MADE IN DDD

Challenges & Opportunities for HK Industry





香港經濟研究中心 The Hong Kong Centre for Economic Research

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Since China embarked on the historic economic reform programmes in late 1970s, the Pearl River Delta (PRD) has developed by leaps and bounds from a predominately rural region into one of the fastest growing, exportoriented industrial centres in the world. This spectacular transformation and the contributions that Hong Kong manufacturers had made to the process have been lucidly depicted in our study report – *Made in PRD: The Changing Face of HK Manufacturers* – released in 2003.

As a first large-scale, systematic research project on the economic relationships between Hong Kong and the PRD, the study was able to gauge the scale and scope of Hong Kong manufacturers' economic activities in the region as well as their strength in leveraging on the Hong Kong/PRD synergy to become more competitive amid the quickly globalising world economy.

The study was well received by the business community, policy makers and academia in Hong Kong, Guangdong and overseas. Its findings and recommendations not only aroused wide discussion among the stakeholders, but also stimulated keener interest in the dynamism and immense growth potential of the PRD as China's economic powerhouse.

Underpinned by the emergence of the PRD, in Hong Kong the economy has experienced profound development, most noticeably the rapid expansion of the producer services sector. Benefiting from Hong Kong manufacturers' escalating demand for producer services to support their burgeoning operations in the PRD, this sector has grown vigorously in the past decades – so much so that it has become the backbone of our economy, accounting for half of Hong Kong's GDP. For Hong Kong manufacturers, the successful expansion into the PRD has resulted in a more sophisticated division of labour between their Hong Kong and PRD operations, where the Hong Kong headquarters perform such functions as financial management, sales and marketing, research and development, and design and brand development, while the more labour-intensive production activities are carried out by the PRD factories. By tapping into the complementary strengths of Hong Kong and the PRD, Hong Kong industry has made great strides in expanding production capacity and upgrading manufacturing capabilities in the last twenty years or so. During the same time, the number of workers employed by Hong Kong industry has seen a tenfold increase.

Given the fast changing global market and China's rapid economic development, the Hong Kong/PRD partnership and its evolution against the backdrop of Guangdong's Eleventh Five-Year Plan need to be closely monitored to ensure that timely and appropriate policies can be formulated and implemented to enhance the region's competitive advantage. With this in mind, the FHKI has embarked on the present research as a followup to the successful Made in PRD study, to update and deepen our understanding of the evolving Hong Kong/ PRD partnership. The Hong Kong Centre for Economic Research was again commissioned to undertake the new study.

This report is the product of an ambitious task that involved many months of preparations, field work, data analysis and compilation. But, as you will discover, the efforts have produced gratifying results. This is a useful reader for those who are interested in the newest development trends of the Greater PRD since our previous study. From this report's findings, you will gain insight into new opportunities made available by the increasingly close collaboration between Hong Kong and the PRD. More importantly, the recommendations in the final chapter provide a direction for further promoting the Hong Kong/PRD synergy and strengthening the region's industrial development. They may be of strategic importance to the governments and institutions in Hong Kong and Guangdong for formulating plans and measures to encourage and facilitate industry players to move up the value chain and improve their competitiveness. Given the pivotal role played by industry in the region's economy, strong and sturdy support by government to ensure industry's vibrancy is instrumental in sustaining the long-term prosperity of the Greater PRD.

This report would not have been possible without the generous support of the sponsors. We thank them sincerely for their commitment to and enthusiasm for the advancement of the interest of Hong Kong industry. We are also indebted to the many companies that participated in the survey. The information provided by them has been crucial to the success of this study.

Last but not least, we would like to express our deepest gratitude to members of the Steering Committee for their input and guidance during the course of the project, Professor Y C Richard Wong and his team from the Hong Kong Centre for Economic Research for their commitment and professionalism in conducting the research work, and our co-ordinating team at the secretariat for their hard work and dedication to the project.

> **Kenneth Ting** Chairman Federation of Hong Kong Industries

April 2007



The publication of *Made in PRD: Challenges and Opportunities for HK Industry* could not have come at a more opportune moment, when the industrial restructuring in Guangdong is gathering pace under its Eleventh Five-Year Plan. This restructuring, which seeks to improve the province's industrial landscape, will have profound ramifications on Hong Kong industry as well as the evolving Hong Kong/PRD partnership.

Building on the foundation of the previous study released four years ago, this report charts the latest industrial developments in the Greater PRD and analysed the significance of maintaining a thriving industrial base in the PRD for the region's sustainable development. I hope our new findings will be useful to the Guangdong authorities for developing a strategy to take the industrial restructuring forward in a manner that can minimise its impact on and at the same time maximise the return on investment for the stakeholders.

During my two-year tenure as chairman of the FHKI beginning 2001, the relative lack of understanding of the economic relationship between Hong Kong and our single most important production hinterland for Hong Kong industry – the PRD, prompted FHKI to embark on the Made in PRD research project. The project aimed to systematically study the activities of Hong Kong manufacturers in the PRD and their role in the industrial, economic and technological development in the Greater PRD region.

Through this project, we were able to acquire a wealth of knowledge of this fast changing region, and identified the kind of governmental and institutional support and assistance that Hong Kong manufacturers needed to remain competitive in a fastly globalising world market.

Based on the report's recommendations, in early 2004 FHKI founded the PRD Council to strengthen our support for Hong Kong manufacturers operating in the PRD. Through the strong liaison work of its local chapters in key PRD cities, the PRD Council has maintained close dialogues with local authorities and meets frequently with government officials to exchange views on issues affecting manufacturers' PRD operations. It is noteworthy that most of the respondents to our present study felt that Guangdong's operating environment had generally improved over the past three years.

In addition, a number of new measures taken by the Hong Kong Government to forge closer Hong Kong/PRD co-operation were recommendations in the report. These included: setting up a government economic and trade office in Guangzhou to gather and communicate trade and economic information to Hong Kong companies conducting business in Guangdong; commissioning of new cross-boundary infrastructures to improve passenger and cargo flows; and establishing the Greater PRD Business Council to provide a platform for discussing issues of mutual benefit to Hong Kong and PRD at the business-to-business level. An important area highlighted by the last study was promoting Hong Kong industry's innovation and technology capabilities. In recent years, the Hong Kong Government has re-defined the priority of the Innovation and Technology Fund and established specialised applied research centres to strengthen governmentindustry-academia collaboration. New schemes have also been established to promote "Brand Hong Kong" and to encourage Hong Kong companies to add value to their products through the use of quality design and branding.

While we are delighted with these positive developments, we hope the new study report will be equally well received by the business community and policy makers of Hong Kong and Guangdong as the first one.

> **Victor Lo** Honorary President Federation of Hong Kong Industries

April 2007



As one of the world's largest and most dynamic manufacturing bases, the PRD faces new challenges brought about by intensifying regional and global competition as well as depleting resources and environmental concerns. To maintain its position in the global market, it needs the concerted effort and close collaboration of Hong Kong and Guangdong Governments to facilitate and foster the continued expansion and advancement of the PRD's industry.

The recommendations in this report shed light on the direction that the two governments might take to achieve this goal. Encouraging and helping manufacturers to move up the value chain through R&D, design and brand building is of particular importance. This can be achieved by offering incentives and funding support as well as providing manpower, productivity and management training programmes to manufacturers through industry-support institutions. In addition, the "Brand Hong Kong" should be widely promoted in the Mainland and overseas markets to elevate the value and prestige of Hong Kong products.

With Hong Kong's efficient producer services and the PRD's strong manufacturing base, the Greater PRD is an ideal platform for companies to seek business opportunities in the increasingly affluent Mainland market. The Hong Kong and Guangdong Governments should mount co-ordinated campaigns to proactively advertise this distinctive advantage of the Greater PRD, thereby attracting more companies to the region to increase its economic vigour.

Environmental preservation is the worldwide trend. The Greater PRD needs to transform into a leading green manufacturing centre in the world to enhance its competitive advantage. In this connection, this report suggests that stronger government support and assistance should be provided to manufacturers in the PRD in adopting clean production technologies to meet the increasingly stringent environmental standards. At the same time, the authorities should provide clearer policy and implementation guidelines and a sufficiently long transitional time for manufacturers to adapt their operations to new environmental requirements. These measures are crucial to ensure that Guangdong's industrial restructuring is carried out smoothly without jeopardising the existing strength of its manufacturing base.

Moreover, the clustering of different linkage industries in close proximity is an important advantage of the PRD's manufacturing base. As preserving this clustering effect is crucial for the base's continued expansion, it should be made a priority in taking forward the industrial restructuring. Further, it is worth noting that for historical reasons, a large number of factories of the important linkage industries operate under the three forms of processing/assembly operations and compensatory trade. Since most of these processing factories are SMEs, they are in need of administrative assistance and special treatment that facilitate their conversion into foreign-invested enterprises to match new changes in the processing trade policy. Gradual implementation of these changes is also important as it can avoid causing sudden disruption to the production chain.

Further development of the Greater PRD's regional economy requires the continued upgrade of crossboundary transportation infrastructure to facilitate seamless flow of people and goods between Hong Kong and Guangdong. In this connection, the two governments should cooperate to streamline further the cross-boundary customs clearance procedures and to expedite the construction of the East Corridor and Hong Kong-Zhuhai-Macao Bridge.

In light of this report's findings and recommendations, specific policy proposals will be made to the Hong Kong and Guangdong Governments for forging closer partnership between the two areas and building a stronger manufacturing base in the Greater PRD. Maintaining a strong and expanding industry is mutually beneficial to Hong Kong and Guangdong. We hope our suggestions will be seriously considered by the two governments.

> Andrew Leung Steering Committee Chairman Made in PRD Research Project

April 2007

Hong Kong and the Pearl and Yangtze River Deltas

1.1 Introduction

China's economy continues to grow at a rapid rate. The trend has shown no signs of abatement (Figure 1.1) with an average annual real Gross Domestic Product (GDP) growth rate of 9.8%, recorded since the year 2000. In 2006, real GDP continued to expand at an annualised rate of 10.7%. The two major driving forces of this buoyant economic growth are fixed capital investment and external trade. The recent economic growth record is particularly impressive because it has been able to achieve significant growth without triggering consumer price inflation, which has averaged 1.36% since 2000. Inflation has remained low despite a buoyant growth in money supply, caused by a growth in loans derived from rising fixed capital investments and a growing surplus of balance of payments. The latter has stemmed from large trade surpluses and the influx of foreign investments, which has triggered international concern over China's macroeconomic policies in general, and trade and exchange rate policies in particular.

The net increase in foreign exchange reserves was about USD 200 billion per year in 2004-2006. At the end of 2006, China's foreign exchange reserves stood at USD 1,066.3 billion, the largest foreign reserve holdings in the world. In July 2005, the People's Bank of China adopted a new exchange-rate regime for the Renminbi, scrapping its peg to the US dollar and replacing it with a managed float. At the end of 2006, the average exchange rate stood at around 7.8087, having appreciated by 6% in the period July 2005-December 2006.

In 2005, the trade surplus and foreign direct investment (FDI) inflow stood at the unusually high levels of USD 102.1 billion and USD 72.3 billion, respectively. The trade surplus in 2005 and 2006 were, respectively, four times and seven times that of the average level attained in 2000-2004, and in 2006 it further increased to USD 177.5 billion. FDI in 2005 and 2006 was 1.8 times and 1.5 times that of 2000, and decreased to USD 63 billion in 2006.

Foreign-invested enterprises (FIEs) have played a pivotal role in China's trade performance and economic growth. *Figure 1.2* shows that exports from FIEs were growing at a faster rate than exports from domestic enterprises. In 2001-2005, total exports grew at the average annual rate of 25%. In the same period, the exports of FIEs and domestic enterprises increased at the average annual rates of 30% and 19.6%, respectively.





Figure 1.2: Total Exports by Foreign-Invested Enterprises (FIEs) and Domestic Enterprises, 1993-2006



In 2005, about 58% of total exports were produced by FIEs. Within Mainland China, Guangdong in the Pearl River Delta (PRD) and Yangtze River Delta (YRD) comprising Shanghai, Jiangsu and Zhejiang, have brought in large numbers of FIEs. Through them, the region has become closely linked into the global supply chain. Exports from FIEs in Guangdong, Shanghai, Jiangsu and Zhejiang together made up 75% of total exports from FIEs in Mainland China in 2005; the respective shares of these cities were 34.8%, 13.9%, 21.2% and 6.1%.

In 2001-2005, the average annual growth rate of exports from FIEs in Shanghai, Jiangsu and Zhejiang was 40%, and that in Guangdong was 25.6%. In 2006, exports from FIEs in Guangdong, Shanghai, Jiangsu and Zhejiang further expanded by 25.4%, 23.3%, 31.1% and 39.1% respectively in equivalent annual growth rates, and represented 76.5% of total exports from FIEs in China. The amount of exports from FIEs in Shanghai, Jiangsu and Zhejiang combined was greater than that from Guangdong by 1.103 times in 2004, 1.184 times in 2005, and 1.224 times in 2006.

1.2 Greater Pearl River Delta and Greater Yangtze River Delta Economic Regions

The Pearl River Delta (PRD) emerged as an economic region with the opening of China in the late 1970s. Manufacturers from Hong Kong began to cross the border to invest in export-oriented operations in the Guangdong region, primarily in Shenzhen and Dongguan. These started initially as export-oriented processing and assembly operations, and they have continued to the present time as an organisational and contractual form unique to Guangdong. But as China continued to liberalise its economy, foreign investments in the form of joint ventures and fully foreign-owned enterprises also emerged. By 1992, when Deng Xiaoping made his historic visit to the south to give renewed momentum to economic liberalisation efforts, the PRD had already overtaken Thailand in terms of GDP and export value. Thailand was considered at that time as the emerging "Fifth" of the Four Asian Dragons: Hong Kong, Singapore, South Korea and Taiwan. In fact, the PRD was a truly emerging, export-oriented, manufacturing platform that would overtake each and every one of the original Four Asian Dragons.

