 110	95	588	2 928
Changping	29	193	484	75	496	1 245
Chashan	15	228	386	18	276	467
Dalang	4	44	74	44	448	747
Dalingshan	31	412	853	50	662	1 370
Daohao	2	37	49	44	669	883
Dongkeng	15	286	547	34	641	1 226
Fenggang	5	63	275	114	1 397	6 115
Fucheng	48	451	921	49	467	954
Gaobu	4	78	116	22	451	669
Guancheng	34	119	237	29	101	201
Hengli	8	156	242	33	670	1 034
Hongmei	0.7	29	38	12	480	635
Houjie	22	94	268	56	232	664
Huangcun	2	29	67	115	1 377	3 203
Huangjiang	7	139	422	30	582	1 766
Humen	23	107	238	106	496	1 104
Liaobu	29	298	506	37	371	630
Mayong	0.6	9	10	41	561	624
Qiaotou	5	99	154	33	713	1 108
Qingxi	51	452	1 679	156	1 384	5 145

Table 5.4 Value of contracted and utilized foreign investment, 33 towns in Dongguan, 1997 *(continued)*

Towns/ districts, Dongguan	*Value of contracted foreign investment in* sanzi qiye *(US$)*			*Value of utilized investment in* sanzi qiye *and P&A fee (US$)*		
	Total (US$ millions)	*Per capita including migrants*	*Per capita excluding migrants*	*Total (US$ millions)*	*Per capita including migrants*	*Per capita excluding migrants*
Qishi	8	159	232	30	577	843
Shatian	10	247	314	43	1 030	1 309
Shijie	11	176	332	41	631	1 191
Shilong	3	42	53	10	123	158
Shipai	6	104	159	12	211	323
Tangxia	37	394	1 147	188	2 003	5 837
Wangniudun	1	21	32	7	129	199
Wanjiang	6	63	89	9	103	145
Xiegang	3	99	182	9	290	535
Xinwan	1	79	104	2	108	141
Zhangmutou	10	189	478	34	666	1 685
Zhongtang	56	588	832	8	88	124
Mean	16	173	383	48	576	1 370
Standard deviation	16	145	384	44	430	1 539

Source: Calculated from DBS, 1998, pp. 357–8.

The pattern of export value at township level was similar to the foreign investment pattern. Humen accounted for the largest share of export value at US$401 million (10.73 per cent) in 1997 (see Table 5.5). Qingxi recorded an export value of US$313 million (8.38 per cent,

Table 5.5 Export value of 33 towns, Dongguan, 1997

Towns/districts, Dongguan	*Value of exports (US$)*		
	Total (millions US$)	*Per capita including migrants*	*Per capita, excluding migrants*
Changan	325	2 017	10 052
Changping	225	1 496	3 758
Chashan	30	461	779
Dalang	91	924	1 540
Dalingshan	26	349	723
Daohao	43	655	865
Dongkeng	70	1 320	2 524
Fenggang	175	2 144	9 388
Fucheng	266	2 521	5 153
Gaobu	45	945	1 402
Guancheng	48	168	334
Hengli	17	350	541
Hongmei	15	587	777
Houjie	194	806	2 310
Huangcun	99	1 189	2 764
Huangjiang	44	854	2 595
Humen	401	1 874	4 169
Liaobu	28	287	487
Mayong	85	1 177	1 309
Qiaotou	81	1 760	2 735
Qingxi	313	2 778	10 330
Qishi	17	325	475
Shatian	92	2 215	2 814
Shijie	50	779	1 471
Shilong	54	650	836
Shipai	28	503	772
Tangxia	317	3 372	9 825
Wangniudun	31	549	849
Wanjiang	22	251	352
Xiegang	18	555	1 022
Xinwan	12	688	899
Zhangmutou	164	3 198	8 097
Zhongtang	43	457	648
Mean	105	1 158	2 806
Standard deviation	108	881	3 083

Source: Calculated from DBS, 1998, p. 358.

which is US$12 million below the second highest value of US$355, recorded in Changan) and the second largest amount of utilized value of foreign investment of US$156 million (9.57 per cent) (see Table 5.4).[10] Moreover, Xinwan, recording the lowest amount of export value at US$12 million, also accounted for the lowest amount (US$1.93 million) of the total utilized value of foreign investment. In per capita terms, Qingxi recorded one of the highest values at US$2778 (including migrants, 240 per cent above the average municipal level) to US$10 330 (excluding migrants, 368 per cent above the average municipal level), while Xinwan recorded below-average values of US$688 (including migrants, 40 per cent below municipal average) to US$899 (excluding migrants, 68 per cent below average municipal level) in 1997. Although having the highest export value, the second largest population (just below Guancheng district) in Humen decreased its per capita value to an 'unspectacular' 61 per cent (including migrants) to 49 per cent (excluding migrants) above the average municipal level.[11]

The prima-facie case of positive relations among real GDP, (utilized) foreign investment, real value of industrial output, and export value is verified by its statistically significant positive correlation between the proxies (in both absolute and per capita value, two-tailed tests at 95 per cent level of significance) (see Table 5.6).[12] The positive correlation between export and foreign investment value can be explained by the fact that a greater proportion of foreign-invested projects are export-orientated. Moreover, the positive correlation between the utilized value of foreign investment and other proxies is stronger than the contracted value of foreign investment. This is particularly the case with export value (correlation coefficients of 0.7932 versus 0.5249) and real GDP (correlation coefficients of 0.5077 versus 0.3256). This phenomenon is expected, as the utilized value of foreign investment is the actual amount of investment, while the contracted value is the foreign investment that has not been realized – therefore it has less real effect on the economy.

From the above evidence of real GDP, industrial output, foreign investment and export value, it is undeniable that there was significant inter-township differentiation of economic growth in Dongguan during the 1990s.

Intra-township differentiation

Humen town in Dongguan is used to illustrate the intra-township differentiation of economic growth, both in terms of foreign investment and the real value of industrial output.[13] In terms of foreign investment, Baisha, Shajiao and Longyan were the three administrative

Table 5.6 Pearson correlation coefficients matrix of economic proxies, 33 towns in Dongguan, 1997

Absolute values

	Contracted investment	*Utilized investment*	*Real GDP*	*Industrial output*	*Export value*
Contracted investment	1.0000 P = .	0.4257 P = 0.014	0.3256 P = 0.064	0.4236 P = 0.014	0.5429 P = 0.001
Utilized investment	0.4257 P = 0.014	1.0000 P = .	0.5077 P = 0.003	0.4749 P = 0.005	0.7932 P = 0.000
Real GDP	0.3256 P = 0.064	0.5077 P = 0.003	1.0000 P = .	0.6788 P = 0.000	0.6718 P = 0.000
Industrial output	0.4236 P = 0.014	0.4749 P = 0.005	0.6788 P = 0.000	1.0000 P = .	0.7507 P = 0.000
Export value	0.5429 P = 0.001	0.7932 P = 0.000	0.6718 P = 0.000	0.7507 P = 0.000	1.0000 P = .

Per capita (based on local population only)

	Contracted investment	*Utilized investment*	*Real GDP per capita*	*Industrial output*	*Export value*
Contracted investment	1.0000 P = .	0.5623 P = 0.001	0.3318 P = 0.059	0.4855 P = 0.004	0.6475 P = 0.000
Utilized investment	0.5623 P = 0.001	1.0000 P = .	0.6825 P = 0.000	0.5450 P = 0.001	0.8035 P = 0.000

Table 5.6 Pearson correlation coefficients matrix of economic proxies, 33 towns in Dongguan, 1997 *(continued)*

Per capita (based on local population only)	*Contracted investment*	*Utilized investment*	*Real GDP per capita*	*Industrial output*	*Export value*
Real GDP per capita	0.3318 P = 0.059	0.6825 P = 0.000	1.0000 P = .	0.6404 P = 0.000	0.5898 P = 0.000
Industrial output	0.4855 P = 0.004	0.5450 P = 0.001	0.6404 P = 0.000	1.0000 P = .	0.5006 P = 0.003
Export value	0.6475 P = 0.000	0.8035 P = 0.000	0.5898 P = 0.000	0.5006 P = 0.003	1.0000 P = .

Notes: N = 33.
P = 2-tailed significance.
Source. Calculated from DBS, 1998, pp. 357–8.

regions that attracted the most contracted and utilized value of foreign investment in Humen town in 1995 (see Table 5.7).[14] The US$40 million of contracted value of investment in Baisha was almost ten times above the average township level and much higher than the US$10 000 invested in Yanggang and Nanmian respectively. The US$26 million of utilized investment value in Shajiao and Baisha was approximately six times higher than the average township level and much higher than the US$80 000 recorded in Jiumenzhai. Moreover, the least popular administrative regions for foreign investors are Zhenkou and Beimian, which recorded no foreign investment.

The real value of industrial output of foreign-financed firms reflects the accumulated value of foreign investment in different administrative regions. Apart from Baisha, Shajiao and Longyan – all three had high levels of foreign investment in 1995 – the real value of industrial output of foreign-financed firms in Daning, Beishan, Nanshan and Humenzhai administrative regions was 200 per cent or higher than the average township level (see Table 5.7). The US$10 000 contracted value of investment in Yanggang was a misleading proxy for its attractiveness for foreign investors, as the US$6 million utilized value of investment was 35 per cent above the average township level and the 56 million *yuan* of real value of industrial output of foreign-financed firms was 74 per cent above the township level. This suggested that Yanggang was popular with foreign investors even if its attractiveness may have diminished in recent years. In the case of Zhenkou, it does not have any foreign-financed firms, as it showed a zero value of industrial output in 1995. Xiaojie was the only other administrative region with a zero value of industrial output, but its US$7.7 million of utilized value of investment implied that the foreign-financed firms may not be in production.

In per capita terms, the evidence of intra-regional differentiation of growth is obvious.[15] Longyan is the richest administrative region in Humen town. It had the second highest value in real industrial output per capita (59 582 *yuan*, three times higher than the average township level) and the highest value in contracted and utilized investment per capita (US$11 801, five times higher than the average township level) (see Table 5.7). The agricultural population of 855 in Yanggang was much smaller than the township average at 2278 and this contributed to the highest per capita value of real industrial output of foreign-financed firms at 65 497 *yuan* in 1995. Apart from Zhenkou, Zhencun may be the poorest administrative region in Humen town. The 677 *yuan* of per capita value of industrial output in Zhencun was

Table 5.7 Selected proxies, 26 administrative regions in Humen town, 1995

Regions Humen town	*Value of contracted foreign investment in* sanzi qiye		*Value of utilized foreign investment in* sanzi qiye *and P&A fee*		*Real value of industrial output of industrial output of foreign-funded firms (1990 prices)*	
	Total (US$10 000s)	*Per capita (US$)*	*Total (US$10 000s)*	*Per capita (US$)*	*Total (10 000s yuan)*	*Per capita (yuan)*
Baisha	4 000	7 010	2 600	4 557	15 610	27 357
Beimian	–	–	–	–	320	1 550
Beishan	720	1 970	720	1 970	9 410	25 753
Bochong	18	44	210	508	2 194	5 306
Chigang	200	629	40	126	950	2 986
Cuntou	25	369	150	2 212	825	12 168
Daning	156	748	1 092	5 237	10 539	50 547
Dongfeng	476	4 075	250	2 140	2 480	21 233
Huaide	702	1 406	702	1 406	1 650	3 305
Huangcun	30	652	15	326	345	7 500
Humenzhai	40	123	40	123	10 000	30 665
Jinzhou	45	160	135	481	1 567	5 580
Jiumenzhai	8	71	8	71	2 472	21 876
Juqi	480	4 893	240	2 446	1 200	12 232
Longyan	2 313	11 801	2 313	11 801	11 678	59 582
Ludong	320	1 269	320	1 269	1 680	6 661
Nanmian	1	4	61	271	1 500	6 673
Nanshan	891	2 172	1 332	3 246	14 500	35 340
Shajiao	2 460	5 527	2 610	5 864	6 130	13 772

Table 5.7 Selected proxies, 26 administrative regions in Humen town, 1995 *(continued)*

Regions Humen town	*Value of contracted foreign investment in* sanzi qiye		*Value of utilized foreign investment in* sanzi qiye *and P&A fee*		*Real value of industrial output of industrial output of foreign-funded firms (1990 prices)*	
	Total (US$10 000s)	*Per capita (US$)*	*Total (US$10 000s)*	*Per capita (US$)*	*Total (10 000s yuan)*	*Per capita (yuan)*
Shutian	50	455	50	455	1 415	12 875
Wushansha	30	156	–	–	1 200	6 224
Xiaojie	13	184	770	10 891	–	–
Xinlian	427	4 755	437	4 866	2 780	30 958
Yanggang	1	12	600	7 018	5 600	65 497
Zhenkou	–	–	–	–	–	–
Zhencun	11	196	11	196	38	677
Mean	407	2 265	446	2 483	3 215	17 911
Standard deviation	969	2 808	806	3 238	4 708	18 016

Notes: Per capita value is calculated from agricultural population, since total population figures not available.
Source: Calculated from DBS, 1996a, pp. 509–688.

96 per cent below the township average, while its US$196 contracted and utilized investment value per capita was also 92 per cent below the township average.

As with the proxies in township level, there is a statistically significant positive correlation between the value of foreign investment and the real value of industrial output, in both absolute and per capita values (two-tailed test at 95 per cent of significance). The positive correlation between the utilized value of foreign investment and the value of industrial output at 0.7339 is also stronger than the corresponding coefficient in contracted value of foreign investment at 0.6526. In per capita terms, the corresponding correlation coefficients are 0.5771 and 0.4526.

From the evidence of foreign investment and the value of industrial output, it is obviously that there is significant intra-township differentiation of economic growth in Humen town.

Feng shui: locational advantage or superstition?

The above discussions on inter- and intra-regional differentiation of growth imply a significant effect of locational factors on foreign investment, but there is another unconventional but significant factor that determines the locational choices of Hong Kong investors: *feng shui*.[16]

A number of Hong Kong entrepreneurs claimed that the location of their businesses was partially determined by *feng shui*. To cite a few examples, the owners of the largest foreign-financed enterprise in Daning administrative region of Humen town recruited a fortune-teller from Hong Kong to investigate the *feng shui* before deciding to buy the land and built factory premises. Moreover, the sound rhythm of Cantonese played a significant role in the selection of a foreign investment site. On the one hand, the 'plateau' (*dabande*), an industrial district in Daning Industrialization region of Humen town, sounded like the 'big boss' (*dalaoban*), thus all the industrial land there was brought up by Hong Kong entrepreneurs. On the other hand, 'the front of a village' (*cuntou*), an administrative region in Humen town, sounded like 'a broken head' (*chuantou*), so consequently, it only attracted a few foreign-financed firms. This happened despite the fact that these two places are located approximately a mile from each other and have the same level of accessibility and the same foreign investment policy implemented by the local government.

The above observation is supported by the level of foreign investment and real value of industrial output of foreign-financed firms in Humen town. In 1995, the US$1.56 million and US$11 million of contracted and utilized values of foreign investment in Daning were six

and seven times higher than the US$250 000 and US$1.5 million in Cuntou, respectively (see Table 5.7). The 105 million *yuan* of real value of industrial output of foreign-financed firms in Daning was almost thirteen times higher than the 8.25 million *yuan* in Cuntou.

Despite all the hype of globalization, the ancient beliefs, or, more precisely, superstitions, are still significant in locational decisions made by Hong Kong entrepreneurs. Does this imply that superstitious behaviour is an unorthodox locational advantage for foreign investment? This could be an interesting research topic for further investigation.

5.3 Locally-funded and foreign-financed industries

In this section, the development of locally-funded and foreign-financed industries is discussed, and research propositions on domestic industry and industrial efficiency are investigated.

Transfer of skills and information

As discussed in Chapter 2, the inflow of foreign investment led to the transfer of marketing information, and technical and managerial skills, through collaborative JVs with locally-funded firms. Theoretically, skill enrichment among local workers can improve the efficiency of a local industry.

A decrease in the incremental labour–output ratio of locally-funded firms over time illustrated the improvement of labour productivity in Dongguan.[17] Since 1985, the decreasing tendency in the labour–output ratio accelerated and only stabilized after 1992; for example, labour–output ratio decreased from 1.7958 in 1984 to 0.3522 in 1991, and then to 0.1855 in 1995. Even here there is no direct evidence to state that the decrease in the labour–output ratio is related to the diffusion of skills from foreign-financed firms. The dramatic decrease in the labour–output ratio after 1984 coincided with the increased inflow of foreign capital in the forms of EJV and P&A described in Chapter 3. Moreover, the competition between locally-funded and foreign-financed firms contributed to the improvement of labour productivity.

The stationing of expatriate technical staff in Dongguan was vital for skill transfer, particularly during the early stages of production. For example, a Hong Kong-funded P&A nylon belt manufacturer in Shilong town had several Hong Kong technicians stationed in the firm during the first two years of its production before local workers were able to master the necessary manufacturing skills. Once the local people had absorbed the technical skills and information on sourcing

and marketing, some of them established their own venture businesses and locally-funded new industries were formed. The development of the carton manufacturing sector in Xiegang town represented a classic case of the establishment of a locally-funded industry through demonstration effects. After having worked in a Hong Kong-funded carton manufacturing firm for several years, the former factory manager established his own firm with loans from his relatives and friends. The success of the locally-funded firm further crowded-in other foreign-financed and locally-funded complementary and substitute industries until the market was saturated with stiff competition. Consequently, five (two Hong Kong-financed and three locally-funded) carton factories were established in Xiegang town after 1991.[18]

Furthermore, the successful example of a locally-funded industry invited 'copy-cat' ventures from local governments and entrepreneurs. One locally-funded plastic bag manufacturer in Yantian administrative region of Fenggang town diversified into the food service sector after witnessing the successes of other foreign-financed restaurants in the city centre. To maximize the floor space of the restaurant and minimize operation costs, the plastic bag manufacturer set up his office inside the restaurant, which was probably a good idea for marketing, and business meetings with his potential clients.

Given the significant improvement in labour productivity and the establishment of new locally-funded industries in Dongguan (discussed in section 5.1, pages 141–3), it is suggested that the inflow of foreign investment leads to the improvement of industrial efficiency by introducing competition, new skills and technology. It also assisted the development of domestic-funded industries in Dongguan through demonstration effects.

Crowding-in versus crowding-out

Theoretically, the inflow of foreign investment promotes economic growth in the host country and encourages more capital inflow. In Dongguan, the inflow of foreign investment contributed to economic growth and crowded-in SMEs in the 1980s, while the growth in the 1990s crowded-in large-scale firms but at the same time crowded-out some SMEs.

As discussed in Chapter 3, the average value of P&A investment per contract was below US$40 000 before 1987, and the value did not rise above US$300 000 until 1993. Although the average value of EJV per contract was much higher than the P&A, with the exception of 1983, it did not reach US$1 million during the 1980s. The predominance of

small-scale investment was crowded-in by the ethnic networks, connections and the demonstration effects of successful examples of small-scale P&A investment in Dongguan during the early 1980s. The success of the localized industrial city, developed from the 'Hong Kong SME model', also encouraged the inflow of capital for complementary and substitute industries, which intended to emulate this success. For example, a Hong Kong-funded P&A printed paper box manufacturer decided to invest in Tangxia town because of a recommendation from another Hong Kong investor and the establishment of local industry.

A textbook case-study of crowding-in complementary industry is provided by a Hong Kong-funded P&A PVC cable manufacturing and a joint Swiss–Hong Kong-funded P&A spark plug cable assembly firm, which shared the same factory premises in the Daning administrative region of Humen town. At the suggestion of the PVC cable firm's owner, a Switzerland-based TNC teamed up with another Hong Kong-based trading firm to establish an assembly firm in Humen. The electric cable manufactured by the PVC cable firm on the lower floor is assembled assembled with the imported components in the spark plug cable firm upstairs before being exported to Europe. As the product quality reached the strenuous standards set by the TNC, the firm expanded dramatically at the end of 1997 (having been established for less than six months) by means of imported automated machinery from Europe, and moved into new factory premises nearby.[19]

With sustained economic growth, the average size of foreign investment in Dongguan increased to US$2 million for EJV and US$3 million for CJV and WFV during the 1990s. In the case of P&A, its average investment value per contract was still less than US$500 000 during the 1990s. The sources of foreign investment diversified from being Hong Kong-based to being Taiwan-, Japan- or Europe-based. Nestlé Coffee in Guancheng district, and Duracell and Nokia in Huangcun district are some examples of large-scale European and American-based investment in Dongguan.

In the Longyan administrative region of Humen town, the first foreign-financed firm was established in 1978. This was the third foreign-financed factory established in Dongguan; by 1997, it had 120 firms employing 30 000 migrants. The economy was dominated by SMEs before being replaced by large-scale foreign investment after 1986. A number of pioneer foreign-financed firms developed rapidly over the last fifteen years, for example, companies started with ten sewing machines eventually having 200 sewing machines and employ 2000 workers. In the late 1990s, a number of small-scale firms have

closed down, while large-scale firms have expanded their production capacities.

SMEs' successes leading to their demise

With the falling prices of exports and rising production costs, the profit margins of foreign-financed firms (especially the SMEs) have diminished dramatically since 1994. The decline in the export price was the result of stiff local and national competition. For example, there were more than 3000 foreign-financed and locally-funded toy manufacturers in Guangdong province, with most of them being exported-orientated. Competition came also from large-scale SOEs in Shanghai and Jiangsu as their manufacturing skills improved.

The exceptionally high percentage of loss-making foreign-financed firms in Dongguan painted a grim picture. In 1995, 46 per cent of Hong Kong-funded or Taiwan-funded *sanzi qiye* were in deficit, and 38 per cent of the other *sanzi qiye* shared the same fate (DBS, 1996a, p. 242). It is speculated that a certain proportion of foreign-financed SMEs belong to this group of loss-making firms. Moreover, the loss-making *sanzi qiye* can be classified as 'real' and 'unreal' cases. The 'real' loss-making firms were either involved in the new investment projects (which were not expected to be profitable in the first few years of production) or firms actually losing money.[20] The 'unreal' loss-making cases were firms deliberately under-reporting their business turnover for purposes of tax-evasion or expansion of market share.[21] For example, the owner of a Hong Kong-funded firm in Tangxia town admitted that he does not have to pay tax though under-reporting. The under-reporting of some foreign-financed firms can partly be reconciled with the incompatibility of the large proportion of loss-making firms and the high amount of production value-added associated with Hong Kong-funded and Taiwan-funded *sanzi qiye*. The polarization of performance by foreign-financed firms can also partially be explained by the high amount of production value-added of Hong Kong-funded and Taiwan-funded *sanzi qiye* at 3.23 billion *yuan* in 1995, more than twice those in collective firms (the average production value-added per Hong Kong-funded and Taiwan-funded *sanzi qiye* at 384 000 *yuan* was also much higher than the collective at 105 000 *yuan*) (ibid.).

In these circumstances, the demise of SMEs was induced by their spectacular success during the late 1980s and the early 1990s, which invited competition from locally-funded and foreign-financed industry via demonstration effects. The foreign-financed SMEs crowded in complementary and substitute foreign-financed and locally-funded indus-

tries during the 1980s which were, in turn, crowded-out by competitors from the mid-1990s.

Ironically, the backbone of the newly established large-scale firms in the 1990s were the local people who had worked for the successful Hong Kong-funded SMEs in the 1980s. They acquired the skills, technology and information about suppliers and customers over time before working as managerial personnel in other firms or establishing their own. This, in fact, emulated the development of entrepreneurship in Hong Kong since the 1950s, when a group of Shanghainese (textile) entrepreneurs emigrated to Hong Kong. Hong Kong Chinese people worked in Shanghainese textile firms and learned the skills. Through positive spillover effects, this contributed to the establishment of the textile and clothing industry in Hong Kong during the 1960s and 1970s.

5.4 Connections and management of foreign-financed firms

The specific relationships between connections (ethnic networks and personal connections) and management of foreign-financed firms, and the research proposition on connections are discussed from three perspectives: the roles of factory managers; the backlash of connections; and the expatriate managerial staff.

The unique roles of factory managers

Rather than taking care of daily production, the main task of factory managers in P&A or CJV firms is to act as the middle-person between foreign-financed firms and local governments; for example, to take care of various miscellaneous charges levied by local governments and to deal with the Customs authorities. In one typical case, a small-scale Hong Kong-funded P&A carton manufacturing firm in Xiegang town employed five people to deal solely with Customs officials and carry out other administrative chores with the local government. The owner 'knows that their function is to tackle bureaucratic red tape'. (Field Survey 1996–97). Thus the factory manager has a part-time superficial job which usually requires no more than two hours of work per day on average but the manager receives a full-time remuneration of ten times that of an unskilled worker – 3000 *yuan* per month for a factory manager versus 300 *yuan* per month for a worker.[22]

Factory managerial positions are usually monopolized by relatives or close friends of high-ranking officials in the local government: it is a

game all about power and connections.[23] For example, the children of a village CCP secretary in Humen town were able to work as factory managers and treasurers in the largest foreign-financed firm, although they had only primary education and no previous relevant work experience. The village's party secretary also rented his factory premises to a Hong Kong-funded firm and worked there as the factory manager. This explains why a number of factory managers are farmers-turned-managers with little formal education or relevant work experience, and why the overwhelming majority of foreign owners are extremely reluctant to decentralize their managerial and financial power to these factory managers. In fact, a large proportion of foreign-financed firms forbid their factory managers to be involved in the day-to-day management of the company.

It must be emphasized that there are some exceptional cases, where factory managers performed their tasks well. For example, the factory manager of a Hong Kong-funded P&A nylon-belt manufacturer in Shilong town worked full-time in his firm and was even willing to reduce his salary to help the firm to overcome financial difficulties. In this case, the ethnic connections of the owner worked, since the factory manager was his uncle.

Backlash of personal connections

Rather than lend a helping hand, however, ethnic connections can be counter-productive when egoism or materialism becomes paramount. The treasurer of a P&A electric-wire manufacturing firm in Humen town cheated the firm out of tens of thousand of *yuan* by deceit using balance sheets and a cheque book. The Hong Kong owner was forced to sack the treasurer, his elder brother, after his partner withdrew from the venture. In another P&A PVC-cable manufacturing firm in Humen town, the former treasurer was the younger brother of the Hong Kong owner. He stole money by systematically altering the amounts on cheques. To prevent a total breakdown of the relationship, he was dismissed but his wife and her relatives were allowed to continue working in the firm.

Having the right connections facilitates the gaining of supplier and customer information, but the nepotism of factory managers or owners who employ relatives and close friends may have the following negative consequences:

- *Partisan treatment* (promotion and punishment) *and insufficient supervision* though favouritism. When factory managers and other

employees are relatives, it is very difficult to manage the firms impartially without using 'face-saving' measures. For example, how are the workers found sleeping on the nightshift to be punished without turning off the machines?

- *Lack of job responsibility*, since employment is not based on competence. For example, the technicians of plastics injection machines do not keep records on the amount of colouring agent added to the plastics raw materials, resulting in products with verying colours. Despite having relevant qualifications, the office clerk declared herself 'illiterate' and the accounting clerk told her boss that she 'doesn't know accounting' when a Hong Kong-funded plastics products firm owner asked them to perform some office duties (Field survey, 1996–97).[24] The reluctance of Chinese workers to shoulder responsibility naturally makes it difficult for expatriate technical and managerial staff to assess the level of comprehension of new technology and manufacturing skills (Child, 1994, p. 256).[25]
- *Poor production planning*. Because of poor quality control during production, the assistant factory manager of a P&A plastic-toy manufacturer assigned workers to produce twice the amount of components required. Within a year, the small-scale firm had accumulated 100 tons of surplus parts.
- *Fraud*. Without the prior knowledge or permission of owners, factory managers earn pocket money by selling raw materials and semi-finished products declared to be 'discards'. The 'discarded' items may be perfectly serviceable, or may be used with slight modification during production processes – for example, re-dying a zipper from blue to black.

In the light of the above examples, it is no longer surprising to find that the ownership of a small-scale (75 workers) Hong Kong-funded P&A jeans laundry firm in the Beishan administrative region of Humen town had changed hands six times in a decade.

Expatriate managerial staff

Apart from the potential consequences of nepotism by relying totally on factory managers, the shortage of managerial personnel in China has necessitated expatriate (Hong Kong) managerial staff being stationed in Dongguan. The shortage is particularly pronounced with regard to managerial personnel with experience in export-orientated businesses where quality control and production efficiency are the prime concern: 'Constant supervision of workers is required,

otherwise they can simply sit there or go to other production lines and watch their colleagues working' (Field Survey 1996–97). Nepotism is another difficulty in the recruitment of local people to manage foreign-financed firms. For example, 'How can you expect them to punish the workers when some of them are their relatives!' (Field Survey 1996–97). Obviously, the centralization of administrative and financial power of foreign investors and the shortage of qualified managerial personnel in Dongguan are inter-related: 'how can I delegate power to them as they can easily make a mess out of it!' (Field Survey, 1996–97).

The experience of a Hong Kong-funded P&A plastic-toy firm in Beishan administrative region of Humen town demonstrates the necessity of appointing trusted managerial staff. The firm did not appoint expatriate staff in Dongguan and the factory manager was responsible for the day-to-day administration. Apart from employing his relatives to work in the firm, the newly recruited assistant factory manager from Heyuan in Guangdong played mahjong with other workers inside the accommodation block during the nightshift.

However, some large-scale foreign-financed firms with sound management were able to recruit competent personnel in Dongguan. For instance, a fashion manufacturing firm in Changan town – an EJV between a publicly-listed company in Hong Kong and the Changan External Economic Development Company – adopted a 'hands-off' approach by delegating all financial and administrative power to the factory managers. Both of the managers are local with tertiary education and have more than ten years' of work experience in the clothing sector. The factory manager submitted a monthly report to the Hong Kong company, and senior managerial and technical staff from the Hong Kong EJV partner visited the firm periodically. With the assistance of Hong Kong staff, the firm's productivity and the quality control of its clothing met the strenuous standards required by the Hong Kong partner, who sold the high-value-added brand-name fashion in its franchised retailer outlets located in Asia, Europe and the USA.

The evidence presented above and in section 4.4 of Chapter 4 suggests that the inflow of foreign investment enhances the role of connections in Dongguan's society, as a large proportion of foreign (overseas Chinese) investors regard the *guanxi* game as being to their competitive advantage. No matter how vital its roles are, connections in terms of kinship and personal networks are definitely not a sufficient condition for successful investment in Dongguan. Instead of circumventing bureaucratic red tape, total reliance on personal connections can be counter-productive and lead to nepotism and even fraud.

5.5 Competitive approaches of foreign-financed firms

To survive increases in competition, foreign-financed enterprises generally implemented some of the following competitive approaches.

Conventional versus unconventional human resource management

To improve product quality and productivity, the well-financed and well-organized foreign-financed firms introduced systematic management and quality control mechanisms in their manufacturing bases in Dongguan. Apart from the commonly used piece-rate remuneration, two EJV clothing manufacturers in Changan and Shilong adopted the total quality management (TQM) approaches and ISO-9002 certification procedures in production.[26] Every newly recruited worker had to have received fifteen days to a month of mandatory training before being allowed to work.

Another Hong Kong-funded P&A printing firm in Tangxia town was able to maintain its profitability, and improve on productivity and quality control by retaining such skilled workers. The stringent quality control (for example, a less than 1 per cent fault rate) was achieved through the use of fully automated machines and constant supervision by four Hong Kong technicians stationed in Dongguan. A very low rate of worker turnover was achieved by dispensing 13.5 months' wages every year – one month's extra wage as a year-end bonus and the other half month as a New Year bonus when migrant workers reported back to work after the Chinese New Year. This bonus is paid to anyone who had worked in the firm for one year or longer. With such an excellent remuneration package and good work environment (including an air-conditioned shop floor), about 95 per cent of workers returned to work after the Chinese New Year.

To offset the increase in labour costs and maintain workers discipline, a Hong Kong-funded P&A leather handbag manufacturing firm in Changan town introduced an unorthodox human resource management strategy by employing a large proportion (60 per cent) of male migrants as workers, including in the sewing department.[27] Since there are fewer job vacancies for male workers than for females, the turnover rate and wages for male migrant workers are lower. As mentioned above, most firms are reluctant to employ male workers as they tend to fight with each other over trivial matters. To reduce the chance of potential conflicts among male workers, the firm also employed four security guards with Shaolin martial arts training at a salary of 800 *yuan* a month each. In any occurrence of physical fighting among the workers, the factory manager would invite the troublemakers to

fight with the security guards. This was not only an excellent way to make workers think twice before engaging in a fight, but also an effective means of deterring outside troublemakers. Furthermore, total labour costs were lower, since the lower wages of the 250 male workers were more than enough to offset the higher wages payable to the four security guards.

Wage retention versus bottom-up communication

Apart from repaying the advanced payments for the processing of various permits on behalf of workers, wage retention is commonly employed by foreign-financed firms as a deterrent to prevent workers resigning without giving notice. Some firms with insufficient foreign exchange also use the high worker turnover rate as an excuse for delaying the payment of workers' wages.

According to informed officials and factory managers, the illegal retention of workers' wages for between one and three months exists in 80 per cent of foreign-financed firms. This phenomenon exists despite the fact that the firm is liable to pay 1 per cent interest on the overdue wages from the sixth day of the following month onwards as compensation for workers. Article 14 of the *Guangdong Regulations on Workers Rights 1994* also stipulates that workers can claim 5000–50 000 *yuan* in compensation if their wages are overdue by more than three consecutive months.

The experience of an EJV clothing manufacturing firm in Changan town illustrates how effective communication between managers and workers can maintain product quality, improve productivity and reduce the rate of worker turnover. A regular meeting between factory managers and worker representatives every Thursday night provided a channel for workers to air their opinions. This has resulted in an improvement in entertainment facilities and the quality of food in the staff canteen. Even more important has been the harmonious and informal relationship established between the management and manual workers. There was little conflict between migrants from different ethnic groups, which can be a problem for many foreign-financed firms. As a result, the firm was awarded the Best Employer Award by the Changan External Economic Development Company in 1996. Furthermore, the factory manager and production manager were swift to disperse war rumours by promising, 'I would be the first person to run away if there was a war' (Field Survey, 1996–97).[23] The cultivation of a sense of belonging within the firm also helped to reduce the turnover rate of workers.

Subcontracting and restructuring

To compete with capital-rich, large-scale firms, some SMEs expanded their production facilities (usually in the form of the subcontractual and pseudo integration discussed in Chapter 4) to achieve economies of scale and diversification of products. In the manufacturing of plastics products, the benefits are the huge discounts in bulk purchasing of raw materials (HK$6.6 per kg versus HK$9.9 per kg for plastics); lower unit costs of transportation (HK$10–15 per carton versus HK$40–50 per carton); and a longer debt payment period (120 days versus 60 days). The 30–80 per cent saving on raw materials and transport costs and the longer debt payment period allowed the SMEs with less foreign exchange and capital to compete with the large-scale firms with abundant capital.

The Hong Kong-funded P&A audio-speaker manufacturing firm in the Daning administrative region of Humen town is a successful example of restructuring. Three technicians established the firm in 1982 with a 100 000-*yuan* investment. It shared a single floor of a factory with another firm. The firm expanded rapidly, bought 100 *mu* of land in Daning at a bargain price during the 1980s, and built more than ten factories, accommodation blocks and other buildings (1 *mu* = 666.66m^2). At the time of writing, the firm supplies up to 80 per cent of the Southeast Asian audio-speaker market. It has also diversified its investment into IC units and other audio products, which have been exported to Hong Kong, Canada and the USA, and took over other complementary firms to obtain the advantages of vertical integration. To fund further expansion, the owners planned to list the company on the Hong Kong Stock Exchange. Within a decade, it had developed from a humble, small-scale firm with twenty workers into the largest foreign-financed firm in Daning, employing 6500 workers. With its in-house entertainment and other supporting facilities, such as a cinema, roller-skating rink, *Karaoke* room, restaurant, canteen and clinic, the firm functioned like a small city.

Product up-grading and the exploration of niche markets

When low-value-added, labour-intensive firms up-grade production to high-value-added and skilled-intensive goods, the locally-funded firms are unable to compete in a niche market. The rationale is to tilt the product-competitive advantage against the locally-funded competitors as they usually have less stringent product quality controls. For example, a Hong Kong-funded P&A soft-toy manufacturer in Laiobu town upgraded to skill-intensive and higher-value-added products by

targeting the market for fashionable toys (for example, bean-bag stuffed toys), especially with electronic components (for example, stuffed toys that can dance and sing). Since the electronic components (microchips, IC units) were manufactured in Guangdong, it was easier for the firm to source locally at lower cost. Moreover, their SOE competitors in Shanghai and Jiangsu were producing traditional soft toys only, and were not technically sophisticated enough to equip their toys with electronic components. As one foreign investor said: 'It's impossible to compete with the large-scale firms financed by local governments on the low-end products. No matter how hard you cut the production costs and lower your profit margin, you just don't have the capital to compete with them!' (Field Survey 1990–97). For instance, the price of a mini hi-fi music centre declined from US$400 to US$60 within five years because of competition from Great Wall Industry (a SOE).

To explore product flexibility (the dynamics of developing a new product quickly and being able to manufacture a small quantity of samples within a short time), some SMEs diversified and developed niche market products with higher profit margins to serve the TNCs – for example, computing and telecommunications peripheral products for IBM, Nokia and Thomson. A Hong Kong-funded EJV electronic and quartz watch manufacturer in the Yantian administrative region of Fenggang town was able to secure the OEM contracts for GCC, Timex and Casio. To pave the way for bigger and more profitable orders in the future by maintaining a good relationship with their clients, some SMEs accepted low profit margins (a higher volume of orders to cover the lower profit margin) or non-profitable orders from major buyers, especially during the off-peak periods. Even if the orders are not profitable, they can cover the normal operating costs of the firm – for example, workers' wages, food and accommodation.

However, firms targeting the niche market without the capital to expand their production capacity (and thus being unable to accept large orders once the product is marketable) are unlikely to maintain their competitiveness because: (i) the TNCs or other capital-abundant firms will enter the market once it is profitable to produce at volume; and (ii) other SMEs will pirate the product and the profit margin will drop dramatically.

Pirating and cheating

Some SMEs take a greater risk by producing pirated or counterfeit products. The most extraordinary example of 'turn-around' in Dongguan

was a Hong Kong toy manufacturer. He pirated the popular Japanese *tamagotchi* portable electronic 'virtual pet' when he owed more than HK$4 million to banks, and his wife was demanding a divorce.[29] He was able to secure an order for 5000 samples of electronic pets from the Japanese Bandai Company. By altering the original production contract to 5000 dozen and then photocopying it, he used the altered documents to export the products to other traders. He only stopped the production lines when the ruse became public knowledge, and representatives from the Bandai Company teamed up with Customs officials to inspect the factory. Within six months, he had not only repaid all his debts but had also earned tens of millions of dollars from the 'virtual pets'.

Witnessing the reversal of the firm's fortunes, other foreign-financed manufacturers exploited the original virtual pet's patent loopholes and modified the 'content' of the games to earn quick profits by changing the pets from chicks to puppies, kittens or even dinosaurs. One informed Hong Kong entrepreneur estimated that up to 30 per cent of Hong Kong-funded SMEs in Dongguan produced pirated goods or products with designs copied occasionally from other patented products. Unfortunately, it is very difficult to verify this claim as there are 9608 foreign-financed firms in Dongguan.

A number of SMEs used other tricks, such as changing their company names and registering as new foreign investment projects (sometime encouraged by government officers), to continue enjoying the tax-free 'holiday' and other privileges (Thoburn *et al.*, 1990, pp. 145–9). However, these tricks do not work all the time. For example, the higher capital requirement imposed on new investment projects and the phasing out of the tax-free 'holiday' lowered the incentive for the 'name changing' game.

Other foreign investors adopted a cautious 'wait-and-see' attitude. Because of their contractual obligations, such as rental contracts on factory premises and venture contracts with Chinese partners, foreign investors will not close down their businesses unless suffering intolerable financial losses in consecutive years. They will try to remain in business and 'hope for the best' for the future.

5.6 Infrastructure

In this section, two particular issues of infrastructure development – bottlenecks and efficiency – in Dongguan, and the research proposition on infrastructure are discussed.

Can the bottleneck be overcome?

The bottleneck in the infrastructure experienced in Dongguan during the late 1980s and early 1990s may resurface, given the tendency in the late 1990s towards a growth in demand by foreign investors and the local population. This was especially true in the case of the road system. As mentioned in Chapter 4, the improvement in and construction of new motorways led to an unprecedented improvement in accessibility: the motorways in Dongguan accounted for more than half of the total length of all first-grade motorways in Guangdong.

As with other DCs, however, there is a saturation point beyond which further development of motorways will lead to a negative marginal benefit and an increase in traffic congestion. The greater the number of motorways the government builds, the greater the incentive for the public to own cars, as long as their wealth continues to grow. The less-than-efficient public transportation system further aggravates potential problems in Dongguan.

This grim scenario apparently built up in Dongguan as the number of privately-owned vehicles in Dongguan expanded by 516 times between 1978 and 1997: motorcar ownership increased by 166 times, from 623 in 1978 to 103 425 in 1997; while motorcycle ownership leapt by 2142 times, from 134 in 1978 to over 287 076 in 1997 (DBS, 1996a, p. 337; 1998, p. 306). In terms of vehicle ownership ratios, four persons per vehicle (fourteen persons per car and five persons per motorcycle on average in 1997) in Dongguan was as high as in other DCs.[30] The explosive growth rate of vehicle ownership can be divided into three periods. In the first stage, the very low base figures led to a high growth rate but overall vehicle ownership was still low in 1978 and 1979; for example, 1005 persons per motorcar and 7182 persons per motorcycle in 1979. In the second stage, the highest growth rate, both in absolute number of vehicles and ownership rate, was recorded between 1980 and 1984. The explosive growth rate of motor vehicle ownership coincided with the first stage of a series of large-scale motorway improvements and construction projects during the early 1980s. By 1984, the motor vehicle ownership rate had reached about 200 persons per vehicle. In the third stage, motor vehicle ownership continued to rise steadily from 1985 onwards. The dramatic increase of motorcycle ownership resulted from motorcyclists working as drivers to transport passengers or cargo between different towns. It must be noted that all the above figures exclude unregistered vehicles, in which the origin of the vehicle is unknown – for example, via smuggling. It is difficult to estimate the

impact of unregistered vehicles on transport networks as the exact number of such vehicles is unknown.

Unlike Shenzhen, which no longer issues new licences for motorcycles, Dongguan does not regulate their explosive growth.[31] The lax enforcement of traffic regulations has further led to chaotic scenes in the busy streets of every city or town centre, where severe traffic congestion is common.[32] Overloading (for example, four adults riding on a motorcycle without helmets) and driving on the wrong side of the road were the most common offences against traffic regulations, but the traffic wardens ignored it. A lack of maintenance by the privately-owned 'squatter transport companies' was one of the major causes of an increase in traffic accidents.[33] Under these circumstances, it was not surprising to find that there were 4103 cases of traffic accidents, which led to 789 deaths, 4150 injuries and 12.47 million *yuan* of economic loss in 1997 (DBS, 1998, p. 401).

Efficiency

As mentioned in Chapter 4, the unprecedented development of the infrastructure in Dongguan was partly contributed by the development efforts pursued by township governments. This is especially the case with electricity generation, where most towns in Dongguan have their own power plants. The independent development of power plants has lowered the financial burden of the municipal government and improved the electricity supply in a relatively short time. However, the benefit from economies of scale in power generation is unlikely to be attained in a number of small-scale power generation plants scattered all over Dongguan. In one extreme case, Yantian administrative region of Fenggang town has its own reservoir (with a capacity of 12 million m^3) and three electricity plants with a total capacity of 50 000 kW, but the plants are too small in sizes to reach the economies of scale in electricity generation. This can be partly explained by the relatively higher electricity charge at 1.1 *yuan*/kWh in Yantian.

As discussed in Chapter 4, the inflow of foreign investment accelerates the infrastructure development in Dongguan, particularly in energy, transportation and telecommunications. The developed infrastructure in turn attracts more inflow of foreign capital. However, the rapid development of infrastructure has its long-term problems, which need to be recognized. For example, the improvement in accessibility has led to unregulated growth in the ownership of motor vehicles and thus further aggravated traffic congestion.

5.7 Environment

To evade the stringent environmental legislation in their home countries, the *dependencias* argue that TNCs use FDI to exploit the lax enforcement of environmental laws in the host countries (Hecht, 1985). As the 'Tragedy of the Commons' hypothesized by Hardin (1968) suggests, resource misallocation (externalities) in the form of environmental degradation in LDCs is usually the result of undefined property rights in public goods. Moreover, environmental degradation can be caused by the private maximization of net present value of profits (Clarke, 1974). That is, the objective of profit-orientated TNCs is to maximize short-term revenues. This results in environmental degradation.

Market failure: counting the cost of rapid industrialization

Years of rapid industrialization and urbanization have generated massive pollution in China. Exceeding the World Health Organization (WHO) standards by two to five times, the particulate and sulphur levels in major Chinese cities are among the highest in the world. The mortality rate from chronic obstructive pulmonary diseases (the leading causes of death in China) is five times higher in China than in the USA (IBRD, 1997a, pp. 6, 17–18). The World Bank estimates that the effects of pollution in China are as follows (IBRD, 1997a, p. 2):

- 178 000 people in major cities die prematurely every year
- 7.4 million work-years are lost every year due to health damage related to air pollution
- Water pollution heavily contaminates 52 out of 135 monitored urban river sections
- Acid rain in southern and south-west China pollutes 10 per cent of its land area and reduces crop and forestry productivity by 3 per cent
- Air and water pollution lead to US$54 billion (about 8 per cent of GDP in 1995) of economic loss per annum.

In Dongguan, the market failed to deliver its price signal in the land market. The result of perceived short-term, or even instant, monetary gain turns out to be an excess supply of land reclaimed from agriculture for industrial and residential purposes. One government official revealed that the vacancy rate of residential buildings in Humen town

is between 40 per cent and 60 per cent. A visual survey in Humen and other towns in Dongguan verifies this claim.

Excess supply in real estate markets has resulted in a declining supply of arable land since the mid-1980s. In Dongguan, the rapid reduction in arable land has contributed to the demise of the cultivation sector in a number of towns. Most, if not all, of the paddy fields in the Daning administrative region of Humen town were reclaimed and there are only a few commercial fish ponds left in the whole village. A similar situation occurred in Longyan as most of its 200 *mu* of arable land had long been converted for industrial or residential usage.

The negative externalities of large-scale and rapid land conversion projects are the loss of fertile arable land and dependency on foreign investment. Since the paddy fields are the most fertile arable land in the Pearl River Delta, some critics may point out that the industrialization of Dongguan is at the expense of food self-sufficiency. The importing of more than twenty tonnes of food (mostly grains) every year into Dongguan supports this argument. Most of the paddy fields and fish ponds have been converted for industrial purpose in Zhencun, a relatively poor village of Humen town. However, the strategy of foreign investment backfired, as it attracted only two foreign-financed firms to invest in the region. The local government was thus forced to rent some of the idle land to migrants for sweet potato cultivation, but the yield is low as the land is no longer fertile after reclamation.

Carrying capacity versus collective dumping

Industrial wastewater treatment is the area in which Dongguan has recorded the greatest improvement. Within a decade, the proportion of treated wastewater increased threefold, from 16 per cent in 1985 to 47 per cent in 1995, before declining to 16 per cent in 1997 (see Table 5.8). It must be emphasized that the official report does not mention the treatment of residential wastewater before emission; therefore the proportion of treated wastewater reported here is likely to be lower than the reality. None the less, this figure was still much better than that for China as a whole, where less than 7 per cent of wastewater in cities was treated in 1996 (IBRD, 1997a, p. 6). The proportion of treated industrial wastewater was even more impressive: it increased by more than four times from 18 per cent in 1985 to 83 per cent in 1995, before declining to 53 per cent in 1997 (DBS, 1998, p. 400). Obviously, the existing wastewater treatment facilities had reached its full capacity (49 million tonnes) in 1996 and it is no longer able to handle the increasing volume of wastewater discharged every

Table 5.8 Pollution in Dongguan, 1985–97

Type of pollution	*1985*	*1990*	*1997*
Wastewater (10 000 tonnes)			
Total wastewater emission	3 100	5 259	29 370
of which industrial wastewater	2 686	4 124	8 930
Treated industrial wastewater	486	1 655	4 718
% of total	15.68	31.47	16.06
% of industrial wastewater	18.09	40.13	52.83
Industrial exhaust gas (100 million m^3)			
Total exhaust gas emission	34	307	738
of which industrial exhaust gas	34	307	718
Treated exhaust gas	20	301	678
% of total	58.82	98.05	91.87
% of industrial exhaust gas	58.82	98.05	94.43
Industrial waste (10 000 tonnes)			
Total industrial waste	16	112	124
Treated industrial waste	8	2	1
% of total	50.00	1.79	0.81

Source: Calculated from DBS, 1998, p. 400.

day. The improvement of treated industrial wastewater was offset by the increased discharge of non-industrial sewage water between 1990 and 1997. The industrial wastewater discharge more than doubled, from 41 million tonnes in 1990 to 89 million tonnes in 1997, while the corresponding non-industrial sewage water discharge increased by about 19 times, from 11 million to 204 million tonnes, respectively. The improvement of wastewater treatment was partly contributed by Environmental Protection Agency policy, which affected all new investments in environmentally polluting industries located in Shatian town. The existing polluting firms, such as vacuum coating and dyeing, are scheduled to move gradually into Shatian town.[34]

The increase in exhaust gas emission has also been dramatic. The emission of industrial exhaust gases increased by nine times, to 30.7 billion m^3 in 1990, before increasing further to 73.8 billion m^3 in 1997 (see Table 5.8). The corresponding proportion of treated exhaust gas increased from 59 per cent in 1985 to 98 per cent in 1990, before diminishing slightly to 92 per cent in 1997. Moreover, the 280 000 vehicles in Dongguan are another obvious source of pollution, which have not been included in the above figures. Poor maintenance of a large proportion of vehicles and the lax enforcement of regulations on the emission of exhaust gases from vehicles further aggravates the

extent of air pollution.[35] Thus, the above high proportion of treated industrial exhausted gas does *not* reflect accurately the air quality in the city.

The exceptionally high proportion of untreated industrial waste dumped in Dongguan is another area for concern. Contrary to that of the emission of polluted water and gases, the proportion of treated industrial waste decreased, from 50 per cent in 1985 to less than 1 per cent in 1997 (see Table 5.8). In other words, nearly all the 1.24 million tonnes of industrial waste were discarded without treatment. This happened even though the Solid Waste Disposal Regulations in Dongguan specify types of landfill and anti-toxic methods of industrial waste disposal (DBS, 1998, pp. 115–17). In fact, the amount of treated industrial waste fell from 80 000 tonnes in 1985 to 10 000 tonnes in 1997. This suggests that the government may simply allow untreated industrial waste and sewage sludge to be dumped into landfill sites.[36] If this is the case, it is likely that some of the waste contained heavy metals or toxic chemicals and may be polluting underground water through permeation.[37]

The difference in the magnitude of the treatment of pollutants is related to the laws implemented by central government: the earlier the implementation of environmental protection laws, the better the regulation on the emission of pollutants. The Water Pollution Prevention and Control Law and Air Pollution Prevention and Control Law were promulgated in 1984 and 1987, respectively. Further amendments were made to include regulations on sulphur dioxide in the air in 1995; and to add provisions regarding river basin pollution and tougher regulations on drinking water protection in 1996. Moreover, the first-ever Ninth Five-Year Plan for Environment Protection for 2010 was approved by the State Council in 1996. It laid down benchmarks and guidelines to improve the environment in the twenty-first century, by, for example, phasing out leaded petrol by 2000 and closing down the heavily polluted TVEs (more than 60 000 TVEs have been closed). Compared with regulations on air and water pollution, the Solid Waste Pollution Prevention and Control Law was not promulgated until 1995 (IBRD, 1997a, p. 7). This partially explains why pollution from solid waste in Dongguan is such a serious problem.

Although the government has already implemented comprehensive regulations to protect the environment, rapid industrialization and urbanization leads to environment degradation as the dumping of pollutants outstrips the operating capacity of treatment facilities in Dongguan. The level of pollution in Dongguan is likely to be reduced, provided that the central government laws are fully implemented.

Awareness of the local governments: a tale of two villages

The development strategies employed by villages A and B in two different districts illustrate the impact of policy on local economic and environmental development.

Both villages are regarded as wealthy in Dongguan. Village A is slightly smaller in area than village B, with a population of, just over 2000, compared to 2800 in village B (see Table 5.9).[38] The development strategy pursued by village A can be called 'economic growth at all costs' and resulted in a doubling of gross value of industrial output and foreign investment within three years. The gross value of real industrial output doubled from 55 million *yuan* in 1993 to 105 million *yuan* in 1995 – the value of industrial output from P&A increased from 35 million *yuan* to 65 million *yuan*, while the output value from *sanzi qiye* increased from 20 million *yuan* to 40 million *yuan* at the same time.

Table 5.9 Villages A and B, Dongguan, 1993 and 1995

	Village A		*Village B*	
	1993	*1995*	*1993*	*1995*
Population (persons)	2 052	2 085	2 780	2 824
Arable land (*mu*)	805	112	4 934	4 811
Food production (tonnes)	203	99	74	487
Grain (tonnes)	203	99	60	332
Number of foreign-financed firms	33	42	330	334
P&A	22	24	N/A	310
sanzi qiye	11	18	N/A	24
Number of employees	5 100	19 500	14 607	20 200
Gross value of industrial output (10 000 *yuan*; 1990 prices)	5 500	10 539	6 850	14 002
P&A	3 500	6 522	N/A	6 021
sanzi qiye	2 000	4 017	N/A	7 981
Contracted value of foreign investment (US$10 000)	60	156	4 302	2 686
P&A	60	156	N/A	1 769
Utilized value of foreign investment	454	1 092	3 526	1 395
P&A	454	1 092	2 880	902
Value of foreign exchange creation	454	633	2 124	6 177
P&A	454	633	1 571	1 921
No. primary schools	1	1	1	2
No. teachers	13	13	44	385
No. students	320	385	991	2 207
No. graduates	40	42	135	253

Source: Compiled from DBS, 1996a, pp. 509–688.

The contracted value of foreign investment also increased, from US$600 000 to US$1.56 million, while the utilized value of foreign investment increased from US$4.54 million to US$10.92 million. The number of employees in the forty-two foreign-financed firms jumped three times, to 19 500 in 1995. That is, the number of migrant workers in village A was nine times higher than its local population of 2085 in 1995.

The growth-orientated development policy implemented by village A has had its environmental costs, however. The village is relatively small in size and its supply of flat land limited. To meet the excessive demand for industrial land, the local government reclaimed arable land. Consequently, arable land decreased by 700 per cent, from 805 *mu* to 112 *mu* within three years, and the amount of grain production decreased by 50 per cent to 99 tonnes in 1995 (see Table 5.9) (1 *mu* = 666.66m^2).

To speed up the construction of factory premises, the local government in village A used bulldozers to raze a cemetery several years ago and converted it to industrial land. After the notification period expired, the workers simply dumped all unclaimed gravestones into a big hole and topped it off with cement.[39] The razing of a cemetery and dumping of graves are extremely disrespectful acts to ancestors in Chinese society. In ancient times, this punishment was reserved for people committing the most serious crimes.[40] By carrying out this desecration, the government of village A not only took a great risk of facing public reprisals in the future, but the act also reflects the short-sighted, money-minded attitudes of the bureaucracy: earning hard cash today is apparently much more important than respecting ancient traditions and preserving the cultural heritage.

The development strategy pursued by village B can be termed 'planned sustainable growth'. The philosophy of long-term food self-sufficient is built into the local government development policy. The government reserves one *mu* of arable land per local resident for cultivation. In 1995, the 4811 *mu* of arable land in village B was equivalent to 1.7 *mu* per capita, much higher than the 0.05 *mu* per capita in village A (see Table 5.9). Food production in village B increased by six times to 487 tonnes (of which 332 tons were grains) in 1995, partly because of the recruitment of migrants for agricultural work.

Village B also invested heavily in education. After the opening of new kindergarten, primary and secondary schools in 1995, the number of teachers and students in primary schools increased dramatically, to 385 and 2207, respectively (see Table 5.9). Apart from providing relatively low-cost education (500 *yuan* per month) for every local resi-

dent's child, village B also provided quality education for expatriates' children. In fact, the majority of 2207 primary students in village B are expatriates' children, although they have to pay 15 000 *yuan* monthly tuition fees plus a further 150 000 *yuan* refundable deposit.

Despite the dramatic differences in development strategies, the economic growth in village B is as impressive as in village A. The real value of industrial output in village B doubled, from 68 million *yuan* in 1993 to 140 million *yuan* in 1995 (see Table 5.9). The number of workers employed by foreign-financed firms was 20 200, six times higher than the local population in 1995. After the first factory was established in 1980, it developed into a small industrial town with 334 P&A and *sanzi qiye* in various manufacturing sectors – for example, handbags, furniture, toys, plastics and metal products, textiles and clothing, gems and jewellery, paper carton products, electronics, watches and clocks, and so on.

In terms of the average number of workers and output value per firm, foreign-financed firms in village B are much smaller than their counterparts in village A. In village B, the average number of workers per firm was sixty and the average output value per firm 419 222 *yuan* in 1995 (see Table 5.9). This was significantly smaller than the 464 workers per firm and 2.5 million *yuan* of output value per firm in village A. This was because village B developed earlier and nearer to Hong Kong and had a large number of small-scale Hong Kong-funded P&A firms (310 in total) and a small number of large-scale *sanzi qiye*. This explains why foreign investment and foreign exchange creation in village B was much higher than village A. In 1993, for example, US$43 million of contracted foreign investment and US$35 million of utilized foreign investment in village B, versus US$600 000 and US$4.54 million in village A, respectively.

Although there were signs of a slowing down in the inflow of foreign capital in village B, partly because of the increased costs of production, the contracted and utilized value of foreign investment at US$27 million and US$14 million in 1995 were still impressive for a village with fewer than 3000 local population – that is, US$9500 of contracted investment per capita and US$4900 of utilized investment per capita.

5.8 Work environment and industrial safety

In this section, three aspects of the work environment and industrial safety – the work environment; training and awareness of workers; and working hours – and a research proposition concerning labour abuse are investigated.

Productive versus unproductive facilities

The work environment of the factories ranges from appalling to excellent. It is usually positively related to the investment scale. Small-scale firms with limited capital thus make concessions in 'non-essential' or 'unproductive' investment in factory premises, such as the sanitary conditions of toilets and safety devices on machinery, while the large-scale firms that have more capital are generally more willing to invest to improve the work environment of their factories.[41]

In the best case, the shop floor is as organized and clean as in any model firm in the DCs. For example, several Hong Kong-funded EJV and P&A clothing manufacturing firms in Changan, Humen and Shilong towns forbid workers to wear their own shoes to enter the shop floor (to avoid soiling). All workers must wear factory uniforms and worker identity cards in the workplace. Workers clean the floors and regularly take away discarded components from the production lines. In fact, a Hong Kong-funded P&A children's clothing manufacturing firm was designated by the Labour Bureau as being one of the three cleanest factories in Humen town. Its famous brand-name children's sweaters are exported to Italy, France and other European countries. The rationale for keeping the shop floor clean and tidy is twofold: (i) it gives a good impression to foreign visitors; and (ii) it can lower the substandard product rate, as clothing is easily soiled. The owner of the factory emphasized that 'the cost of losing a contract by giving an impression to foreign buyers that our product quality control is as poor as the dirty work space is much higher than the cost of keeping the work environment clean and tidy' (Field Survey 1996–97). In addition to imposing punishments, usually in the form of a fine, for those who violate the regulations, these firms also teach every newly recruited worker about industrial safety, work environment and job responsibility during the training period. This partially explains why large-scale locally-funded or foreign-financed firms usually have fewer industrial accidents.

In the worst case, in a P&A metal products firm in Fenggang town, the odour from toilets could be smelt metres away, while discarded packing papers and unused components were littered all over the shop floor. The Hong Kong owner claimed that 'the migrants are farmers and thus used to living in appalling sanitary conditions. The flush toilet is a luxury for them' (Field Survey 1996–97). Several female assembly workers routinely spit on the dusty work floor and no one forbids it.[42] Naturally, the chaotic situation increases the chance of avoidable industrial accidents; for example, workers could easily

become entangled and trapped by nylon packing belts discarded all over the shop floor. Moreover, conditions in the accommodation block were as bad as in the work space, being equipped with only the barest of essential furniture – the beds. Other things that are generally regarded as necessities in every home in China, such as mosquito nets, have been omitted to save costs. Obviously, the appalling working conditions contributed to the high worker turnover rate and low productivity of the firm.

Worker training and safety awareness

According to Article 10 of the *Guangdong Regulations on Workers Rights 1994*, all firms have a responsibility to conform to the regulations on fire and work space safety and provide training on industrial safety for all workers. In reality, however, some firms economise on expenditure on these 'unproductive' activities.[43]

After a number of workers were burnt to death in several dramatic fire accidents in the late 1980s, the Fire Safety Laws were amended to require the segregation of accommodation, warehousing and the work space; for example, they must be located in different blocks of the factory premises.[44] To comply with the fire safety regulations, each firm must have at least two staircases for fire exits. However, there is a general lack of knowledge and awareness about industrial safety among migrant workers and some factory managers. This is the case even though the government requires all factory managers to pass a series of examinations on labour and fire safety regulations.[45] A leather handbag manufacturing firm was fined for locking one of its fire exits. With little or no proper training on industrial safety, the predominance of migrant-farmers-turned-workers in the labour-force contributes to the relatively high rate of industrial accidents. The Ministry of Labour reports that 70 per cent of all industrial accidents happening in China result from insufficient training of workers. This situation is particularly alarming in the handling of dangerous chemical substances (FEER, 1998a, p. 48).

Probably the most astonishing and terrifying experience encountered by the author was in the metal products firm in Fenggang mentioned above. The lack of safety awareness of the local and migrant workers in the firm is illustrated by two horrific examples. First, an electrical technician removed a broken electric ceiling fan without turning off the power. He told the author 'it isn't a problem to do so' and then demonstrated how to unwrap the live electric cables one by one and reattach them to the replacement fan in the same way

(Field Survey 1996–97).[46] Second, a technician used his bare hands to reattach a loose rubber belt on a metal drilling machine, again without turning off the power, and with the machine's fly wheel still rotating at high speed. It all seemed to be like a real-life reconstruction of 'how not to do it' television programmes demonstrated in a factory by specially trained technicians. Under the physical strain of 14–16 working hours a day for five consecutive days, three workers (one male and two females) injured their fingers and hands, two of them needing hospital treatment. Another worrying feature was the empty first-aid box. Instead of going to the hospital, the injured man used a plaster given by a kind colleague to cover his wound, plus a piece of string to keep his finger from bleeding before starting work again. Moreover, the first-aid box was still empty after another male worker's left palm had been partially severed when he was operating a heavy duty metal-pressing machine without a safety device just one week earlier. After the tragedy, the poor migrant worker pleaded with his boss to transfer him to another position rather than dismiss him. Obviously, the regulations on industrial accidents implemented by the Dongguan government were not observed in this case (DBS, 1998, pp. 111–14).[47]

There is no official record on industrial accidents in Dongguan. According to the Guangdong Social Insurance Bureau, more than 3000 workers (most of them migrant-farmers-turned-workers) in all kinds of firms in Guangdong had their fingers or limbs severed in 1996. In some P&A firms, there have been more than ten crippling industrial accidents within a year (HKS, 1997e). The actual and unofficial figures may be even higher, as the official figures excluded the victims who were not hospitalized.

Working hours

According to Articles 12, 13, 14 and 16 of the *Guangdong Regulations on Workers Rights 1994*, workers can work for eight hours a day and six days a week. Overtime work must be on a voluntary basis and for no more than four hours a day or forty-eight hours a month. In the case of additional overtime work, the firm must obtain prior approval from the local Labour Bureau. Overtime work must be paid at 150 per cent of the average daily wage, while working from 22:00 to 6:00 and during holidays or at weekends must be paid at 200 per cent of the average daily wage. In addition to national holidays, such as the Chinese Lunar New Year, workers are entitled to take paid leave for marriage, maternity and bereavement.

As with the other regulations on fire and worker safety, not every firm complies with the Labour Laws, although there are regular inspections by the Labour Bureau. Regular inspections conducted during official hours are ineffective, especially on the violation of overtime work. For example, the factory manger of a nylon-belt manufacturing firm in Shilong town admitted that his firm was operating twenty-four hours a day on two shifts. Another factory manager of a plastic-toy firm in Humen town admitted that workers *work seven days a week and overtime 365 days a year*. The workers complained that they do not even have leisure time to watch a movie during the weekend. A notice was placed inside another electric wire manufacturing firm in Humen town: 'Workers must clean up the shop floor and accommodation block as the annual inspection is imminent' (Field Survey 1996–97). Firms can prepare in advance and put that house in order just before the expected inspection date.

The violation of Labour Laws on overtime work is common in Dongguan. This is the case even for some medium- to large-sized foreign-financed firms, as it is always more cost effective for firms to order workers to work overtime during the peak season than to employ more workers and then lay them off during non-peak periods. If new workers are recruited rather than existing workers working overtime, operation costs are higher for training, quality control and miscellaneous charges (as this is determined by the number of workers).

Apart from the employers' aim of minimizing operational costs, it is more important that most migrant workers are *willing* to work overtime as long as they are paid.[48] Based on a random sampling survey of 1500 workers, the Guangdong General Workers' Union claims that 61.8 per cent of workers are working seven days a week, and 42.1 per cent of them are working ten hours or more every day.[49] Moreover, it is reported that Guangdong was ranked at the top of the industrial casualty rate in China (Zhen, 1994). In fact, a large proportion of workers, especially migrants, are unaware of their rights. Even though some of them know of the existence of the Labour Laws, the majority simply tolerate what they have as they do not want to lose their jobs by confronting employers or complaining to the Labour Bureau.