The Greater PRD economic region is often used to describe Hong Kong, Macao and Guangdong. The three units are administratively distinct, with Hong Kong performing the role of a producer services economy, supporting the manufacturing hinterland in Guangdong and linking it to the rest of the world through foreign trade and investments. Hong Kong's role of an international financial centre is important not only for Guangdong, but for the whole of China and beyond. Although the Yangtze River Delta as an economic planning concept had been articulated in numerous Chinese economic planning exercises, its emergence as a region open to foreign investments and as a platform for manufacturing exports began to emerge only in the late 1980s. It began in the township of Kun Shan in Jiangsu province, neighbouring Shanghai, with the coming of investors from Hong Kong and Taiwan. The opening of Shanghai in the early 1990s and the gradual integration with indigenous entrepreneurial activities in Zhejiang province created a very vibrant Greater YRD economic region embracing Shanghai, Jiangsu and Zhejiang.

Table 1.1 presents some basic economic indicators comparing the two regions for the year 2005. The land area of the two regions constitutes a relatively small part of the total land area of China, about 4%. In contrast, the population mass of the two regions represents 18.4% of the total population of China. The nominal GDP of the two regions together accounts for 39.5% of total nominal GDP in China (including Hong Kong and Macao). The two regions account for 85% of total exports and 55% of total FDIs in China. Trade surplus generated by the two regions amount to 105% of the overall trade surplus in China as a whole. Greater PRD's GDP at USD 462.5 billion is slightly lower than Greater YRD's GDP at USD 499.1 billion. On the other hand and as expected, Greater PRD's GDP per capita at USD 4,653 is higher than Greater YRD's GDP per capita at USD 3,528. Total trade in Greater PRD was nearly three times that in Greater YRD in 2001, but within a span of five years this multiple has been reduced to two. In 2005, total trade in Greater PRD was USD 1,027.3 billion, whereas that in Greater YRD was USD 521.7 billion. Greater YRD has indeed been catching up very rapidly.



Hong Kong's role of an international financial centre is important not only for Guangdong, but for the whole of China and beyond.

Table 1.1: Major Indicators of Greater PRD and Greater YRD Economic Regions, 2005

				Cuester				Creater
	Hong Kong	Macao [#]	Guangdong	PRD	Shanghai	Jiangsu	Zhejiang	YRD
Area (sq km)	1,104	25.8	179,757	180,887	6,300	102,600	103,636	212,536
Population (mn)(the 2005 Interim Census)	6.97	0.49	91.94	99.40	17.78	74.75	48.94	141.47
Nominal GDP (USD bn)	177.9	11.6	273.0	462.5	111.7	223.4	164.0	499.1
GDP per capita (USD)	25,629	23,678	2,970	4,653	6,283	2,989	3,351	3,528
Industrial structure:								
Industry (USD bn)	11.0	1.3	127.9	140.2	50.4	113.9	77.5	241.8
Share of GDP	6.4%	6.1%	46.9%	30.3%	45.1%	51.0%	47.2%	48.4%
Services (USD bn)	155.8	8.1	117.6	281.5	56.4	79.2	65.6	201.2
Share of GDP	90.6%	88.8%	43.1%	60.9%	50.5%	35.4%	40.0%	40.3%
Total trade (USD bn)	593.0	6.4	428.0	1,027.3	186.4	227.9	107.4	521.7
Exports (USD bn)	292.3	2.5	238.2	533.0	90.7	123.0	76.8	290.5
Imports (USD bn)	300.6	4.0	189.8	494.3	95.6	105.0	30.6	231.2
Estimates of Exports Destined to and Re	tained Impor	ts from A	reas other tha	an Hong Ko	ng, Macao,	or the Ma	inland (US	D bn)
Estimated Total Trade (USD bn)	123.6	3.7	336.5	463.9	176.7	212.8	104.3	493.7
Estimated Exports* (USD bn)	51.0	1.9	153.1	206.0	82.2	109.3	74.0	265.5
Estimated Retained Imports $^{\scriptscriptstyle \Delta}$ (USD bn)	72.6	1.8	183.4	257.8	94.5	103.4	30.2	228.2
	25.0	1 0	12.4	40 C	6.0	12.2	ר ר	77.0
FUI (USD DD)	35.9	1.3	12.4	49.6	6.9	13.2	1.1	27.8
than HK, Macao or Mainland China (USD bn)	27.5	0.6	6.3	34.4	6.0	9.2	4.7	19.9
Loans & Advances of Banks (USD bn)	297.4	5.6	283.8	586.8	205.0	187.9	208.9	601.8
Deposits in Banks (USD bn)	523.2	16.6	465.2	1,004.9	284.6	268.5	257.7	810.8
Loans to Deposits Ratio %	56.8%	33.7%	61.0%	58.4%	72.0%	70.0%	81.1%	74.2%

* As at the end of 2004, the accumulated foreign investment in Macao reached USD 3.94 billion, 65% of which came from Hong Kong investors.

* Estimated exports from Hong Kong include domestic exports plus profit from re-exports.

^a Estimated retained imports in Hong Kong are equal to the value of imports - [value of re-exports x (1 - rate of re-export margin)] - [value of imports from the Mainland x share of retained imports in total imports from Mainland China].

Note: Greater Pearl River Delta (PRD) includes Hong Kong, Macao and Guangdong; Greater Yangtze River Delta (YRD) includes Shanghai, Jiangsu and Zhejiang. Source : CEIC. other figures are from Guangdong, Jiangsu, Shanghai, Zhejiang Statistical Reports 2005, HKSAR Census and Statistics Department, Macao SAR Statistics and Census Bureau

Table 1.2: Real GDP Annual Growth Rate	, 1978-2005
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	Hong Kong	Shanghai
1978-88	8.3	9.0
1989-97	4.9	10.7
1998-05	3.6	11.2

Source : CEIC

In view of the large quantity of goods that cross the borders between Hong Kong, Macao and the Mainland, it is easy to see that official statistics pertaining to total trade values are artificially inflated. One workable solution for the problem of double counting is to eliminate the value of traded goods and services that move between Hong Kong, Macao, and the Mainland. After factoring in the profits gained from re-export activities that primarily accrue in the accounts of Hong Kong, we estimate the total value of trade in Greater PRD to be USD 463.9 billion, which was lower than that in the Greater YRD at USD 493.7 billion. Given that trade in the Greater YRD region has been growing at a faster rate than the Greater PRD region in recent years, the gap between the two regions in the coming years is likely to widen even further.

In 2005, Hong Kong's GDP was about 1.6 times that of Shanghai's, and per capita GDP was more than four times that of Shanghai's (*Table 1.1*). Total trade intermediated by Hong Kong is more than three times that of Shanghai. *Table 1.2* shows that in the past 14 years, Shanghai has grown at about 11% per year. Hong Kong's growth rate is only one-third of Shanghai's record. If these growth rates continue, Shanghai will overtake Hong Kong in less than 10 years. In 15 years, Shanghai will catch up in terms of per capita GDP. Such mechanical projections may not be meaningful, but the gap is narrowing rapidly.



Since China's opening, Hong Kong has been the single largest source of FDI in Guangdong, Shanghai, Jiangsu and Zhejiang.

1.3 The Role of Hong Kong

Hong Kong and Shanghai serve as regional business centres, and both have aspirations to serve as international financial centres for the region. Hong Kong's reach is wider than Shanghai's, both within the Mainland and outside, but Shanghai is much closer and arguably better integrated, both economically and financially, with the rapidly growing domestic Mainland market. Hong Kong's strength, on the other hand, is its superior integration with the global market and its adoption of international standards and practices. Hong Kong provides an excellent platform and set of institutions to immediately facilitate Mainland China's financial reforms and development, while Shanghai has to catch up, although its proximity to the domestic market remains a long term competitive strength.

Both Hong Kong and Shanghai service their very vibrant industrial hinterlands, the PRD and the YRD respectively. These are important roles that will continue into the future and strengthen each metropolis as a service centre for their respective hinterlands. In the process they will open up the Mainland Chinese economy and further its linkages with the global economy. Hong Kong is much more developed than Shanghai as a service economy and has more professional and entrepreneurial talent. Hong Kong's investors today dominate the PRD and constitute the single largest group of foreign investors present in the YRD, although their role is much less dominant in the YRD than in the PRD. Shanghai benefits from the influx of entrepreneurial and professional talent from all over China, including Hong Kong and from overseas. On the other hand, Hong Kong's ability to bring in entrepreneurial and professional talent from the Mainland suffers from restrictive immigration and travel barriers that have to be further removed. In the long run, the renewal of Hong Kong's human capital stock might be the single most critical factor where Shanghai has a competitive advantage.

Since China's opening, Hong Kong has been the single largest source of FDI in Guangdong, Shanghai, Jiangsu and Zhejiang. At the end of 2005, 65% or USD 105.4 billion of total cumulative FDI invested in Guangdong came from Hong Kong, making it the dominant foreign investor in the province. Although only 31%, or USD 61 billion, of total cumulative FDI invested in Greater YRD came from Hong Kong, it shows that it is still the single largest source of foreign investment in the region. **Table 1.1** shows that FDI inflow in the Greater PRD amounted to USD 49.6 billion in 2005, 1.7 times that of Greater YRD at USD 27.8 billion. Since Hong Kongbased companies are the largest sources of FDI inflow in both regions, and since the Mainland is also a major source of FDI inflow into Hong Kong and Macao, it is useful to eliminate reported FDI flows between the Mainland, Hong Kong and Macao to ascertain the amount of capital inflow from "external" sources. The estimated FDI into the Greater PRD in 2005 stood at USD 34.4 billion, nearly 1.7 times that in Greater YRD at USD 19.9 billion.

Given Hong Kong's much slower growth pace (*Figure 1.3*), the Greater YRD has overtaken Greater PRD in GDP terms since 2004. If the regions' per capita GDP growth rates for the past four years are sustainable, it would take less than five years for Greater YRD to catch up in terms of per capita GDP. Such mechanical projections may not be justified and the comparisons not always appropriate, but the idea that the gap between the Greater YRD and the Greater PRD has rapidly narrowed must be taken very seriously.

Figure 1.3: Average Annual Real GDP Growth Rate of Greater PRD and Greater YRD



Source: CEIC, Guangdong Statistical rearbooks, Shanghal Statistical rearbooks, Jiangsu Statistical Yearbooks, Zhejiang Statistical Yearbooks, Macao SAR Statistics and Census Bureau, HKSAR Census and Statistics Department

Foreign-invested enterprises (FIEs) **Domestic enterprises** (USD bn) (USD bn) 1992 67.6 17.4 1995 101.9 46.9 2000 129.8 119.5 2005 317.9 444.4

Table 1.3: China's export value in billions, 1992-2005

Source: CEIC



Producer services in Hong Kong provide essential support for the export-oriented manufacturing operations in Guangdong.

1.3.1 Investing in the Hinterland

Hong Kong's role in Mainland trade is not limited to being a middleman. It performs a critical role in China's development and in export trade. **Table 1.3** shows the relative contributions to exports from domestic enterprises and FIEs in China. The share contributed by FIEs has continued to rise over time: in 2001, the total value of exports produced by FIEs exceeded exports of the entire domestic industrial sector for the first time since 1992.

Today the FIEs are the driving force in generating exports for China. Data shows that their exports have grown by 28.3% per annum on average between 1992 and 2005. Compare this with domestic enterprises, and compound growth has only been at 12.6%. The largest numbers of investors in China's FIEs are from Hong Kong, which has contributed some USD 245.4 billion or 40.3% of China's total cumulative FDI in the period 1992-2005. A heavy concentration of this investment is to be found in Guangdong province. In 1992-2005, Guangdong received USD 154.5 billion in cumulative FDI, of which 63.8% was from Hong Kong.

According to an earlier survey reported in the study *Made in PRD: The Changing Face of HK Manufacturers (Made in PRD* (2003)) and conducted in April 2002,¹ out of 123,000 manufacturing and import-export companies based in Hong Kong, an estimated 63,000 companies (or 53%) have manufacturing operations on the Mainland. These import-export firms are traders in Hong Kong but manufacturers in the Mainland. The 63,000 companies with manufacturing operations on the Mainland employed a total of 477,000 workers in Hong Kong, but more than 11 million workers on the Mainland.

Within the Greater PRD economic region, Guangdong's economy is highly integrated with those of Hong Kong and Macao, primarily through the manufacturing industries and the producer services. Producer services in Hong Kong provide essential support for the exportoriented manufacturing operations in Guangdong. Since the open door policy was adopted, the Greater PRD has become a rapidly growing economic region in China whose economic growth and industrialisation owes much to the enterprising efforts of Hong Kong's businessmen and manufacturers from the very outset. At the same time, Hong Kong became the foreign trade outreach platform for these enterprises in Guangdong. In more recent years, as industrialisation has broadened and deepened in Guangdong, the province is moving into industrial sectors, like automobiles, that are foreign to Hong Kong's own past industrial experience.

In the period 2001-2005, recorded investments from Hong Kong in Guangdong amounted to approximately USD 33.5 billion, representing 37.6% of the FDI made by Hong Kong in Mainland China. In 2004, the FDI made by Hong Kong in all of Mainland China amounted to USD 19 billion, of which about USD 5.04 billion was invested in Guangdong and accounted for only 26.4% of the FDI made by Hong Kong in Mainland China. This was an unusual year where the recorded proportion of Hong Kong's investment in Guangdong as a percentage of total investment in Mainland China reached the lowest level since China's opening-up in the late 1970s. The proportion rebounded to 32.4% in 2005. These recorded investments, however, did not include investments in Guangdong initiated from the tax haven economies and other investments in processing and assembly that are not recorded as foreign investments.

¹ The study was commissioned to the Hong Kong Centre for Economic Research by the Federation of Hong Kong Industries and released in 2003.

Chapter 1



Since the mid-1990s, manufacturing enterprises based in Hong Kong and clustering in Guangdong have gradually moved to the Greater YRD, and this trend has accelerated in the 21st century.

Historically, Mainland China is the most important destination of FDI from Hong Kong, representing 40.3% of cumulative FDI flowing from Hong Kong. Conversely, Hong Kong is the most important destination of FDI from Mainland China, receiving 31.4% of FDI flowing out from Mainland China. The enormous flow of capital between Mainland China and Hong Kong reflects their close economic and trading relationship.

After 1997, the British Virgin Islands became the most important source of FDI in Hong Kong, Guangdong and Mainland China. It is well known that Hong Kong enterprises generally establish dormant companies in offshore financial centres such as the British Virgin Islands and the Bermuda Islands to transfer direct investment capital into Hong Kong or other places, and also allows as well foreign enterprises to transfer capital to Hong Kong indirectly. In 2005, these British Virgin Islands related investments accounted for 31.3% and 44% of the accumulated FDI to and from Hong Kong. Based on this inward and outward flow, we can infer that a substantial proportion of such capital is related to Hong Kong enterprises.

According to the statistics of foreign investments actually utilised, approximately 70% of the investments in the form of processing and assembly came from Hong Kong and approximately 90% were foreign investments in Guangdong.

If we add these off-shore investments to the investments that Hong Kong enterprises are recorded to have made in Guangdong, we can derive an upper boundary for the total amount of investments made in Guangdong with Hong Kong capital. If such an adjustment is made, the proportion might be reduced somewhat, but the downward trend will probably still remain. *Figure 1.4* provides two trend-lines that provide upper and lower boundary estimates of the true situation.

Since the mid-1990s, manufacturing enterprises based in Hong Kong and clustering in Guangdong have gradually moved to the Greater YRD, and this trend has accelerated in the 21st century. Figure 1.5 shows that capital invested in the Greater YRD by Hong Kong continues to increase, and the proportion of such investment to the total FDI from Hong Kong in Mainland China surged from 13.7% in 1998 to 41.2% in 2004, and subsequently dropped to 38.4% in 2005. From 1998 to 2004, the proportion of FDI from Hong Kong in Shanghai, Jiangsu and Zhejiang to that made all over the country increased by 3.1%, 9.1% and 19.2%, respectively. In 2004, FDI from Hong Kong was USD 4.09 billion, making for as much as 61.2% of the FDI in Zhejiang. This data did not include capital managed in Hong Kong, registered in tax haven economies and invested in China. Hong Kong capital not only drives key elements of Guangdong's development, but is also actively utilised for the development of the Greater YRD, helping the latter to become another exportdriven economic region. Due to the continuous growth of FDI, exports of FIEs in Greater YRD have exceeded that of FIEs in Guangdong in 2004, and by as much as 18% in 2005.



Figure 1.4: FDI and Other Investments Made by Hong Kong in Guangdong, 1986-2005

Source : Guangdong Statistical Yearbooks



Figure 1.5: FDI and Other Investments Made by Hong Kong in Guangdong, Shanghai, Jiangsu and Zhejiang, 2001-2005

Source: Guangdong Statistical Yearbooks, Shanghai Statistical Yearbooks, Jiangsu Statistical Yearbooks, Zhejiang Statistical Yearbooks, China Statistical Yearbooks

In 1979-2005, the accumulated FDI made by Hong Kong in Guangdong totalled USD 105.4 billion or 64.7% of the total accumulated FDI in Guangdong, and was the major source of Guangdong's foreign investment. These amounts did not include other investments in "processing and assembly" projects, 70% of which came from Hong Kong. From 1986 to 2005, the accumulated other investments in "processing and assembly" projects amounted to USD 17.1 billion. Since the mid-1980s, a large number of Hong Kong manufacturing enterprises have invested in Guangdong. Due to geographic/economic factors and network connections, business dealings between Guangdong and Hong Kong became more frequent; however, government policy in facilitating such cross-border interactions has generally lagged behind the actual development needs.

As at the end of 2005, capital invested by Hong Kong in the Greater YRD accumulated to USD 61 billion, which was already 57.8% of its investment in Guangdong. With the continuing improvements in the business environment of the Greater YRD, the proportion of investments going there has been on the rise. According to the earlier study *Made in PRD* (2003), more and more manufacturers had expressed interest in investing in the YRD in the survey. This is now clearly borne out by investment statistics from recent years.

1.3.2 Producer Service Industry in Hong Kong

The growth of the manufacturing base in the PRD has transformed Hong Kong into a service economy. Hong Kong's service economy is not driven by the growth of consumer services but producer services. These producer services, comprising business and trade services; professional services like banking, accounting, legal and logistics; and supply chain management services, are intimately tied to the manufacturing base in the PRD. The productivity of the PRD region stems from Hong Kong's ability to provide all these higher value-added services to supply the world economy with manufactured exports. The complementarities and synergies of the manufacturing base in the PRD and the producer services in Hong Kong account for the vibrancy of the partnership for mutual benefit. Shanghai's ability to perform an analogous role for the YRD is less pronounced.

Figure 1.6 shows that in 2005, Hong Kong's service economy accounted for more than 90.6% of GDP, and this contrasts with Shanghai's much smaller service economy of 50.5%.

Figure 1.7 shows that with the exception of Hong Kong, industrial production dominated Guangdong, Jiangsu, Zhejiang and Shanghai, where it contributed about 45-51% of GDP in 2005. The share of industrial production in Guangdong, Jiangsu and Shanghai increased by 5.3%, 6% and 3.2% respectively in 2001-2005. Zhejiang's share of industrial production decreased by about 0.7% in the same period.

The services sector contributed 35-50% of GDP in Guangdong, Jiangsu, Zhejiang and Shanghai in 2005. With a faster expansion in industrial production, the share of services sector in Guangdong, Jiangsu and Shanghai decreased by 1.2%, 1.6% and 0.4% in 2001-2005, and only in Zhejiang did it increase by 3.6% during the same period. The contribution of the services sector was larger in Shanghai, at 50.5% in 2005.

In Hong Kong, industrial production in 2005 contributed only 6.4% of GDP, with services contributing 90.6%. As a consequence, the Greater PRD economy is 30.3% industry and 60.9% services in terms of GDP. This is in contrast to the Greater YRD economy, which is made up of 48.4% industry and 40.3% services.



Figure 1.6: Hong Kong and Shanghai – Industry and





Source : Guangdong Statistical Yearbook 2006, Jiangsu Statistical Yearbook 2006, Zhejiang Statistical Yearbook 2006

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The complementarities and synergies of the manufacturing base in the PRD and the producer services in Hong Kong account for the vibrancy of the partnership for mutual benefit.

Most of the growth of the service industry in Hong Kong derives from the growth of production services. **Table 1.4** shows that in Hong Kong, the proportion of producer services to GDP rose from 45.8% in 2000 to 52.8% in 2005. The continuous growth of Hong Kong's producer services industry reflects the rising support of Hong Kong in services to the Mainland, where Guangdong's manufacturers are believed to be the territory's most important partners in this respect.

Hong Kong has had little competition in supplying producer services to support manufacturing in China. This is especially true for business and trade services; professional services like banking, accounting and legal; and logistics and supply chain management services, since the services are often provided by the parent company in Hong Kong to its subsidiaries, affiliates and sub-contractors in China. Moreover, its proximity to the PRD and the presence of an excellent and improving infrastructure make Hong Kong the greatest asset of the PRD. Both the PRD and the YRD economies are vibrant regional economies of China. Both are important manufacturing bases of China and serve as important export platforms. The PRD is serviced primarily by and from Hong Kong and the YRD is serviced from Shanghai.

The great contrast is that while the majority of the factories in the PRD are owned by companies from Hong Kong, those in the YRD are not owned by companies from Shanghai. This means that while Hong Kong has a native pool of entrepreneurial talent that can drive the PRD economy, Shanghai does not. This is Hong Kong's initial advantage over Shanghai. The entrepreneurs located in Shanghai that drive the YRD economy have to be imported and are not indigenous. For Shanghai to continue performing the role of driving the YRD economy it is imperative for it to create a friendly business environment that is conducive to attracting entrepreneurs. In this respect, Hong Kong's friendly business environment continues to serve as a magnet for attracting entrepreneurs; however, restrictions limiting the inflow of entrepreneurial talent from the Mainland may prove to be Hong Kong's Achilles heel. Shanghai by contrast has no artificial barrier that limits such entrepreneurial inflows into the city.

Given that Shanghai's producer service economy is less well developed than that of Hong Kong, it is entirely possible for Hong Kong-based companies to contest Shanghai's market. Hong Kong is Shanghai's largest foreign investor, accounting for 31.5% of the total accumulated FDI (1992-2005) in the city. Hong Kong entrepreneurs have shared with Shanghai their management expertise and business experience via widespread investment in Shanghai's financial services, infrastructure, real estate, and wholesale and retail trade. This means Hong Kong entrepreneurs are likely to benefit substantially from growth in the YRD region and from the rise of Shanghai.

	1980	1985	1990	1995	2000	2005
			Share % of	FReal GDP		
Manufacturing	14.6%	13.5%	14.0%	8.7%	5.4%	3.3%
Total Services	79.3%	79.5%	78.5%	83.6%	86.6%	90.8%
Producer Services	36.1%	31.6%	34.7%	41.7%	45.8%	52.8%
Consumer Services	34.9%	38.4%	35.9%	33.6%	33.3%	31.4%
Government Services	8.3%	9.6%	7.9%	8.3%	7.6%	6.6%
Others	6.1%	6.9%	7.5%	7.8%	8.0%	5.9%

Table 1.4: Producer Service Industry in Hong Kong

Source : CEIC, YCR Wong, Z Tao and CS Chan, An Economic Study of Hong Kong's Producer Service Sector and Its Role in Supporting Manufacturing, funded by Industrial Support Fund, May 2000, 112 pages; and Z Tao and YCR Wong, "Hong Kong: From an Industrialized City to a Center of Manufacturing-Related Services", Urban Studies, vol. 39, no.12, 2002, pp. 2345-2358.

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Hong Kong residents working on the Mainland normally had higher qualifications and positions than the working population of Hong Kong.

1.3.3 Hong Kong Residents Working in Mainland China

Figure 1.8 provides some partial evidence of Hong Kong residents working in Mainland China from 1988 to 2005.² The number of Hong Kong employees working in the Mainland surged from just 52,300 in 1988 to 237,500 in 2005. The proportion of Hong Kong residents working in the Mainland to the total employed population increased from 1.9% in 1988 to 7.6% in 2004 but dropped slightly to 7.2% in 2005.

According to the data, when comparing Hong Kong residents working in Mainland China with the total population of Hong Kong, we find the following characteristics:

- (1) Hong Kong residents working on the Mainland are mostly male.
- (2) Hong Kong residents working on the Mainland are mostly managers and executives, professionals and auxiliary professionals.
- (3) As regards industry, Hong Kong residents working in Mainland China mainly worked in two major industries, namely the manufacturing, wholesaling, retailing, import and export trade industry and the catering and hotel industry, accounting for 47.1% and 32.1%, respectively.
- (4) Regarding the working locations on the Mainland, Guangdong has been the main area. In 2005, 87.3% of Hong Kong residents working in China were working in Guangdong, while the remaining 12.7% were working in Shanghai, Beijing, Fujian or other provinces and municipalities.

(5) Among the different cities of Guangdong, Hong Kong residents working in Shenzhen, Dongguan, Guangzhou, Huizhou, Zhongshan, Zhuhai and Foshan accounted for 38%, 29.5%, 9.6%, 2.6%, 1.9%, 1.8% and 1.4% respectively of the total number of Hong Kong residents working in China in 2005.

Among Hong Kong residents working in Mainland China, approximately 80% were responsible for managing and supervising the daily operation of a company, serving clients, ensuring quality control, and working in procurement and marketing. The data of Hong Kong people soliciting business, inspecting business, participating in trade fairs, and conducting meetings and business-related entertainment on the Mainland were not included. With the gradual increase of investment in areas outside Guangdong, the opportunity of moving the whole family to China is also on the rise. Both of these situations affect the statistics on the estimated number of Hong Kong people working on the Mainland and the effect on the statistics of those who work in areas outside Guangdong might be particularly significant.

Estimates from a survey on cross-border travel between Hong Kong and the Mainland shown in *Figure 1.9* can help us understand the work patterns of Hong Kong residents in the Mainland. In 2005, the number of Hong Kong resident departures to the Mainland was 62.8 million, of which 40.1 million were tourist departures and 22.7 million were for business trips. The number of commuter residents working in Mainland China appears to be exceedingly large.

² From 1988, the Census and Statistics Department of Hong Kong has been collecting information on the characteristics of Hong Kong residents working on the Mainland on a regular basis. These surveys were conducted in Hong Kong through the "General Household Survey" but families working in the Mainland were not covered in such surveys. However, the surveys still provided the best information on the characteristics of work in which Hong Kong residents were engaged on the Mainland.