Although delay in payment of wages is illegal and investigators from Labour Bureau know of this widespread phenomenon, the local government does not dare to intervene and implement the Labour Laws rigorously as it cannot resolve the dilemma between legal implementation and the attractiveness of foreign investment.[50] The government knows that existing labour conditions are far from ideal and that the

Labour Laws must be rigorously enforced, but the government is afraid of inhibiting foreign investors if this is done. Therefore, the government compromises by reacting only after receiving complaints rather than by assisting the firms to improve their work environment. As long as there are not many complaints, the Labour Bureau will not investigate. Moreover, the Bureau usually inspects a model firm but does not investigate less good ones as it is easier to write reports about good firms.

The tolerance of violation of laws and regulations may have far-reaching implications for the perception of lawlessness as it sets a bad precedent for the selective implementation of laws. Since the laws are not uniformly implemented, it is possible for foreign investors to move around different regions from time to time to explore their 'competitive advantages'.

The levels of labour abuse and industrial accidents are far from satisfactory in Dongguan. However, the cause of labour abuse is not entirely the fault of 'exploitative foreign investors', as portrayed by the *dependencias*. The characteristics of foreign investors, the labour market and the political economy in Dongguan all play significant roles. In fact, it can be argued that the foreign-financed firms with good working environments contribute to the promotion of industrial safety in Dongguan. In 1996, the Ministry of Labour reported that there were 235 deaths and 342 injuries in foreign-financed enterprises in China (208 deaths and 264 injuries in 1995), excluded mining accidents (FEER, 1998a, p. 48).[51] The casualty rates in China of industrial accidents in foreign-financed firms are much lower than the corresponding figures for Guangdong alone. This implies that locally-funded firms have much higher casualty rates in industrial accidents. The relationship between labour abuse and the inflow of foreign investment is not a 'black-and-white' issue, therefore the *dependencias* argument is not sound.

5.9 Mentality of migrants

The mentality of migrants in Dongguan is represented by the money-orientated culture and their responses to war rumours.

Money-orientated culture

The money-orientated culture of migrants is illustrated by the fact that they travel hundreds to thousands of miles from their native villages to find jobs with a decent income. Remuneration in the form of wages

and bonuses, and other information, such as working hours, holiday days and work environment are the dominant topics of conversation between migrants: For example, 'firm A pays ten *yuan* more a week' or 'the work load in firm B is not demanding'. Naturally, workers aim for easier and higher-paid jobs, but some of them overestimate their work capabilities.

Foreign investors find the 'take it easy' mentality of migrants frustrating. 'The more you work, the more you earn. But the harder I work, the more mistakes I make. Thus, it is better to take it easy so no mistakes will be made!' (Field Survey 1996–97). Constant supervision and quality control during production is required. To maintain high output quality, a Hong Kong-funded P&A children's fashion firm in Humen town employed the 'one-to-one product quality control' method: 150 workers sewing while another 150 workers stand nearby to constantly check the product quality and return substandard products to the worker immediately.[52]

War rumours

As mentioned briefly in section 4.3 of Chapter 4 the war rumours in southern China had devastating effects on the production of some firms. There are several versions of the rumour and the following is synthesized from the interview scripts and an article in the *Far Eastern Economic Review* (FEER, 1997a).

The war rumour started in April 1997 and originated from a Taiwanese with origins in Dongkou in Hunan province. The Taiwanese called his native village and told his relatives that China would wage a war in the Pearl River Delta with England in May 1997, since the latter was reluctant to give up the sovereignty of Hong Kong. As a result, the Dongkou villagers urged their children to return home immediately.[53]

Apart from the information vacuum and an enduring belief in British belligerence, the massive exodus of migrants was exacerbated by a series of war games – badly timed and unexplained military manoeuvres and anti-illegal-emigration drills by Chinese forces on land and at sea. In mid-March 1997, a convoy of 100 heavy-duty military vehicles affiliated with the army garrison to be stationed in Hong Kong drove unannounced through the main street of Dongguan, probably to deliver weapons to its garrison in Shenzhen. Moreover, there had been a number of high-profile anti-illegal emigration and anti-smuggling exercises carried out by the People's Armed Police in Guangdong since October 1996. This 'evidence' was interpreted by migrants as preparation to retake the sovereignty of Hong Kong by force. In April 1997, the

People's Armed Police forcibly sent all migrant workers in Sha Tau Kok (the border city of Hong Kong) home on three months' 'vacation', apparently to prevent them from crossing the border illegally after 1 June (FEER, 1997a, pp. 14–15). The forced 'repatriation' of migrants during the peak manufacturing season was naturally interpreted by migrants as a final preparation for war with the British.

By fanning the flames of panic, some unscrupulous business people regarded this as a golden opportunity to get rid of excess staff and earn quick profits by selling advance bus tickets on 'departure express' journeys (ibid.). The rumours were further sustained by the three-month holiday (starting on 15 May 1997) in some Taiwanese-funded firms in Shenzhen, apparently to clear up the stockpiling in warehouses.[54] The rumours spread rapidly to Dongguan, and subsequently most workers from Hunan resigned.

Many migrants left Dongguan immediately by giving up their unpaid wages, while others packed their belongings in readiness. The worker turnover rate estimated by me during the war rumours period (10–60 per cent) is compatible with the one (10–80 per cent) obtained by Bruce Gilley in Guangdong and Fujian. The three sports shoe manufacturing factories of the Taiwanese-funded Yue Yuen Industrial Holdings in Guangdong, the largest subcontractor for Nike, Reebok and Adidas, reported a quadrupled monthly turnover rate of workers to 20 per cent after March 1997 (ibid.). More than ten Sichuan and Hunan workers out of its seventy-five persons workforce resigned in a Hong Kong-funded P&A jeans laundry firm in the Beishan administrative region of Humen town. To counteract the potential large-scale holiday leave by other workers, the factory manager demanded concrete evidence from those workers' native villages (for example, details of a sick parent) before allowing them to take leave.

According to an official in the Guangdong General Trade Union, it was estimated that the monthly worker turnover rate among the four million registered migrant workers in Guangdong had doubled, to about 10 per cent, because of the rumours. As the actual number of migrants in Guangdong was estimated to be around ten million, it was suggested that up to 500 000 frightened farmers may have fled in two months (ibid.). The local governments, Public Security Bureau and factory managers held urgent meetings and tried to break the rumours by placing advertisements on television and carrying out public briefings for migrants. These measures enjoyed limited success. Ironically, the well-informed local people were not concerned by the matter at all.

As the majority of migrants refused to believe the local government, several desperate Hong Kong entrepreneurs asked the editor of a Hong Kong newspaper, the *Oriental Daily*, in May 1997 to write an article to dispel the war rumours. Since smuggled copies of the newspaper were circulated widely in southern China, it was able to allay the fears of some migrants (ibid.). Some factory managers dispersed the war rumours by showing the migrants news broadcasts from Hong Kong. The massive departure of migrants from Hunan eventually stabilized, because no war erupted in June. The rumours were proved not to have any basis when the Hong Kong television news later reported that President Jiang Zemin of China would attend the July handover ceremony in Hong Kong.[55]

5.10 Mentality of local people

Under the era of rapid economic growth sustained by foreign investment, Deng Xiao-ping's dictum 'to get rich is glorious' is usually interpreted in Dongguan as 'to get rich *quickly* is glorious'. This mentality among Dongguan's people and its potential social effects are discussed in this section.

Living standards

The '10 000-*yuan* household', when the capitalized value of one's assets reached 10 000 *yuan*, used to be the dream for every Chinese during the 1980s. At the start of the twenty-first century, the 'million-*yuan* household' is not uncommon, as illustrated by the tremendous increase of savings in Dongguan. The total amount of private savings in banks increased by 787 times, from 54 million *yuan* in 1978 to 42.58 billion *yuan* in 1997 (DBS, 1998, p. 365). In terms of savings per capita (based on local population), it increased by 590 times, from 49 *yuan* per person in 1978 to 28 944 *yuan* per person in 1997. Even the base value is very low, the 40–43 per cent of average annual growth rate of saving in total and in per capita value respectively is very impressive by any standard (the lowest annual growth rate is about 30 per cent).

The official survey results of fifty households in Dongguan illustrate the improvements in living standards of the local people between 1985 and 1997 (see Table 5.10). In a decade, the average annual income per capita jumped by 14 times, from 791 *yuan* to 11 032 *yuan*, while the average annual expenditure per capita also increased by 12 times, from 689 *yuan* to 8309 *yuan*. The share of basic wages in total income decreased from 76 per cent in 1985 to 58 per cent in 1990, before

increasing to 74 per cent in 1997. The share of non-basic wages in total income rose to 42 per cent in 1990. This suggests that the bonus and other forms of revenue occupy a significant proportion of income, which is expected, as the amount of bonus is tied-in with the performance of workers, as is common in foreign- and locally-funded firms in Dongguan. Among the nine categories of expenditure, the share of expenditure on food decreased from 72 per cent in 1985 to 44 per cent in 1997, while the share on transportation increased, from a mere 0.58 per cent to an all-time high of 11 per cent. The increasing rate of shares of expenditure for housing, clothing, entertainment and education ranged from 70 per cent to 1200 per cent.

Analysing the ownership rate of durable goods sheds more light on the changing expenditure pattern than the figures presented above. Once a 'three musts' symbol of wealthy modern Chinese households during the 1980s, the ownership of a television, a washing machine and a refrigerator was so common that they were owned by every household in Dongguan by 1997 (see Table 5.10). The 1980s symbols of 'essential' household appliances seem to have been replaced by new favourites in the 1990s: air conditioners, video recorders, hi-fis, and personal computers. The ownership rate of air conditioners jumped from sixteen units per 100 households to 100 units per 100 households in seven years. Furthermore, the symbol of wealth among Dongguan people because the motor vehicle. Over seven years, the ownership rate of motor vehicles increased from six to 126 per 100 households – that is, some households have more than one motor vehicle. Undeniably, the living standards of local residents have improved dramatically since the 1980s.

'To get rich quickly is glorious'

In terms of income, the local population can be divided into three groups: low-income, medium-income and high-income. According to the official survey in 1997, the 19 283 *yuan* of average annual income per capita of the high-income group, was two and three times higher than that of the medium-income group at 9989 *yuan*, and the low-income group, at 6496 *yuan* (see Table 5.11).[56] The differentiation of living standards among different income groups is clear when the expenditure–income ratio is considered. At 5631 *yuan*, the average annual expenditure per capita of the low-income group is about 86.68 per cent of its average annual income per capita in 1997. The expenditure–income ratios of the medium- and high-income groups are 75.06 per cent and 71.53 per cent, respectively.

Table 5.10 Major indicators of living standards of local population, Dongguan, 1985–97

	1985	*1990*	*1997*
Average annual income per capita (in *yuan* and current prices)			
Basic wage/salary	603	1 459	8 204
	(76.23%)	(58.17%)	(74.37%)
Other income, such as bonuses	188	1 049	2 828
	(23.77%)	(41.83%)	(25.63%)
Total	**791**	**2 508**	**11 032**
	(100%)	**(100%)**	**(100%)**
Average annual expenditure per capita (in *yuan* and current prices)			
Food	493	1 296	3 681
	(71.55%)	(63.59%)	(44.30%)
Clothing	28	95	593
	(4.06%)	(4.66%)	(7.14%)
Housing	58	87	880
	(8.42%)	(4.27%)	(10.59%)
Household appliances and services	48	154	435
	(6.97%)	(7.56%)	(5.24%)
Medical and health	14	41	415
	(2.03%)	(2.01%)	(4.99%)
Transportation and telecommunications	4	31	917
	(0.58%)	(1.52%)	(11.04%)
Entertainment	18	168	491
	(2.61%)	(8.25%)	(5.91%)
Education	3	73	448
	(0.44%)	(3.58%)	(5.39%)
	23	93	449
Miscellaneous	(3.34%)	(4.56%)	(5.40%)
Total	**689**	**2 038**	**8 309**
	(100%)	**(100%)**	**(100%)**
Ownership rate of durable goods (per 100 households)			
Colour television	22	92	116
Video recorder	–	–	58
Hi-fi	–	14	68
Refrigerator	22	84	106
Washing machine	56	54	108
Air conditioner	–	16	100
Electric fan	212	388	344
Telephone	–	–	96
Personal computer	–	–	22
Motor vehicle	2	6	126

Notes: The data on average annual expenditure and income per capita are based on the survey results of 50 households conducted by the government over time.
Sources: Calculated from DBS, 1996a, pp. 467–71; 1998, pp. 377–8.

Table 5.11 Major indicators of living standards of various income groups, local population, Dongguan, 1997

	Income groups		
	Low	*Medium*	*High*
Average annual income per capita (in *yuan* and current prices)			
Total	**6 496**	**9 989**	**19 283**
Average annual expenditure per capita (in *yuan* and current prices)			
Food	2 940	3 609	4 691
	(52.22%)	(48.13%)	(34.01%)
Clothing	444	445	1 236
	(7.89%)	(5.93%)	(8.96%)
Housing	459	440	2 765
	(8.13%)	(5.87%)	(20.05%)
Household appliances and services	322	451	463
	(5.72%)	(6.02%)	(3.36%)
Medical and health	141	475	516
	(2.51%)	(6.34%)	(3.74%)
Transportation and telecommunications	383	961	1 303
	(6.81%)	(12.82%)	(9.45%)
Entertainment	127	359	1 316
	(2.26%)	(4.79%)	(9.54%)
Education	639	405	454
	(11.35%)	(5.40%)	(3.29%)
Miscellaneous	175	354	1 048
	(3.11%)	(4.72%)	(7.60%)
Total	**5 631**	**7 498**	**13 794**
	(100%)	**(100%)**	**(100%)**
Ownership rate of durable goods (per 100 households)			
Colour television	120	110	130
Video recorder	40	63	60
Hi-fi	50	63	100
Refrigerator	100	113	100
Washing machine	100	113	110
Air conditioner	70	103	120
Bathroom water-heating boiler	110	113	110
Telephone	90	97	100
Personal computer	10	20	40
Motor vehicle	80	133	150

Source: Calculated from DBS, 1998, pp. 378–80.

The difference in consumption patterns among the three income groups illustrates the differences in living standards of the local population. For the low-income group, spending on food accounted for 52 per cent of their total expenditure (see Table 5.11), and food still

occupied the largest share in expenditure among the medium- and high-income groups, at 48 per cent and 34 per cent, respectively. None the less, expenditure on transportation and telecommunications in the medium-income group was double that of those in the low-income group. Although accounting for a smaller share of the total expenditure of the high-income group, at 9.45 per cent, the 1303 *yuan* spent on transportation and telecommunications in the high-income group was still higher than the 961 *yuan* spent by the medium-income group.[57] Apart from that, the 2765 *yuan* spent on housing and the 1316 *yuan* spent on entertainment by the high-income group were three to ten times higher than the corresponding values and shares for the low- and medium-income groups. The high-income group spent substantially more (20 per cent of its expenditure) on housing. This is explained by the fact that this groups tends to live in privately-owned houses instead of subsidized apartments provided by the SOEs or the government. Although education for local residents was not expensive in Dongguan, the fact that the medium- and high-income groups spent up to twice as much money on entertainment and household appliances than on education may imply the pursuit of materialism by the well-off local population.

On the ownership rate of durable goods, the 'three musts' symbols of contemporary Chinese households – a television, a refrigerator and a washing machine, were found in every household in the low-income group (see Table 5.11). Moreover, approximate two-thirds of the families in the low-income group owned luxury goods – for example, air conditioners and motor vehicles (usually motorcycles). With the exception of a video recorder, hi-fi, telephone and personal computer, each family in the medium-income group has more than one unit of every durable good that was assessed in the survey. The ownership rate of some durable goods in the high-income group was lower than that of the medium-income group – for example, refrigerators. This is reconciled by the fact that the high-income group tends to purchase imported brand-name and expensive products, while the medium-income group tends to buy more, but cheaper, domestically manufactured goods.

The low-income group has an incentive to move up the hierarchy and join the medium and high-income groups. None the less, there was a tendency for the income gap between the richest and the poorest to widen during the 1990s. Rather than catching up with the richest, the ratio of the average annual income per capita between high- and low-income groups increased, from 2.2 in 1991 to 3.13 in 1995, before

decreasing to 2.97 in 1997. The average annual expenditure per capita of the low-income group was higher than the average annual income per capita by over 8 per cent between 1994 and 1995. This implies that the low-income group among the population have to draw on previous savings to balance the income gap. For the medium-income group, their financial position deteriorated after 1994. The ratio of average annual income per capita between high- and medium-income groups increased from 1.35 in 1991 to 1.83 in 1995, and to 1.93 in 1997. From 1994 onwards, the average annual income per capita of the medium-income group, at 7987 *yuan*, was below the average annual income per capita of the society at 8270 *yuan* (DBS, 1996a, p. 470; 1998, pp. 377–8).

Corruption: a hard nut to crack

During the 1980s, smuggling was the quickest way to get rich. As the import tariffs on luxury goods were very high, there was always a market for smuggled commodities for the newly rich. One local government official revealed that 'it was a public secret' that the party secretaries of two administrative regions in Dongguan gained their wealth by smuggling second-hand cars during the early 1980s.

During the 1990s, some influential people gained their wealth through corruption, when Dongguan became more attractive for foreign investment. A number of authoritative people suggested, explicitly and implicitly, that a substantial proportion of government officials gained their wealth via corruption and even extortion from foreign-invested projects: 'After all, Deng Xiao-ping allows us to get rich first', as proclaimed by one local government official (Field Survey 1996–97). Some villagers claimed that the wealth of their village head, (he and his four sons and daughters were factory managers) increased by 100 times during the previous two decades. 'Money payoff is required for everything', claimed one factory manager, who had ample experience in dealing with government officials and the Customs authorities (Field Survey 1996–97).

In general, provincial and municipal government officials have more power and the temptation for corruption is higher. The P&A fee is remitted to the External P&A Office in the local government before the local government in turn allocates it to each corresponding firm. This procedure is a hot-bed of corruption for local government officials who, for example, offer a better foreign exchange rate for 'friendly' firms. Because of the prosecution of several high-profile cases during a 'strike hard' anti-corruption campaign, the involvement of smuggling and power abuse by local government officials is now generally less

common. One of the most senior government officials, Mr Ou-yang De, the former Dongguan CCP secretary and Guangdong provincial political consultative committee secretary, was dismissed in 1995. However, in late 1998, Mr Wang Zhao-cai, the director of the Anti-Smuggling Office in Dongguan, was convicted of accepting bribes totalling 1.1 million *yuan* from smugglers between April 1996 and May 1998 (FEER, 1998d, pp. 16–17; SCMP, 1999f).

Obviously, central government knows that corruption takes place but it cannot eradicate it because of the strong partisan power interests and inter-linkage networks. It is very difficult to investigate the corruption of high-ranking officials as the illegally obtained money is usually laundered via overseas relatives' networks.

Materialism and human capital constraints

Once used to promote patriotism during the Mao Tse-tung era, the official propaganda authority is losing the war against the diffusion of Western culture, even though it resorts to official censorship. First, the television ownership rate in Dongguan is so high that everyone has one at home. It is too late for censorship to have any effect on the ideology of the local people. Second, censorship is superficial. For example, the censorship of news on the Tiananmen Square 'Incident' was only carried out during the evening news on the two Cantonese channels broadcast by television stations in Hong Kong. There was little or no censorship of the two English channels and other viewing periods of the Chinese channels. Furthermore, a number of people in Dongguan are equipped with illegal satellite receivers, and are thus able to receive uncensored programmes, in either Chinese or English, twenty-four hours a day. By using the orthodox 1950–60s information blockage strategy in the twenty-first century is to signal that the official propaganda machine is crumbling, while trendy items and the rebellious ideology imported partly through the Hong Kong mass media are winning the hearts of the young.

To comply with the 'to get rich quickly is glorious' dictum, a substantial proportion of the new generation of local people in Dongguan indulge in materialism. Once blamed as social evils during the Maoist era, gambling, extramarital sex and prostitution are generally accepted now and the change in social attitude has led to a deterioration in society (for example, drug addiction has become common). Apart from the commemorative and celebratory purposes of the Opium War and the reunification of Hong Kong, the large-scale public destruction of opium in Humen town in June 1997 was intended as a deterrent for

people involved in hard-drug addiction and transactions (SCMP, 1997d). The social effects of materialism are illustrated by the five ways (symbolised by five colours) to get rich, frequently reported in the Chinese press: *hong* (red, which means CCP connections); *huang* (yellow, stands for prostitution); *lan* (blue, means connections to the Customs); *bai* (white, means drugs-related businesses); and *hei* (black, stands for triads) (FEER, 1997c, p. 5).

The materialistic mentality of local people has been contributed to partly by the generous welfare policy sustained by foreign investment, as illustrated in Longyan and Botou. In Longyan, every local resident is entitled to 460 *yuan* a month of welfare payment from birth, which is higher than the average monthly wage of an unskilled migrant worker.[58] The payment is increased to 580 *yuan* a month for local residents who are over 60 years old. Most of the local population is living in newly built, luxury two-to-three-storey villas in new residential zones. Every child of local residents is entitled to free kindergarten and primary schooling. The government dispenses 1800 *yuan* per year in subsidiary payments for any local child enrolling in secondary school and 3000 *yuan* per year for any local resident enrolling at a university. Every local boy is entitled to a piece of residential land to build his house. For local Longyan households with girls, one piece of land is allocated for each household. Botou is a small village with about 250 registered residents located in the Daning administrative region of Humen town. At the time of writing, each resident receives about 400 *yuan* per month in welfare payments, of which 292 *yuan* per month is payable by Botou and 108 *yuan* per month is payable by Daning. An extra 80 *yuan* per month and 100 *yuan* per month of supplementary payment is payable for those aged between 60 and 70 years, and those aged 71 or over, respectively.[59]

One of the alarm signals about modern society in China is that most of the local youth are not only reluctant to work hard in school, but are also picking up bad habits – for example, gambling, smoking and even taking addictive drugs. The author has come across a number of frustrated parents who are successful in their businesses but whose children perform very badly in schools before dropping out voluntarily. Obviously, the generation gap has been widened through the ever-dominant materialism promoted by the mass media, particularly television programmes transmitted from Hong Kong. The disorientation of the new generation and its clash with the old guardians of society is expected to deteriorate further because of the inadequate and inefficient social services system. For example, people have little idea

how to handle juvenile delinquents involved in drug addiction, prostitution and other crimes. The concepts of counselling and moral education in contemporary society are still in their infancy in Dongguan. Moreover, the domination of materialism in the lives of the present young generation is sowing the seeds of human capital deficiency in the coming years, when the sustainability of growth in Dongguan may in doubt.[60]

To conclude, the inflow of foreign investment has played a substantial role in the socio-economic development of Dongguan since the 1980s. Apart from acting as a catalyst for rapid economic growth, the inflow of foreign investment has assisted with the economic restructuring that has evolved from a primary into a manufacturing economy and been transformed from labour-intensive and lower-skilled light manufacturing to higher-technology, higher-skilled industrial sectors. Through demonstration effects, the inflow of foreign investment has led to the improvement of industrial efficiency and the development of locally-funded industries by introducing competition, new skills and technology. Paradoxically, the success of SMEs during the 1980s led to their early demise by crowded-in capital-abundant, large-scale, foreign-financed and locally-funded firms since the mid-1990s. The inflow of foreign investment enhanced the role of personal connections in Dongguan since a number of foreign (overseas Chinese) investors regarded the *guanxi* game as their competitive advantage. Moreover, the impact of foreign investment in Dongguan is manifested in various legitimate (for example, niche market exploration) and illegitimate (for example, pirating) means of competition. The competitive approaches employed by foreign-financed firms, the unprecedented development of infrastructure, the environmental degradation, the desirable (for example, good working environment) and undesirable (for example, labour abuse) spillover effects in the work environment and labour markets are all part of socio-economic development in Dongguan. The dramatic improvement of living standards among the local population and the acceleration of the income gap between the 'haves' and the 'have nots' (between local people and migrants, and within different income groups of the local population) are further effects. Finally, the domination of materialism in the present young generation may lead to long-term human capital deficiency in Dongguan. Rather than being a 'black-and-white' issue – 'FDI is good', as argued by the libertarians, or 'FDI is bad', as argued by the *dependencias* – this chapter clearly illustrates that the inflow of foreign investment has had both desirable and undesirable socio-economic effects in Dongguan.[61] As illustrated by the

environmental impact, work environment and mentality of local people and migrants, the complex interaction between the inflow of foreign investment and its socio-economic impact in reality has been excessively simplified and generalized by existing theories on FDI.

Notes

1. The categorization of 'labour-intensive, lower-skilled' and 'higher-technology, higher-skilled' manufacturing is for the sake of comparison only. The author is well aware of the intra-industrial differentiation in technology and skill.
2. Refer to Ash and Edmonds (1998) for a discussion of decreasing arable land during the post-1978 reforms in China.
3. To minimize the distortion of *renminbi* devaluation, the currency conversion from US$ to RMB was based on the exchange rates reported in World Bank publications. For example, the exchange rates of US$:RMB were 1:2.3 in 1979; 1:2.2 in 1980; 1:2.5 in 1981; 1:2.6 in 1982–3; 1:2.8 in 1984; 1:2.9 in 1985; 1:3.5 in 1986; 1:4.5 in 1987; 1:4.9 in 1988–9; 1:5.2 in 1990; 1:5.7 in 1991; 1:6.4 in 1992; 1:8.0 in 1993; 1:8.6 in 1994–5; and 1:8.28 in 1996–7.
4. The existence of auto-correlation is expected since foreign investment is a component in GDP accounting. The two simple regression equations in real GDP and foreign investment are as follows:

   $GDP_t = \alpha + \beta CFI_t + \mu$
   $GDP_t = \alpha + \beta UFI_t + \mu,$

   where
   GDP_t is the real GDP of Dongguan (in *yuan*) in time t – for example, 1979–97;
   CFI_t is the contracted value of foreign investment (in *yuan*) of Dongguan in time t;
   UFI_t is the utilized value of foreign investment (in *yuan*) of Dongguan in time t; and μ is the stochastic (random) variable.
   The results of the two regression models are as follows:

$GDP_t = 3584160563 + 0.5007CFI_t$	adjusted R^2, = 0.3882, t = 3.524, n = 19 Durbin–Watson test = 0.42916.
$GDP_t = 1576983786 + 2.0081UFI_t$	adjusted R^2 = 0.8413, t = 9.822, n = 19 Durbin–Watson test = 0.73233.

5. Readers interested on the income disparities in China can refer to IBRD (1997b).
6. The percentage share of township GDP is the ratio of each township value and the summation value of all thirty-three towns in Dongguan. The summation of township value is 14–34 per cent smaller than the Dongguan GDP reported in Chapter 3, partly because some towns did not report their figures to the municipal government during the early 1990s, for example, Qingxi town did not report its GDP value in 1990 and 1991. This difference

in value will not affect the relative growth between the thirty-three towns to be discussed in this section.

7. The 17 093 of local population and 51 906 of total population in Huangjiang were only half the size of the corresponding average municipal populations of 44583 and 88 426.
8. The 144 494 of local population and 288 195 of total population in Guancheng were more than three times higher than the corresponding average municipal population level.
9. The summation of township figures in foreign investment is smaller than the gross value in Dongguan as it excludes those figures recorded under other categories – for example, municipal or provincial government projects. Moreover, the value of foreign investment included only investment in *sanzi qiye* and P&A fees. This none the less provides a reasonable estimate of the attractiveness of different towns for foreign investment.
10. Its US$1384 (including migrants) and US$5145 (excluding migrants) per capita value of utilized investment was among the highest in Dongguan.
11. The 96 099 of local population and 213 757 of total population in Humen were more than twice as high as the township average level, at 44 583 and 88 426, respectively.
12. Since there are only four years of data (1994–7) for GDP per capita and foreign investment, a time-series regression analysis is not feasible.
13. Humen pays more tax to the central government than any other place of similar size in China. The income of Humen is closely related to its 1500 Hong Kong-funded factories (SCMP, 1997d).
14. There is no GDP or national income data at the administrative region level. Moreover, the latest available statistics at township level are for 1995.
15. The per capita value is calculated from the agricultural population because total population (including migrants) figures are not available.
16. *Feng shui* is a school of ancient Chinese belief that governs the daily activities of people. In this book, *feng shui* is used to specify the location and other characteristics associated with a plot of land that may affected the wealth of its owner; for example, land with 'good *feng shui*' will bring its owner a fortune and vice versa.
17. Because of data constraints, the labour–output ratio was calculated by the number of workers over the sale value of industrial output (at current prices). The latest available statistics are for 1995. The sale value was a second-best proxy of gross value of industrial output, since the former accounted for 98 per cent of the latter value in 1995. Capital productivity is not discussed because of the unavailability of data.
18. In nylon belt manufacturing, the number of firms in Dongguan increased twenty times, from three in 1988 to more than sixty in 1997.
19. The factory manager claimed that the product quality was even better than the output of its headquarters firm in Switzerland with a 2000 workforce.
20. The low profit margin aggravated the cash flow of SMEs and subsequently led to 'triangle debt' among foreign-financed firms. 'Triangle debts' are debts incurred by inter-firm transactions since some firms cannot settle their bills on time because of cash-flow problems. One major cause of 'triangle debts' is that a large proportion of business transactions are based on credit (IOU invoices with up to a 60-day credit period after the delivery of

the goods) instead of LC (Letter of Credit via the bank, with higher transaction costs). This allows more room for firms with little capital to manoeuvre and compete with other capital-rich competitors. Because of 'triangle debts', some firms insisted on COD (cash on delivery), making exceptions for established customers.

21. According to the Bureau of Industrial and Commercial Administration in Shanghai, 47.35 per cent of foreign-funded firms in Shanghai reported losses in 1998. However, it is estimated that 75 per cent of foreign-financed firms have either transferred their profits offshore illegally by under-invoicing their export value and over-invoicing their import value or charging lower prices to gain a market share. The random examination by the Shanghai Administration of Inspection of Import and Export Commodities indicates that some foreign firms have deliberately over-invoiced more than half of the capital goods imported every year. Some of the foreign partners are using the financial losses as an excuse for capital injection, and thus getting greater control over their JVs (SCMP, 1998n, 1999c).
22. After pretending to be ill and taking three months of sick leave, the factory manager (with a salary of 4000 yuan a month) of one Hong Kong-owned P&A metal products firm in Fenggang town then took pregnancy leave.
23. Although the government does not allow a person to hold more than one post, the phenomenon of a factory manager 'in name only' still exists. To boast his 'work capability' and superior connection, the elder brother of a party secretary in an administrative region of Humen town revealed that he managed more than ten foreign-financed firms. Employing relatives in Hong Kong-funded firms is also common in other regions of south China (Huang, 1998, p. 59).
24. Instead of being embarrassed, the two ladies were laughing when the interviewee told the author of his experience in front of them.
25. In her fourteen case studies in south China, Huang (1998, p. 62) also reports that the workers have no concept of quality control, lack self-motivation and self- discipline and have little sense of job responsibility. Since similar phenomena occurred in Hungary, Child and Markoczy (1993) and Child (1994, p. 256) argue that the reluctance to assume responsibility is a product of the top-down bureaucratic socialist system which emphasizes conformity rather than an individual's contribution.
26. The 'company-wide quality control' practised by Japanese firms in the 1970s was generally regarded as the first realization of TQM. Nowadays, TQM incorporates the quality tools for improving on product quality and time-based management (reduces cycle time or improves productivity) (Barad, 1996, pp. 4885–6).
27. This point is attributed to Ms Iris Chan.
28. Refer to pages 189–91 for details about the war rumours.
29. *Tamagotchi*, or electronic pets, are hand-held egg-shaped key chain 'cyberpets' that allow players to take care of a pet displayed on the tiny screen. Just like a real pet, the cyberpet will grow and thrive with proper care but will die without it. It is made by the Bandai Company, the Japanese toy-maker behind the well-known Power Rangers, and was originally sold in Japan.
30. The person/vehicle ratio is calculated from local population statistics.