Figure 1.8: The Total Number of Hong Kong

Source: HKSAR, Census and Statistics Department, Hong Kong Special Topics Report No.42



Figure 1.9: Hong Kong Resident Departures to the Mainland for Tourist and Business Trips, 2000-2005

Hong Kong investors have always been major investors in Mainland China, and Guangdong accounts for the largest proportion of their investment. Although this trend began to change after the year 2000, the close and broad-based economic and trade ties of Hong Kong with Guangdong have not been replaced by other provinces. About 80-90% of Hong Kong residents working in the Mainland still worked around the PRD, with most working in Shenzhen, Dongguan and Guangzhou. More than 80% of them were professionals or managerial staff. Hong Kong residents working on the Mainland normally had higher qualifications and positions than the working population of Hong Kong.

The amount of foreign investment in Mainland China demonstrated that like other foreign investors, Hong Kong investors have gradually moved away from Guangdong to other areas around the country to seek the most favorable business opportunities. As Hong Kong is increasing its investment in the Greater YRD and other cities in China, the number of Hong Kong residents working and visiting for business purposes in these areas will also increase.

1.4 Two Dynamic Economic Regions – Greater PRD and Greater YRD Economic Regions

In 2005, the GDP of the economic regions of the Greater PRD comprising Guangdong, Hong Kong and Macao was USD 462.5 billion, surging 54.6% from USD 299 billion in 2001 and representing an average annual growth rate of around 11%. In 2005, the total exports³ from Guangdong, Hong Kong and Macao amounted to USD 533 billion, accounting for 5.1% of the global export of commodities. The export growth of Guangdong exceeded those of Southeast Asian countries, making the Chinese province the largest export-oriented manufacturing base in Asia. In 2003, exports of Guangdong exceeded those of Taiwan for the first time. In 2005, exports of Guangdong exceeded those of Southeast Asian countries, and Guangdong has become an economic region with the largest export size in Asia.

Besides being inextricably linked to the benefits of the local residents and enterprises, the momentum of the manufacturing industry in Guangdong province has a direct impact on the Hong Kong economy because a large number of those companies continue to operate in Hong Kong. After the mid-1990s, the Greater YRD strived to attract foreign investment, develop its export-oriented manufacturing industry, improve its logistics infrastructure and reduced the system barrier so as to improve the business environment and adopt more market-oriented policies. Besides, the authority was also committed to clear the export channels of the delta to enable it to develop into another exportoriented economic region. The Greater YRD emerged as a competitor to Guangdong, and companies based in Hong Kong had substantial investment in both regions. Geographically, as the Greater YRD is further away from Hong Kong, moving the existing business from Guangdong to the delta requires a change in the management methods and enterprises may have to set up offices there as many Taiwanese investors do.

In recent years, foreign investors have invested substantially in the Greater YRD. *Figure 1.10* shows that in 2005, exports of the Greater YRD region reached USD 290.5 billion, accounting for 2.8% of the global commodity exports. The region has become one of the economic zones witnessing the most rapid economic growth in the world. Excluding the re-export trade of Hong Kong, exports of the Greater PRD were approximately USD 258.2 billion in 2005, accounting for 2.56% of global exports, and were lower than the exports of the Greater YRD.

From 2001 to 2005, exports of the Greater YRD grew at an annual rate of 33%, making it the most dynamic growth in Asia. In 2005, the delta saw its exports exceed those of South Korea and became an Asian economic zone with the largest local exports. During the same period, although export growth of 21% in Guangdong was lower than that of the Greater YRD, it was still considered high in the Asian region. Guangdong and the Greater YRD are continuously maintaining high export growth rates in 2006 at 29.4% and 26.8% respectively.

³ Including Hong Kong's re-exports.



Figure 1.10: Exports of Selected Asian Economies

Source: World Trade Organisation

1.5 Summary of Forthcoming Chapters

In Chapter 2, we analyse the economic and recent industrial developments of various cities in Guangdong, especially the PRD cities. In Chapter 3, we estimate the number of Hong Kong enterprises and enterprises in other contractual forms in nine major cities in the delta and the number of staff they employ. We describe the characteristics of the surveyed enterprises, for example, the registered types, scale, the shareholdings of Hong Kong-funded enterprises and the classification of the sampled industries. In Chapter 4, we analyse the export and domestic sales of the products of the surveyed enterprises, their procurement of raw materials in China and the import conditions, and the import and export of enterprises through Hong Kong. Chapter 5 analyses the latest conditions and the expected future changes of each type of business of the surveyed enterprises in each city in their division of labour in Guangdong and Hong Kong, as well as how the surveyed enterprises in each city leveraged on the service sector of Hong Kong. Chapter 6 analyses the opinions of the surveyed enterprises on the local business environment of their city, and evaluates the level of satisfaction on local government policies, legal protection, production operations, infrastructure and support services, social, cultural and natural environment of the city in which they operate, and the major difficulties they face in local business operations. Chapter 7 analyses the research and development (R&D) activities of the surveyed enterprises in each city and the difficulties they face, and the R&D expenses and conditions of the personnel in Guangdong and various cities. The production scale, R&D plans, and the major sources of development capital in the next two to three years are also discussed in Chapter 7. Chapter 8, the last chapter, sets out the opinions of the surveyed enterprises on the policies of the governments of Guangdong and Hong Kong, and the recommendations given by the industry on the development of the manufacturing industry in Guangdong and Hong Kong.



Differences in Business Environments between the PRD and the YRD

After the release of *Made in PRD: the Changing Face* of *HK Manufacturers* in 2003, the University of Hong Kong and Fudan University conducted a survey on the enterprises of the YRD in 2004 – *Yangtze River Delta: Return to the Center Stage of the Chinese Economy.* The survey covered all the registered enterprises and there were altogether 2,405 surveyed enterprises, of which 651 were FIEs. The survey also included an evaluation of the overall business environment of the YRD. In this survey, FIEs rated 3.54 on the overall business environment of the delta and the ratings on government policies; legal protection; production operations; infrastructure and support services; and social, cultural and natural environment were 3.39,

Figure A: Business Environment Ratings as Shown in the Surveys Conducted in the YRD in 2004 and the PRD in 2005/2006



1 Unsatisfied 2 Slightly unsatisfied 3 Neutral 4 Slightly satisfied 5 Satisfied

3.43, 3.54, 3.67 and 3.65 respectively. The YRD has a higher rating in infrastructure and support services as well as social, cultural and natural environment.

Chapter 6 of this survey set out an evaluation of Hong Kong-based enterprises on the business environment of different cities in the PRD. Their overall rating on the cities of the PRD was 3.24, and the ratings on government policies; legal protection; production operations; infrastructure and support services; and social, cultural and natural environment were 3.24, 3.29, 3.32, 3.29 and 3.08 respectively. Their satisfaction level on these was similar. Cities in the PRD had the lowest ratings in social, cultural and natural environment, especially in social security, living convenience and comfort, and the quality of living environment (such as greenery and fresh air).

From what is shown in *Figure A* and *Figure B*, the overall rating of the YRD is higher than that of the PRD. The proportion of enterprises satisfied with the business environment was larger than those showing dissatisfaction. Evaluating from these five aspects, the YRD was slightly better than the PRD. The ratings of the PRD and the YRD showed little difference in government policies and legal protection, but a bigger difference in infrastructure and support services, and social, cultural and natural environment.



Figure B: Business Environment Satisfaction Levels as Shown in the Surveys Conducted in the YRD in 2004 and the PRD in 2005/2006

Industrial Performance in Guangdong and the Role of Hong Kong

2.1 Guangdong's Economic Contribution to China

Although Guangdong's share of total exports in China has been declining as other regions have increased their exports and foreign direct investments (FDI), it is still one of the most dynamic economic regions of China. In fact, it is one of the fastest growing regions of China and its share of China's GDP has continued to rise. In 2005, Guangdong's GDP was RMB 2,236.6 billion, accounting for 12.2% of China's GDP, and in 2006 its percentage share rose to 12.4% (*Table 2.1*).

From 2001 to 2005, the average annual GDP growth rate of Guangdong was 15.8%, which is even higher than China's overall growth rate of 13.4%, which is already considered to be very high. In the same period, Guangdong increased its percentage share of China's GDP by 1.2 percentage points. This rise is attributable to industry, which, since 1986, has been the major source of GDP growth in Guangdong. In 2005, the value added attributable to the industrial sector in Guangdong accounted for 13.6% of that in China and the proportion had risen by almost 2.5 percentage points between 2001 and 2005.

After the rapid growth of exports and FDI in the 1980s and 1990s, the growth rates of exports and FDI in Guangdong were marginally slower between 2001 and 2005 when compared with the other regions in China. Nevertheless Guangdong is still an important region in China. In 2005, Guangdong's exports accounted for 31.3% of the total exports of China and its FDI accounted for 17.1% of the total FDI in the country. Between 2001 and 2005, Guangdong's percentage share of exports and FDI in China dropped by 5.3% and 12.9% respectively. The opening up of all the cities in China and their pro-active policies in attracting foreign investments have presented more choices to investors and enabled China to have a more balanced development pattern regionally, although it is still heavily concentrated in coastal regions.

	China			Guangdong			
	1990	2000	2005	1990	2000	2005	
GDP							
at current price (RMB billion)	1,872	9,800	18,396	156	1,074	2,237	
at comparable price (1978=100)	282	751	1,204	422	1,738	3,238	
Value Added of Industry							
at current price (RMB billion)	686	4,003	7,691	52	446	1,048	
at comparable price (1978=100)	305	1,119	1,879	541	3,423	7,371	
GDP Per Capita (RMB)	1,644	7,858	14,040	2,481	12,418	24,327	
GDP Per Capita (USD)	344	949	1,714	519	1,500	2,970	
Exports (USD billion)	62.1	249.2	762.0	22.2	91.2	238.2	
FDI (USD billion)	3.5	40.7	72.4	1.5	12.2	12.4	

Table 2.1: Major Economic Indicators of China and Guangdong

Source: China Statistical Yearbooks and Guangdong Statistical Yearbooks

2.2 Regional Industrial Performance in Guangdong

In recent years, the term Greater PRD Economic Region has become widely used to cover Guangdong, Hong Kong and Macao as economic activities between these three economies have continued to integrate. (*Figure 2.1*).

Guangdong province has an area of 179,800 square kilometres and a total of 21 cities. The most vibrant economic region in Guangdong is the PRD Economic Zone, which includes the nine major cities of Guangzhou, Shenzhen, Zhuhai, Zhongshan, Foshan, Jiangmen, Dongguan, Huizhou and Zhaoqing. The survey conducted in this report is based on a sample of enterprises drawn from these nine cities. Together they account for 23.2% of the land area of Guangdong and 79% of its GDP. These nine major cities could be further categorised as Eastern, Central and Western PRD. Eastern PRD includes Shenzhen, Dongguan and Huizhou; Central PRD includes only Guangzhou; and Western PRD includes Zhuhai, Zhongshan, Jiangmen, Foshan and Zhaoqing. The regions are the destinations of most of the foreign investment that comes to Guangdong from Hong Kong.

The other 12 cities are not located in the PRD Economic Zone and are in the more remote parts of Guangdong. They are economically less developed and include Shantou, Shaoguan, Heyuan, Meizhou, Shanwei, Yangjiang, Zhanjiang, Maoming, Qingyuan, Chaozhou, Jieyang and Yunfu. Adding these cities to the other nine gives Guangdong a total of 21 cities.



Figure 2.1: Eastern PRD, Central PRD and Western PRD

Eastern PRD Central PRD Western PRD

In 2005, the GDP of the nine major cities in the PRD accounted for 79% of the GDP of Guangdong, compared with 65% in 1990 (*Table 2.2*). Since the economic reform and opening-up of China, the nine major cities in the PRD have played an important role in the development of Guangdong. One should note, however, that the unbalanced development of the cities in Guangdong has drawn widespread public and political concern.

In 2005, the GDP of Eastern PRD accounted for 35% of the combined GDP of the 21 cities. Corresponding figures for Central and Western PRD were each 22%. Between 1990 and 2005, Eastern PRD grew faster than Guangdong, especially during the 1990s. Central PRD's GDP growth rate, however, has been similar to that of Guangdong as a whole throughout the same period. In the 1990s, the development of Western PRD was slower than that of Central and Eastern PRD. Since 2001, however, the growth rates of Zhongshan and

Foshan in Western PRD have risen significantly and are comparable to those of Shenzhen and Dongguan in Eastern PRD; however, the economic development of Zhuhai, Jiangmen and Zhaoqing also in Western PRD has been slower than that of Central and Eastern PRD.

The average annual GDP growth rates of the cities portrayed in *Figure 2.2* show that the growth rates of Shenzhen and Dongguan between 1996 and 2000 were the highest among the nine major cities in the delta. During the same period, the average annual growth rate of Huizhou, Guangzhou, Zhuhai, Zhongshan and Foshan were similar, but Jiangmen and Zhaoqing only recorded single-digit growth. From 2001 to 2005, the difference in the average annual growth rates between the nine major cities narrowed as the pace of high growth in the cities of Shenzhen and Dongguan in Eastern PRD slowed marginally and the growth rate of the cities in Western PRD accelerated, especially Zhongshan and Foshan which had growth rates that were comparable to the cities in Eastern PRD.

	1990	1995	2000	2004	2005	Average Annual Growth Rate%			
		RMB b	n (at currer	nt prices)		1991-1995	1996-2000	2001-2005	2004-2005
Guangdong	155.9	593.3	1,074.1	1,886.5	2,236.7	30.6%	12.6%	15.8%	18.6%
PRD	96.5	407.6	842.1	1,548.5	1,824.4	33.4%	15.6%	16.7%	17.8%
Eastern PRD	24.9	136.8	344.7	677.5	793.6	40.6%	20.3%	18.2%	17.1%
Central PRD	32.0	125.9	249.3	445.1	515.4	31.6%	14.6%	15.6%	15.8%
Western PRD	39.6	144.9	248.2	426.0	515.4	29.6%	11.4%	15.7%	21.0%
Other cities in Guangdong	51.4	177.3	277.5	407.9	472.8	28.1%	9.4%	11.2%	15.9%

Table 2.2: GDP in the PRD and its Cities, 1990-2005

Note: Eastern PRD includes Shenzhen, Dongguan and Huizhou; Central PRD includes only Guangzhou; and Western PRD includes Zhuhai, Zhongshan, Jiangmen, Foshan and Zhaoqing.

Source: Guangdong Statistical Yearbooks



In recent years, the term Greater PRD Economic Region has become widely used to cover Guangdong, Hong Kong and Macao as economic activities between these three economies have continued to integrate.

1995-2005

In 2005, the economic size of Shenzhen was comparable to that of Guangzhou (RMB 495.1 billion and RMB 515.4 billion respectively), and Foshan's economic size was RMB 238.3 billion and Dongguan's was RMB 218.2 billion (Figure 2.2). In addition, the GDP of Huizhou, Zhongshan and Jiangmen amounted to RMB 80.3 billion, RMB 88 billion and RMB 80.5 billion respectively. The remaining two cities, Zhuhai and Zhaoging, recorded the lowest GDP, RMB 63.5 billion and RMB 45.1 billion respectively. In the same year, the GDP of Eastern, Central and Western PRD was RMB 793.6 billion, RMB 515.4 billion and RMB 515.4 billion respectively. In 2005, the GDP of Guangzhou was almost that of the sum of the five cities in Western PRD. Not only was there significant disparity between the GDP of cities in the PRD and those in the rest of Guangdong, but even the nine major cities within the PRD displayed considerable differences in economic size.

Since 2003, the GDP of Shenzhen or Guangzhou alone was also nearly the same to the combined GDP of the remaining 12 cities in Guangdong (Figure 2.3) which posted a combined GDP of RMB 472.8 billion in 2005. It was clear that the economic performance of these 12 cities - namely, Shantou, Shaoguan, Heyuan, Meizhou, Shanwei, Yangjiang, Zhanjiang, Maoming, Qingyuan, Chaozhou, Jieyang and Yunfu – was lagging behind. From 2001 to 2005, the GDP of Heyuan and Qingyuan gradually increased at an average annual rate of 18.1% and 14.9% respectively, the highest among the 12 cities. In 2005, this rate even exceeded 20% for both cities, the highest among the 21 cities in Guangdong, but their GDP was still at a relatively low level. Compared with 1995-2000, most of the 12 cities recorded a higher economic growth in 2001-2005, except Shantou, Shanwei, Maoming, Chaozhou and Jieyang.

600 -25% 21.09 500 -20% 17.8% 400 - 17.7 14.5% 13.9% -15% 13.3% RMB bn 300 12.8% 12.7% 12.5% 240 10% 218 200 8.8% 6.8% -5% 100 -0 -0% Zhaoqing ongquar Huizhou Zhuhai oshan GDP (1995) Average Annual Growth Rate % (1996-2000) GDP (2000) Average Annual Growth Rate % (2001-2005) GDP (2005)

Figure 2.2: GDP of Nine Major Cities of the PRD,

Source: Guangdong Statistical Yearbooks



Figure 2.3: GDP of Other Cities in Guangdong, 1995-2005

Source: Guangdong Statistical Yearbooks

2.3 Industrial Development of the Cities in Guangdong

In 2005, the value added of industry of enterprises above the minimum designated threshold¹ as a percentage of the total value added of industry in the province as a whole was 89.8%. This compares favorably with the figure of 72% found in 2000. The improved figure reflects that the economic contribution of larger established enterprises as defined by those above the minimum designated threshold has been rising in Guangdong. From 2001 to 2005, the cities in Eastern and Western PRD recorded the most rapid value added of industry growth rate of 29.2% and 23.2% respectively (Figure 2.4). Shenzhen and Dongguan witnessed the most rapid value added of industry growth, while the cities of Zhongshan and Foshan in Western PRD also registered considerable growth. During the same period, the value added of industry in Guangzhou grew at an average annual rate of 18.5%. Interestingly, cities in the remote parts of Guangdong achieved a corresponding growth rate of 19.6%. Among those cities, Heyuan and Qingyuan posted growth rates of 40.2% and 33.8% respectively, and were almost the highest among all the cities in Guangdong.

Figure 2.4: Value Added of Industry and Annual Growth Rate of Value Added of Industry by Cities in Guangdong, 2000-2005







¹ The minimum designated threshold of an enterprise to qualify for inclusion in the industrial census is defined in terms of annual sales revenue exceeding RMB 5 million.

2.4 Role of Foreign Investment in the Industrial Sector

Foreign capital investments have performed a pivotal role in Guangdong's industrial transformation, from pioneering initiatives in export processing to breaking through into domestic sales. At the same time, Hong Kong's position as an international city has supported both Mainland and multinational enterprises that were looking for a platform to stage their regional and even global operations. Between 1979 and 2005, Hong Kong's FDI in Guangdong exceeded USD 100 billion, of which about 70% was invested in the manufacturing industry. In Figure 2.5, we plot each city's share of total value added of industry achieved by Guangdong's 21 cities in 2005 against the city's proportionate share of the accumulated FDI in the province during the period 1989-2005. As is clearly shown, there is a close and tight relationship between the two. The higher a city's proportionate share of the accumulated FDI was, the higher its proportionate share in total value added of industry in the province. In the past 20 years, the industrial development of Guangdong has inextricably been linked to FDI, which has affected the level of industrial development in each city and has driven the flow of human resources into cities. The capital from Hong Kong, and managed by Hong Kong, has played and continues to play an important role in shaping the industrial development in the PRD.

In 2005, the share of value added of industry of the cities in Eastern PRD, Central PRD, Western PRD and in other parts of Guangdong were 39.2%, 17.7%, 25.9% and 17.2% respectively (Table 2.3). From 1989 to 2005, the accumulated FDI in these areas accounted for 37.2%, 18.9%, 25.6% and 18.2% respectively. Value added of industry was inextricably linked to foreign investment. In 2005, exports of the cities in Eastern PRD, Central PRD, Western PRD and in other parts of the province accounted for 64.3%, 11.2%, 20% and 4.6% respectively of the total export value of Guangdong. The volume of exports of Eastern PRD was higher than that of the other cities in the province, particularly Shenzhen and Dongguan, which accounted for 43% and 17% respectively of the total export value of Guangdong; they were the most important cities in terms of product exports.

	Value added of Industry in 2005 (RMB bn)	As % of total value added of industry in 21 Guangdong's cities	Accumulated Foreign Investment from 1989-2005 (USD bn)	As % of Accu- mulated Foreign Investment in 21 Guangdong's cities	Total exports in 2005 (USD bn)	As % share of total exports in Guangdong
Eastern PRD	408.8	39.2%	71.1	37.2%	153.1	64.3%
Central PRD	184.4	17.7%	36.2	18.9%	26.7	11.2%
Western PRD	269.6	25.9%	48.9	25.6%	47.5	20.0%
Other cities	179.0	17.2%	34.8	18.2%	10.9	4.6%

Table 2.3: Value Added of Industry, Exports and Foreign Investment in Guangdong, 2005

Source: Guangdong Statistical Yearbooks



Figure 2.6 provides the industrial output value of industry among foreign invested enterprises (FIEs) as a percentage share of total industrial output value of industry in each of the cities in Guangdong for 2005. These are figures of industrial output value of industry for enterprises above the minimum designated threshold and they demonstrate the importance of FDI for Guangdong's industrial sector. In 2005, FIEs accounted for 63.6% of the total industrial output value in Guangdong among enterprises above the minimum designated threshold. The total industrial output value of FIEs in Eastern PRD was 78.4%, slightly higher than the average value of the PRD. Huizhou stood the highest at 90.1%. The percentage shares of Shenzhen and Dongguan were 76.5% and 78.8% respectively, while that of Guangzhou was 67.8%. The FIEs in the cities of Western PRD accounted for a significantly lower average percentage share of 51.7% of total industrial output value produced there. The percentage shares of other cities in Guangdong were even lower. In these 12 cities, the FIEs accounted for only 34.7% of the total industrial output value of all enterprises above the minimum designated threshold.


Hong Kong's position as an international city has supported both Mainland and multinational enterprises that were looking for a platform to stage their global operations.

According to the results of our previous Study Made in PRD (2003), foreign investment in Guangdong took two major forms: foreign invested enterprises (FIEs) and other contractual forms (OCFs). The latter form includes those classified as "other foreign investments" (OFIs) and under "other arrangements" (OTHs). The OFIs consist mainly of "three forms of processing/assembly operations and compensatory trade", in which the foreign partner does not have legal ownership of the companies. Under Chinese Law, these companies are classified as domestic enterprises. The OTHs are other arrangements by means of which Hong Kong-based companies manage and have shares in and control of domestic enterprises. We showed in that study that FIEs in other contractual forms, especially enterprises engaging in processing and assembly operations, must be included in order to properly assess the scale and extent of co-operation between Guangdong's domestic enterprises and foreign enterprises. We showed indisputably in that Study that Guangdong was clearly the country's leading province insofar as industrial integration with Hong Kong was concerned. This state of affairs has continued to the present time.

2.5 Nine Major Targeted Industries

Guangdong's Eleventh Five-Year Plan produced a blueprint for the development of nine major industries which consisted of three emerging industries, three traditional industries and three high-potential industries. The three emerging industries include the electronic information, electrical machinery and special purpose equipment, and petroleum and chemical industries. The three traditional industries include the textile and garments, food and beverages, and construction material industries. The three high-potential industries include the logging and papermaking, medicine and motor vehicle industries. These nine major industries covered 21 sectors as reported in industrial statistics. In 2005, these nine major industries accounted for approximately 72% of the industrial output value of enterprises above the minimum designated threshold.²

From 2001 to 2005, the average annual growth rate of the industrial output value in these nine targeted emerging industries was 23.8%, about the same as that for the whole industrial sector in Guangdong at 23.6% (Table 2.4). The annual growth rate of the industrial output value in emerging industries, traditional industries and high-potential industries was 27.7%, 13.9% and 23.1% respectively. During the same period, among the nine major industries, only the electronic information, electrical machinery and special purpose equipment, and motor vehicle industries had average annual growth rates of the industrial output value that were higher than the growth rate of the whole industrial sector. From 2001 to 2005, the percentage share of the industrial output value of these three industries increased by 8%, 1.3% and 1.7% respectively. Since the average annual growth rates of the industrial output value of the other six industries were lower than the whole industrial sector, their percentage shares dropped.

	2000 RMB bn	2005 RMB bn	2001-2005 Average Annual Growth Bate (%)
Three Emerging Industries	540.0	1 926 2	
	340.0	1,030.3	27.7
Electronic Information	241.8	983.1	32.4
Electrical Machinery and Special Purpose Equipment	162.6	525.7	26.4
Petroleum and Chemical	135.6	327.5	19.3
Three Traditional Industries	264.4	507.3	13.9
Textile and Garments	122.7	215.0	11.9
Food and Beverages	79.9	163.6	15.4
Building Materials	61.8	128.6	15.8
Three High-Potential Industries	88.1	248.6	23.1
Logging and Papermaking	38.8	84.0	16.7
Medicine	18.4	28.7	9.3
Motor Vehicle	31.0	136.0	34.4
Total Industrial Output Value of Nine Industries	892.5	2,592.2	23.8
Total Industrial Output Value of Enterprises above Designated Size	1,248.1	3,594.3	23.6

Table 2.4: Industrial Output Value of Nine Targeted Major Industries in Guangdong, 2000-2005

Source: Guangdong Statistical Yearbooks

² The minimum designated threshold of an enterprise to qualify for inclusion in the industrial census is defined in terms of annual sales revenue exceeding RMB 5 million.

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2.6 Three Emerging Industries

The industrial output value of the three emerging industries amounted to RMB 1,836.3 billion in 2005. *Figure 2.7* presents their scale of operations in terms of industrial output value in the various cities of Guangdong. Shenzhen heavily dominates in the electronic information industry and Guangzhou dominates the petroleum and chemical industry. Both Foshan and Shenzhen are dominant players in the electrical machinery and special purpose equipment industry.

During the past 10 years, the electronic information industry, as measured by the industrial output value, was the most important and most fast-growing industry in Guangdong. From 2001 to 2005, the average annual growth of the output value of the electronic information industry was 32.4%. The electrical machinery and special purpose equipment industry also registered a substantial growth of 26.4%. During the same period, the petroleum and chemical industry, which drew more attention in the Eleventh Five-Year Plan, recorded an average annual growth of only 19.3%, slightly lower than the growth of the total industrial output value in the entire province.

Figure 2.7: Industrial Output Value of Three Major Emerging Industries by Cities in Guangdong



Source: Guangdong Statistical Yearbook 2006

Chapter 2



During the past 10 years, the electronic information industry, as measured by the industrial output value, was the most important and most fast-growing industry.