31. There has been a tremendous improvement in traffic flow in Shenzhen in recent years, especially in the city centre and at the railway station just adjacent to Hong Kong, where the traffic used to be at a standstill for hours.
32. Motor vehicles emit more pollutants (hydrocarbons and carbon monoxide), since their engines are less efficient at lower speeds and this contributes to the existence of smog.
33. There were several severe traffic accidents during the Lunar Chinese New Year of 1997 when around twenty migrants were burned or crushed to death because of vehicles overheating or malfunctioning. In a personally-observed incident, the suspension arm of a truck gave away and the vehicle caught fire in front of the author.
34. Refer to Liu and Zhen (1992, pp. 120–4) on industries under the regulation of environmental laws in Dongguan.
35. The automobile emission standard stagnated since its adoption by the National Environmental Protection Agency in 1983. At the time of writings, Chinese standards for cars allow fourty times more monoxide, six times more hydrocarbon and eight times more nitrogen oxide emissions than the US standard (IBRD, 1997a, p. 75).
36. This argument is supported by the allegation that two-thirds of pollution treatment installations in China are either operated irregularly or not used at all (HKS, 1997f).
37. It is estimated that about 80 per cent of urban rivers are polluted by ammonia, nitrates and other organic materials (HKS, 1997f). Readers interested in the pollution issue in China can refer to FEER (1997b), IBRD (1997a), Palmer (1998), Ross (1998) and Vermeer (1998).
38. Earlier and more recent figures are not available for intertemporal comparison.
39. The Xiqiaoshan district of Nanhai municipality in Guangdong planned to remove 20 000 gravestones from a scenic site in October 1997 as part of a tourist scheme. Several hundred furious farmers protested outside the City Hall in Nanhai for three days and blocked the workers sent by the local government to remove their ancestral tombs. The protestors were eventually dispersed by tear gas canisters fired by riot police. Subsequently, more than a dozen people were injured (HKS, 1997c, 1997d).
40. According to Chinese traditional belief, the disruption of an ancestral grave site will upset the *feng shui* and bring bad luck on the descendants.
41. This is not necessarily equivalent to lower incidents of labour abuse in large-scale firms.
42. In terms of hygiene, spitting is probably one of the greatest difficulties encountered by foreign-financed firms. A number of factory managers and owners claimed that 'the migrants simply spit when they want to do so. Fines and other forms of punishment do not work for the new recruits. Punishment only stirs up resentment against the regulations. You must be patient and give them time to get used to the rules' (Field Survey 1996–97).
43. The Swiss auditor, Societé Générale de Surveillance, reported that 60 per cent of its inspections conducted in China uncovered safety flaws (FEER, 1998a, p. 48).

44. The high number of casualties resulted from the hazardous design of the factory premises (workers slept on the top floor and the exits were blocked by intense smoke when the fire started in the work space on the ground floor). All windows and doors were locked to prevent workers from stealing.
45. Refer to Warner (1987, 1992, 1993a, 1993b, 1995, 1997) for the review of the infrastructure of Chinese management training and human resource management in China.
46. Dangerous 'stunts' are not just confined to uneducated migrant workers. An Australian exporter reported that a university chemist was 'smoking a cigarette and carrying a rice bowl filled with a dangerous, highly flammable chemical' (FEER, 1998a, p. 48).
47. A trial implementation of medical health insurance for workers was undertaken from 1997 onwards (DBS, 1998, pp. 98–101).
48. Under piece-rate remuneration, the longer the working hours, the higher the total income of workers (before reaching a negative marginal output caused by fatigue).
49. Based on interviews with workers in four sports shoe subcontractors in 1995 and 1997, the Hong Kong Christian Industrial Committee and Asia Monitor Resource Centre alleged that workers were working up to seventeen hours a day and child labour was used. Children aged 13 (well below the minimum of 16 years under the Chinese Labour Law) were sewing and cutting in the Korean-funded Wellco plant in Dongguan, a subcontractor for Nike. Yue Yuen Industrial Holdings in Dongguan did not provide the mandatory social security benefits, medical insurance and or bereavement leave for its 50 000 workers working on 123 production lines (SCMP, 1997f). None the less, I *cannot* verify all the above accusations associated with sports shoe subcontractors, especially in the case of child labour. I did not personally witness the existence of child labour in any of the sixteen small- to large-scale firms I visited, a number of which were conducted without prior notification. My personal experience is supported by the findings of Lever-Tracy *et al.* (1996, p. 309) and Huang (1998, p. 68) in the field.
50. Refer to the speech of Director of Guangdong Labour Bureau in 1994 on the acknowledgement of the widespread Labour Laws violations among foreign-financed and privately-funded firms (Kong, 1994).
51. However, this figure may include only *sanzi qiye;* that is, excluding P&A.
52. Within the money-orientated ideology, some migrants maintain their own dignity paradoxically. They can resign and pack up everything immediately if they think it is not the right place for them to work, even giving up a month's wage to do so.
53. Bruce Gilley reports that the rumour also started from Sichuan and Jiangxi (FEER, 1997a).
54. Another version of the rumour suggested that Taiwanese-funded firms would stop production in May as the Shenzhen border would be sealed off from April 1997 onwards to prepare for the return of Hong Kong sovereignty on 1 July 1997.
55. Television news and newspapers from Hong Kong played a vital role, as the migrants trusted its news rather than the official mass media in China. Obviously, this reflects the dismantling of the regime's orthodox propaganda machine in the information age, whereby news and rumours spread

rapidly. The increasing integration between Hong Kong and southern China also accelerated this phenomenon.

56. Unfortunately, there is no compatible breakdown on the sources of income in the 1997 survey. In the 1995 survey, there was little difference in the average basic wage among the three income groups, especially between the low- (4521 *yuan*) and medium-income (at 4586 *yuan*) groups. This indicated that non-basic income was the cause of the difference in total income, where it accounted for 13 per cent of total income in the low-income group but the proportion increased to 70 per cent in the high-income group. At 11 478 *yuan*, bonuses and other forms of non-basic income in the high-income group was not only seventeen times higher than in the low-income group (682 *yuan*), but was also higher than the total income of the medium-income group (8895 *yuan*) (DBS, 1996a, p. 437).
57. Apart from symbols of wealth, the higher ownership rate of mobile telephones and imported luxury limousines or four-wheel drive vehicles can explain the higher expenditure on transportation and telecommunications in the higher-income group. It is a common misconception in China that larger cars offer better protection for drivers and passengers in case of traffic accidents.
58. The welfare payment is dispensed by the township government as compensation and income support for local residents who gave up their ownership of arable land to build factory premises for foreign investors.
59. Another effect of the materialistic mentality of local people is the political apathy among villagers in Humen town. 'As long as I am getting paid [the welfare payment] every month, why bother what and how they are doing?' 'Getting rich is the only way to get acceptance and acquaintance in society' (Field Survey 1996–97).
60. The long-term human capital constraint is best illustrated by the Longyan administrative region of Humen town. The majority of local children in Longyan, especially those from richer families, have given-up schooling after finishing (junior) secondary school. With the exception of one local teacher, all other teachers in the local kindergarten and primary school come from Guangxi province (with salaries of about 2000 *yuan* a month). Local residents are reluctant to teach in the school, since its workload is too demanding. A similar shortfall of qualified workers existed in the EJV sock-manufacturing firm, discussed earlier in which the majority of managerial and technical personnel are from other provinces or Hong Kong.
61. The 'desirable' and 'undesirable' effects are based on the widely accepted criteria of development, for example, a high enrolment rate in schooling is desirable while a high crime rate is undesirable for the society. However, the author recognizes that this classification involves value judgement and other controversial issues of development. For example, the better-educated women living in the more affluent rural areas have the highest suicide rate in China. As their husbands are working in the cities, these women have to endure endless economic and family pressure by labouring in the fields and taking care of their families. The better provision of education and telecommunications paradoxically increases their expectations regarding living standards and despair about their status. From this perspective, the better provision of education and telecommunications in rural China are two

indirect causes leading to the female suicide rate that is nearly five times the world average (despite the fact that China only accounts for 21 per cent of the world's female population), according to studies conducted by the World Bank, World Health Organization and Harvard University (FEER, 1998b, pp. 62–3).

6
Conclusions and Implications

After examining the causes and effects of foreign investment, this chapter assesses the development experience of Dongguan. The concluding remarks of the book are presented in section 6.1. Before outlining the three principles of the policy agenda in section 6.4, the development experience of Dongguan is re-examined critically and its theoretical implications assessed in sections 6.2 and 6.3, respectively.

6.1 Concluding remarks

This book contributes to the literature by providing an in-depth understanding of the causes and effects of foreign investment in Dongguan. Three particular aspects of the investment environment – locational advantages, bureaucracy and crime – are highlighted, and the prospects for Dongguan are discussed briefly below.

Locational advantages

After nearly two decades of rapid industrialization and the commercialization of agriculture, the primary economy in Dongguan has been transformed into a secondary economy dominated by light industry. Apart from the strong overseas-Chinese linkages and personal connections, locational advantages in terms of accessibility, local sourcing and targeting of the Chinese market, low production costs, and a developed physical and social infrastructure are the vital competitive advantages of Dongguan.

The tremendous upgrading of the physical infrastructure improved the accessibility of Dongguan and its attractiveness for foreign investors. With the development of motorway networks and telecommunications, managers or technicians can reach Dongguan within two

hours of a telephone call to their offices in Hong Kong. The immense increase in electricity generation capacity has greatly reduced the number of unannounced blackouts, and this has reduced the cost of production disruption. The development of the social infrastructure outlined in Chapter 4, such as better-quality accommodation and entertainment facilities, has also strengthened the locational advantages of Dongguan.

However, as with Shenzhen, the increase in production costs is crowding-out foreign-financed SMEs, who are unable to cut their production costs through improved production efficiency, upgrade their products or explore niche markets. The rise in production costs in terms of (semi-skilled and skilled) labour and land costs is compatible with the notion of factor-cost equalization.

After the recent rapid depreciation of Southeast Asian currencies, the advantage of low production costs in Dongguan declined in terms of US dollars. If there is accelerated relocation, or even an exodus of SMEs from Dongguan, it is likely that several of the vital competitive advantages of the area, such as local sourcing, subcontractual and pseudo integration, and so on, will vanish. This suggests that locational and ownership advantages for foreign investors are interdependent.

Bureaucracy and rent-seeking

To facilitate the inflow of foreign investment, the Dongguan government has simplified the administration of foreign-financed firms by delegating power to local governments. Instead of dealing with the municipal government, foreign investors can negotiate their investment projects valued at less than US$30 million directly with the Bureau of External Economic Affairs, and apply for production contracts directly from the corresponding offices of the local government.

Moreover, the improvement in the regulation and documentation of miscellaneous charges has resolved complaints about lack of regulation by foreign investors. With the approval of foreign investors, the old practice of cash payouts, with or without reference to hidden internal regulations, is no longer permitted. All the above improvements indicate increasing transparency in the regulation and administration of foreign-financed enterprises in Dongguan.

None the less, the simplification of the bureaucracy and self-financing of government departments has also produced fertile ground for generating rent-seeking activities. The complexity of both legitimate and illegal miscellaneous charges not only increases the transaction and production costs of foreign investors, but also produces in

foreign investors a perception of power abuse by local government officials and Customs inspectors. This abuse is because of the lax enforcement of laws and regulations rather than the existence of loopholes in the law. The tremendous improvement in living standards of the local population paradoxically has increased the likelihood of government officials and Customs inspectors being tempted to engage in illegal means of income generation, as they receive relatively low salaries of about 1000 to 1500 *yuan* per month.

Crime

The increase in crime during the 1990s caused discontent among foreign investors. In a Hong Kong-funded P&A soft-toy manufacturing firm in Laiobu town, there have been three break-ins since 1992. Money was stolen in the first break-in, and seven sewing machines in the second, even though there were seven security guards on 24-hour patrol. The Hong Kong manager would not venture outside the factory premises after 8 pm, and stayed in factory accommodation overnight. In another Hong Kong-funded jeans laundry firm, all the documents – including the vehicle registration and tax certificates – inside a truck were stolen and this led to the postponement of our planned interview.

The increase in crime in Dongguan is probably aggravated by the influx of unemployed male migrants. The foreign-financed factories in Dongguan tend to employ female workers since they are relatively obedient and are willing to work overtime. This contrasts with the rude and even hostile attitudes associated with male migrants. Out of work and penniless, it is not surprising that some of them team up with local gangs and commit crimes after their golden dreams are shattered.[1]

Prospects of Dongguan: dawn or dusk?

The prospects of Dongguan can be discussed from three perspectives: pessimistic, optimistic, and a combination of cautiously optimistic and pessimistic.

Some interviewees were pessimistic about the prospects for Dongguan, adopting a 'wait-and-see' attitude as a counter-measure to the competition from locally-funded and foreign-financed firms. They claimed that the golden era of Dongguan had passed: 'The glory days of low-value-added, low-skill and labour-intensive SMEs have long been over and their days in Dongguan are numbered!' (Field Survey 1996–97). A Hong Kong-based entrepreneur used an analogy to assert

that SMEs investing in China was like pouring a drop of water into the ocean, where it instantly disappeared without trace.

Other interviewees were optimistic and believed the competitive advantages of Dongguan would be unsurpassed in the next decade. This was mainly because of the high transport costs and lack of a developed physical and social infrastructure in central and western China. Moreover, the competitive advantages of Dongguan cannot be replicated elsewhere in the short term term because of the lack of complementary and substitute industries in other low-cost Southeast Asian countries. Based on a firmer economic foundation, it is likely that Dongguan can restructure its economy to high-value-added, skilled and technology-intensive industries under the guidance of the 'second industrial revolution' by following the Singaporean path.

Finally, a number of interviewees were cautiously optimistic in the short to medium term, but pessimistic in the long term about the sustainability of growth in Dongguan, especially given the uncertain effects associated with the existing partisan interest groups in local authorities. According to several Hong Kong entrepreneurs, there was a consensus that labour-intensive manufacturing will only be profitable until around 2000–02 in Dongguan. Dongguan is emulating Shenzhen by aiming to attract investment in higher-technology and higher-skilled manufacturing, while low-technology, labour-intensive industry will be moved elsewhere. For the labour-intensive manufacturing sector, a children's clothing manufacturer proclaimed that 'Hong Kong is like an incense stick while Dongguan is like a candle' – it is able to burn longer but shares the same fate in the end (Field Survey 1996–97). Given the resistance of vested interest groups to the transformation of the state's role, whether Dongguan will be able to shift its economy successfully to the high-value-added, high-skill and technology-intensive sectors is still uncertain.[2]

6.2 Lessons to be learned

After reviewing the delicate relationship between the investment environment and its attractiveness for foreign investment, this section evaluates the reform experience of Dongguan.

Regional differentiation of growth

As one of the fastest growing regions in the world, Dongguan recorded an average annual growth rate in real GDP of 14 per cent and 13 per cent

of average annual growth rate in real GDP per capita between 1978 and 1997. As with other regions with rapid growth, economic growth in Dongguan was far from even geographically. The critical issue at stake is to what extent the growth of an economy is achieved at the expense of unequal income distribution in society?

It is likely that there will be an acceleration of regional differentiation of growth in Dongguan as the empirical evidence indicates that investment is narrowly focused within Dongguan. The flexibility of the reform policy and its interpretation by different regional officials (which in turn is determined by their own degree of open-mindness) has led unavoidably to polarization in the investment environment. Given the rising production costs, *ceteris paribus*, regions with more pragmatic and less corrupt local officials are more likely to sustain, if not to improve, their competitive advantages to retain existing and attract new foreign investors through crowding-in and demonstration effects, and vice versa. By the same token, regions maintaining their competitive advantages are more likely to restructure their economies, while the regions that focus on the maximization of short-term economic gains are more likely to lose out altogether to other competing regions. The acceleration of inter- and intra-township growth differentiation is likely to cause potential conflict between different social classes or hierarchies in society.

The ideological adaptation of migrants

The inflow of migrants has provided an abundant supply of low-cost labour in Dongguan but it has also induced other socio-economic pressures in society there, especially when the migrant population became as high as the local population in the 1990s.

Some migrants failed to adjust to their entirely new way of life in Dongguan and are far from being assimilated into the local community. Society is changing too fast for them: they came from backward villages to a rapidly developing industrial city. Some of them cannot withstand the temptation of materialism and join local gangs in the hope of getting rich by committing crimes. The 'iron-fist' approach to crime eradication by means of executing violent criminals appears not to have fully fulfilled its intentions. It may stop petty theft but does little to discourage determined and organized criminals.

The volatility of the herd-instinct nature of migrants is clearly demonstrated by their behaviour during the 'war rumour' period described in Chapter 5. One telephone call from home and the rumours

of a Sino-British war over the sovereignty of Hong Kong spread across southern Guangdong. The departure of hundreds of Hunan migrants led to a massive exodus of hundreds of thousands of their fellow migrants, although a number of them had to endure the financial hardship of months of lost wages by resigning and leaving immediately.

In contrast to the irrational behaviour of the migrants, the unusually calm responses of the local people in Dongguan to the war rumours is a crude reminder of the migrants' lack of access to information. It also illustrates the migrants' difficulties in becoming assimilated into the local community. Moreover, the acceleration of relative income differentiation between the migrants and local people may have stirred up resentment among the migrants – who mainly belong to non-Han ethnic groups – and could lead to racial conflict in the future.

'Voluntary unemployment'

The enormous improvement in living standards has raised people's income expectations. Rather than equipping themselves with marketable skills, some local people 'enjoy their status quo'.

This 'short-sighted' mentality is especially common in the children of high-ranking government officials. The frustration and helplessness of the parents of rebellious children was outlined in Chapter 5. This phenomenon was more noticeable in rich villages and townships. Since the time when every local resident began to receive more than 300 *yuan* as a welfare payment each month, equivalent to a month's wage for a migrant worker, the local people have had little incentive to take lower-paid jobs. Without higher education diplomas or marketable skills and the right connections, they were unable to find ideal highly-paid jobs. Consequently, some ambitious people established their own businesses (the household economy – *geti jingji*) by borrowing money from relatives and friends. Others simply stayed at home and remained unemployed (after all, they did not have to worry about making a living). This form of 'voluntary unemployment' was not uncommon in the richest villages in Dongguan. With the 'get rich quickly is glorious' mentality, some local people resorted to illegal means of income generation. With the increasingly common practice of voluntary drop-out from secondary school in the younger generation, it is obvious that there is a long-term human capital constraint on the sustainable development of Dongguan. The constraints on human capital plus over-reliance on migrant workers and the potential for racial conflict may be a time bomb waiting to explode.

Dongguan's reputation is at stake

The reputation of the host country is an important part of its attraction for foreign investment. The reputation for openness and flexibility associated with the Dongguan government during the late 1980s has been replaced by the 'greedy' image of some local government officials. This phenomenon may be more common among low-ranking officials, as a number of them still have the 'supreme government' mentality – the government can control everything, therefore foreign investors must obey the local regulations without questions – of the pre-reform era. Instead of being offered friendly treatment for even the smallest investment in a P&A project worth just tens of thousands of *yuan*, as in the earlier period, more recently, some foreign investors have found themselves helpless in dealing with local government officials. Without effective channels for arbitration, any trivial misunderstanding between foreign investors and local government officials has been dramatized by the rumours circulated by foreign investors and the mass media. Several highly publicized incidents, such as the forty-six types of miscellaneous charges mentioned in Chapter 4, are more than capable of ruining the reputation of Dongguan and could have devastating effects on its attractiveness for potential investors.[3]

Moreover, the lack of an effective channel for complaints means that foreign entrepreneurs and factory managers have to rely on personal connections. The unique role of the factory manager in the connection game guarantees high pay cheques for a small number of people with the right connections: usually the relatives of high-ranking local government officials. The general acceptance of the connections game provides positive reinforcement for (young) people to explore their connections rather than their competence. Eventually, a vicious circle of connections may be formed.

For those foreign investors with the proper connections who are willing to play the game by its rules, it may not be an issue for concern. However, this may not be the case for TNCs not used to relying heavily on personal connections to deal with administrative chaos and arbitrariness. Failure to settle the cultural differences between the 'connections game' and the international norm has naturally resulted in accusations of excessive bureaucratic red tape and even corruption. To lower the chances of cultivating the perception of a 'black-box operation' and the 'rule-of-the-people', the Dongguan government has to improve its transparency in dealing with foreign investors.

The reputation for low costs and abundant labour in Dongguan is partially offset by these negative perceptions that may tarnish its image. To list a few examples: the 'pirates' heaven'; low productivity; high turnover rate and lack of industrial discipline of migrant-farmers-turned-workers; poor industrial safety records; extraordinarily long working hours; the accusation of child labour … and so on.[4]

It is very unfortunate that these and similar incidents have strengthened the image of the 'inhumane underground sweat-shops' in southern China portrayed by the Western and Chinese media. With this unfortunate projection, it is less likely that Dongguan will be able to attract image-consciousness TNCs to invest in state-of-the-art industry. This is especially the case when partisan political lobbyists in North American and European countries become more influential in the formulation of foreign and trade policies towards China.

Environmental costs

During the 1990s, the Dongguan government has improved several aspects of the environment dramatically. By imposing constraints on new investment in environment-polluting industries and restricting their location to Shatian town, the proportion of treated industrial wastewater has increased more than threefold, to about 50 per cent within a decade. The even higher proportion of treated exhaust gases, at about 92 per cent, was obtained by the conscious efforts of the corresponding authorities.

However, intervention from the Dongguan government is not comprehensive and is thus unable to cope with mounting pollution problems generated by the rapid industrialization. In fact, evidence indicates that the wastewater and exhaust gases treatment facilities have already reached their operating capacities and will thus be unable to handle the increasing amounts of pollutants emitted. The improvement in the carrying capacity of the motorways and the unregulated ownership of automobiles has led to an uncontrolled explosion in the growth of cars and motorcycles, which has in turn accelerated potential bottlenecks in the physical infrastructure and caused a deterioration of air quality. In the case of industrial waste, the situation has worsened over time and most waste has simply been dumped in landfill sites without undergoing prior detoxification treatment.

The government implemented a number of preventative measures, such as stricter regulations for environment-polluting industries. None the less, these preventative measures have not been completely effective. Resource constraints and political wrestling among central,

provincial and local governments (regionalism), means that not all the preventative policies will be fully implemented. Implementing the new policies effectively depends on the goodwill of local cadres and the result is likely to be the same: policies may be similar but the outcomes are likely to display regional differentiation. As illustrated in Chapter 5, there can be tremendous differences in local governments' environmental strategies. The 'unilateral economic growth' policy adopted by village A was in distinct contrast to the 'balanced sustainable growth' policy implemented by village B. Therefore, in circumstances where rapid economic growth is at the expense of the environment, a public good which yields too little economic return for policy-makers in some local governments in Dongguan in the short term may mean that regulations governing such things as pollution are conveniently ignored or side-stepped.

Overall assessment

All in all, the positive welfare gains generated by the inflow of foreign investment are able to overcome undesirable socio-economic impacts in Dongguan. Apart from rapid economic growth and an improvement in the living standards of the local population, foreign investment has been a powerful catalyst in the development of human capital endowment, social and physical infrastructure, locally-funded industry and the improvement of industrial productivity. However, foreign investment is also associated with the aggravation of crime, the intensification of labour abuse (especially of migrant workers), the generation of rent-seeking opportunities, the polarization of growth, and an increase in industrial (solid) waste pollution.

The potential socio-economic benefits of a return to economic isolation are unclear. Would all the negative external effects of foreign investment disappear if there was no open reform of foreign investment in Dongguan? The answer is a definite 'no'. Crime would still exist, as it does everywhere in the world. Labour abuse may be less common as there would be few migrants from other provinces to maintain an excess supply of unskilled labour in Dongguan. The situation of rent-seeking would still exist, but it might be less common. The regional or hierarchical relative differentiation of income (between different classes of people, both local and migrants) would still exist but it would be more likely to be in the form of non-monetary income, such as, for example, the privileges and intangible benefits of being a CCP secretary. Pollution might worsen, in fact, as obsolete machinery and equipment would not be replaced because of insufficient capital.

Without competition from foreign-financed firms, locally-funded industry may invest less, or delay investment in more energy-efficient machinery.[5]

In contrast, the adverse economic consequences of economic isolation in Dongguan are clear. Without the inflow of foreign capital, it is highly possible that Dongguan would have been unable to develop its physical and social infrastructure and achieve the unprecedented economic growth envied by every city. Without investments from TNCs and their subsidiaries, the improvement in the work environment in Dongguan might have been less noticeable, since TNC practice is affected by public opinion and monitored by Western labour rights organizations.[6] To protect its brand image, Nike set up four mechanisms for monitoring the work practices of its subcontractors in China (including Dongguan), Vietnam and Indonesia: (i) unannounced annual audits by Ernst & Young; (ii) unannounced monthly inspections by Nike labour-practice managers; (iii) having a full-time Nike production manager stationed in every factory; and (iv) holding quarterly leadership meetings with major subcontractors (FEER, 1998a, pp. 46–8). All interviewees agreed that without the reform of foreign investment policy and substantial direct investment in the development of the physical infrastructure by the Dongguan government, the local population would have been much worse off and the economy would have stagnated rather than developed. The inner provinces would also have lost the millions of *yuan* sent back by migrant-farmers-turned-workers working in Dongguan.[7] In fact, the World Bank argues that 'migration has reduced rural–urban income disparities at both individual and household levels' in China (IBRD, 1997b, p. 58).

It is further argued in the policy agenda section of this chapter that the local government can further improve the investment environment and reduce the negative consequences associated with the open reform policy. However, it must be emphasized that the author does not recommend the uncontrolled inflow of foreign investment, especially in the environment-polluting, energy-consuming and low-value-added sectors.[8]

6.3 Theoretical implications

No matter how powerful the theories applied in this book are, it is clear that no single theory *per se* can fully explain the causes and effects of foreign investment in Dongguan. This book has demon-

strated the usefulness of inter-disciplinary investigation to gain an understanding of development in Dongguan. The theoretical implications of Western FDI theories and the proposed socio-economic paradigms of foreign investment in Dongguan are presented, before a discussion of the implications of the so-called 'Chinese crony capitalism' and the state's role in development.

Western FDI theories

The present dominant economic approaches in the investigation of causes and effects of FDI are segmented analyses and asocial approaches.

First, the wisdom of the eclectic paradigm of international production and its OLI framework is restricted basically to the economic causes of FDI, and other economic theories are required to reveal the economic consequences of FDI. Methodologically, this segmented analytic approach is actually a segregation of the causes and effects of FDI, despite the fact that they mutually interact. For example, the subcontractual and pseudo integration outlined in Chapter 4 as a competitive advantage for foreign investment in Dongguan (a cause of FDI) is a process which in fact further strengthens its investment environment by crowding-in complementary and substitute industries (the effects of FDI). The segmented analysis of the causes and effects of FDI lead to the segregated results.[9]

Second, the OLI framework and other mainstream economic theories in foreign investment do not take social factors explicitly into consideration. Undeniably, social factors are considered by foreign investors. In Dongguan, the OLI paradigm is able to shed light on the necessary favourable economic factors for foreign investment, and other economic theories are able to explain the economic effects of foreign investment through crowding-in and demonstration effects. However, this book clearly demonstrates that social and political factors can have a tremendous impact on the causes and effects of foreign investment in Dongguan (see Figure 6.1). To use just one typical example, the personal connections of a foreign entrepreneur affect the realization of an investment project as well as economic growth in Dongguan (and the increase in personal wealth of some high-ranking officials too). This in turn provides positive reinforcement for local officials to explore various means of improving the investment environment in Dongguan (and thus crowd-in more foreign capital before initiating the crowding-out process after the market has become saturated and production costs have increased). The analysis using a conventional economic

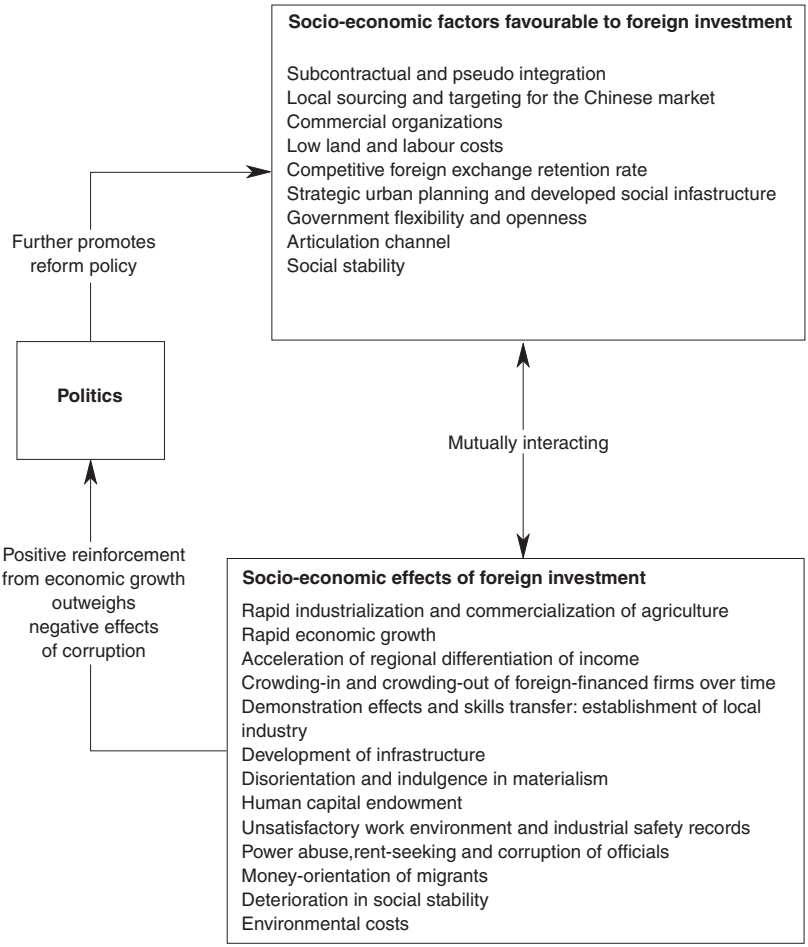


Figure 6.1 Socio-economic paradigm of foreign investment in Dongguan

approach is confined to asocial results, which is certainly far from satisfactory in a regional study.

Simplicity is the beauty of FDI and other mainstream inductive economic theories. Paradoxically, it is precisely their simplicity that prevents mainstream economic theories from providing a satisfactory explanation of the reality, especially of the inter-linkage between socio-economic and political factors that affect the causes and consequences of foreign investment in Dongguan.

It is therefore plausible to propose a 'dynamic symbiosis' paradigm for the study of the causes and consequences of FDI in the host country, which takes both socio-economic and political factors into consideration. The 'dynamic symbiosis' paradigm suggests that the socio-economic endowments in a country are inter-related with its socio-economic effects, which in turn influence the FDI policy and investment environment of the host country (see Figure 6.2). In other words, the nature of each political and socio-economic factor changes

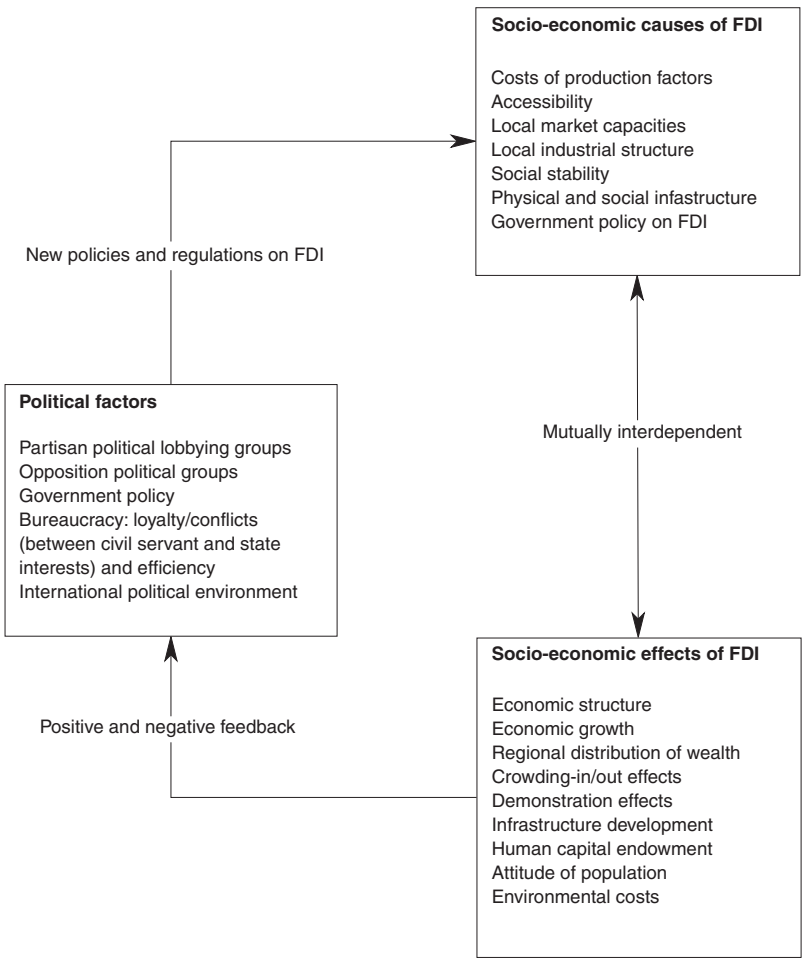


Figure 6.2 The 'dynamic symbiosis' paradigm of FDI in the host country

because the relationship between each element in the paradigm also changes over time. This implies that *the causes and effects of FDI cannot be investigated independently*. With an emphasis on the inter-disciplinary approach, the paradigm is more likely to allow a holistic analysis of the causes and effects of foreign investment on a regional basis.[10]

Obviously, the proposed paradigm only considers the host country as that is the focus of this book. It is therefore suggested that further research into the dynamic globalized forces that shape the relationships between home and host countries needs to be carried out.