The industrial output value of the electronic information industry amounted to RMB 983.1 billion in 2005. The industry established a focused and strong presence in the three cities of Shenzhen, Dongguan and Huizhou in Eastern PRD where their industrial output value accounted for 58%, 12% and 9% respectively of the total industrial output value in Guangdong. The electronic information industry also posted the highest industrial output value among these three cities. On the other hand, the industrial output value of the electronic information industry in Guangzhou, Zhongshan and Foshan accounted for respectively 5%, 3% and 3% of the total in Guangdong, with the remaining cities accounting for only 3%. In 2005, the industrial output value of the electrical machinery and special purpose equipment industry amounted to RMB 525.7 billion. According to the analysis of the cities, the electrical machinery and special purpose equipment industry in Foshan, Shenzhen and Dongguan saw the highest industrial output value and accounted for 26.6%, 21.8% and 13.3% respectively of the total industrial output value of the industry in the province. The industrial output value of the electrical machinery and special purpose equipment industry in Zhongshan, Guangzhou and Zhuhai was similar and accounted for 9.7%, 9.3% and 8.8% respectively of the industrial output value in the province. The electrical machinery and special purpose equipment industry posted the highest industrial output value in Foshan and Zhongshan, cities in Western PRD. It was also the sector that generated the second highest industrial output value in the three cities in Eastern PRD.

In 2005, the industrial output value of the petroleum and chemical industry amounted to RMB 327.5 billion. The industrial output value in Guangzhou, Shenzhen and Maoming accounted for 31.9%, 16.1% and 15.9% respectively, of the total of the industry in the entire province. The industrial output value in Zhanjiang and Foshan accounted for 8.3% and 7.9% respectively of the total industrial output value of the province.

2.7 Three Traditional Industries

In 2005, the industrial output value of the three traditional industries (textile and garments, food and beverages, and construction material industries) amounted to RMB 507.3 billion, and their average annual growth rate has been just 13.9% for the past five years. The percentage share of the industrial output value of the three traditional industries to total industrial output value in Guangdong has continued to drop. The textile and garments industry covered two of the ten major industries in Guangdong - textile industry and textile garments, footwear and headgear products industry. In 1990, the industrial output value of these two industries accounted for approximately 13% of the total in Guangdong, but the percentage share dropped to only 5.8% in 2005. However, foreign exchange earned by the textile and garment industry in Guangdong is substantial. In 2005, the trade surplus of the two industries stood at USD 13.1 billion, accounting for 27.1% of that of the entire province. Compared with the other industries, the textile and garment industry is more widely distributed across the cities of Guangdong.

The industrial output value of the textile and garment industry was RMB 215 billion in 2005, and the average annual growth rate from 2001 to 2005 was 11.9%. The textile and garment industry recorded the second lowest growth rate among the nine major industries and the lowest growth rate among the traditional industries. The four cities Guangzhou, Foshan, Dongguan and Zhongshan accounted for the highest proportion of industrial output value of the textile and garment industry in the province. In 2005, both Guangzhou and Foshan accounted for 15.4% of the industrial output value, while Dongguan and Zhongshan accounted for 15% and 13.3% respectively.

Figure 2.8: Industrial Output Value of Three Major Traditional Industries by Cities in Guangdong





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In 2005, the industrial output value of the three high-potential industries - logging and papermaking, medical and pharmaceutical products, and automobile and motorcycles³ – amounted to RMB 248.6 billion. From 2001 to 2005, the average annual growth rates of the logging and papermaking industry and the pharmaceutical industry were just 16.7% and 9.3% respectively, which was substantially lower than the average annual growth rates of the industrial output value of Guangdong. Apparently, these industries have not reached their full potential yet. During the same period, the automobile and motorcycle manufacturing industry witnessed a substantial growth of 34.4% on average per year, the highest among the nine major industries. In 2005, the transport equipment manufacturing industry was concentrated in Guangzhou, accounting for 79.3% of the industrial output value of this industry in the entire province. Shenzhen, Jiangmen and Foshan accounted for 8%, 9.8% and 6.4% respectively of the industrial output value.

2.8 Three High-Potential Industries

³ The automobile manufacturing industry includes both automobile and motorcycle manufacturing. Since statistics of the industry in different cities are not available, information on the manufacturing of transport equipment was used in the analysis of the distribution of the automobile and motorcycle manufacturing industry by cities.

Guangdong has the highest ownership of vehicles for personal use and for carrying passengers and goods, and motorcycles. In 2000, Guangdong produced only 32,200 automobiles and 1.46 million motorcycles. After 2000, three of the largest Japanese automobile manufacturers – Nissan, Honda and Toyota – entered into joint venture agreements with Guangzhou Automotive Group. Huadu of Guangzhou commenced production shortly and provided impetus for the rapid development of transport equipment manufacturing in Guangdong. In 2005, the output of automobiles and motorcycles in Guangdong surged to 407,400 and 4.56 million respectively, representing 12.6 times and 3.1 times respectively the production levels in 2000. Besides being the second largest output base of motorcycles after Chongqing, Guangdong became the second largest region for producing cars after Shanghai in 2005.

2.9 Summary

The economic relationship between Guangdong and Hong Kong is at once deep and broad. Because this exchange embraces a great variety of organisational forms, including direct foreign investment and other contractual forms reported as domestic enterprises, the statistics continue to understate the diversity and extent of the relationship. Foreign investments from Hong Kong have had a major impact on the development of the industrial sector in Guangdong. This is clearly revealed through an examination of the relationship between accumulated foreign investments and industry development across the cities in Guangdong, from municipality to municipality. Investments made by Hong Kong manufacturing enterprises in these cities have had a direct effect on the pace of their economic growth and industrialisation. This is particularly evident in cities in Eastern PRD; for example, the well-publicised eastern corridor along Dongguan-Shenzhen-Hong Kong has been the single most important export oriented hub in the PRD. The development of Western PRD has been slower as a result of the fewer foreign investments that have been made there, but its recent development has been rapid as more foreign investments have flowed into the area. Guangzhou has received considerable foreign investments and has formed new joint venture industrial partnerships that are not with Hong Kong, the most notable of which are automobile manufacturing joint ventures with Japan. As Hong Kong's investment spread from the eastern corridor towards the west and to the remote regions there was also a gradual shift from an export oriented economy to domestic sales, and there has been a gradual evolution in organisational forms to accommodate such changes. The overall partnership between Hong Kong and Guangdong is very robust and continues to grow. 🗁



Hong Kong-Funded Enterprises and Enterprises in Other Contractual Forms

3.1 "Hong Kong Businesses" in a Broad and Narrow Sense

Since 1978, Hong Kong businesses have invested in Guangdong mainly in two forms: (1) as foreign direct investment (FDI) and (2) as other investments (such as processing and assembling). The former primarily comprises wholly foreign-funded enterprises, Chinese-foreign equity joint ventures and Chinese-foreign co-operative joint ventures that foreign partners have a statutory controlling stake in. The latter, "other investments", can be interpreted as "other contractual forms" (OCFs), including "other foreign investments" and "other arrangements". Although "other foreign investments" and "other arrangements" have been in Guangdong for almost 20 years, it is still hard to obtain the relevant data.

Statistical data usually categorise foreign invested enterprises (FIEs) into either foreign-funded enterprises or Hong Kong, Macao and Taiwan-funded enterprises, based on the source of capital. These two categories exclude enterprises whose capital does not originate from Hong Kong but have offices in Hong Kong, which are managed by Hong Kong staff or made use of services in Hong Kong. "Hong Kong businesses" in a narrow sense usually only consist of overseas enterprises whose major capital is from Hong Kong; occasionally the concept is applied to enterprises that are controlled and managed by Hong Kong people. Enterprises that fall in the "other foreign investments" category are engaged in three forms of processing/ assembly operations and compensatory trade (TFP). Foreign invested enterprises (FIEs) do not have statutory rights to own such enterprises, which Chinese law categorises as domestic enterprises. The ownership of these enterprises is not clearly defined by the law and several grey areas exist. Hong Kong businessmen generally believe that these enterprises fully belong to them and that they possess the controlling rights in operation and management. However, a considerable number of management staff in Mainland factories rejected this belief.

"Other arrangements" comprises enterprises whose shares are held by Hong Kong-based companies through Mainland entities whom they are familiar with, some of which are controlled and managed. The co-operation between Hong Kong-based enterprises and domestic enterprises in Guangdong has changed from a Hong Kong-dominated mode to a more co-operative one. After 20 years of China's opening-up and economic reform, Guangdong and Hong Kong have developed a more diversified mode of co-operation compared to the previous simpler one.

Made in PRD (2003)

In Made in PRD (2003) survey, we estimated that of the total 59,100 factory facilities that Hong Kong-based companies had invested in and had management control of on the Mainland, an estimated 53,300 were in Guangdong. In Guangdong, Hong Kong-based companies invested in and had management control of 21,300 factories in foreign-invested enterprises (FIEs). A further 32,000 factories classified as OCFs provided manufacturing operations for Hong Kong-based companies. The OCFs are mainly engaged in TFP. Dongguan, with 18,100 factories, has the highest estimated number of factories working for Hong Kong, followed by Shenzhen (15,700 factories), Guangzhou (4,900 factories), Huizhou (3,500 factories) and Zhongshan (3,000 factories). An estimated 8,100 factories were located elsewhere in the province.

In that survey, an estimated 10 million Guangdong workers were working directly and indirectly on manufacturing operations for Hong Kong-based companies. Around 4.75 million were working for Hong Kong-based FIEs. Another 5.04 million were engaged by enterprise in OCFs for manufacturing activities for Hong Kong-based companies in TFP. Dongguan has highest estimated number of Mainland workers working for Hong Kongbased companies with 4.03 million, followed by Shenzhen (2.58 million), Guangzhou (0.92 million), Huizhou (0.87 million), and Zhongshan (0.61 million). An estimated 1.34 million workers were working for Hong Kong-based companies in other parts of Guangdong.

Figure A: Estimated Number of Factories in Guangdong and Other Mainland Provinces/Cities, 2003







A Survey of Nine Major Cities in the PRD, 2005/2006

We assigned sampling ratios for various cities based on four factors: (1) the results of the 2003 survey on the manufacturing industry in the PRD, (2) the proportions of three types of FIEs in the various cities, (3) the total value of industrial production in the various cities in 2004, and (4) the proportion of Hong Kong funds to total FDI in each city in order to increase our likelihood in selecting successful enterprises. The Economic Census Centre of Guangdong Statistics Bureau conducted a stratified random sampling for us based on the size of the enterprises. They selected 10,000 enterprises, 3,000 of which were foreign-funded enterprises and Hong Kong, Macao and Taiwan-funded enterprises, and 7,000 were domestic enterprises including enterprises registered in forms such as state-owned enterprises, collectively owned enterprises, private enterprises, co-operative

enterprises and share-holding enterprises. As enterprises with a large number of employees had a greater impact on the estimation of the number of employees, a greater weight of samples was allocated for such enterprises in our survey.

Selection of Enterprises for the Survey

Hong Kong-funded enterprises were selected based on three conditions: (1) if they had offices or branches in Hong Kong; (2) if major decisionmaking, management or operation rights were controlled by Hong Kong residents; or (3) if the source of capital was Hong Kong. The definition we used differs from that of the National Bureau of Statistics of China which is based on shareholding. Chinese statistical data usually classify Hong Kong, Macao and Taiwan-funded enterprises into the



Figure A: Proportion of Samples to Sampling Frame in Various Cities

Figure B: Response Rates of Various Regions Surveyed in the PRD





The survey was designed to derive an understanding of the latest changes of Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs in nine major cities of the PRD.

same category without separating the enterprises with capital sourced from Hong Kong (or known as Hong Kong-funded enterprises) from foreign enterprises.

In order to distinguish whether some domestic enterprises could be classified into Hong Kongfunded enterprises in other contractual forms (OCFs), we set up two conditions for selection in this survey: (1) if major decision-making, management or operation rights of the enterprises surveyed were controlled by Hong Kong people or (2) if they had offices or branches in Hong Kong. These enterprises include traditional enterprises engaged in TFP, domestic enterprises that have offices or branches in Hong Kong, and Guangdong's domestic enterprises with their shares partially held by some Hong Kong-funded enterprises.

Response Rate and Success Rate

Our survey was conducted between 20 September 2005 and 10 March 2006. The selected sample of enterprises was further examined by our liaison staff before making an appointment with those qualified enterprises. Following this, surveyors conducted interviews with staff members of the enterprises based on the content of the questionnaire. There were 2,529 valid questionnaires. The number of enterprises that were contacted and that responded to the selection test was 5,030. The number of enterprises rejecting the interview and whose management was not available to make a decision about whether to participate was 1,685, making the response rate 74.9%. From the overall success rate, 67.5% of the enterprises met the definition of Hong Kong-funded enterprises out of foreignfunded enterprises, and 39.4% met the definition of Hong Kong-funded enterprises in other contractual forms out of domestic enterprises.



Figure C: Success Rates of Various Regions Surveyed in the PRD



The co-operation between Hong Kong-based enterprises and domestic enterprises in Guangdong has changed from a Hong Kong-dominated mode to a more co-operative one.

According to the survey Made in PRD (2003), the ratio of Hong Kong-based companies invested in foreigninvested enterprises to the enterprises engaged in OCFs was almost one-to-one in terms of the number of factories and employees. In general, foreign-invested enterprises (FIEs) and enterprises engaged in OCFs were the most common modes of investment adopted by Hong Kong companies in Guangdong. As the corporate status of the enterprises engaged in OCFs was not classified as FIEs, it was possible for such enterprises to be registered in the Mainland as corporate bodies in the form of state-owned enterprises, collectively owned enterprises, co-operative enterprises or private enterprises. Therefore, they were often categorised as domestic enterprises. In the previous report Made in PRD (2003), the enterprises engaged in TFP were classified as OCFs, while some domestic enterprises managed by Hong Kong people were excluded from the category of enterprises engaged in TFP.

We conducted another research survey on the PRD in August 2005, covering nine major cities. The enterprises of the manufacturing industry in Guangdong formed the sampling frame of this survey, which was completed in March 2006. On completion of the database from the First Economic Census of Guangdong in July 2005, the Statistics Bureau of Guangdong Province helped us to select manufacturing enterprises from the First Economic Census database by stratified sampling upon our request. Guangdong Urban Survey Organization under the National Bureau of Statistics also accepted our appointment to conduct a survey in nine major cities of the Pearl River Delta through the network of their city survey team. According to the First Economic Census of Guangdong, there were 140,000 enterprises and 300,000 individual enterprises in the manufacturing industry. In the nine major cities in the PRD, there were 110,000 enterprises, approximately 32,000 FIEs and Hong Kong, Macao and Taiwan enterprises, and 78,000 domestic enterprises in the manufacturing industry.

The database of the economic census classified foreign invested enterprises (FIEs) into Foreign-funded enterprises and Hong Kong, Macao and Taiwan-funded enterprises. Hong Kong-funded enterprises in OCFs are normally classified into domestic enterprises. In order to understand the relationship between Guangdong enterprises and Hong Kong companies, the survey included selection questions to distinguish between Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs. The survey was designed to derive an understanding of the latest changes of Hong Kongfunded enterprises and Hong Kong-funded enterprises in OCFs in nine major cities of the PRD.

3.2 Estimation of the Number of Hong Kong-Funded Enterprises and Factories (Traditional Enterprises Engaged in TFP) in a Broad Sense

Broadly speaking, the term Hong Kong businesses refers to Hong Kong-funded enterprises and Hong Kongfunded enterprises in OCFs. These enterprises often use Hong Kong as their base in addition to maintaining business links with the territory. It is estimated that Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs approximately accounted for 55,200 manufacturing enterprises and 57,500 factories in the PRD (Figure 3.1). Among them, Hong Kong-funded enterprises registered about 22,900 manufacturing enterprises and about 23,700 factories as either foreignfunded enterprises or those funded by entrepreneurs from Hong Kong, Macao or Taiwan. In the nine major cities of the PRD, Hong Kong-funded enterprises in OCFs registered about 32,300 enterprises and 33,800 factories in forms such as collective enterprises, private enterprises and other forms of domestic enterprises.

In Eastern PRD, Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs established about 29,200 enterprises, or more than 50% of the total in the nine cities, and about 31,200 factories (*Figure 3.2*). These included 15,300 Hong Kong-funded enterprises and 13,900 Hong Kong-funded enterprises in OCFs. Both Shenzhen and Dongguan were the most favoured PRD cities for investment among these enterprises. Hong Kong-funded enterprises and Hong Kong-funded enterprises and 14,300 enterprises respectively and 13,500 and 14,300 factories respectively in these two cities. In Huizhou, these enterprises established about 3,400 enterprises, with a similar number of factories.

Figure 3.1: Number of Hong Kong-Funded Enterprises and Hong Kong-Funded Enterprises in OCFs







Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs also established 9,300 enterprises and some 9,400 factories in Guangzhou, the hub city of the PRD. Among them, 2,700 were Hong Kongfunded enterprises and 6,600 were Hong Kong-funded enterprises in OCFs. Guangzhou was the third most favoured investment area among Hong Kong-based enterprises.

In Western PRD, Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs established a total of 16,700 enterprises and 16,900 factories. These included 4,900 Hong Kong-funded enterprises and 11,800 Hong Kong-funded enterprises in OCFs. Foshan and Zhongshan were the most popular cities in



Figure 3.3: Distribution of Enterprises Established by Traditional Enterprises Engaged in TFP

Western PRD among Hong Kong-based enterprises in terms of the number of enterprises. Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs set up 5,700 and 5,100 enterprises respectively, and 5,800 and 5,100 factories respectively in these two cities.

The products of traditional enterprises engaged in TFP are mainly for exports, and they depend heavily on imported materials. These enterprises mainly process customers' materials. The survey showed that a considerable proportion of enterprises, unlike their counterparts established in the early 1980s, took on a non-traditional approach. Many of them, instead of taking the "Both Ends Outside" approach, now develop the domestic market using resources available within China. So, in order to identify and estimate the number of traditional TFPs in the PRD region, we chose 90% of all TFPs. In fact, in terms of operation, the difference between the remaining that engage in TFP and Hong Kong-related domestic enterprises is diminishing.

It is estimated that there were about 14,000 traditional enterprises engaged in TFP in the nine cities in the PRD. About 29% of them were located in Dongguan, 28% in Shenzhen, 19% in Zhongshan, 11% in Jiangmen, and about 5% each in Zhuhai and Zhaoqing. Very few of the traditional enterprises engaged in TFP, only 3%, were found in Huizhou, Guangzhou and Foshan (*Figure 3.3*). It was a challenge to identify enterprises engaged in TFP in these cities because most co-operation between Hong Kong-based enterprises and domestic enterprises was not conducted in the contractual form of traditional TFPs.

3.3 Estimation of Personnel Hired by Hong Kong-Funded Enterprises and Hong Kong-Funded Enterprises in OCFs (Traditional Enterprises Engaged in TFP)

A total of 9.6 million employees were hired by Hong Kong-based enterprises, which were in the form of FIEs; enterprises funded by entrepreneurs from Hong Kong, Macao or Taiwan; enterprises engaged in TFP; or domestic enterprises in OCFs, in the nine major cities of the PRD (*Figure 3.4*). Among them, 5 million were employed by Hong Kong-funded enterprises and 4.6 million by enterprises in OCFs. As many as 2 million were hired by traditional enterprises engaged in TFP as defined in the section above.

In Eastern PRD, Hong Kong-based enterprises hired a total of 5.9 million employees, including 3.7 million by Hong Kong-funded enterprises and 2.2 million by Hong Kong-funded enterprises in OCFs. All these enterprises hired 2.5 million employees in Dongguan, 2.2 million in Shenzhen, 1.2 million in Huizhou and 1.2 million in Guangzhou. In the western cities of the delta, these enterprises hired 2.6 million employees, 310,000 of whom were in Zhuhai, 820,000 in Zhongshan, 240,000 in Jiangmen, 1.06 million in Foshan and 170,000 in Zhaoqing.

Figure 3.4: Estimation of Employees Hired by Hong Kong-Funded Enterprises and Hong Kong-Funded Enterprises in OCFs



Figure 3.5: Distribution of Year of Establishment of All Enterprises, Hong Kong-Funded Enterprises and Hong Kong-Funded Enterprises in OCFs



Chapter 3



3.4 Date of Establishment

Hong Kong-based manufacturing industries had started investing in Guangdong ever since Mainland China adopted the policy of economic reform. Compared to the 1980s, Guangdong saw an exponential growth in investment made by foreign investors in the 1990s. About 90% of enterprises which responded to the survey were founded after 1991 and about 10% before the 1980s. The development of manufacturing enterprises in the PRD by Hong Kong-funded enterprises reached its peak between 1996 and 2000 and their number accounted for 42.3% of the total number of manufacturing enterprises there. Between 2001 and 2005, the proportion of these enterprises slowed down sharply to only 28.3%, slightly higher than that of 1991-1995 but significantly lower than that of 1996-2000 (Figure 3.5).

Among the enterprises surveyed, both Hong Kongfunded enterprises and Hong Kong-funded enterprises in OCFs shared a similar development trend. Between 1996 and 2000, there were 37.8% Hong Kong-funded enterprises and up to 47.2% Hong Kong-funded enterprises in OCFs. As the number of enterprises established between 2001 and 2005 declined, Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs accounted for 30.4% and 26% respectively of the total enterprises surveyed. In particular, the latter saw the sharpest decline in its growth rate. Many of the TFP enterprises, instead of taking the "Both Ends Outside" approach, now develop the domestic market using resources available within China.

3.5 Registered Ownership

The survey showed that a wholly foreign-owned enterprise was the most popular type of ownership among Hong Kong-funded enterprises, accounting for 64.8% of Hong Kong-funded enterprises, while the proportion of Chinese-foreign equity joint ventures and Chinese-foreign co-operative joint ventures were 28.2% and 6.9% of Hong Kong-funded enterprises respectively (Figure 3.6). In general, except for Foshan and Huizhou, most PRD cities shared a similar pattern. The survey showed that in Foshan, 48.4% of Hong Kong-funded enterprises were registered as Chineseforeign equity joint ventures, which was the most popular type of ownership, whereas only 39.6% were registered as wholly foreign-owned enterprises. In the case of Huizhou, 56.2% of Hong Kong-funded enterprises were registered as Chinese-foreign equity joint ventures, whereas only 23.5% were registered as wholly foreign-owned enterprises, the lowest among all cities. Nonetheless, 20.4% of Hong Kong-funded enterprises were registered as Chinese-foreign cooperative joint ventures, the highest among all cities. This indicated that the composition of Hong Kongfunded enterprises in Huizhou was greatly different from that in other cities.

Collectively owned enterprises and private enterprises were the two major types of ownership registered by Hong Kong-funded enterprises in OCFs. Among all the surveyed enterprises, 51% were collectively owned, 37.1% were private, 5.4% were co-operatives, 3% were state-owned, and 3.1% were share-holding enterprises (Figure 3.7). Collectively owned enterprise was the most popular type of ownership registered by Hong Kongfunded enterprises in OCFs, accounting for 78.7% of the total number of Hong Kong-funded enterprises in OCFs in Dongguan, 71.1% in Shenzhen, 69.6% in Zhuhai and 67.7% in Zhaoging. Meanwhile, private enterprise was the most popular type of ownership registered by Hong Kong-funded enterprises in OCFs in Guangzhou, Foshan and Huizhou, accounting for 73.5%, 58.2% and 53.8% of Hong Kong-funded enterprises in OCFs respectively.



Figure 3.6: Registered Ownership of Hong Kong-Funded Enterprises



Figure 3.8: Operation and Management Rights of Hong Kong-Funded Enterprises in OCFs Controlled by Hong Kong-Funded Investors





Enterprises Engaged in TFP in Huizhou

Mr Wong's enterprise in Huizhou used to undertake processing with customers' materials until five to six years ago when it was transformed into a wholly foreign-owned enterprise.

According to the stipulations of Huizhou Customs, any machinery imported tax-free by an undertaking for the purpose of processing with supplied materials is generally subject to a five-year custody, after which the machinery may be depreciated or resold. Luckily, Mr Wong succeeded in transforming his company into a wholly foreign-owned enterprise without a hitch because his machinery was imported more than five years ago.

An enterprise engaged in TFP is often subject to interference from a member from the Chinese party, who is a legal representative, as ownership is not clearly defined. The more investment there is in such an enterprise, the riskier in its ownership. Local governments usually pay little attention to these enterprises as their investment is relatively small. An enterprise engaged in TFP needs to clearly categorise its raw materials and products if it undertakes any sales activity in the domestic market, or else its relations with the Customs will be in trouble. However, if it only exports its products, taxation or customs duties will be simple and only some tariff will be levied on the processing charges. Although the formal expenses are smaller, the troubles involved are by no means less than those faced by a wholly foreign-owned enterprise.

Generally, a wholly foreign-owned enterprise - a mode usually adopted by large-scale enterprises is restricted by local governments to the registration capital limit. Today, a newly established wholly foreign-owned enterprise is exempt from paying taxes for two years and a has a 50% tax cut for the next three years before being subject to 33% taxation[#]. Since a wholly foreign-owned enterprise is required to submit its monthly financial statement to the government, the accounting department faces a heavier workload and handles more local taxation procedures than those of enterprises engaged in TFP. However, as relevant laws and regulations are made clearer, these wholly foreignowned enterprises encounter less grey areas when compared to enterprises engaged in TFP.

^{*} The Mainland's Corporate Income Tax Law, adopted at the General Meeting of the National People's Congress, was promulgated on 19 March, 2007. The new law will come into effect on 1 January 2008. Upon its enactment, the new law will supersede the existing Income Tax Law for Enterprises with Foreign Investment and Foreign Enterprises as well as the Provisional Regulations for Corporate Income Tax. Current tax benefits for foreign enterprises, including the 5-year fixed term special tax benefits for newly established enterprises, will be gradually phased out.

The establishment of Hong Kong-funded enterprises in OCFs demonstrated the wide-ranging and close relations between Guangdong and Hong Kong. Stipulated ownership registration did not stifle their choice in the co-operation mode; on the contrary, Guangdong's enterprises developed to the fullest extent their diversified forms of joint ventures with foreign investors. From the legal point of view, Hong Kong-funded enterprises in OCFs were not established as foreign-invested enterprises. Among Hong Kongfunded enterprises in OCFs, 66.7% Mainland managerial staff in Dongguan viewed that the surveyed enterprises were controlled or managed by Hong Kong investors, while the percentage in Jiangmen and Zhuhai stood at 66.7% and 64% respectively. In the case of Guangzhou, Shenzhen, Huizhou and Zhaoging, about half of the people in charge in these enterprises shared the view (Figure 3.8). In the case of Zhongshan and Foshan, only 35% and 19.7% respectively had a similar view, indicating that Mainland Chinese management believed that, to a great extent, these enterprises were still subject to their control. However, this was not the case revealed by surveys held in Hong Kong. The management in Hong Kong believed that they owned a controlling stake in these enterprises in terms of operation and management. This might have brought to light one of the legal grey areas in running Hong Kong-funded enterprises in OCFs, especially enterprises engaged in TFP.