Foreign investment paradigms in Dongguan

Following the methodology of the above paradigm, the foreign investment pattern in Dongguan can be generalized into three eras over time: 'colonialism-remittance'; 'ethnic-network'; and '*guanxi*-network' foreign investment.[11]

The capital flow into Dongguan during the pre-1949 era can be termed 'colonialism-remittance' capital inflow (see Figure 6.3). During the Qing dynasty, the economy of Dongguan was dominated by a small number of TNCs, such as the British-financed East-India Company and Jardine. As discussed in Chapter 3, they forcefully opened the Chinese market and secured a number of exclusive business and political privileges in Guangdong through gunboat diplomacy (including the

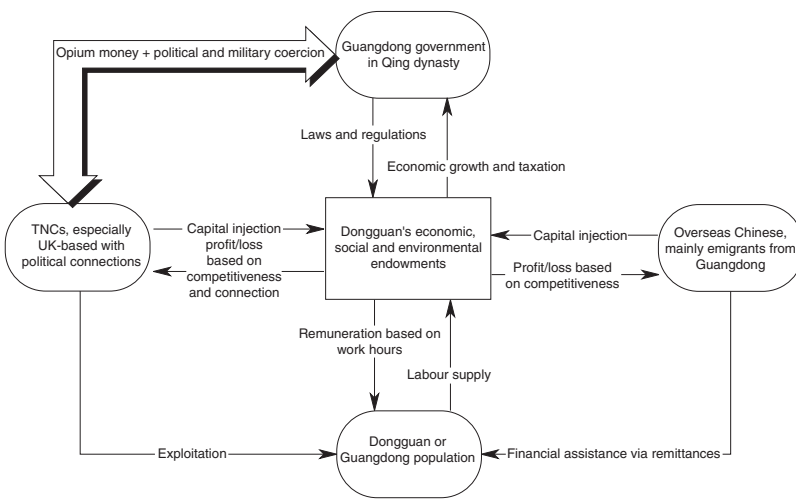


Figure 6.3 'Colonialism-remittance' capital inflow to Dongguan, pre-1949

two Opium Wars) and political blackmail. Rather than establish an industrial economy, the capital injection by British-funded TNCs was mainly directed at facilitating the import of British-made goods to China through the construction and improvement of ports and distribution channels. Without any legal protection, workers were exploited and forced to work long hours and undertake dangerous tasks.

Apart from the foreign-financed TNCs, overseas Chinese also played an important role in the development of the Dongguan economy (see Figure 6.3). As mentioned in Chapter 3, a large number of overseas Chinese had their origins in Dongguan or Guangdong. After settling overseas, they remitted cash to their worse-off relatives. Moreover, a small number of overseas Chinese entrepreneurs invested and established greenfield light industries (for example, firecracker manufacturing) and public utilities (for example, electricity generation) in Guangdong. Some of these successful investments laid the foundations for light industry in Guangdong.

After the establishment of the PRC in 1949, the nature of capital flow into Dongguan can be called 'ethnic-network' capital inflow (see Figure 6.4). As with the pre-1949 era, the remittances from overseas Chinese with ethnic connections contributed to the livelihoods of Dongguan's people. This was especially the case during the shortfall in agricultural output resulting from prolonged droughts and famine

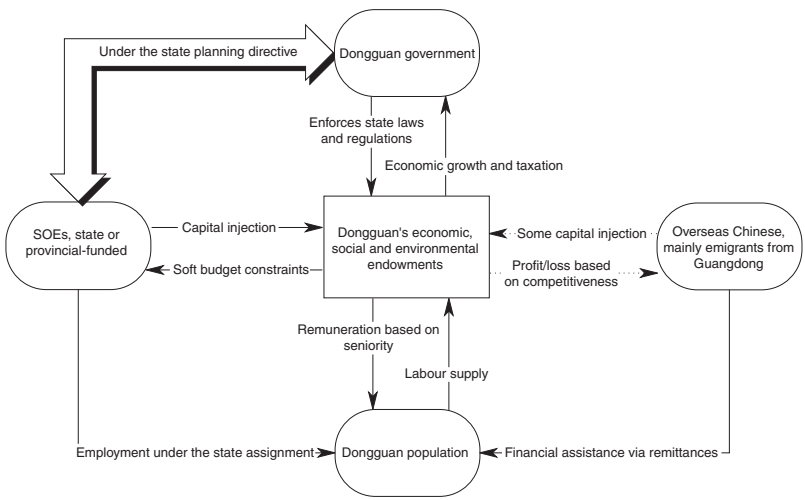


Figure 6.4 'Ethnic-network' capital inflow to Dongguan, 1949–77

caused by the Great Leap Forward in 1958–60. The central government effectively closed the door to foreign investment and cut off capital injection from overseas-Chinese after the late 1950s. Most of the overseas Chinese-funded firms were later nationalized, and this contributed to the formation of SOEs in Guangdong. Under the state planning directives, the Dongguan government organized the population into different production brigades and teams according to their registered households. Under soft-budget constraints, state-planned production quotas (rather than profitability) were the prime concern of SOEs. The dominant role of British-financed TNCs in Dongguan economy was effectively replaced by the SOEs.

After the introduction of an open economic policy in 1978, foreign investment in Dongguan can be generalized as '*guanxi*-network' (see Figure 6.5). As discussed in Chapters 4 and 5, a large proportion of foreign investment in Dongguan originated from overseas Chinese entrepreneurs (including the overseas-based subsidiaries of enterprises originating in China). The competitive advantage for overseas Chinese-funded enterprises in Dongguan was their ethnic or close personal connections with local government officials. With the right connections, they not only secured exclusive privileges in respect of miscellaneous charges, but also avoided the potential bureaucratic red tape and the pitfalls of local and central government. In the same way, overseas Chinese entrepreneurs were able to form CJVs or EJVs with local-

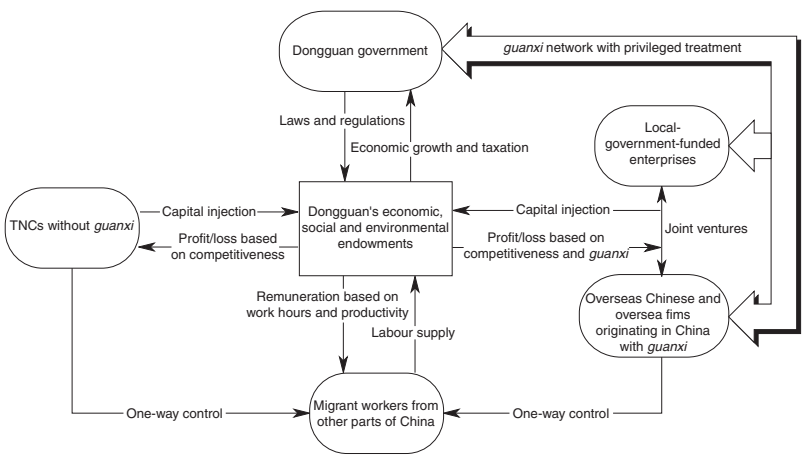


Figure 6.5 '*Guanxi*-network' foreign investment in Dongguan, 1978–1990s

government-funded enterprises. Obviously, the '*guanxi*-network' foreign investment favours overseas Chinese entrepreneurs with the right connections, which deviates from today's international concept of the 'level playing-field'.[12] Apart from fierce competition, this explains why a number of capital-abundant TNCs were unable to generate profits from their businesses.[13]

Paradoxically, the perceived philanthropic role of overseas Chinese in sending money to their homes during the pre-reform era was tarnished by a small proportion of entrepreneurs who exploited migrant workers. It can be argued that there was some collaboration between overseas Chinese entrepreneurs and local government officials over the exploitation of migrant workers in Dongguan. When there were close personal or ethnic connections between investors and local government officials, the government officials simply turned a blind eye to the violation of labour and fire safety laws, as discussed in Chapter 5.

An interesting phenomenon can be observed from the above three paradigms: there is a close relationship between *the state* and *entrepreneurs* over time (see Figures 6.3 to 6.5). Before the establishment of the PRC, the British-financed TNCs enjoyed exclusive privileges in Guangdong with the political and military backing of the colonial United Kingdom government. The privileged treatment given to British-financed TNCs was transferred to the SOEs between 1949 and 1977. After the economic reforms, overseas Chinese entrepreneurs with investments in Dongguan or Guangdong were given privileged treatment. Therefore, the relationship between the Dongguan government and entrepreneurs has been influenced by the political climate over time.

'Chinese crony capitalism'

The significance of the so-called 'Chinese crony capitalism' or 'Chinese cronyism' (where business transactions are largely based on personal connections rather than on purely financial interaction) is demonstrated at almost every level, from the formation to the operation of foreign-financed firms in Dongguan.

On the one hand, so-called 'Chinese cronyism' is able to reduce the transaction costs of 'kinship–crony' foreign investors dramatically from the first phase of foreign investment on site selection, forms of investment and negotiation of contracts. Guidance through the bureaucratic minefields in China means that the right connections can lower the transaction costs of daily administrative chores with the local government and secure better terms for investment contracts and miscella-

neous charges. It may also protect against illegal extortion by corrupt government officials. For the host country, 'kinship–crony' foreign investment may be the most likely source of capital inflow to assist the development of its economy.

On the other hand, the so-called 'Chinese cronyism' unavoidably leads to favouritism, nepotism and even corruption (including rent-seeking activities).[14] This is illustrated in Figure 6.5, where the special relationships between the government, government-funded firms and overseas Chinese-funded enterprises are hotbeds for the generation of rent-seeking activities. It also implies the implementation of policies that are biased against outsiders without the appropriate connections. This explains why the 'strike-hard' anti-corruption policy enforced by the Beijing central government has only had moderate success in southern China. As the 'mountain is high and the king is far away' in Beijing, neither of the partners in the closely intertwined politician–entrepreneur partnership are willing to rock the boat and jeopardize their own safety.

With the 1997 contagious financial and banking crises unfolding in Southeast and East Asia, the negative impacts of 'Asian cronyism' have become exaggerated. In fact, some allegations of 'Asian cronyism' are highly hypocritical. For example, the capital flight out of Asia, Russia and Latin America during the financial crisis is the response from the market economy and the penalty for flawed policies and corrupt 'crony capitalism'. 'Crony capitalism' *de facto* exists in North America and Europe too, as demonstrated by the recent near-collapse and the rescue of John Meriwether's Long-Term Capital Management (LTCM) hedge fund, orchestrated by the New York Federal Reserve Bank.[15] The major differences between 'Asian cronyism' and 'Western cronyism' (including 'American cronyism' and 'European cronyism') are the forms and magnitude of its occurrence.[16] In Dongguan, it is obvious that the power of the '*guanxi*-network' is greater than the law in some circumstances. From this perspective, the laws and regulations governing 'Chinese crony capitalism' in Dongguan are less frequently implemented than the laws and regulations treading 'Western crony capitalism' in North America and Europe.[17] Obviously, there is room for further improvement in the implementation of laws and regulations in Dongguan.

As will be further argued in the next section, the hypothetical 'level playing-field' is a utopian ideal. The rules of the game may be equal for all players, but the soldiers are not equipped with the same weapons. The intertwined linkages between TNCs in the age of globalization can

easily suffocate less competitive indigenous start-up opponents in most circumstances. For example, Coca Cola enjoys a complete competitive advantage against the locally-funded beverage industries in China. Western governments do collaborate with a select number of TNCs, providing them with exclusive privileges (for example, franchises or tax-free status) and even subsidizing their firms (for example, subsidized export credit) for politico-economic purposes – to generate employment to gain votes in a province with a high unemployment rate, for example.[18] In fact, government policies play a decisive role in the strategic and competitive advantages of the majority of leading corporations in the West. As argued by Ruigrok and Van Tulder (1995, p. 221), 'there never has been a "level playing field" in international competition, and it is doubtful whether there ever will be one'.

From the above discussion, it is suggested that a reflection on the role of connections and probably the establishment of a *guanxi* or crony model of development (or, more specifically, a set of crony models for the Asian and Western worlds) are required.[19] Further investigation can include questions such as: When and to what extent do the connections work, or not work? and What is the role of the state in this?

The role of the state

The effective implementation of foreign investment policy is one of the reasons why Dongguan has been able to industrialize its economy so rapidly. The openness of local government officials to the inflow of foreign capital and its relative administrative autonomy as a municipal government since 1988 has also contributed to the financing and planning of large-scale, longer-term physical infrastructure projects in Dongguan.

The role of the Dongguan government in economic development has been affected by the inflow of foreign capital over time. The government learned from the development experience of the 'Four Little Tigers' (especially Singapore and Hong Kong) and Shenzhen and this realized the role and significance of capital from the overseas Chinese on the industrialization of Dongguan. When the economy started to develop and the local government gained a higher level of autonomy in administration and financial matters during the late 1980s, the Dongguan government invested billions of *yuan* to develop the physical infrastructure, especially motorway networks, electricity supplies and telecommunications technology.[20] To facilitate the growing demand for semi-skilled and skilled labour, the government also

invested heavily in the enrichment of human capital endowment. With tremendous investment in education, the proportion of lower secondary school graduates continuing to higher secondary school education increased more than threefold, to 87 per cent by 1997 (DBS, 1998, p. 393).[21]

The success of Dongguan attracted the attention of TNCs frustrated by the existing '*guanxi*-network' game, as it was outside their competitive advantage boundary. The TNCs cry 'foul' as the existing '*guanxi*-network' game tilts the balance towards local-government-funded enterprises and overseas-Chinese-funded enterprises with the right connections. Moreover, they argue that the Dongguan government is at the same time both regulator and player. By laying down and implementing the laws governing foreign-financed firms, the government is the regulator (referee) of the game. However, the government also acts as a player by participating in the game for profit-making purposes in the form of government-funded enterprises and JVs with foreign investors.[22]

Under these circumstances, TNCs naturally demand that the '*guanxi*-network' game be changed into a 'pseudo level playing-field' game. As argued in the previous section, the existence of 'Western cronyism' suggests the 'level playing-field' concept is a chimera. In the hypothetical 'level playing-field' game, the government acts only as the regulator and refrains from being a player. The government can eliminate its player role by spinning-off the government-funded, profit-making firms by means of issuing shares to their management and staff – for example, by management buy-out. As the government can no longer grant exclusive privileges to anybody, all the players – whether TNCs without connections, or overseas Chinese investors with connections – in the game compete on a level instead of tilted playing-field. The hypocrisy of the 'pseudo level playing-field' game proposed by the TNCs is not because they think it is beneficial to local development in Dongguan, but because it is where they have their competitive advantages.

With the introduction of the 'pseudo level playing-field' game, it is obvious that certain competitive advantages of the existing SMEs will be eliminated without trace. It is likely that some local and overseas-Chinese-funded SMEs in Dongguan (and southern China) will be crowded-out (or, more precisely, the crowding-out process of less competitive SMEs in Dongguan's 'guerrilla capitalism' will be accelerated), especially firms without niche markets for higher-value-added products.[23] With their economic interests at stake, this group of

entrepreneurs and politicians (including their kin or web of cronies who benefit from the present policy) with strong connections will definitely lobby hard and resist any reform that might endanger their existing means of wealth generation. Obviously, the timed phases and methods of moving from the '*guanxi* network' to the 'pseudo level playing-field' games deserves more thorough investigation. For example, how far and how fast (how long the transitional period should be) should Dongguan move towards the 'pseudo level playing-field' game, provided this is the way to move forward?

To conclude, Dongguan has been transformed from a 'socialist' state under a highly bureaucratic regime towards a pseudo-capitalist (developmental) state with flexible interpretation and implementation of reform policy based on economic interests rather than ideological dogma. As argued by Radice (1995, p. 288), the roles of the state and its policies in foreign investment deserve more analysis in the literature.

6.4 Policy agenda

This section suggests three particular policy aims for the future agenda of the Dongguan government in order to improve its investment environment and sustain growth: (i) plan for a society where the 'rule-of-law' is upheld; (ii) fight against rent-seeking and corruption; and (iii) encourage human capital enrichment.

Towards a 'rule-of-law' society

Undoubtedly, the '*guanxi*-network' capital inflows in the form of financial remittances and foreign investment did play a vital role in the development of the Dongguan economy up to the early 1990s. To maintain long-term growth sustainability, the Dongguan government has to divert the rules of the game from '*guanxi*-network'-based foreign investment towards the international norm of the 'rule-of-law', where laws and regulations are clearly stated and uniformly implemented in different regions (see Figure 6.6).[24]

Rather than slipping into recession through losing markets and support from Malaysia after its independence in 1965, Singapore's economy grew at an unprecedented double-digit rate and its highly industrialized economy was dominated by TNCs. Singapore developed into a highly successful economy by investing heavily in human capital enrichment through formal education and improving the transparency of laws and regulations (rule-of-law). With its initial poor endowments in terms of human capital and land, the experience of

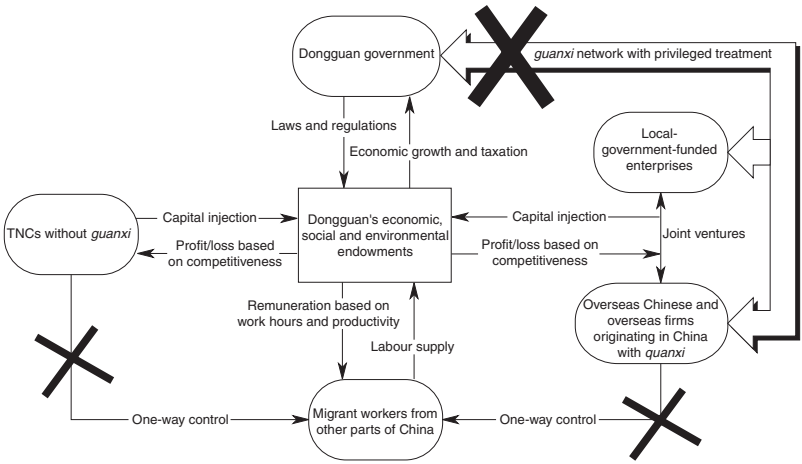


Figure 6.6 Proposed 'rule-of-law' by foreign investment in Dongguan, 1990s onwards

Singapore is a good example of how foreign investment policy in Dongguan might be modified.

Dongguan has to further improve its investment environment to attract more higher technology manufacturing sectors with higher value-added, as the cost of production is increasing continuously. While (overseas Chinese) medium-scale skill-intensive industrial sectors have been established in Dongguan since the 1990s, large-scale investment from TNCs in the era of globalization – where productive and capital-intensive R&D is not usually affordable for enterprises without sound capital reserves – has been relatively scarce. This is especially the case in the state-of-the-art biotechnology and microelectronic industries, where TNCs have to develop collaborative R&D to lower the risks and costs involved. Therefore, Dongguan has to improve its investment environment so that its laws and regulations meet international norms simply because the majority of TNCs are reluctant to play the game by the Chinese ('*guanxi* network') rule.

With the ever-increasing influence of international partisan lobbyist groups in the formation of foreign policy in North America and Europe, Dongguan has to improve its investment environment, although some TNCs are willing to play by the Chinese '*guanxi* network' rule as a temporary measure. North American and European governments are under increasing political pressure to intervene on behalf of human rights and labour rights lobbyist groups (who may

have their own political agenda) in view of mounting allegations and evidence presented. Coupled with less than spectacular success and even suffering financial losses under the Chinese '*guanxi* network' game, TNCs and their subsidiaries, with or without investments in China, have ample motivation for their push towards the 'international norm' game.[25]

A recent public outcry and clashes between labour rights groups and Nike sports shoe subcontractors following allegations of inhuman treatment of workers and the use of child labour in Vietnam and southern China (including Dongguan) is a typical example of international pressure groups imposing political pressure on TNCs (SCMP, 1997e, 1997f). As an image-conscious player whose phenomenal success relies heavily on marketing, Nike subsequently cancelled subcontracting deals with some suppliers. The Dongguan government needs to improve its inspection mechanisms for locally-funded and foreign-financed firms, and minimize the opportunity to provide ammunition for human rights and labour rights lobbyist groups.

Although the general principles of how to move towards a 'rule-of-law' society are clear, it must be emphasized that Dongguan should not copy the experience of Singapore or anywhere else blindly without a thorough investigation of its own circumstances. The aim in attracting TNC investment is to complement rather than to replace overseas Chinese investment, since both have their own contribution to make in the development of Dongguan.

The 'rule-of-law' game has another positive external effect – a lowering of the opportunities for rent-seeking or corruption. Opportunities for rent-seeking or corrupt behaviour are minimized when there are clearly established, transparent and uniformly implemented laws (through eradication of the grey areas of jurisdiction) to regulate foreign investment: rule-of-law instead of rule-of-the-people.[26] In other words, the referee in the game is the law (and the judiciary) instead of self-appointed 'amateur' referees comprising local government officials and their relatives or close friends.

Discharging both barrels to fight rent-seeking and corruption

To move towards the 'rule-of-law' game and further minimize the chance of rent-seeking activities and corruption, the Dongguan government has to discharge both barrels of its shotgun simultaneously by increasing the remuneration of civil servants and striking hard at corrupt officials.[27]

The phasing out of the '*guanxi*-network' game and increasing the remuneration of civil servants effectively closes the door to rent-seeking and corrupt activities, and lowers the resistance of civil servants to reform. Obviously, no system is perfect and this will not eradicate the existence of rent-seeking and corrupt activities altogether. In the experience of Hong Kong, the establishment of an Independent Commission Against Corruption (ICAC) was able to lower corruption among civil servants dramatically during the 1970s. As long as the law is for everyone, this sends an unambiguous signal to the public that rent-seeking and corrupt behaviour are no longer acceptable.[28]

The abuse of toll-road laws illustrates the importance of implementing the law. The existence of this abuse (for example, authorized or unauthorized toll-roads where tolls are collected for indefinite periods) results from three factors: the loopholes in the laws governing toll-roads; the vagaries of the implementation of the laws (depending on the goodwill of local and provincial governments, which means the laws are subject to abuse); and the lack of any monitoring mechanism. However, this does not mean that the issue of toll-roads will be resolved with the passing of more laws and tighter monitoring mechanisms.[29] Some loopholes will always exist and some parties will be keen to reap the benefits. It is therefore suggested that education and the cultivation of a consciousness of public responsibility are long-term solutions.

Human capital enrichment

To counter the continuing popularity of 'voluntary unemployment' and the use of illegal means of income generation, the education sector must fight to raise public awareness of the significance of education for the next generation. Instead of indulging in party broadcasts, the government propaganda machine must devote more resources to promoting the importance of a corruption-free society for the economic growth of Dongguan and the long-term personal welfare of the people.

The 'rule-of-law' game can be extended to both Dongguan and non-Dongguan people by reorientating the government's social and education policies based on ability and competence rather than ethnic connections. Apart from financial assistance to children from local households, the township governments in Dongguan can consider providing scholarships or loans to migrant children, based on ability. The bottom line is that educated migrants are usually more productive and less likely to commit violent crimes because of an inability to make a

living than uneducated migrants. The government can attach conditions to the scholarships, requiring migrant children to work in Dongguan for a predetermined period of time. This arrangement would not only contribute towards enriching the human capital endowment of Dongguan as a whole, but may also reduce the danger of racial conflict between locals and migrants. This is, in fact, a way of assimilating migrants into the local community in Dongguan by cultivating a sense of belonging. Undeniably, the improvement in the education prospects of migrant children is likely to attract more migrants to Dongguan. The criteria for migrants eligible to enjoy the local social and education benefits requires further study.

As with other policies enforced in China over the years, the effectiveness of policy implementation (to what extent the policy would be implemented according to its principle?) may be the key to determine the ultimate effects of the above policy agenda. If the government is able to implement its policies effectively, it is highly likely that Dongguan can maintain sustainable economic development in the twenty-first century.

Notes

1. Official statistics indicate that, in 1998, migrants were involved in more than 10 000 crimes in Guangdong. However, migrants are often made scapegoats for any form of social disorder or crime. According to an official in Guangdong provincial government, 'the floating population has certainly contributed to Guangdong's economic development but has, at the same time, affected social order' (SCMP, 1999a). It is not part of the scope of this book to discuss the possible connection between the triad societies in Dongguan and in other areas.
2. Refer to pages 225–7 for a further discussion of the state's developmental role.
3. To fight corruption and increase central government revenues, the Beijing government has drafted a five-point plan to scrap about 80 per cent of local fees. Under the proposed plan, the fees levied annually by local authorities will be reduced from 400 billion to a maximum of 80 billion *yuan*. Under the plan, only four categories of fees will be allowed to be levied by local governments: registration fees; legal charges; special business fees (such as tax licences); and pollution fees (SCMP, 1998f). In February 1999, Guangdong CCP secretary Li Chang-chun urged officials to stop the imposition of arbitrary government inspections and the imposition of capricious charges, fines and fees on non-SOEs. Mr Li argued that the government should treat companies in all forms of ownership equally to promote economic growth (SCMP, 1999g).
4. The first local legislation to protect migrant workers was implemented in Zhuhai municipality of Guangdong in 1998. The new law outlines regulations on labour management, working hours, remuneration and welfare benefits of migrant workers. It requires employers to provide equal treat-

ment to migrant and local workers. Moreover, it bans employers from charging migrant workers registration fees or holding their identification documents in lieu of deposits (SCMP, 1998d). However, to what extent this new law is fully implemented by the local authority remains to be seem.

5. In Dongguan, 75 per cent of the imported machinery and equipment value in EJVs was manufactured in the 1990s. In CJVs and WFVs, the ratios are 95 per cent and 75 per cent, respectively (ODICC, 1996, pp. 172–3).
6. There is empirical evidence to support the argument that the liberalization of trade and investment does not necessarily lead to environmental degradation (Anderson, 1997, pp. 324–6). For example, McDonald's ordered the Hong Kong-funded Keyhinge Toys in Shenzhen to comply with the air quality standards set by the US Occupational Safety and Health Administration (such as making the wearing of masks in the workplace mandatory) before continuing to place orders with them for plastic toys (FEER, 1998a, p. 46).
7. The Labour Ministry estimated that 74 billion *yuan* was remitted back by the 37 million migrant workers employed in major cities of China during the Lunar New Year holiday (SCMP, 1998a).
8. The World Bank endorses capital controls for the first time, admitting restrictions on capital inflows as a temporary measure are sometimes necessary for countries with poorly developed financial systems (IBRD, 2000, pp. 69–85).
9. It can be argued that the OLI framework implicitly suggests that the effects of FDI are build into the paradigm; for example, the effects of FDI will also lead to changes in OLI and the investment environment. However, the OLI framework does not provide a proper mechanism for discussing the causes and effects of FDI interaction.
10. The closest previous works are Dunning (1997) and Frank (1966, 1967, 1969), mentioned in Chapter 2. However, Dunning (1997) and other economists focus on the economic effects of FDI, while the dependency school is confined to discussing the negative effects of FDI in the host country.
11. The rationale for using highly generalized categories is to demonstrate the dynamic relationship between the state and entrepreneurs over time. It also has profound implications for policy agenda, which will be discussed in section 6.4.
12. 'Level playing-field' is a misconception. In reality, there is no 'level playing-field' in the West, as will be argued in the next section.
13. The TNCs that struggled to make a profit in China included Siemens, Unilever, Whirlpool, General Electric, Motorola and Caterpillar. Interested readers can refer to FEER (1997d, 1997e) and HKS (1998a) for details.
14. Lever-Tracy *et al*. (1996, p. 56) argue that corruption is not part of *guanxi*, since it involves extortion rather than mutual benefit, which is the purpose of *guanxi*.
15. In his article (entitled 'Western Crony Capitalism') published in the *Financial Times*, John Plender writes: 'The LTCM hedge fund fiasco has exposed not only inept banking practice from Wall Street via Switzerland to the Italian central bank, but a surprising degree of cronyism in the West; a cronyism less corrupt than in Indonesia, Malaysia or Russia, but *with more dangerous consequences*, given the scale of the financial risks involved.'

(emphasis added) (FT, 1998b, p. 10). This is indeed the case, as creditors allowe the Long-Term Capital Management (LTCM) hedge fund exposed up to US$200 billion of derivatives trading, against an equity capital of only US$4.8 billion. The 'crony capitalism' is also alleged against the major US investment banks, such as Goldman Sachs and Lehman Brothers, who advised the Thai and Indonesian governments on the privatization and selling off of state assets at the same time. The Financial Minister of Thailand, Mr Tarrin Nimmanahaeminda, comments: 'These banks have an advisory side and a wheeler-dealer commercial side. They always say they maintain Chinese walls between them. I rather doubt it' (FEER, 1998c, p. 50). Refer to Petersen and Rajan (1995) for evidence of the existence of relationship lending practices in the USA.

16. In fact, there are differences within so-called 'Asian cronyism'; for example, differences between the Chinese, Korean and Japanese versions (Redding and Whitley, 1990, pp. 85–9). Chang (1999, pp. 6–7) asserts that '*capitalism developed on the basis of moral hazard*. The form taken was different (limited liability, lender of last resort facility), but the principle was the same – *socialisation of risk*. It is therefore misleading to look at the cost side of those institutions that socialise risk while ignoring its benefits, and to condemn them' (emphasis added).
17. The existence of hidden agendas governing foreign-financed firms in China may be compatible with the lack of transparency commonly associated with '*guanxi*-network' foreign investment. This can contribute to conflicts of corporate culture between Chinese and Western companies and lead to the managerial difficulties experienced by Sino-foreign JVs.
18. This phenomenon may be particularly common in military industrial complexes where government action is justified under the heading of 'national security'.
19. The closest previous works are Redding and Hsiao (1990), Leung (1993), Redding (1993) and Min Chen (1995), who investigated the role of connections in Chinese-style management. Rajan and Zingales (1998) also develop a framework to distinguish the differences between the relationship-based system and the arm's-length, market-based Anglo-Saxon system, while Rauch and Trindade (1999) develop a model to investigate the role of ethnic Chinese networks in facilitating international trade.
20. The Dongguan government is able to collect large amounts of revenue to invest in the local economy. This contradicts the conventional belief about the inability of Chinese (central) government to collect taxes. Refer to Huang (1996) for a discussion of the economic and political roles of local government officials in China.
21. This is compatible with the six positive roles of government – promoting education, promoting technology, supporting the financial sector, investing in infrastructure, preventing environmental degradation, and creating and maintaining a social safety net – that contribute to the economic development suggested by Stiglitz (1997, pp. 13–5).
22. This issue is further complicated by the existence of reverse investment from overseas-based companies originating in China. Moreover, the dual role played by the state leads to the compromising of labour safety and the work environment because of a conflict of interests.

23. The term 'guerrilla capitalism' was coined by Smart and Smart (1991, p. 225), based on the analogy of guerrilla warfare, in which success depends on multiple small actions (small-scale investment) rather than a head-on confrontation (large-scale investment).
24. To make a clear distinction between the 'pseudo level playing-field' and avoid confusion in terminology, the term 'rule-of-law' replaces the hypothetical 'level playing-field'. The term 'rule-of-law' state was coined by Vasili Vlasihin (Cooter, 1997, p. 191). In the 'rule-of-law' state, Cooter (1997, p. 191) argues that the law is obeyed out of respect rather than because of the fear of punishment (as is the case under rule-of-state-law).
25. US firms benefited enormously from the US government's efforts in the World Trade Organization (WTO) to establish a 'pseudo level playing-field' (Nolan and Wang, 1998, pp. 10–11).
26. This book argues that power abuse by bureaucrats is because the law is not fully enforced in Dongguan (and in China) rather than there not being any laws. Of course, the transparency of existing laws have to be improved and their loopholes closed. In fact, it appears that central government has been moving towards a 'rule-of-law' scenario by severing links between the CCP (and other state organizations) and its business enterprises, effectively from 1999. Financial firms would be supervised directly by the People's Bank of China and the Central Committee's Financial Working Committee, headed by the vice-premier, Wen Jiabao. Non-financial enterprises would be under the supervision of the Central Committee's Large and Medium-sized Enterprises Working Committee, headed by the another vice-premier, Wu Bangguo. After the 'divorce' between the army and its business ventures, this was the second major policy implemented by the central government in 1998 to curb corruption and smuggling, end favouritism and boost competition (FT, 1998c, p. 6; SCMP, 1998k, 1998l). Under the newly introduced 'Party and Government Cadre Work-change Rules' in 1999, new cadres were banned from taking any key offices in county or city governments in their home areas (defined as places of birth or upbringing, and family ancestral homes). Those cadres already in office in their home areas must move to a post elsewhere at the end of one term of office (about five years). Moreover, two members of the same immediate family, or cousins, are banned from holding leadership positions in the same local government (SCMP, 1999l).
27. Apart from the biggest wage increase since 1949 (increased by 70 *yuan* per month, regardless of rank, plus a further 50 *yuan* per month on average, depending on position and duration of service by 1999), the central government plans to double the wages of civil servants by 2002. The pay rise is regarded as a way of lowering the incentive for government officials to engage in corrupt activities, and boosting domestic consumption (SCMP, 1999d, 1999m, 2000).
28. A viable legal framework that enforces the law without favouritism is a basic condition for corruption control (Rose-Ackerman, 1998, p. 48).
29. Any new legislation will inevitably affect the partisan parties' interests and their resistance. This is illustrated by the recent open disagreement between local and central government on the newly proposed Highway Law. The proposed Highway Law would allow central government to abolish 216

items of fees (including tolls on roads) levied by local governments and replaced them with a petrol tax levied by central government. This would not only increase central government revenues but also reduce the unlawful charges levied by local governments. As local governments collected more than 116 billion *yuan* from the 216 fees in 1996, they are naturally resisting any change to the present financial arrangement. This partly explaines why the proposed Highway Law was one vote under the required two-thirds majority to be approved by the National People's Congress Standing Committee meeting in April 1999 (the Highway Law was eventually approved by the Standing Committee after central government promised to offset the fuel tax on farmers by compensating them according to the sizes of their farm plots) (HKS, 1998c; SCMP, 1998e, 1998h, 1999j, 1999k, 1999o). The five-year postponement of the law requiring public bidding on most government procurement is another recent example that illustrates the strong resistance of any reforms that might affect the interests of partisan groups (in this case, those in charge of government procurement). This is the case even though trials of open bidding across the country have reduced the costs by an average of 10–15 per cent (and up to 50 per cent in some cases). However, Shenzhen has been able to pass an experimental law to mandate the municipal government to disclose its buying plans. Since 1999, the public has been allowed to bid on all government procurement worth more than 100 000 *yuan*, and certain service contracts worth more than 200 000 *yuan* (SCMP, 1998g).

Appendix I

Table A.1 The 33 administrative towns and districts in Dongguan, 1997

Administrative towns/districts English names		*Administrative regions (no.)*	*Area (km^2)*
Changan		13	83
Changping		32	107
Chashan		17	51
Dalang		27	144
Dalingshan		23	110
Daojiao		14	63
Dongkeng		15	27
Fenggang		12	103
Fucheng district		22	130
Gaobu		19	30
Guancheng/city proper district		7	15
Hengli		17	50
Hongmei		10	25
Houjie		23	126
Huangcun district		14	59
Huangjiang		19	98
Humen		28	166
Liaobu		27	87
Mayong		15	74
Qiaotou		17	56
Qingxi		21	143
Qishi		20	51
Shatian		16	98
Shijie		15	36
Shilong		10	12
Shipai		19	56
Tangxia		21	168
Wangniudun		22	30
Wanjiang district		27	50
Xiegang		12	103
Xinwan		12	2.5
Zhangmutou		9	66
Zhongtang		19	59
Total	**33**	**594**	**2 465**

Source: Compiled from DBS, 1998.

Appendix II: Common Misconceptions in the Relocation of Manufacturing

In this appendix, two misconceptions concerning the relocation of manufacturing from Hong Kong to southern China and coastal–inland relocation of manufacturing are addressed.

Hong Kong–Southern China relocation of manufacturing

To reap the benefit of low labour and land costs in Dongguan (or southern China), it is generally argued that the relocation of 'sun-set' industries from Hong Kong allows them to remain profitable without a significant increase in capital investment to upgrade obsolete machinery and facilities (Vogel, 1989, pp. 175–6). The relocation of manufacturing is theoretically sound and compatible with the conventional wisdom of the 'flying geese' theory and the OLI framework.

None the less, for the SMEs with P&A contracts, the relocation of manufacturing from Hong Kong to Dongguan may in fact demand more capital investment than if they had remained in Hong Kong. Moreover, the term 'sun-set' industry is misleading. This argument is based on four aspects of the politico-economic development of Hong Kong and southern China during the 1990s: reform policy constraints; high operational costs; high fixed costs; and high value-added, skilled and labour-intensive light industry.

First, the reorientation of foreign investment policy by the Dongguan government led to reform policy constraints encountered by foreign-financed enterprises. As mentioned in chapter 4, the municipal government implemented its 'second industrial revolution' policy from the 1990s onwards. Under this policy, the government aimed gradually to attract higher technology, higher-value-added and capital-intensive projects to replace the low technology, low-value-added, labour-intensive, energy-consuming and environment-polluting industries. This reorientation of foreign investment policy led to a reduction in the competitiveness of low-value-added and environment-polluting projects in Dongguan. This was particularly the case when two of the vital privileges of foreign-financed SMEs – exemption from profit tax and import tariffs – were abolished by the government in 1996. In fact, the government has banned certain new investment in environment-polluting industries – for example, paint manufacturing (DMG, 1995, p. 40). Moreover, investment projects funded by local authorities are bigger and have more advanced technology than the majority of Hong Kong-funded SMEs – for example, the 60 million *yuan* invested by the Longyan authority in the EJV sock-manufacturing firm in Humen town.

With the diffusion of skills to locally-funded industries, the competitive advantages of foreign-financed SMEs are diminished. This is especially the case if foreign-financed firms cannot develop niche markets with higher-value-added products. Apart from economies of scale in production and relatively low per-unit costs of raw materials (through bulk purchasing discounts) and transportation, the large-scale enterprises can also command a longer period for debt repayment. Under these circumstances, Hong Kong-funded SMEs have two options: expand their investment in China and try to compete with the large-scale foreign-financed and locally-funded firms, or close down their firms in China.

Second, the high operational costs (already mentioned in Chapter 4) have three aspects: high labour costs, miscellaneous costs; and transport costs. The high labour cost is mainly because of lower labour productivity, high worker turnover, high labour training costs, and migrant workers' lack of commitment to their jobs. Lack of understanding of the industrial work environment contributes to a lack of commitment to their work by migrant workers, which in turn leads to a high rate of substandard production. According to one Hong Kong-based entrepreneur, sub-standard production in his metal-mould manufacturing in Yantian administrative region of Fenggang town reached 30 per cent for raw materials, which eliminated a large portion of his profit. For example, drilling a hole in the wrong place on the metal mould can lead to the whole piece being discarded. This partly explains why he, and other Hong Kong entrepreneurs, maintain their Hong Kong-based firms, but scale them down.

Table A.2 illustrates the high miscellaneous costs of a small-scale carton manufacturing firm in Xiegang town. The total wage bill for forty-five employees was 35 000 *yuan* in July 1997. At 800 *yuan* a month on average, the wages in Dongguan are a-tenth – or even less – of those in Hong Kong. However, the low labour costs are partially offset by the high miscellaneous costs of Customs declaration fees (3000 *yuan*), telephone (4300 *yuan*), water and electricity (8500 *yuan*), social insurance (500 *yuan*), labour insurance (667 *yuan*), Labour Bureau's management fee (584 *yuan*) and another 5000 *yuan* for general miscellaneous expenditure. The 22 551 *yuan* miscellaneous fees accounted for 24 per cent of the firm's total operational costs in July, and this is why the 93 551 *yuan* a month operational costs are at least as high as a firm with a similar manufacturing capacity in Hong Kong. In fact, the total number of miscellaneous charges are more than indicated in the table, as some are usually levied once a year rather than every month. Because of deliberate under-reporting, the above calculation is based on twenty-five rather than the forty-five employees the firm actually employed. If the calculation was based on forty-five workers, the firm would have to pay at least an extra 1399 *yuan* in July (or 16 800 *yuan* a year): 400 *yuan* social insurance, 533 *yuan* labour insurance and 466 *yuan* for Labour Bureau management fees.

In addition to unexpectedly high miscellaneous fees, there is concealed expenditure associated with foreign-financed firms located in China: 'workers' overhead costs'. The firm has to pay for accommodation (in terms of rent, electricity and water bills) and catering for workers, even when the factory is non-operational. In the small-scale carton firm, it is estimated that the firm's minimum expenditure is 23 766 *yuan* per month (13 000 *yuan* on rent, 6500 *yuan* on food, and, assuming the telephone, water and electricity bills are one-

Table A.2 Selected expenditure of a foreign-financed carton manufacturing firm, Xiegang town, July 1997

*Categories of expenditure**	*Total*	
	yuan/month	*%*
Rent of factory premises (10 000m^2 of workspace and 6000m^2 of accommodation)	13 000	13.90
Wages		
40 manual workers and technicians: 25 000 *yuan*		
5 factory managers and office staff: 10 000 *yuan*	35 000	37.41
Water and electricity	8 500	9.09
Telephone	4 300	4.60
Transportation		
2 factory cargo trucks operation costs: 3800 *yuan*		
Charges on toll-roads and toll-bridges: 5000 *yuan*		
Vehicle rental costs:** 2500 *yuan*	11 300	12.08
Printing ink	5 200	5.56
Food for workers	6 500	6.95
Customs declaration fees	3 000	3.21
Social insurance (6000 *yuan*/year)	500	0.53
Labour insurance (8000 *yuan*/year)	667	0.71
Labour bureau management fees (7000 *yuan*/year)	584	0.62
Other miscellaneous expenditure	5 000	5.34
Grand total	93 551	100.00

Notes: * Raw material costs for paper is excluded since they are paid as debt-payment.
** Since the two factory-owned trucks were unable to deliver all the finished products on time, the firm hired another cargo truck for deliveries.
Source: Interviews conducted July 1997.

third of the normal level – 1433 *yuan* on telephone costs and 2833 *yuan* on water and electricity). That is, the minimum expenditure is about 25 per cent of operational costs, even when the firm is not in production. This is about 50 per cent higher than the costs for an idle firm in Hong Kong with a similar manufacturing capacity. Another Hong Kong entrepreneur estimates that the minimum expenditure for non-operative SMEs in Dongguan can reach 100 000 *yuan* a month, more than double that of an idle SME in Hong Kong.

Apart from the longer distance from Hong Kong (compared with Shenzhen), the high transport costs are mainly caused by the abuse of laws on toll-roads (discussed in Chapter 6). Central government has laws governing toll-roads; however, the implementation of the law is up to the local governments in Dongguan. In some cases, the administrative region or village authorities erected unauthorized toll-gates and truck drivers were forced to pay. A truck driver has to pass through thirty to forty toll-roads and toll-bridges (each toll-gate charges 3–10 *yuan* for a car and 10–40 *yuan* for a truck) between

Guancheng district and Shenzhen. This explains why the carton firm has to spend 5000 *yuan* on toll-roads and toll-bridges out of its 11 300 *yuan* transport costs.

Third, the fixed costs of China-based enterprises include some explicit and some implicit expenditure. Although the land costs in Dongguan are a fraction of those in Hong Kong, the initial fixed costs for establishing a firm are similar. Partly because of lower labour productivity (which requires a larger number of workers and thus more workspace to achieve the same level of production), and partly because of minimal transport costs for raw materials and finished products, firms in Dongguan are much bigger than their counterparts in Hong Kong. In addition, separate accommodation quarters for workers are required by law. Apart from the rent or construction costs of factory premises, the cost of installing electricity and water supplies is also considerable (at least 50 000 *yuan*), even higher than the costs for a small-scale firm in Hong Kong. Therefore, the minimum expenditure of foreign-financed firms in China is usually much higher than people realize. Fourth, high-value-added, skilled and labour-intensive industries, rather than low-end, low-value-added, labour-intensive 'sun-set' manufacturing are characteristic of the newly established, foreign-financed and locally-funded firms in Dongguan.

The decision of the Taiwan-funded and Hong Kong-listed Yue Yuen Industrial Holdings – the largest subcontractor for Nike, Reebok and Adidas sports shoes – to invest in manufacturing in Changan town, and Nestlé Coffee to invest in the Guancheng district of Dongguan are just two counter-examples to illustrate the fallacy of 'sun-set' manufacturing being the norm. In terms of numbers, it is undeniable that a large proportion of foreign-financed firms are small in scale and low in technology. None the less, the empirical evidence presented in this book suggests that this is no longer the case in the 1990s. Rather than being low in value-added, the new investment projects financed by Taiwanese and other foreign entrepreneurs, as well as local governments, are medium to large in scale and usually in skill-intensive sectors.

Moreover, it is inappropriate or even misleading to suggest that labour-intensive industry is equivalent to low-skill and low-value-added industry without reservation. In the case of Yue Yuen Industrial Holdings, sports shoe manufacturing is a skilled and labour-intensive sector and its manufacturing processes command higher value-added, largely because of the successful globalized marketing strategies of sports shoe giants, Nike, Reebok and Adidas.

Coastal–inland relocation of manufacturing

To maintain the competitive advantage of labour-intensive industry, it is generally argued that the increase in labour and land costs in Dongguan has forced foreign-financed enterprises to move their operations to central and western China. Again, this argument is compatible with the 'flying geese' pattern and the OLI framework.

However, the evidence suggests that moves inland may not reduce the operational costs of foreign-financed firms. For example, one Hong Kong-based entrepreneur found the operational costs of his firm in Heilongjiang (a remote province on the Sino-Russia border) were as high as those of their counterparts

in Dongguan. Although some aspects of the supporting infrastructure may be better planned in the western region, total operational costs were inflated by unexpectedly high labour, miscellaneous and transport costs.

The high labour costs were the result of the higher wages paid to semi-skilled workers, and the higher training costs for unskilled workers. The supply of semi-skilled and skilled labour was much smaller in this remote area as the majority of potentially available workers were trying their luck in the coastal region, where most foreign-financed firms are located.

The high miscellaneous costs are a consequence of the short-sightedness of some local governments. To reclaim their heavy investment in infrastructure and factory premises in a shorter time, some local governments made higher miscellaneous fee charges to foreign-financed enterprises; for example, heating costs were very high during the freezing winters in Heilongjiang.

High transport costs are to be expected, as Heilongjiang is a long way from Hong Kong. The already high transport costs were further inflated by the fact that most Hong Kong-based container truck drivers were reluctant to operate in remote areas because of the risk of crime and the extra time involved. This was particularly the case when a Hong Kong driver had to drive along unfamiliar roads for a week or more to deliver the cargo. The recruitment of local drivers to deliver goods from Shenzhen to inland can lower transport costs but raises transaction costs for co-ordination with Hong Kong-based drivers. In cases of emergency, it is almost impossible to use the railway system to deliver goods to and from the firm because the railway has no free network capacity.

In spite of the much lower land and labour costs, the operational costs of foreign-financed firms may in fact be increased by moving to central and western China. Moreover, foreign-financed firms located in remote areas are unable to enjoy some of the competitive advantages of their counterparts in southern China, such as accessibility (being able to reach a firm in an hour or two in an emergency) and the subcontractual and pseudo integration mentioned in section 4.6. Therefore, there seems to be a relocation of lower-value-added, labour-intensive manufacturing industry *within* southern China rather than a massive relocation from coastal to inland provinces.

Appendix III: Selected Statistics of Dongguan

Table A.3 Population, Dongguan, 1949–97

Year	*Population (no. of persons)*		
	Local population	*Migrants*	*Total population*
1949	682 383	0	682 383
1950	695 118	0	695 118
1951	706 837	0	706 837
1952	716 750	0	716 750
1953	728 677	0	728 677
1954	742 991	0	742 991
1955	758 220	0	758 220
1956	769 205	0	769 205
1957	774 814	0	774 814
1958	781 530	0	781 530
1959	793 593	0	793 593
1960	798 144	0	798 144
1961	802 086	0	802 086
1962	796 409	0	796 409
1963	818 919	0	818 919
1964	839 017	0	839 017
1965	864 601	0	864 601
1966	888 918	0	888 918
1967	907 000	0	907 000
1968	930 057	0	930 057
1969	960 044	0	960 044
1970	985 567	0	985 567
1971	1 010 001	0	1 010 001
1972	1 026 883	0	1 026 883
1973	1 048 902	0	1 048 902
1974	1 065 159	0	1 065 159
1975	1 079 405	0	1 079 405
1976	1 088 799	0	1 088 799
1977	1 100 022	0	1 100 022
1978	1 112 299	0	1 112 299
1979	1 120 417	0	1 120 417
1980	1 126 973	0	1 126 973
1981	1 144 619	0	1 144 619
1982	1 161 884	0	1 161 884
1983	1 175 946	0	1 175 946
1984	1 189 485	0	1 189 485
1985	1 208 515	0	1 208 515
1986	1 230 122	15 622	1 245 744

Table A.3 Population, Dongguan, 1949–97 *(continued)*

Year	*Population (no. of persons)*		
	Local population	*Migrants*	*Total population*
1987	1 248 639	252 895	1 501 534
1988	1 267 605	268 913	1 536 518
1989	1 287 621	481 850	1 769 471
1990	1 318 526	655 902	1 974 428
1991	1 336 451	805 790	2 142 241
1992	1 360 597	1 144 753	2 505 350
1993	1 389 232	1 217 010	2 606 242
1994	1 413 965	1 390 884	2 804 849
1995	1 436 525	1 421 754	2 858 279
1996	1 452 455	1 433 157	2 885 612
1997	1 471 220	1 446 830	2 918 050

Table A.4 Gross value of industrial and agricultural output, Dongguan, 1949–97 (in 10 000 *yuan*)

Year	*Gross value of agricultural output*	*Gross value of industrial output*			*Gross value of industrial and agricultural output*
		Heavy industry	*Light industry*	*Total*	
1949	5 400	173	2 722	2 895	8 295
1950	5 586	238	2 087	2 325	7 911
1951	5 730	272	2 130	2 402	8 132
1952	6 623	274	3 757	4 031	10 654
1953	6 648	357	4 364	4 721	11 369
1954	7 492	449	5 211	5 660	13 152
1955	7 628	483	5 928	6 411	14 039
1956	8 394	520	6 461	6 981	15 375
1957	7 825	568	6 468	7 036	14 861
1958	8 456	1 025	6 870	7 895	16 351
1959	6 926	1 406	7 559	8 965	15 891
1960	6 871	2 355	7 141	9 496	16 367
1961	6 600	1 313	6 040	7 353	13 953
1962	7 608	1 196	6 323	7 519	15 127
1963	9 202	1 332	6 987	8 319	17 521
1964	10 668	2 620	8 353	10 973	21 641
1965	12 792	2 126	8 892	11 018	23 810
1966	14 429	1 708	11 538	13 246	27 675
1967	14 924	1 806	12 401	14 207	29 131
1968	12 838	2 957	10 486	13 443	26 281
1969	13 924	1 498	14 111	15 609	29 533
1970	15 823	2 055	17 010	19 065	34 888

Table A.4 Gross value of industrial and agricultural output, Dongguan, 1949–97 (in 10 000 *yuan*) *(continued)*

Year	*Gross value of agricultural output*	*Gross value of industrial output*			*Gross value of industrial and agricultural output*
		Heavy industry	*Light industry*	*Total*	
1971	21 839	2 118	17 839	19 957	41 796
1972	23 997	2 729	18 252	20 981	44 978
1973	24 944	5 303	21 053	26 356	51 300
1974	28 162	5 252	23 495	28 747	56 909
1975	28 564	5 701	25 681	31 382	59 946
1976	29 764	5 929	27 040	32 969	62 733
1977	31 012	6 644	29 048	35 692	66 704
1978	112 533	18 049	36 989	55 038	167 571
1979	108 624	18 379	41 546	59 925	168 549
1980	110 258	18 543	50 936	69 479	179 737
1981	114 926	20 089	59 463	79 552	194 478
1982	132 337	22 521	69 935	92 456	224 793
1983	132 074	24 096	70 026	94 122	226 196
1984	142 553	25 245	90 416	115 661	258 214
1985	156 253	51 736	117 408	169 144	325 397
1986	196 467	65 086	168 375	233 461	429 928
1987	209 771	94 794	244 674	339 468	549 239
1988	204 969	164 756	351 162	515 918	720 887
1989	204 642	235 790	393 409	629 199	833 841
1990	219 801	260 503	483 486	743 989	963 790
1991	224 549	330 298	626 481	956 779	1 181 328
1992	237 766	405 576	954 246	1 359 822	1 597 588
1993	197 475	493 550	1 355 162	1 848 712	2 046 187
1994	212 051	727 927	1 766 948	2 494 875	2 706 926
1995	233 836	1 123 013	2 127 266	3 250 279	3 484 115
1996	243 361	1 248 659	2 773 042	4 021 701	4 265 062
1997	253 217	1 498 598	3 420 649	4 919 247	5 172 464

Notes: Prices as follows – 1957 price for 1949–69, 1970 price for 1971–77; 1990 price for 1978–97.

Table A.5 Export values Dongguan, 1955–97 *(in US$10 000*)*

Year	*Composition of export value*				*Total value of exports*
	Trading companies		*P & A*	sanzi qiye	
	SOEs	*Local government*			
1955	–	–	–	–	63
1956	–	–	–	–	71

Table A.5 Export values Dongguan, 1955–97 *(in US$10 000*) (continued)*

Year	*Composition of export value*				
	Trading companies				*Total value of exports*
	SOEs	*Local government*	*P & A*	sanzi qiye	
1957	–	–	–	–	203
1958	–	–	–	–	334
1959	–	–	–	–	241
1960	–	–	–	–	319
1961	–	–	–	–	369
1962	–	–	–	–	365
1963	–	–	–	–	1 250
1964	–	–	–	–	1 571
1965	–	–	–	–	848
1966	–	–	–	–	848
1967	–	–	–	–	894
1968	–	–	–	–	950
1969	–	–	–	–	840
1970	–	–	–	–	956
1971	–	–	–	–	878
1972	–	–	–	–	1 121
1973	–	–	–	–	1 932
1974	–	–	–	–	2 301
1975	–	–	–	–	2 460
1976	–	–	–	–	2 635
1977	–	–	–	–	3 307
1978	3 938	–	–	–	3 938
1979	4 903	–	234	–	5 137
1980	5 919	–	1 815	–	7 733
1981	6 523	–	2 650	–	9 173
1982	7 509	35	3 336	–	10 879
1983	7 268	33	4 889	–	12 190
1984	6 623	32	6 431	200	13 286
1985	10 651	63	6 634	799	18 147
1986	15 520	308	8 819	1 369	26 016
1987	19 213	504	10 732	3 421	33 870
1988	21 057	569	11 669	4 818	38 113
1989	15 050	534	14 377	8 088	38 049
1990	15 818	992	17 845	13 439	48 094
1991	17 285	2 106	28 221	24 934	72 546
1992	19 945	1 907	39 002	40 533	101 388
1993	20 766	2 273	43 404	63 327	129 770
1994	26 961	3 981	47 498	114 812	193 252
1995	34 065	6 905	51 714	178 351	271 035
1996	31 859	9 233	61 608	271 308	374 008
1997	36 317	15 208	74 938	373 342	499 805

Table A.6 Nominal GDP and its composition Dongguan, 1978–97 in (10 000s *yuan* and current price)

Year	*Primary*	*Secondary*	*Tertiary*	*GDP*
1978	27 235	26 781	7 106	61 122
1979	26 680	28 567	10 240	65 487
1980	26 762	31 766	11 912	70 440
1981	33 595	40 062	14 160	87 817
1982	38 510	52 935	16 960	108 405
1983	41 529	61 337	18 777	121 643
1984	47 994	67 848	30 498	146 340
1985	65 138	98 946	39 700	203 784
1986	86 983	112 531	66 960	266 474
1987	105 825	143 545	92 231	341 601
1988	129 136	223 697	117 031	469 864
1989	138 619	216 161	151 334	506 114
1990	146 637	305 940	193 573	646 150
1991	149 788	371 066	227 561	748 415
1992	161 800	426 925	256 683	845 408
1993	162 960	614 341	372 177	1 149 478
1994	199 519	821 302	524 562	1 545 383
1995	246 648	1 121 058	688 567	2 056 273
1996	288 545	1 308 312	854 249	2 451 106
1997	300 001	1 558 612	1 088 424	2 947 037

Table A.7 Number of foreign investment contracts signed, Dongguan, 1978–97

Year	*EJV*	*CJV*	*WFV*	*P&A*	*Total*
1978	0	0	0	0	0
1979	0	0	0	184	184
1980	0	0	0	415	415
1981	2	*	*	553	555
1982	2	*	*	468	470
1983	7	*	*	447	454
1984	43	*	*	508	551
1985	111	*	*	514	625
1986	59	*	*	559	618
1987	95	*	*	729	824
1988	209	*	*	1 839	2 048
1989	160	*	*	779	939
1990	93	72	27	1 075	1 267
1991	271	58	39	1 268	1 636
1992	524	204	130	1 374	2 232
1993	763	333	249	1 773	3 121
1994	532	255	370	1 521	2 678
1995	378	195	410	2 094	3 077

Table A.7 Number of foreign investment contracts signed, Dongguan, 1978–97 *(continued)*

Year	*EJV*	*CJV*	*WFV*	*P&A*	*Total*
1996	115	56	164	1 343	1 678
1997	41	35	117	1 492	1 685

Notes: * Between 1981 and 1989, the EJV figures included CJV and WFV.

Table A.8 Contracted value of foreign investment Dongguan, 1978–97 (*in US$10 000s*)

Year	*EJV*	*CJV*	*WFV*	*P&A*	*Total*
1978	0	0	0	0	0
1979	0	0	0	476	476
1980	0	0	0	1 055	1 055
1981	22	*	*	784	806
1982	16	*	*	771	787
1983	775	*	*	841	1 616
1984	2 204	*	*	1 013	3 217
1985	4 945	*	*	1 870	6 815
1986	1 805	*	*	1 593	3 398
1987	4 431	*	*	14 082	18 513
1988	19 666	*	*	42 507	62 173
1989	14 097	*	*	9 268	23 365
1990	7 201	6 111	4 522	12 346	30 180
1991	26 624	4 796	13 715	19 348	64 483
1992	62 138	75 289	41 678	29 720	208 825
1993	118 330	108 254	74 108	54 823	355 515
1994	106 711	74 783	120 509	47 700	349 703
1995	74 868	35 295	123 329	97 428	330 920
1996	49 755	12 744	83 551	62 811	208 861
1997	12 248	9 811	37 178	62 114	121 351

Note: * Between 1981 and 1989, the EJV figures included CJV and WFV.

Table A.9 Utilized value of foreign investment Dongguan, 1978–97 (in US$10 000s)

Year	*EJV*	*CJV*	*WFV*	*P&A*	*Total*
1978	0	0	0	0	0
1979	0	0	0	173	173
1980	0	0	0	934	934
1981	7	*	*	528	534
1982	47	*	*	668	715
1983	30	*	*	871	901

Table A.9 Utilized value of foreign investment Dongguan, 1978–97 (in US$10 000s) *(continued)*

Year	*EJV*	*CJV*	*WFV*	*P&A*	*Total*
1984	684	*	*	1 324	2 007
1985	1 383	*	*	1 511	2 894
1986	1 489	*	*	1 553	3 041
1987	2 074	*	*	9 185	11 258
1988	6 409	*	*	17 717	24 126
1989	8 390	*	*	16 559	24 949
1990	5 871	3 645	494	14 309	24 319
1991	8 436	3 227	3 013	11 478	26 154
1992	14 785	5 572	12 519	13 716	46 592
1993	33 122	19 384	26 741	14 181	93 428
1994	37 924	15 650	24 300	26 938	104 812
1995	31 314	14 983	20 950	38 418	105 665
1996	25 054	16 203	28 247	38 061	107 565
1997	27 500	11 434	49 026	33 467	121 427

Note: * Between 1981 and 1989, the EJV figures included CJV and WFV.

Table A.10 Gross value of industrial output by foreign-financed firms, Dongguan, 1985–97 (1990 price and 10 000s *yuan*)

Year	*EJV*	*CJV*	*WFV*	*P&A*	*Total*
1985	8 594	*	*	26 928	35 522
1986	17 906	*	*	38 899	56 805
1987	33 195	*	*	57 420	90 615
1988	97 297	*	*	87 798	185 095
1989	102 883	22 245	3 178	105 734	234 040
1990	139 802	30 624	4 327	144 060	318 813
1991	216 022	35 597	12 912	166 394	430 925
1992	335 622	63 205	59 775	216 097	674 699
1993	413 379	99 324	55 090	308 888	876 681
1994	658 581	167 488	132 940	789 649	1 748 658
1995	964 298	249 353	275 036	1 220 730	2 709 417
1996	1 025 027	155 417	228 289	1 226 011	2 634 744
1997	1 504 151	496 667	266 209	1 090 338	3 357 365

Note: * Between 1985 and 1989, the EJV figures included CJV and WFV.

References

Abbreviations used in References

DBS	Dongguan Bureau of Statistics
DMBFT	Dongguan Municipal Bureau of Foreign Trade
DMG	Dongguan Municipal Government
DMGERC	Dongguan Municipal Government Economic Research Centre
FEER	*Far Eastern Economic Review*
FHKI-IRS	Federation of Hong Kong Industries, Industry and Research Division
FT	*Financial Times*
GBS	Guangdong Bureau of Statistics
GMO	Guangdong Municipal Office
HKS	*Hong Kong Standard*
HRC	Huiyang Regional Committee
IBRD	The International Bank for Reconstruction and Development
IHT	*International Herald Tribune*
NFRB	*Nanfang Ribao*
ODICC	The Office of Dongguan's Industrial Census Committee
RCSO	Research Centre of the State Office
SCMP	*South China Morning Post*
SSB	State Statistical Bureau of China
SSISCGP	Socio-economic Statistical Information Service Centre of Guangdong Province
UNCTAD-DTCI	United Nations Conference on Trade and Development, Division on Transnational Corporations and Investment
UNCTC	United Nations Centre on Transnational Corporations
WHB	*WenHuiBao*

Administrative Procedures for Appraising Foreign Invested Property, Official policy adopted in 1994 (in Chinese).

Air Pollution Prevention and Control Law, Official law promulgated in 1987 (in Chinese).

Akamatsu, Kaname (1935) 'Waga Kuni Yomo Kogyohin no Boeki Susei', *Shogyo Keizai Ronso*, Nagoya Higher Commercial School (in Japanese).

Akamatsu, Kaname (1961) 'A Theory of Unbalanced Growth in the World Economy', *Weltwirtschaftliches Archiv*, vol. 82, no. 2, pp. 196–215.

Akamatsu, Kaname (1962) 'A Historical Pattern of Economic Growth in Developing Countries', *The Developing Economies*, no. 1, March–August, pp. 3–25.

Aliber, Robert E. (1970) 'A Theory of Foreign Direct Investment', in Charles P. Kindleberger (ed.), *The International Corporation* (Cambridge, Mass.: MIT Press), pp. 17–34.

Aliber, Robert E. (1972) 'Comments on "The Internationalization of Capital"', *Journal of Economic Issues*, March 1972.

Amin, Samir (1976) *Unequal Development: An Essay on the Social Formations of Peripheral Capitalism* (New York: Monthly Review Press).

Anderson, Kym (1997) 'Environmental Standards and International Trade', in Michael Bruno and Boris Pleskovic (eds), *Annual World Bank Conference on Development Economics 1996* (Washington, DC: World Bank), pp. 317–38.

Ash, Robert F. and Edmonds, Richard Louis (1998) 'China's Land Resources, Environment and Agricultural Production', *The China Quarterly*, issue 156, December, pp. 836–79.

Ash, Robert F. and Kueh, Y. Y. (1993) 'Economic Integration within Greater China: Trade and Investment Flows Between China, Hong Kong and Taiwan', *The China Quarterly*, no. 136, December, pp. 711–45; reprinted in David Shambaugh (ed.) (1995) *Greater China: The Next Superpower?* (Oxford University Press), pp. 59–93.

Barad, Miryam (1996) 'Total Quality Management', in Malcolm Warner (ed.), *International Encyclopedia of Business and Management, Vol. 5* (London: Routledge), pp. 4884–902.

Barnet, Richard J. and Cavanagh, John (1995) *Global Dreams: Imperial Corporations and the New World Order* (New York: Touchstone).

Barnet, Richard J. and Müller, Ronald E. (1974) *Global Reach: The Power of the Multinational Corporations* (New York: Simon & Schuster).

Björkman, Ingmar (1996) 'Market Entry and Development in China: The Experience of Companies Selling Industrial Goods and Projects', in John Child, and Yuan Lu (eds), *Management Issues in China, Vol. II: International Enterprises* (London: Routledge), pp. 66–85.

Blomqvist, Hans C. (1996) 'The "Flying Geese" Model of Regional Development: A Constructive Interpretation', *Journal of the Asian Pacific Economy*, vol. 1, no. 2. pp. 215–31.

Bloom, M. (1992) *Technological Change in the Korean Electronics Industry* (Paris: OECD).

Bos, Hendricus Cornelis, Sanders, Martin and Secchi, Carlo (1974) *Private Foreign Investment in Developing Countries: A Quantitative Study on the Evaluation of the Macro-Economic Effects* (Dordrecht: Reidel).

Buckley, Peter J. (1985) 'New Forms of International Industrial Co-operation', in Peter J. Buckley and Mark Casson (eds), *The Economic Theory of the Multinational Enterprise* (London: Macmillan), pp. 39–59; reprinted in Benjamin Gomes-Casseres and David B. Yoffie (eds) (1993) *The International Political Economy of Direct Foreign Investment, Vol. I* (Cheltenham: Edward Elgar), pp. 175–95.

Buckley, Peter J., Chalter Lam and Mark C. Casson (1976) *The Future of the Multinational Enterprise* (London: Macmillan).

Buckley, Peter J. (1985) *The Economic Theory of the Multinational Enterprise: Selected Papers* (London: Macmillan).

Buffie, Edward F. (1993) 'Direct Foreign Investment, Crowding Out, and Underemployment in the Dualistic Economy', *Oxford Economic Papers*, vol. 45, no. 4, October, pp. 639–67.

Cantwell, John A. (1994) 'Introduction: Transnational Corporations and Innovatory Activities', in John A. Cantwell (ed.), *Transnational Corporations and Innovatory Activities*, United Nations Library on Transnational Corporations, vol. 17 (London: Routledge for the UNCTAD Programme on Transnational Corporations), pp. 1–36.

Carver, Anne (1996) 'Open and Secret Regulations in China and their Implication for Foreign Investment', in John Child and Yuan Lu (eds), *Management Issues in China; Vol. II: International Enterprises* (London: Routledge), pp. 11–29.
Casson, Mark C. (1979) *Alternatives to the Multinational Enterprise* (London: Macmillan).
Casson, Mark C. (1982) 'The Theory of Foreign Direct Investment', in John Black and John H. Dunning (eds), *International Capital Movements: Papers of the Fifth Annual Conference of the International Economics Study Group* (London: Macmillan), pp. 22–57.
Casson, Mark C. and Jurong Zheng (1991) 'Western Joint Ventures in China', *Journal of International Development*, vol. 3, no. 3, June, pp. 293–323.
Caves, Richard E. (1971) 'International Corporations: The Industrial Economics of Foreign Investment', *Economica*, vol. 38, no. 141, February, pp. 1–27; reprinted in Benjamin Gomes-Casseres and David B. Yoffie (eds) (1993) *The International Political Economy of Direct Foreign Investment; Vol. I* (Aldershot: Edward Elgar), pp. 205–231.
Caves, Richard E. (1974) 'Industrial Organisation', in John H. Dunning (ed.), *Economic Analysis and the Multinational Enterprise* (London: Allen & Unwin), pp. 115–46.
Chan, Anita and Robert A. Senser (1997) 'China's Troubled Workers', *Foreign Affairs*, vol. 76, no. 2, March/April, pp. 104–17.
Chan, Roger C. K. (1995) 'The Pearl River Delta Region', in Joseph Y. S. Cheng and Stewart MacPherson (eds), *Development in Southern China: A Report on the Pearl River Delta Region including the Special Economic Zones* (Hong Kong: Longman), pp. 1–21.
Chang, Ha-Joon (1999) *The Hazard of Moral Hazard: Untangling the Asian Crisis*, Paper presented at the American Economic Association Annual Meeting, New York, 3–6 January (mimeo).
Chen, Edward K. Y. (1983) *Multinational Corporations, Technology and Employment* (London: Macmillan).
Chen, Ming K. (ed.) (1994) *Precarious Balance: Hong Kong between China and Britain, 1842–1992* (Hong Kong: Hong Kong University Press).
Chen, Min (1995) *Asian Management Systems: Chinese, Japanese and Korean Styles of Business* (London: Routledge).
Chen, Nai-ruenn (1986) *Foreign Investment in China's Current Trends*, March (Washington, DC: US Department of Commerce).
Chen, Pochil (1995) 'Foreign Investment in the Southern China Growth Triangle', in Myo Thant, Min Tang and Hiroshi Kakazu (eds), *Growth Triangles in Asia: A New Approach to Regional Economic Cooperation* (Oxford: Asian Development Bank/Oxford University Press), pp. 73–93.
Chen, Chunlai (1997a) *Foreign Direct Investment and Trade: An Empirical Investigation of the Evidence from China*, Working Paper Series No. 97/11, August Chinese Economies Research Centre, University of Adelaide.
Chen, Chunlai (1997b) *The Location Determinants of Foreign Direct Investment in Developing Countries*, Working Paper Series No. 97/12, November Chinese Economies Research Centre, University of Adelaide.
Chen, Chung, Chang, Lawrence and Yimin Zhang (1995) 'The Role of Foreign Direct Investment in China's Post-1978 Economic Development', *World Development*, vol. 23, no. 4, April, pp. 691–703.

Chenery, H. B. and Strout, A. M. (1966) 'Foreign Assistance and Economic Development' *The American Economic Review*, vol. LVI, no. 4, pt 1, pp. 679–733.

Cheung, S. Y. (1997) 'The Means and Effectiveness of FDI', in Pui-King Lau (ed.), *The Trend of China's Economy* (Hong Kong: The Commercial Press), pp. 198–203 (in Chinese).

Child, John (1994) *Management in China during the Age of Reform* (Cambridge University Press).

Child, John and Lu, Yuan (1996) 'Introduction: China and International Enterprise', in Child and Yuan (eds), *Management Issues in China, Vol. II: International Enterprises* (London: Routledge), pp. 1–8.

Child, John and Markoczy, L. (1993) 'Host-Country Managerial Behaviour and Learning in Chinese and Hungarian Strategic Joint Ventures', *Journal of Management Studies*, vol. 30, pp. 611–31.

Child, John and Stewart, Sally (1997) *Regional Differences in China and their Implications for Sino-Foreign Joint Ventures*, WP 01/97, Research Papers in Management Studies, Judge Institute of Management Studies, University of Cambridge.

Child, John and Yan, Yanni (1997) *Predicting the Performance of Sino- Foreign Joint Ventures*, WP 28/97, Research Papers in Management Studies, Judge Institute of Management Studies, University of Cambridge.

Chinese-Foreign Contractual Joint Venture Law, Official law promulgated in 1988 (in Chinese).

Chinese-Foreign Equity Joint Venture Law, Official law promulgated in 1979 and 1983 (in Chinese).

Chiu, Catherine C. H. (1995) 'The Reform Strategies of the Four Little Tigers of Guangdong: Dongguan, Nanhai, Shunde and Zhongshan', in Joseph Y. S. Cheng, and Stewart MacPherson (eds), *Development in Southern China: A Report on the Pearl River Delta Region including the Special Economic Zones* (Hong Kong: Longman), pp. 22–37.

Chu, Bao Tai (1987) 'The Effectiveness of China's Absorption of Foreign Investment', in Richard D. Robinson (ed.), *Foreign Capital and Technology in China* (New York: Praeger), pp. 21–39.

Chu, David K. Y. (1985) *The Trends and Patterns of Direct Foreign Investment in China*, Working Paper no. 2, October, Centre for Contemporary Asian Studies, Chinese University of Hong Kong.

Clarke, C. (1974) 'The Economics of Overexploitation', in *Science*, vol. 181, pp. 630–4.

Coase, Ronald H. (1937) 'The Nature of the Firm', in *Economica*, vol. 4, no. 16, November, pp. 386–405.

Cohen, B. I. (1975) *Multinational Firms and Asian Exports* (New Haven, Conn.: Yale University Press).

Cooter, Robert D. (1997) 'The Rule of State Law and the Rule-of-Law State: Economic Analysis of the Legal Foundations of Development', in Michael Bruno, and Boris Pleskovic (eds), *Annual World Bank Conference on Development Economics 1996* (Washington DC: World Bank), pp. 191–217.

Dahlman, Carl J. and Sananikone, Ousa (1990) *Technology Strategy in the Economy of Taiwan: Exploiting Foreign Linkages and Investing in Local Capability* (Washington DC: World Bank) (mimeo).

DBS (1995) *Statistical Yearbook of Dongguan 1995*, Official document for internal circulation (in Chinese).
DBS (1996a) *Statistical Yearbook of Dongguan 1996*, Official document for internal circulation (in Chinese).
DBS (1996b) *Summary of Dongguan Statistics 1995* Official document for internal circulation (in Chinese).
DBS (1996c) *The Statistical Report on the National Economy and Social Development in 1995*, Official report submitted by the DBS on 26 March 1996 to the Dongguan municipal government (in Chinese).
DBS (1997) *Statistical Yearbook of Dongguan 1997* (Beijing: China Statistical Publishing House) (in Chinese).
DBS (1998) *Statistical Yearbook of Dongguan 1998* (Beijing: China Statistical Publishing House) (in Chinese).
De Melo., J. (1988) 'The Macro-economic Effects of Foreign Aid: Issues and Evidence', in C. J. Jepma (ed.), *North–South Co-operation in Retrospect and Prospect* (London: Routledge), pp. 187–203.
Dicken, Peter (1998) *Global Shift: Transforming the World Economy* (3rd edn) (London: Paul Chapman).
Ding, Jingping (1997) 'Using Imported Technology to Transform Existing Enterprises in China', in Charles Feinstein and Christoper Howe (eds), *Chinese Technology Transfer in the 1990s: Current Experience, Historical Problems and International Perspectives* (Cheltenham: Edward Elgar), pp. 96–114.
DMG (1988) *Government Working Report 1988*, Official document presented at the third session of the Ninth Dongguan People's Congress held on 13 June (in Chinese).
DMG (1989) *Government Working Report 1989*, Official document presented at the fourth session of the Ninth Dongguan People's Congress held on 20 April (in Chinese).
DMG (1990) *Government Working Report 1990*, Official document presented at the fifth session of the Ninth Dongguan People's Congress held on 12 March (in Chinese).
DMG (1991) *Government Working Report 1991*, Official document presented at the first session of the Tenth Dongguan People's Congress held on 10 January (in Chinese).
DMG (1992) *Government Working Report 1992*, Official document presented at the second session of the Tenth Dongguan People's Congress held on 13 March (in Chinese).
DMG (1993) *Government Working Report 1993*, Official document presented at the fourth session of the Tenth Dongguan People's Congress held on 10 March (in Chinese).
DMG (1994) *Government Working Report 1994*, Official document presented at the first session of the Eleventh Dongguan People's Congress held on 18 January (in Chinese).
DMG (1995) *Government Working Report 1995*, Official document presented at the fifth session of the Eleventh Dongguan People's Congress held on 6 July (in Chinese).
Dongguan County Planning Committee (1978) *Dongguan County: National Economy Statistics, 1949–1977*, Confidential report prepared by the Dongguan government (in Chinese).

DMBFT (ed.) (1988) *Dongguan's Foreign Trade* (Dongguan: Dongguan Municipal Bureau of Foreign Trade) (in Chinese and English).
DMGERC (1994) *Towards 21st* Century Strategy (Guangzhou: Hua Cheng) (in Chinese).
Dos Santos, Theotonio (1971) 'The Structure of Dependence', in K. T. Fann and Donald Hodges (eds), *Readings in US Imperialism* (Boston, Mass.: Porter Sargent).
Dunning, John H. (1973) 'The Determinants of International Production', *Oxford Economic Papers*, vol. 25, no. 3, November, pp. 289–336.
Dunning, John H. (1977) 'Trade, Location of Economic Activity and the Multinational Enterprise: A Search for an Eclectic Approach', in Bertil Ohlin, Per-Ove Hesselborn and Per Magnus Wijkman (eds), *The International Allocation of Economic Activity: Proceedings of a Noble Symposium held at Stockholm* (London: Macmillan), pp. 395–418; reprinted in Benjamin Gomes-Casseres and David B. Yoffie (eds) (1993) *The International Political Economy of Direct Foreign Investment, Vol. I* (Aldershot: Edward Elgar), pp. 97–120.
Dunning, John H. (1979) 'Explaining Changing Patterns of International Production: In Defence of the Eclectic Theory', *Oxford Bulletin of Economics and Statistics*, vol. 41, no. 4, November, pp. 269–95.
Dunning, John H. (1980) 'Toward an Eclectic Theory of International Production: Some Empirical Tests', *Journal of International Business Studies*, vol. 11, no. 1, Spring/Summer, pp. 9–31.
Dunning, John H. (1981a) 'Explaining Outward Direct Investment of Developing Countries: In Support of the Eclectic Theory of International Production', in Krishna Kumar and Maxwell G. McLeod (eds), *Multinationals from Third World Countries* (Lexington: Lexington Books), pp. 1–22.
Dunning, John H. (1981b) 'Explaining the International Direct Investment Position of Countries: Towards a Dynamic or Developmental Approach', *Weltwirtschaftliches Archiv*, vol. 119, pp. 30–64; reprinted in John Black and John H. Dunning (eds) (1982) *International Capital Movements: Papers of the Fifth Annual Conference of the International Economics Study Group* (London: Macmillan), pp. 84–121.
Dunning, John H. (1983) 'Changes in the Level and Structure of International Production: The Last One Hundred Years', in Mark Casson (ed.), *The Growth of International Production* (George Allen & Unwin), pp. 84–139; reprinted in Peter J. Buckley (ed.) (1990) *International Investment* (London: Edward Elgar), pp. 3–24.
Dunning, John H. (1986) 'The Investment Development Cycle Revisited', *Weltwirtschaftliches Archiv*, vol. 122, pp. 667–77.
Dunning, John H. (1988a) *Explaining International Production* (London: Unwin Hyman).
Dunning, John H. (1988b) *Multinationals, Technology and Competitiveness* (London: Unwin Hyman).
Dunning, John H. (1993a) *Multinational Enterprises and the Global Economy* (Wokingham: Addison-Wesley).
Dunning, John H. (1993b) *Globalization of Business* (London: Routledge).
Dunning, John H. (1997) *Alliance Capitalism and Global Business* (London: Routledge).

Dunning, John H. and Narula, Rajneesh (1994) 'Transpacific FDI and the Investment Development Path: The Record Assessed', *University of Carolina Essays in International Business*, vol. 10, May.
Dunning, John H. and Narula, Rajneesh (1996) 'The Investment Development Path Revisited: Some Emerging Issues', in Dunning and Narula (eds), *Foreign Direct Investment and Government: Catalysts for Economic Restructuring* (London: Routledge), pp. 1–41.
Elson, Diane (1988) 'Dominance and Dependency in the World Economy', in Ben Crow, Mary Thorpe and others (eds), *Survival and Change in the Third World* (Cambridge: Polity/Open University Press), pp. 264–87.
Endacott, G. B. (1964) *Government and People in Hong Kong 1841–1962: A Constitutional History* (Hong Kong University Press).
FEER (1994) 'Labour Pains', by Lincoln Kaye, vol. 157, no. 24, 16 June, pp. 32–4.
FEER (1997a) 'Handover Hysteria', by Bruce Gilley, vol. 160, no. 27, 3 July, pp. 14–5.
FEER (1997b) 'Grounds for Concern' by Trish Saywell, vol. 160, no. 45, 6 November, pp. 48–9.
FEER (1997c) 'The Income Gap Chimera', Editorial, vol. 160, no. 51, 18 December, p. 5.
FEER (1997d) 'Rethinking China' by Pamela Yatsko, vol. 160, no. 51, 18 December, pp. 52–7.
FEER (1997e) 'Sparks Flying' by Pamela Yatsko, vol. 160, no. 51, 18 December, pp. 57–8.
FEER (1998a) 'Staying Alert' by Trish Saywell, vol. 161, no. 5, 29 January, pp. 46–8.
FEER (1998b) 'The Dying Fields' by Lijia MacLeod, vol. 161, no. 17, 23 April, pp. 62–3.
FEER (1998c) 'Banking on Big Names' by Michael Vatikiotis and Salil Tripathi, vol. 161, no. 47, 19 November, pp. 50–2.
FEER (1998d) Regional Briefing, vol. 161, no. 52, 24 December, pp. 16–17.
Feng, Bang-yan (1991) 'The Role of Hong Kong in China's Economic Modernization', in Edward K. Y. Chen, Mee-Kau Nyaw and Teresa Y. C. Wong (eds), *Industrial and Trade Development in Hong Kong* (Hong Kong: Centre of Asian Studies, University of Hong Kong), pp. 497–509.
FHKI-IRS (1991) *Hong Kong's Industrial Investment in the Pearl River Delta* (Hong Kong: FHKI).
FHKI-IRS (1993) *Investment in China: 1993 Survey of Members of the Federation of Hong Kong Industries* (Hong Kong: FHKI).
FHKI-IRS (1995) *Investment in China: 1994 Survey of Members of the Federation of Hong Kong Industries* (Hong Kong: FHKI).
Fitzgerald, John (1996) 'Autonomy and Growth in China: County Experience in Guangdong Province', *Journal of Contemporary China*, vol. 5, no. 11, March, pp. 7–22.
Foreign Capital Enterprise Law, Official law promulgated in 1990 (in Chinese).
Frank, André Gunder (1966) 'The Development of Underdevelopment', *Monthly Review*, September 1966; reprinted in Stuart Corbridge (ed.), (1995) *Development Studies: A Reader* (London: Edward Arnold), pp. 27–37.

Frank, André Gunder (1967) *Capitalism and Underdevelopment in Latin America* (New York: Monthly Review Press).
Frank, André Gunder (1969) *Latin America: Underdevelopment or Revolution* (New York: Monthly Review Press).
Fröbel, Folker, Heinrichs, Jürgen and Otto Kreye (1980) *The New International Division of Labour: Structural Unemployment in Industrialisation Countries and Industrialisation in Developing Countries*, trans Pete Burgess (Cambridge University Press).
Froot, Kenneth A. (ed.) (1993) 'Introduction', in *Foreign Direct Investment* (University of Chicago Press), pp. 1–11.
FT (1998a) 'Beijing Drops Import Duty Plan' by James Harding, 5 January, p. 3.
FT (1998b) 'Western Crony Capitalism' by John Plender, 3 October, p. 10.
FT (1998c) 'Beijing Spurs Drive for Business "Divorce" ' by James Kynge, 30 November, p. 6.
FT (1998d) 'Zhu Assails Padded Growth Figures' by James Kynge, 17 December, p. 9.
FT (1999) 'Chinese Trade Data Skewed by Fraud and Smuggling' by James Kynge, 13 January, p. 5.
Gan, Wei-dong, Yang Jian-Ping and Liu, Bao-Zhen (1994) 'The Road to Dongguan', in Gui-kang Li and Jing-hui Yin (eds), *From Village to City: The Road to Modernisation in Dongguan* (Beijing: The People's Publisher), pp. 1–15, (in Chinese).
Gao, Jing-rong. (1994) 'The Pros and Cons of EJVs', in Dongguan Municipal Government Research Office (ed.), *Dongguan's Economy, 1988–1993: Selected Research Reports*, pp. 270–6; Official reference material for internal circulation (in Chinese).
Gary, Cheryl W. and Kaufmann, Daniel (1998) 'Corruption and Development', *Finance & Development*, vol. 35, no. 1, March, pp. 7–10.
GBS (1991) *Counties (Regions) in Guangdong Province, 1980–1990: Statistics on the National Economy* (in Chinese).
GBS *Statistical Yearbook of Guangdong*, various issues (Beijing: China Statistics Publisher) (in Chinese).
GBS and Guangdong Municipal Office, (GMO) (eds) (1995) *Statistical Data of the Pearl River Delta Economic Region, 1980–1994*, Official document for internal circulation (in Chinese).
Gereffi, Gary and Newfarmer, Richard S. (1985) 'International Oligopoly and Uneven Development: Some Lessons from Industrial Case Studies', in Richard S. Newfarmer (ed.), *Profits, Progress and Poverty: Case Studies of International Industries in Latin America*, Notre Dame, Indiana: University of Notre Dame), pp. 385–436.
Goodman, David S. G. and Feng, Chongyi (1994) 'Guangdong: Greater Hong Kong and the New Regionalist future', in David S. G. Goodman and Gerald Segal (eds), *China Deconstructs: Politics, Trade and Regionalism* (London: Routledge), pp. 177–201.
Graham, Edward M. and Krugman, Paul R. (1991) *Foreign Direct Investment in the United States* (2nd edn) (Washington DC: Institute for International Economics).

Gray, H. Peter. (1982) 'Macroeconomic Theories of Foreign Direct Investment: An Assessment', in Alan M. Rugman (ed.), *New Theories of the Multinational Enterprise* (London: Croom Helm), pp. 172–95.
Gray, John. (1998) *False Dawn: The Delusions of Global Capitalism* (London: Granta).
Griffin, K. (1970) 'Foreign Capital, Domestic Savings and Economic Development', *Bulletin of the Oxford University Institute of Economics and Statistics*, vol. 32, no. 2, May, pp. 99–112.
Grubel, Herbert G. (1982) 'The Theory of International Capital Movements', in John Black and John H. Dunning (eds), *International Capital Movements: Papers of the Fifth Annual Conference of the International Economics Study Group* (London: Macmillan), pp. 1–21.
Grubel, Herbert G. (1987) 'Foreign Investment', in John Eatwell, Murray Milgate and Peter Newman (eds), *The New Palgrave: A Dictionary of Economics*, vol. 2 (London: Macmillan), pp. 403–6.
Guangdong's Regulations on Workers' Rights 1994, Official document published by Guangdong Labour Bureau in February 1994 (in Chinese).
Gupta, Kanhaya L. and Islam, M. Anisul (1983) *Foreign Capital, Savings and Growth: An International Cross-section Study* (Dordrecht: Reidel).
Hannan, Kate (ed.) (1995) *China, Modernisation and the Goal of Prosperity: Government Administration and Economic Policy in the late 1980s* (Cambridge University Press).
Hardin, G. (1968) 'The Tragedy of the Commons', *Science*, vol. 162, pp. 1243–8.
Hecht, Susanna B. (1985) 'Environment, Development and Politics: Capital Accumulation and the Livestock Sector in Eastern Amazonia', *World Development*, vol. 13, no. 6. pp. 663–84.
Helleiner, Gerald K. (1989) 'Transnational Corporations and Direct Foreign Investment', in Hollis B. Chenery and T. N. Srinivasan (eds), *Handbook of Development Economics*, vol. II (Amsterdam: North-Holland), pp. 1441–80.
Hennart, Jean-François (1977) *A Theory of Foreign Direct Investment*, Ph.D. thesis, University of Maryland.
Hennart, Jean-François (1982) *A Theory of Multinational Enterprise* (Ann Arbor, Michigan: University of Michigan Press).
Hennart, Jean-François (1991) 'The Transaction Cost Theory of the Multnational Enterprise', in Christos N. Pitelis and Roger Sugden (eds), *The Nature of the Transnational Firm* (London: Routledge), pp. 81–116; reprinted in Benjamin Gomes-Casseres and David B. Yoffie (eds) (1993) *The International Political Economy of Direct Foreign Investment, Vol I* (Aldershot: Edward Elgar), pp. 139–74.
Hirst, Paul Q. and Thompson, Grahame (1992) 'The Problem of "Globalization": International Economic Relations, National Economic Management and the Formation of Trading Blocs', *Economy and Society*, vol. 24. pp. 408–42.
Hirst, Paul Q. and Thompson, Grahame (1996) *Globalization in Question: The International Economy and the Possibilities of Governance* (Cambridge: Polity Press).
HKS (1997a) '300 Angry Villagers Storm Police Station', 16 July (Internet edn: http://www.hkstandard.com).
HKS (1997b) 'Mainland's Reserves on the Rise', 2 September.
HKS (1997c) 'Farmers Fighting for Right to Keep Ancestral Tombs', 22 October.

HKS (1997d) 'Dozen Hurt as Police Stop Protest', 23 October.
HKS (1997e) 'High Rate of Lost Limbs in Factories', by Pamela Pun, 24 November.
HKS (1997f) 'Economic Growth at Cost of Environment', 24 November.
HKS (1998a) 'US Firms Wary of Mainland Investments', 23 January.
HKS (1998b) 'Falsified Statistics "Harming Economy" ', 18 June.
HKS (1998c) 'New Petrol Tax Set To Replace Tolls', 25 September.
HKS (1999) 'Blitz on Random Fee Scams'. 23 February.
Ho, Samuel P. S. and Huenemann, Ralph W. (1984) *China's Open Door Policy: The Quest for Foreign Technology and Capital* (Vancouver: University of British Columbia Press).
Ho, Wai-nang (1996) 'Individual Economy in the Pearl River Delta Region: A Study on Dongguan, Guangzhou, Zhongshan and Nanhai', in Stewart MacPherson and Joseph Y. S. Cheng (eds), *Economic and Social Development in South China* (Cheltenham: Edward Elgar), pp. 183–207.
Howard, P. (1991) 'Rice Bowls and Job Security: The Urban Contract Labour System', *Australian Journal of Chinese Affairs*, vol. 25, January 1991, pp. 93–114.
HRC (1988) *The Origins of Geographical Names in Huiyang Region of Dongguan Province* (Guangdong: Guangdong Map Publisher) (in Chinese).
Hu, H. C. (1994) 'The Chinese Concepts of "Face" ', *American Anthropologist*, vol. 46, pp. 45–64.
Hu, Yao-su (1996) 'Globalization and Corporate Nationality', in Malcolm Warner (ed.), *International Encyclopedia of Business and Management, Vol. 2* (London: Routledge), pp. 1664–72.
Huang, Cen (1998) 'The Organization and Management of Chinese Transnational Enterprises in South China', *Issues & Studies*, vol. 34, no. 3, March, pp. 51–70.
Huang, Fanzhang (1995) 'China's Utilization of Foreign Capital and Related Policies', *Journal of Asian Economics*, vol. 6, no. 2, Summer, pp. 217–32.
Huang, Qi-chen (1985) 'Commercial Activities in the Pearl River Delta during the Ming and Qing Dynasties', in Guangdong History Society (ed.), *Researches on Guangdong's Socio-economic Development in Ming and Qing Dynasties* (Guangdong: Guangdong People's Publisher), pp. 187–236 (in Chinese).
Huang, Yasheng (1996) *Inflation and Investment Controls in China: The Political Economy of Central–Local Relations during the Reform Era* (Cambridge University Press).
Hughes, Hughes and Dorrance, Graeme S. (1987) 'Foreign Investment in East Asia', in Vincent Cable and Bishnodat Persaud (eds), *Developing with Foreign Investment* (London: Croom Helm), pp. 44–66.
Husain, Ishrat and Jun, Kwang W. (1992) *Capital Flows to South Asian and ASEAN Countries: Trends, Determinants, and Policy Implications*, Policy Research Working Paper (WPS 842) (Washington DC: Debt and International Finance Division, World Bank).
Hymer, Stephen Herbert (1960) *The International Operations of National Firms: A Study of Direct Investment*, Ph.D. thesis, Massachusetts Institute of Technology (Cambridge, Mass.: MIT Press, 1976).

Hymer, Stephen Herbert (1966) 'Direct Foreign Investment and the National Economic Interest', in Peter Russell (ed.), *Nationalism in Canada* (Toronto: McGraw-Hill), pp. 191–202.
Hymer, Stephen Herbert (1972) 'The Internationalization of Capital', *Journal of Economic Issues*, March.
IBRD (1994) *World Development Report 1994* (Oxford: World Bank).
IBRD (1996) *World Data 1995* (Washington DC: World Bank) (CD-ROM).
IBRD (1997a) *Clear Water, Blue Skies: China's Environment in the New Century*, China 2020 Series (Washington DC: World Bank).
IBRD (1997b) *Sharing Rising Incomes: Disparities in China*, China 2020 Series (Washington DC: World Bank).
IBRD (1997c) *China Engaged: Integration with the Global Economy*, China 2020 Series (Washington DC: World Bank).
IBRD (1998) *World Development Indicators 1998* (Washington DC: World Bank), (http://www.worldbank.org/data/).
IBRD (2000) *World Development Report: 1999–2000* (Washington DC: World Bank).
IHT (1997) 'China's Tax Collectors on a Roll at McDonald's', 11 September, p. 17.
IHT (1998) 'Crony Capitalism Takes Many Forms' by William Safire, 2 February, p. 9.
Ito, Takatoshi (1998) 'What Can Developing Countries Learn from East Asian Economic Growth?', in Boris Pleskovic and Joseph E. Stiglitz (eds), *Annual World Bank Conference on Development Economics 1997* (Washington, DC: World Bank), pp. 183–200.
Jansen, Karel (1995) 'The Macroeconomics Effects of Direct Foreign Investment: The Case of Thailand', *World Development*, vol. 23, no. 2, February, pp. 193–210.
Ji, Chongwei (1996) 'Our Foreign Capital Policy towards Transnational Corporation', *China Opening Herald*, no. 11, pp. 12–14 (in Chinese).
Kaldor, Nicholas (1934) 'The Equilibrium of the Firm', *Economic Journal*, vol. XLIV, no. 173, March, pp. 60–76.
Kemp, Murray C. (1962) 'Foreign Investment and the National Advantage', *Economic Record*, vol. 38, no. 81, March, pp. 56–62.
Kemp, Murray C. (1969) *The Pure Theory of International Trade and Investment* (Englewood Cliffs, NJ: Prentice-Hall).
Khan, Zafar Shah (1991) *Patterns of Direct Foreign Investment in China*, World Bank Discussion Papers, China and Mongolia Department Series No. 130 (Washington DC: World Bank).
Kindleberger, Charles P. (1969) *American Business Abroad: Six Lectures on Direct Investment* (New Haven, Conn.: Yale University Press).
Kirkpatrick, Colin (1994) 'Regionalisation, Regionalism and East Asian Economic Cooperation', *The World Economy*, vol. 17, no. 2, March, pp. 191–202.
Klitgaard, Robert (1998) 'International Cooperation against Corruption', *Finance & Development*, vol. 35, no. 1, March, pp. 3–6.
Knickerbocker, F. T. (1973) *Oligopolistic Reaction and the Multinational Enterprise* (Cambridge, Mass.: MIT Press).

Kogut, Bruce and Gittelman, Michelle (1996) 'Globalization', in Malcolm Warner, (ed.), *International Encyclopedia of Business and Management; Vol. 2* (London: Routledge), pp. 1649–63.

Kojima, Kiyoshi (1958) 'Nihon Keizai no Gankokeitaiteki Hatten to Boeki no Yakuwari', reprinted in Kojima (ed.) (1972) *Nihon Boeki no Kozo to Hatten* (Tokyo: Shiseido) (in Japanese).

Kojima, Kiyoshi (1973) 'A Macroeconomics Approach to Foreign Direct Investment', *Hitotsubashi Journal of Economics*, vol. 14, no. 1, June, pp. 1–21.

Kojima, Kiyoshi (1975) 'International Trade and Foreign Investment: Substitutes or Compliments', *Hitotsubashi Journal of Economics*, vol. 16, no. 1, June, pp. 1–12.

Kojima, Kiyoshi (1977) 'Transfer of Technology to Developing Countries: Japanese Type versus American Type', *Hitotsubashi Journal of Economics*, vol. 17, no. 2, February, pp. 1–14.

Kojima, Kiyoshi (1978) *Direct Foreign Investment: A Japanese Model of Multinational Business Operations* (London: Croom Helm).

Kojima, Kiyoshi (1982) 'Macroeconomic versus International Business Approach to Direct Foreign Investment', *Hitotsubashi Journal of Economics*, vol. 23, no. 1, June, pp. 1–19; reprinted in Peter J. Buckley (ed.) (1990) *International Investment* (London: Edward Elgar), pp. 325–43.

Kojima, Kiyoshi (1985) 'Japanese and American Direct Investment in Asia: A Comparative Analysis', *Hitotsubashi Journal of Economics*, vol. 26, no. 1, June, pp. 1–35.

Kojima, Kiyoshi (1990) *Japanese Direct Investment Abroad* Social Science Research Institute, International Christian University, Monograph Series 1 (Tokyo: Mitaka).

Kong, Ling-yuan (1994) *The Implementation of Guangdong's Regulations on Workers' Rights 1994 and the Harmony of Employer–Employee Relations*, Official speech by the Director of Guangdong Labour Bureau, Mr Kong Ling-yuan, 18 February (in Chinese).

Krugman, Paul (1998) *Fire-sale FDI*, Paper presented at the NBER Conference on Capital Flows to Emerging Markets on 20–21 February (mimeo).

Kueh, Y. Y. and Ash, Robert F. (1996) 'The Fifth Dragon: Economic Development', in Brian Hook (ed.), *Guangdong: China's Promised Land* (Oxford University Press), pp. 149–92.

Lall, Sanjaya (1973) 'Transfer Pricing by Multinational Manufacturing Firms', *Oxford Bulletin of Economics and Statistics*, vol. 35, no. 3, August, pp. 173–95.

Lall, Sanjaya and Paul Streeten (1977) *Foreign Investment, Transnationals and Developing Countries* (London: Macmillan).

Landsbery, Martin (1979) 'Export Led Industrialisation in the Third World: Manufacturing Imperialism', *The Review of Radical Political Economists*, vol. 11, no. 4, Winter.

Lau, Pui-King. *et al.* (1996) 'Foreign Investment', ch. 11 in Pui-King Lau (ed.), *Overview of Economic Investment in Guangdong* (Hong Kong: The Commercial Press) (in Chinese).

Lardy, Nicolas R. (1996) 'The Role of Foreign Trade and Investment in China's Economic Transformation', in Andrew G. Walder (ed.) *China's Transitional Economy* (Oxford University Press), pp. 103–20.

Lee, Keun (1993) *New East Asian Economic Development: Interacting Capitalism and Socialism* (New York: M. E. Sharpe).

Leung, Chi Kin (1993) 'Personal Contacts, Subcontracting Linkages, and Development in the Hong Kong-Zhujiang Delta Region', *Annals of the Association of American Geographers*, vol. 83, no. 2, June, pp. 272–302.

Leung, H. M., Thoburn, John T., Chau, Esther and Tang, S. H. (1989) 'Contractual Relations, Foreign Direct Investment, and Technology Transfer: The Case of China', National University of Singapore (mimeo). Published under the same title in *Journal of International Development*, vol. 3, no. 3, June, pp. 277–91.

Lever-Tracy, Constance, Ip, David and Tracy, Noel (1996) *The Chinese Diaspora and Mainland China: An Emerging Economic Synergy* (London: Macmillan).

Levy, Gina R. (1994) *The China Connection: Gearing up for Business in Guangdong* (Hong Kong: *The Economist* Intelligence Unit).

Li, Si-Ming (1997) 'Population Migration, Regional Economic Growth and Income Determination: A Comparative Study of Dongguan and Meizhou, China', *Urban Studies*, vol. 34, no. 7, June, pp. 999–1206.

Lin, Alfred H. Y. (1997) *The Rural Economy of Guangdong, 1870–1937: A Study of the Agrarian Crisis and its Origins in Southernmost China* (London: Macmillan).

Lin, Danming (1996) 'Hong Kong's China-invested Companies and their Reverse Investment in China', in John Child and Yuan Lu (eds), *Management Issues in China; Vol. II: International Enterprises* (London: Routledge), pp. 165–82.

Liu, Pak-Wai, Wong, Richard Yue-Chim, Sung, Yun-Wing and Lau, Pui-King (1992) *China's Economic Reform and Development Strategy of Pearl River Delta*, Research report (Hong Kong: Nanyang Commercial Bank).

Liu, Zhen-bang (1994) 'A Questionnaire Survey on 40 EJVs and CJVs in Dongguan', in Dongguan Municipal Government Research Office (ed.), *Dongguan's Economy, 1988–1993: Selected Research Reports*, pp. 228–31, Official reference material for internal circulation (in Chinese).

Liu, Zhen-bang and Zhen, Xi-wen (1992) *Investment Handbook in Dongguan* (Dongguan: Guangdong Higher Education Publisher) (in Chinese).

Lo, T. W. C. (1986) 'Foreign Investment in the Special Economic Zones: A Management Perspective', in Y. C. Jao and C. K. Leung (eds), *China's Special Economic Zones: Policies, Problems and Prospects* (Hong Kong: Oxford University Press), pp. 184–200.

Lockett, M. (1988) 'Culture and the Problems of Chinese Management', *Organization Studies*, vol. 9, no. 4. pp. 475–96; reprinted in Malcolm Warner (ed.) (1997) *Comparative Management: Critical Perspectives on Business and Management, Vol. III: Asia-Pacific Management* (London: Routledge), pp. 925–45.

Lu, Ding and Tang, Zhimin (1997) *State Intervention and Business in China: The Role of Preferential Policies* (Cheltenham: Edward Elgar).

Lu, Shengliang (1996) 'The Situation and Problem of Current Foreign Capital Utilization: A Case Study on Shanghai and Jiangsu', *China Opening Herald*, no. 11, pp. 17–22 (in Chinese).

Luo, Qi and Howe, Christopher (1993) 'Direct Investment and Economic Integration in the Asia Pacific: The Case of Taiwanese Investment in Xiamen', *The China Quarterly*, no. 136, December, pp. 746–69; reprinted in David, Shambaugh (ed.) (1995) *Greater China: The Next Superpower?* (Oxford University Press), pp. 94–117.

Luo, Y. (1997) 'Guanxi: Principles, Philosophies and Implications', *Human Systems Management*, vol. 16, no. 1. pp. 43–52.

Ma, Hong. *et al*. (eds) (1994) *What Is a Socialist Market Economy*? (Beijing: China Development Publishing) (in Chinese).

MacBean, Alasdair (1996) 'China's Foreign Trade Corporations: Their Role in Economic Reform and Export Success', in John Child and Yuan Lu (eds), *Management Issues in China, Vol. II: International Enterprises* (London: Routledge), pp. 183–200.

MacDougall, G. D. A. (1960) 'The Benefits and Costs of Private Investment from Abroad: A Theoretical Approach', *Economic Record*, vol. 36, no. 73, March, pp. 13–35; reprinted in *Bulletin of the Oxford University Institute of Statistics*, vol. 22, August, pp. 187–212. Also reprinted in Peter J. Buckley (ed.) (1990) *International Investment* (London: Edward Elgar), pp. 96–118.

Magee, Stephen. P. (1977) 'Information and the Multinational Corporation: An Appropriability Theory of Direct Foreign Investment', in Jagdish N. Bhagwat (ed.), *The New International Economic Order: The North–South Debate* (Cambridge, Mass.: MIT Press), pp. 317–40.

Mauro, Paolo (1997) 'Why Worry About Corruption?', *Economic Issues*, vol. 6 (Washington DC: International Monetary Fund).

Mauro, Paolo (1998) 'Corruption: Causes, Consequences, and Agenda for Further Research', *Finance & Development*, vol. 35, no. 1, March, pp. 11–4.

McGrew, Anthony G. (1992) 'Conceptualizing Global Politics', in Anthony G. McGrew and Paul G. Lewis (eds) *Global Politics: Globalization and the Nation-state*, (Cambridge: Polity Press), pp. 83–117.

McManus, John C. (1972) 'The Theory of the International Firm', in Gilles Paquet (ed.), *The Multinational Firm and the Nation State* (Ontario: Collier-Macmillan), pp. 66–93.

McMillan, C. H. (1993) 'The Role of Foreign Direct Investment in the Transition from Planned to Market Economy', *Transnational Corporations*, no. 3, pp. 97–119.

Meyer, Klause E. (1995) *Factor Cost Orientated Direct Foreign Investment: East Asia versus Eastern Europe*, November, Discussion Paper No. 181, London Business School.

Narula, Rajneesh (1993) *An Examination of the Evolution and Interdependence of Foreign Direct Investment and Economic Structure: The Case of Industrialized Countries*, Ph.D. thesis, Rutgers *Univsersity*.

Narula, Rajneesh (1996) *Multinational Investment and Economic Structure: Globalisation and Competitiveness* (London: Routledge).

Naughton, Barry (1992) 'Hierarchy and the Bargaining Economy: Government and Enterprise in the Reform Process', in Kenneth G. Lieberthal and David M.

Lampton (eds), *Bureaucracy, Politics and Decision Making in Post Mao China* (Berkeley, Calif.: University of California Press), pp. 245–79.
Nayyar, Deepak (1978) 'Transnational Corporations and Manufactured Exports from Poor Countries', *Economic Journal*, vol. 88, no. 349, March, pp. 59–74.
Newlyn, Walter Tessier (1977) *The Financing of Economic Development* (Oxford: Clarendon Press).
NFRB (1983) 'State Council Approves Taiping Harbour as Open Port', 18 September; reprinted in Dongguan Municipal Government and Dongguan Archive Bureau (eds), *Dongguan's Economic Reform: 1979–1992*, p. 539 (in Chinese).
NFRB (1984) 'Developed Infrastructure in Dongguan', 13 April 1984, reprinted in ibid, pp. 541–3 (in Chinese).
NFRB (1985) 'A Positive Relationship between Growth and Accessibility', 16 August; reprinted in Ibid., pp. 543–4 (in Chinese).
NFRB (1988) 'The First P&A Firm in China: The Taiping Handbag Manufacturing Firm in Dongguan', 29 September; reprinted in Ibid, pp. 407–10 (in Chinese).
NFRB (1989) 'Dongguan Raises Capital to Develop Infrastructure', 27 February; reprinted in Ibid., pp. 532–3 (in Chinese).
NFRB (1992) 'Humen Bridge Foundation Laid', 27 May 1992; reprinted in Ibid., p. 550 (in Chinese).
Ninth Five-Year Plan for Environment Protection for 2010, Official policy guideline approved by the State Council, 1996 (in Chinese).
Nolan, Peter and Wang, Xiaoqiang (1998) *Reorganising Amidst Turbulence: China's Large-scale Industry in the Midst of Changing International Distribution of Power, Restructuring and Globalisation of Capitalist Big Business*, Judge Institute of Management Studies, University of Cambridge (mimeo).
ODICC (ed.) (1996) *The Digest of Dongguan's Industry, Vol. 1: Statistics* (Beijing: China Statistical Publication) (in Chinese).
Ohmae, Kenichi (1985) *Triad Power: The Coming Shape of Global Competition* (New York: Free Press).
Ohmae, Kenichi (1990) *The Borderless World: Power and Strategy in the Interlinked Economy* (New York: Free Press).
Ohmae, Kenichi (1995) *The End of the Nation State: The Rise of Regional Economies* (New York: Free Press).
Ou-yang, De (1994) 'Modernisation in 15 Years', in Gui-kang, Li and Jing-hui Yin (eds), *From Village to City: The Road of Modernisation in Dongguan* (Beijing: The People's Publisher), pp. 67–84 (in Chinese).
Ozawa, Terutomo (1979a) *Multinationalism, Japanese Style: The Political Economy of Outward Dependency* (Princeton, NJ: Princeton University Press).
Ozawa, Terutomo (1979b) 'International Investment and Industrial Structures: New Theoretical Implications from the Japanese Experience', *Oxford Economic Papers*, vol. 31, no. 1, March, pp. 72–92.
Ozawa, Terutomo (1992) 'Foreign Direct Investment and Economic Development', *Tansnational Corporations*, vol. 1, no. 1, February, pp. 27–54.
Ozawa, Terutomo (1994) 'Japan's External Asymmetries and Assembly Industries: Lean Production as a Source of Competitive Advantage', *Transnational Corporations*, vol. 3, no. 3. pp. 25–52.

Ozawa, Terutomo (1996) 'Japan: The Macro-IDP, Meso-IDPs and the Technology Development Path (TDP)', in John H. Dunning and Rajneesh Narula (eds), *Foreign Direct Investment and Government: Catalysts for Economic Restructuring* (London: Routledge), pp. 142–73.

Palmer, Michael (1998) 'Environmental Regulation in the People's Republic of China: The Face of Domestic Law', *The China Quarterly*, issue 156, December, pp. 788–808.

Papanek, G. F. (1972) 'The Effect of Aid and Other Resource Transfers on Savings and Growth in the Less Developed Countries', *Economic Journal*, vol. 82, no. 327, September, pp. 934–50.

Pearl River Delta Twelve Cities Statistical Bureau (ed.) (1996) *The Major Socio-economic Statistical Indicators of the Pearl River Delta during the 'Eighth Five-Year Plan'*, Guangdong: Dongguan Bureau of Statistics, Official reference material for internal circulation (in Chinese).

Pei, Chang Hong (1996) *Research on FDI and the Open Economy of China* (Beijing: China Youth Publication) (in Chinese).

Penrose, Edith Tilton (1959) *The Theory of the Growth of the Firm* (Oxford: Basil Blackwell).

Petersen, Mitchell and Rajan, Raghuram (1995) 'The Effect of Credit Market Competition on Lending Relationships', *Quarterly Journal of Economics*, vol. 110, pp. 407–43.

Polanyi, Karl (1957) *The Great Transformation* (Boston, Mass.: Beacon Press).

Pomfret, Richard (1989) *Equity Joint Ventures in Jiangsu Province* (Hong Kong: Longman).

Porter, Michael E. (1998) *The Competitive Advantage of Nations* (revised edn with new Introduction) (London: Macmillan).

Portes, Alejandro (1976) 'On the Sociology of National Development: Theories and Issues', *American Journal of Sociology*, vol. 82, no. 1.

Potter, Sulamith Heins and Potter, Jack M. (1990) *China's Peasants: The Anthropology of a Revolution* (Cambridge University Press).

Provision of the State Council of the People's Republic of China for the Encouragement of Foreign Investment, Official policy approved by the State Council, October 1986 (in Chinese).

Radice, Hugo (1995) 'The Role of Foreign Direct Investment in the Transformation of Eastern Europe', in Ha-Joon Chang and Peter Nolan (eds), *The Transformation of the Communist Economies: Against the Mainstream* (London: Macmillan), pp. 282–310.

Rajan, Raghuram G. and Zingales, Luigi (1998) *Which Capitalism*? *Lessons from the East Asian Crisis* (mimeo; download from http://gsblgz.uchicago.edu/Pspapers/whichcap.pdf).

Rauch, James E. and Trindade, Vitor (1999) *Ethnic Chinese Networks in International Trade*, National Bureau of Economic Research Working Paper No. 7189, June (http://www.nber.rg/papers/w7189).

Redding, S. Gordon (1993) *The Spirit of Chinese Capitalism* (Berlin: Walter de Gruyter).

Redding, S. Gordon and Hsiao, Michael (1990) 'An Empirical Study of Overseas Chinese Managerial Ideology', *International Journal of Psychology*, vol. 25, pp. 629–41; reprinted in S. Gordon Redding (ed.) (1995) *International Cultural Differences* (Aldershot Dartmouth), pp. 183–95.

Redding, S. Gordon and Ng, M. (1982) 'The Role of "Face" in the Organizational Perceptions of Chinese Managers', *Organization Studies*, vol. 3, no. 3. pp. 201–19; reprinted in Malcolm Warner (ed.) (1997) *Comparative Management: Critical Perspectives on Business and Management, Vol. III: Asia-Pacific Management* (London: Routledge), pp. 821–40.

Redding, S. Gordon and Whitley, Richard D. (1990) 'Beyond Bureaucracy: Towards a Comparative Analysis of Forms of Economic Resource Co-ordination and Control', in Stewart R. Clegg and S. Gordon Redding (assisted by Monica Cartner) (eds), *Capitalism in Contrasting Cultures* (Berlin: Walter de Gruyter) pp. 79–104.

Reich, Robert B. (1991) *The Work of Nations: Preparing Ourselves for 21st Century Capitalism* (London: Simon & Schuster).

RCSO (ed.) (1989) *A Decade in Dongguan: 1979–1988* (Shanghai: Shanghai People's Publisher) (in Chinese).

Robinson, Mark (ed.) (1998) *Corruption and Development* (London: Frank Cass).

Rose-Ackerman, Susan (1998) 'Corruption and Development', in Boris Pleskovic, and Joseph E. Stiglitz (eds), *Annual World Bank Conference on Development Economics 1997* (Washington DC: World Bank), pp. 35–57.

Ross, Lester (1998) 'China: Environmental Protection, Domestic Policy Trends, Patterns of Participation in Regimes and Compliance with International Norms', *The China Quarterly*, issue 156, December, pp. 809–35.

Ruigrok, Winfried and Van Tulder, Rob (1995) *The Logic of International Restructuring* (London: Routledge).

Santiago, Carlose E. (1987) 'The Impact of Foreign Investment on Export Structure and Employment Generation', *World Development*, vol. 15, no. 3. March, pp. 317–28.

SCMP (1997a) 'Foreign Reserves Growth Makes an Impression', by Wang Xiangwei, 2 January, Business Post, p. 3.

SCMP (1997b) 'World Bank Says China's Poor Interior Being Ignored' by Simon Beck, 12 March, Business Post, p. 1.

SCMP (1997c) 'China Eclipses US as Favourite Overseas Investment Destination' by Choy Peng, Foo 11 April, Business Post, p. 4.

SCMP (1997d) 'Opium City on a High' by Jasper Becker, 7 June, Review. p. 1.

SCMP (1997e) 'Misleading Report about Factory Conditions, Letter to Editor by Thuyen Nguyen, 17 June (Internet edn: http://scmp.com).

SCMP (1997f) 'Sport Shoe Firms in New Child Labour Row', 22 September.

SCMP (1998a) 'Migrant Workers Earn $69b', 27 January.

SCMP (1998b) 'FDI Boom Fuelled by a Common Culture' by Qu Hongbin, 9 April, China Business Review.

SCMP (1998c) 'Foreign Currency Assets Dip to US$96.2b in April' by Enoch Yiu, 23 May, Business Post.

SCMP (1998d) 'Laws Aid Migrant Workers' by Peter Yu, 12 September.

SCMP (1998e) 'Proposed Road Law Runs into NPC Barrier' by Daniel Kwan, 6 November.

SCMP (1998f) 'Local Levies to Be Cut in Shake-up' by Ivan Tang, 16 November.

SCMP (1998g) 'Five-year Brake on New Tendering Legislation' by David Murphy, 16 November.

SCMP (1998h) 'Zhu Turns to Media to Pressure Legislators over Local Fees' by Daniel Kwan, 17 November.
SCMP (1998i) 'Foreign Cash Inflow Seen Falling on Asian Turmoil' by Mark O'Neill, 24 November, Business Post.
SCMP (1998j) 'VAT Rise to Strike Exports' by Renee Lai, 27 November, Business Post.
SCMP (1998k) 'Party Told to Cut Ties with Businesses' by Daniel Kwan, 30 November.
SCMP (1998l) 'Party Strengthens Grip on Enterprises' by Daniel Kwan, 1 December.
SCMP (1998m) 'Ventures Threatened by Back-dated VAT' by Renee Lai, 3 December, Business Post.
SCMP (1998n) 'Foreign Firms Accused of Faking Losses to Dodge Tax' 3 December.
SCMP (1998o) 'Plugs Pulled on Old Power Networks' by Matthew Miller, 15 December, Business Post.
SCMP (1998p) 'Investors Win Breathing Space as Mainland VAT Delayed Two Years' by Renee Lai and Matthew Miller, 17 December, Business Post.
SCMP (1999a) 'Guangdong Cracks Down on Transients' by Vivien Pik- kwan Chan, 6 January.
SCMP (1999b) 'Development Zones Axed' by Mark O'Neill, 7 January, Business Post.
SCMP (1999c) 'Almost Half of Shanghai Foreign Ventures in Red', 9 January, Business Post.
SCMP (1999d) 'Civil Service Pay up 30pc' by Elaine Pak Li, 21 January.
SCMP (1999e) 'SAR Drops Out of Top Three in Forex Rankings' by Enoch Yiu, 29 January, Business Post.
SCMP (1999f) 'Budget Officer Sets Pace in Corruption' by Matthew Miller, 1 February, Business Post.
SCMP (1999g) 'Fair Deal on Fees Urged towards Private-sector' by Matthew Miller, 1 February, Business Post.
SCMP (1999h) 'Reforms Aim to Stop Officials Cooking the Books' 5 February.
SCMP (1999i) 'Zhu Sees Red as Provinces Lie over GDP' by Mark O'Neill, 15 February, Business Post.
SCMP (1999j) 'Fuel Impost Aims to kill Illegal Fees' 19 April, Business Post.
SCMP (1999k) 'Snub for Zhu as Fuel Tax Proposal Rejected' by Daniel Kwan, 30 April.
SCMP (1999l) 'Radical Anti-nepotism Drive Splits Families', 29 June.
SCMP (1999m) 'Officials to Receive Record Wage Rise' by Vivien Pik-kwan Chan, 13 August.
SCMP (1999n) 'Honest Re-exports to Benefit from Crackdown on Dodgers' by Matthew Miller, 30 August, Business Post.
SCMP (1999o) 'NPC Drives through Controversial Highway Tax Amendments' by Daniel Kwan, 1 November.
SCMP (2000) 'Double Pay Vow to Spur Civil Servants' by Vivien Pik-kwan Chan, 11 January.
Shan, Jordan, Tian, Gary and Sun, Fiona (1999) 'Causality between FDI and Economic Growth', in Yanrui Wu (ed.), *Foreign Direct Investment and Economic Growth in China* (Cheltenham: Edward Elgar), pp. 140–54.

Shen, Xiaofang (1990) 'A Decade of Direct Foreign Investment in China', *Problems of Communism*, vol. XXXIX, no. 2. March–April, pp. 61–74.
Sit, Victor F. S. (1991) 'Hong Kong's Industrial Out-processing in the Pearl River Delta of China', in Edward K. Y. Chen, Mee-Kau Nyaw and Teresa Y. C. Wong (eds), *Industrial and Trade Development in Hong Kong* (Hong Kong: Centre of Asian Studies, University of Hong Kong), pp. 559–77.
Smart, Josephine and Smart, Alan (1991) 'Personal Relations and Divergent Economies: A Case Study of Hong Kong Investment in South China', *International Journal of Urban and Regional Research*, vol. 15, no. 2.
Solid Waste Pollution Prevention and Control Law, Official law promulgated 1995 (in Chinese).
South Centre (1997) *Foreign Direct Investment, Development and the New Global Economic Order: A Policy Brief for the South* (Geneva: Atar).
SSISCGP (ed.) *Guangdong Socio-economic Statistics Monthly* (various issues) (in Chinese).
SSB *China Statistical Yearbook* (Beijing: China Statistical Publishing House) (various issues) (in Chinese).
State Council National Industrial Census Working Committee (1987) *The People's Republic of China: 1985 Industrial Census, Vol. 5: 324 Cities* (Beijing: China Statistics Publication) (in Chinese).
Stiglitz, Joseph E. (1997) 'The Role of Government in Economic Development', in Michael Bruno and Boris Pleskovic (eds), *Annual World Bank Conference on Development Economics 1996* (Washington DC: World Bank), pp. 11–23.
Stewart, Thomas A. (1998) 'America's Most Admired Companies: Why Leadership Matters', *Fortune*, vol. 137, no. 4, 2 March, pp. 70–82.
Sung, Yun Wing (1991) 'Foreign Trade and Investment', in Hsin-chi Kuan and Maurice Brosseau (eds), *China Review* (Hong Kong: Chinese University Press), ch. 15.
Sung, Yun Wing (1995) 'Subregional Economic Integration: Hong Kong, Taiwan, South China and Beyond', in Edward K. Y. Chen and Peter Drysdale (eds), *Corporate Links and Foreign Direct Investment in Asia and the Pacific* (Australia: Harper Educational), pp. 56–86.
Takahashi, Yoshinobu (1996) 'Economic Development of the Coastal Region in China', in Basant K. Kapur, Euston T. E. Quah and Hoon Hian Teck (eds), *Development, Trade and the Asia-Pacific: Essays on Honour of Professor Lim Chong Yah* (Singapore: Prentice Hall), pp. 358–68.
Tanzi, Vito and Davoodi, Hamid (1998) 'Roads to Nowhere: How Corruption in Public Investment Hurts Growth', *Economic Issues*, vol. 12 (Washington DC: International Monetary Fund).
Taylor, Lance (ed.) (1993) *The Rocky Road to Reform: Adjustment, Income Distribution and Growth in the Developing World* (Cambridge, Mass.: MIT Press).
Thoburn, John T., Chau, Esther and Tang, S. H. (1991) 'Industrial Cooperation between Hong Kong and China: The Experience of Hong Kong Firms in the Pearl River Delta', in Edward K. Y. Chen, Mee-Kau Nyaw and Teresa Y. C. Wong (eds), *Industrial and Trade Development in Hong Kong* (Hong Kong: Centre of Asian Studies, University of Hong Kong), pp. 530–58.
Thoburn, John T., Leung, H. M, Chau, Esther and Tang, S. H. (1990) *Foreign Investment in China under the Open Policy: The Experience of Hong Kong Companies* (Aldershot: Avebury).

Tsang, D. S. (1996) 'The FDI and the Reform Policy', in Pui-King Lau (ed.), *The Trend of China's Economy 1996* (Hong Kong: The Commercial Press), pp. 130–7 (in Chinese).

Tseng, Choo-sin and Mak, Simon K. M. (1996) 'Strategy and Motivation for PRC Outward Direct Investments with Particular Reference to Enterprises from the Pearl River Delta', in Stewart MacPherson and Joseph Y. S. Cheng (eds), *Economic and Social Development in South China* (Cheltenham: Edward Elgar), pp. 140–61.

Tuan, Chyau and Ng, Linda Fung-yee (1995) 'Hong Kong's Outward Investment and Regional Economic Integration with Guangdong: Process and Implications', *Journal of Asian Economics*, vol. 6, no. 3. Fall, pp. 385–405.

UNCTAD-DTCI (1995) *World Investment Report 1995: Transnational Corporations and Competitiveness* (New York: United Nations).

UNCTC (1988) *Foreign Direct Investment in the People's Republic of China*, Report of the round-table meeting organized by the UNCTC and the China's Ministry of Foreign Economic Relations and Trade, held on 25–26 May 1987, Beijing New York: United Nations).

UNCTC (1992) *Foreign Direct Investment and Industrial Restructuring in Mexico*, Current Studies, Series A, No. 18 (New York: United Nations).

Van Wijnbergen, Sweder (1986) 'Macroeconomic Aspects of the Effectiveness of Foreign Aid: The Two-gap Model, Home Goods Disequilibrium and Real Exchange Rate Misalignment', *Journal of International Economics*, vol. 21, no. 1/2, August, pp. 123–36.

Vermeer, Eduard B. (1998) 'Industrial Pollution in China and Remedial Policies', *The China Quarterly*, issue 156, December, pp. 952–85.

Vernon, Raymond (1966) 'International Investment and International Trade in the Product Cycle', *Quarterly Journal of Economics*, vol. 80, no. 2, May, pp. 190–207; reprinted in Benjamin Gomes-Casseres and David B. Yoffie (eds) (1993) *The International Political Economy of Direct Foreign Investment; Vol. 1* (Aldershot: Edward Elgar), pp. 45–62.

Vernon, Raymond (1971) *Sovereignty at Bay: The Multinational Spread of U.S. Enterprises* (London: Longman).

Vernon, Raymond (1974) 'The Location of Economic Activity', in John H. Dunning (ed.), *Economic Analysis and the Multinational Enterprises* (London: Allen & Unwin), pp. 89–114.

Vernon, Raymond (1977) *Storm over the Multinationals: The Real Issues* (London: Macmillan).

Vernon, Raymond (1979) 'The Product Cycle Hypothesis in a New International Environment', *Oxford Bulletin of Economics and Statistics*, vol. 41, no. 4, November, pp. 255–67; reprinted in Peter J. Buckley (ed.) (1990) *International Investment* (London: Edward Elgar) pp. 230–42.

Vogel, Ezra (1989) *One Step Ahead in China: Guangdong under Reform* (Cambridge, Mass.: Harvard University Press).

Walder, Andrew G. (1987) 'Wage Reform and the Web of Factory Interests', *The China Quarterly*, vol. 109, March, pp. 22–41.

Wallerstein, Immanuel (1979) *The Capitalist World-Economy: Essays* (Cambridge University Press).

Wallerstein, Immanuel (1991) *Unthinking Social Science: The Limits of Nineteenth-century Paradigms* (Cambridge: Polity Press).

Wang, Daonan (1991) 'The Economic Relations between China and Hong Kong: Prospects and Principles', in Edward K. Y. Chen, Mee-Kau Nyaw and Teresa Y. C. Wong (eds), *Industrial and Trade Development in Hong Kong* (Hong Kong: Centre of Asian Studies, University of Hong Kong), pp. 447–63.

Wang, Guiguo (1995) 'Foreign Investment Law in the Pearl River Delta', in Joseph Y. S. Cheng and Stewart MacPherson (eds), *Development in Southern China: A Report on the Pearl River Delta Region including the Special Economic Zones* (Hong Kong: Longman), pp. 243–61.

Warner, Malcolm (1987) 'China's Managerial Training Revolution', in Warner (ed.), *Management Reform in China* (London: Frances Pinter), pp. 73–85.

Warner, Malcolm (1992) *How Chinese Managers Learn: Management and Industrial Training in China* (London: Macmillan).

Warner, Malcolm (1993a) *Human Resource Management 'with Chinese Characteristics'?*, 1992–1993, no. 8. January. Research Papers in Management Studies, Judge Institute of Management Studies, University of Cambridge; Revised version published in *The International Journal of Human Resource Management*, vol. 4, no. 1, February, pp. 45–65.

Warner, Malcolm (1993b) *Chinese Industrial Relations and Human Resources in the Early 1990s*, 1993–1994, no. 1. October. Research Papers in Management Studies, Judge Institute of Management Studies, University of Cambridge.

Warner, Malcolm (1994) *Beyond the Iron Rice-bowl: Comprehensive Labour Reform in State-owned Enterprises in North-East China*, 1994–1995, no. 1, October. Research Papers in Management Studies, Judge Institute of Management Studies, University of Cambridge.

Warner, Malcolm (1995) *The Management of Human Resources in Chinese Industry* (London: Macmillan).

Warner, Malcolm (1997) *Culture, Organisation and Work in China: The 'Societal' Effect*, WP 32/97. Research Papers in Management Studies, Judge Institute of Management Studies, University of Cambridge.

Water Pollution Prevention and Control Law, Official law promulgated in 1984 (in Chinese).

Wei, Shang-Jin (1999) *Corruption in Economic Development: Beneficial Grease, Minor Annoyance, or Major Obstacle*?, World Bank Policy Research Working Papers No. 2048.

Welsh, Frank (1993) *A History of Hong Kong* (London: HarperCollins).

WHB (1992) 'Today's Dongguan' by Lin Yu-dong, 27 March, p. 45 (in Chinese).

Williamson, O. E. (1985) *The Economic Institutions of Capitalism* (New York: The Free Press).

Wu, Neng Quan (1995) *The Economic Effects of Sanzi Qiye in Guangdong: Compared to the Sanzi Qiye in other Provinces* (Guangzhou: Zhongshan University) (in Chinese).

Yamazawa, Ippei (1990) *Economic Development and International Trade: The Japanese Model* (Honolulu, Hawaii: Resource Systems Institute at East-West Center).

Yamazawa, Ippei, Hirata, Akira and Yokota, Kazuhiko (1991) 'Evoluting Patterns of Comparative Advantage in the Pacific Economies', in Mohamed Ariff (ed.), *The Pacific Economy: Growth and External Stability* (North Sydney: Allen & Unwin), pp. 213–32.

Yang, Shi-ting *et al.* (1987) *The History of Guangdong* (Guangdong: Guangdong People's Publisher) (in Chinese).
Ye, Di (1986) *The Origins of Geographical Names in Guangdong* (Guangzhou: Guangdong Province Map Publisher) (in Chinese).
Ye, Xian-en (1989) *The History of Sea Transportation in Guangdong: Ancient Period* (Beijing: People's Transport Publisher) (in Chinese).
Ye, Yao (1994) 'The Socio-economic Development Strategy in the 21st Century', in Gui-kang Li and Jing-hui Yin (eds), *From Village to City: The Road to Modernisation in Dongguan* (Beijing: People's Publisher), pp. 85–103, (in Chinese).
Ye, Jing-tu (1994) 'The Feasibility of P&A: A Survey on Dongguan', in Dongguan Municipal Government Research Office (ed.), *Dongguan Economy, 1988–1993: Selected Research Reports*, pp. 232–7 Official reference material for internal circulation (in Chinese).
Ye, Jing-tu and Ye, Yu-pei (1994) 'EJV Is an Effective Way to Reform SOEs: A Case Study of Dongmei Food Company', in Dongguan Municipal Government Research Office (ed.), *Dongguan Economy, 1988–1993: Selected Research Reports*, pp. 222–7 (in Chinese).
Ye, Yu-pei, Zhang, Ping and Liu, Zhen-bang (1994) 'Some Issues on the Absorption of Foreign Investment in Dongguan', in Dongguan Municipal Government Research Office (ed.), *Dongguan Economy, 1988–1993: Selected Research Reports*, pp. 258–69 (in Chinese).
Yeung, Godfrey K. Y. (1998) *The Causes and Effects of Foreign Direct Investment: A Case Study of Dongguan Municipality in Southern China during the 1990's*, Ph.D. thesis, University of Cambridge.
Zhang, Hai-Yan and Van Den Bulcke, Danny (1996) 'China: Rapid Changes in the Investment Development Path', in John H. Dunning and Rajneesh Narula (eds), *Foreign Direct Investment and Government: Catalysts for Economic Restructuring* (London: Routledge), pp. 380–422.
Zhang, Peiji (1987) 'China's Strategy and Policy on Utilizing Foreign Capital', in Richard D., Robinson (ed.), *Foreign Capital and Technology in China* (New York: Praeger), pp. 3–19.
Zhang, Tian Rong. *et al.* (eds) (1995) *Dictionary of China's Economic Reform* (Beijing: China's International Broadcasting Publisher) (in Chinese).
Zhang, Xiaohe and Hung, Wan-sing (1996) 'Foreign Investments as an Engine of Economic Growth: The Case of Guangdong', in Stewart MacPherson and Joseph Y. S. Cheng (eds), *Economic and Social Development in South China* (Cheltenham: Edward Elgar), pp. 162–82.
Zhang, Zhaoyong (1996) 'Foreign Direct Investment and Technology Transfer: The Cases of China and Vietnam', in Anthony T. H. Chin and Hock Guan Ng (eds), *Economic Management and Transition Towards a Market Economy: An Asian Perspective* (Singapore: World Scientific), pp. 474–507.
Zhen, Bing (1994) *On the Implementation of Guangdong's Regulations on Workers' Rights 1994*, Official speech by the President of Guangdong General Workers' Union, Zhen Bing, 18 February (in Chinese).
Zhen, Duan-ben *et al.* (1987) *Historical Guangdong* (Guangzhou: Guangdong Tourist Publishers) (in Chinese).
Zhu, Yun-cheng *et al.* (eds) (1986) *China's Population: Guangdong* (Beijing: China Economic and Finance Publications) (in Chinese).

Index