3.6 Distribution of Industry

Top Ten Industries

In terms of the number of our sample enterprises by industry, the top 10 industries were found to be: (1) Electronic and Telecommunication Equipment (17.4%); (2) Textile Garments, Footwear and Headgear Products (13.6%); (3) Metal Products (10.5%); (4) Plastic Products (9%); (5) Leather, Furs, Down and Related Products (7.7%); (6) Textile Industry (6.4%); (7) Electric Equipment and Machinery (5.4%); (8) Printing and Record Medium Reproduction (3.6%); (9) Raw Chemical Materials and Chemical Products (3.4%); and (10) Papermaking and Paper Products (3.3%). In the survey, there was no apparent difference in the distribution between Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs (*Figure 3.9*).



Guangdong's enterprises developed to the fullest extent their diversified forms of joint ventures with foreign investors.

Nine Major Industries

In the following, we had grouped 29 industries listed in our questionaires into nine major sectors which included 20 industries. We then compared the distribution of enterprises across three major industries in various cities, namely, emerging industry sector, traditional industry sector and potential industry sector. Figure 3.10 shows that in 2005, the proportion of industrial enterprises - as listed in the 2005 Statistical Yearbook of Guangdong - above designated size in emerging industries, traditional industries (plus the metal industry) and potential industries accounted for 33.3%, 29.7% and 8% respectively of the total number of industrial enterprises. However, in our survey, the proportion of industrial enterprises above designated size in emerging industries, traditional industries (plus the metal industry) and potential industries accounted for 34.1%, 35.6%

and 5.6% respectively of the total number of surveyed enterprises. This simple comparison indicates that in terms of emerging industries, the proportion in the surveyed enterprises was about the same as that in the overall industry. The surveyed enterprises had a higher proportion in traditional industries, and a lower proportion in potential industries.

From the distribution of these industries, Hong Kongfunded enterprises and Hong Kong-funded enterprises in OCFs shared a very similar pattern in major industries in Guangdong (*Figure 3.11*). On the one hand, these enterprises were directly related to Guangdong's development plans for various manufacturing industries. On the other hand, the composition of manufacturing industries in various cities in Guangdong was affected by the investment of these enterprises.

Figure 3.9: Distribution of Enterprises across Industries for Hong Kong-Funded Enterprises and Hong Kong-Funded Enterprises in OCFs in Our Sample



Hong Kong-Funded Enterprises in OCFs



Figure 3.10: Comparison of Three Major Industries

between Our Sample and Manufacturing Industries

in PRD, 2005 (enterprises above minimum



3.7 Sales and Processing Charges

Among our sample, the number of Hong Kongfunded enterprises above and below the designated size were 55% and 45% of all enterprises in the sample respectively, while that of Hong Kong-funded enterprises in OCFs above and below designated size stood at 35% and 65%, respectively. Among Hong Kong-funded enterprises in OCFs, processing charges were the only source of revenue for enterprises engaged in TFP. If we judge their economic scale merely in terms of their charges, we would underestimate the sales of their products. Although there was not much difference between Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs in terms of the industries they were engaged in, they varied greatly in Shenzhen, Dongguan, Zhongshan and Zhaoging in terms of sales/processing charges. In these cities, over 70% of Hong Kong-funded enterprises in OCFs were below designated size and this was covered by regular statistics but excluded from the monthly or annual industrial statistics. 🗁

The Characteristics of Product Sales

4.1 Mode of Production

The three major modes of manufacturing used by manufacturers are: original equipment manufacturing (OEM),¹ original design manufacturing (ODM)² and original brand manufacturing (OBM).³ Generally speaking, the demand for research and development (R&D) is relatively strong in OBM, followed by ODM; OEM, however, is seen as a preliminary mode of production since the design and specifications of the new product are provided by the buyers.

In our sample of industries in Guangdong, 82.1% enterprises engaged in OEM, 25% in ODM and 12.8% in OBM. Among Hong Kong-funded enterprises, 77.9% were engaged in OEM, lower than 86.8% posted by Hong Kong-funded enterprises in OCFs. On the other hand, Hong Kong-funded enterprises recorded higher ratios in ODM and OBM of 27.3% and 14.1% respectively, compared to 22.4% and 11.3% respectively for Hong Kong-funded enterprises in OCFs (*Table 4.1*).

The production mode of the surveyed enterprises was mainly as OEM, and the two cities of Zhaoqing and Dongguan showed the highest proportion of OEM to other manufacturing modes at 94.2% and 91% respectively. Although the cities of Huizhou and Foshan posted the lowest weightings, their proportions were still over 70% (*Figure 4.1*). OEM is an important mode of production generally adopted by manufacturers in the PRD.

Guangzhou (39.3%), Zhuhai (32.5%) and Huizhou (32.4%) witnessed the highest proportions of enterprises engaged in ODM but Jiangmen posted the lowest with only 9.5%.

In the PRD, the number of surveyed enterprises engaged in OBM was limited. Guangzhou, Foshan and Zhongshan had postings of 39.3%, 23.4% and 13.2% respectively, all were higher than the average value in PRD cities. There were only 5.8% and 2.5% enterprises engaged in OBM in Shenzhen and Dongguan, the two cities nearest to Hong Kong.

% of enterprises		
All Sample	FIEs	OCFs
65.1	61.9	68.6
9.8	13.2	6.0
6.6	7.0	6.1
11.9	10.3	13.8
3.0	3.3	2.6
1.1	1.4	0.8
2.1	2.4	1.8
0.4	0.5	0.3
	All Sample 65.1 9.8 6.6 11.9 3.0 1.1 2.1 0.4	% of enterprises All Sample FIEs 65.1 61.9 9.8 13.2 6.6 7.0 11.9 10.3 3.0 3.3 1.1 1.4 2.1 2.4 0.4 0.5

Table 4.1: Production Mode of Various Enterprises

¹ OEM (original equipment manufacturing) refers to a production mode wherein overseas buyers identify the best suppliers in the global markets before providing them with the design and specifications of a new product and then let the suppliers conduct production and delivery.

² ODM (original design manufacturing) refers to the production service for the brands of overseas buyers by manufacturers who also provide the development concept and detailed design of the products.

³ OBM (original brand manufacturing) refers to a production mode wherein manufacturers build and develop their own brands, purchase the brands of other companies, or even acquire companies with specific brands to market their products through the brands.

4.2 Exports and Domestic Sales

Distribution of Number of Enterprises

Of the enterprises surveyed, 52.4% were engaged in exports only, 14.1% in domestic sales only, and 21.5% in both businesses. Among the enterprises in both businesses, 54.4% of products were exported and 45.6% were for domestic sales. Most of the enterprises engaged in an inter-plant transfer business were also involved in exports and domestic sales. Based on the average value of the products, exports, domestic sales and inter-plant transfers accounted for 68%, 28.2% and 3.9% respectively of all the surveyed enterprises (*Table 4.2*).

About 42% of Hong Kong-funded enterprises and 63.9% of Hong Kong-funded enterprises in OCFs were engaged in a single business of exports. Surprisingly, similar ratios were seen in these two types of enterprises engaged in a single business of domestic sales, with Hong Kong-funded enterprises accounting for 13.7% and Hong Kong-funded enterprises in OCFs accounting for 14.5%. 29.4% of Hong Kong-funded enterprises were involved in exports and expanding the Chinese domestic market, compared to 12.9% of Hong Kong-funded enterprises in OCFs.

Various Cities

Figure 4.1: Production Modes of All Enterprises in

Table 4.2: Movement of Products of All Enterprises

	% of All Sample	Movement of Products (average value in %)		
		Exports	Transfer	Domestic Sales
Single Role				
100% Exports	52.4	100.0	0.0	0.0
100% Transfer	0.7	0.0	100.0	0.0
100% Domestic Sales	14.1	0.0	0.0	100.0
Dual Roles				
Exports & Transfer	1.8	61.4	38.6	0.0
Exports & Domestic Sales	21.5	54.4	0.0	45.6
Transfer & Domestic Sales	2.2	0.0	33.7	66.3
All Three Roles				
Exports, Transfer & Domestic Sales	7.3	37.4	23.8	38.8
Overall Weighted Average	100.0	68.0	3.9	28.2

Based on the average value of products, 64.9% of the output produced by Hong Kong-funded enterprises was exported, 30.6% was used for domestic sales and only 4.6% was used for inter-plant transfer business. 71.3% of the output produced by Hong Kong-funded enterprises in OCFs was exported, 25.5% was used for domestic sales and only 3.1% was used for inter-plant transfer business. The average ratio of exports to domestic sales for the surveyed enterprises in Dongguan, Shenzhen, Zhuhai, Jiangmen, Zhongshan and Zhaoqing stood at 4:1. Guangzhou, Foshan and Huizhou recorded 43.3%, 39.4% and 43% respectively in the export business and 50.9%, 57.1% and 43.6% respectively in domestic sales (*Figure 4.2*).

The surveyed enterprises were primarily engaged in exports, and generally, 60% of their products were exported, except for Hong Kong-funded enterprises in Foshan and Huizhou whose products to be exported accounted for 54.3% and 43% respectively and whose domestic sales accounted for 41.5% and 45.5% respectively. Established in these two cites, Hong Kong-funded enterprises had an equal share in exports and domestic sales.

Figure 4.2: Movement of Products of All Enterprises in Various Cities





Figure 4.3: Export Mode of All Enterprises



Local suppliers accounted for 70% of the total value of domestic purchases. The data verified that the ancillary facilities of Guangdong's manufacturing sector were mature and complete.

Most Hong Kong-funded enterprises in OCFs were mainly engaged in exports. In Dongguan and Jiangmen, the surveyed enterprises had export proportions as high as 97.5% and 97.1% while their domestic sales were very small. Moreover, the proportion of exports to domestic business for the same type of enterprises in Shenzhen, Zhuhai, Zhongshan and Zhaoging was 80% to 10-15%. In terms of trade mode, enterprises in Dongguan, Shenzhen, Zhuhai, Jiangmen, Zhongshan and Zhaoqing were more similar to traditional enterprises engaged in TFP. The major business of these traditional enterprises was exports, and processing customers' materials was a major form of trade with the outside world. The situation of the surveyed Hong Kong-funded enterprises in OCFs in Guangzhou, Foshan and Huizhou varied from other cities. For example, exports and domestic sales in Huizhou accounted for 43% and 40.3% respectively, while inter-plant transfer was at 16.6%, higher than that in other cities.

Export Mode

Processing trade in Guangdong was a major mode of exports for Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs. Among exports of the surveyed enterprises, general trade accounted for 15.5%, processing and assembling with imported materials 34%, processing and assembling with customers' materials 47.4% and other forms of trade 3.2%. About 90% of exports from Shenzhen, Dongguan, Zhuhai and Zhongshan were processing trade, while exports in general trade were less than 10% (*Figure 4.3*).

Hong Kong-funded enterprises were mainly in processing and assembling with imported materials and accounted for 52.4% of exports. The ratios in Shenzhen, Dongguan and Zhuhai stood at 60% or more of exports. Hong Kong-funded enterprises in OCFs concentrating on processing and assembling customers' materials accounted for 73.2% of exports. Other than Guangzhou, Foshan and Huizhou, the proportion of Hong Kong-funded enterprises in OCFs engaged in processing and assembling customers' materials in other cities stood at more than 80% of exports. Processing and assembling customers' materials was the major form of trade in Hong Kong-funded enterprises in OCFs and was very similar to the mode adopted by traditional enterprises engaged in TFP.

4.3 Imports and Domestic Purchase of Raw Materials

Among the enterprises surveyed, 43.5% purchased all their raw materials through imports, 23.3% purchased them in the domestic market and 20.6% made half of their purchases from imports and half from the domestic market. Only 12.6% enterprises purchased materials through inter-plant transfer, which was considered relatively low. On average, the surveyed enterprises purchased 56.3% of the total value of raw materials through imports, 40% through domestic market and only 3.7% through inter-plant transfer (*Table 4.3*).

By comparing material purchases, it can be seen that Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs used different modes: whereas the former put priority on both imports and domestic purchases, the latter emphasised imports. Among Hong Kong-funded enterprises, 28.5% received all their materials from imports, 26% through domestic purchases, and 30% through both imports and domestic purchases on an equal basis.

Among Hong Kong-funded enterprises in OCFs, 59.7% received all their materials from overseas imports, 20.4% from domestic purchases and 10.4% from both imports and domestic purchases in ratios of 37.8% and 62.2% respectively. Except for those traditional enterprises engaged in TFP, the rest generally registered a higher proportion in domestic purchase rather than in imports.

	% of All Sample	Sources (average value in %)		
		Imports	Transfer	Domestic Suppliers
Single Source				
100% Imports	43.5	100.0	0.0	0.0
100% Transfer	0.7	0.0	100.0	0.0
100% Domestic Suppliers	23.3	0.0	0.0	100.0
Dual Sources				
Imports & Transfer	0.6	69.6	30.4	0.0
Imports & Domestic Suppliers	20.6	46.9	0.0	53.1
Transfer & Domestic Suppliers	2.8	0.0	33.9	66.1
All Three Sources				
Imports & Transfer & Domestic Suppliers	8.4	31.9	22.4	45.6
Overall Weighted Average	100.0	56.3	3.7	40.0

Table 4.3: Raw Material Purchases of All Enterprises

4.4 Geographic Distribution of **Domestic Sales and Domestic Purchases**

About 48% of enterprises engaged in China's market for domestic sales, whereas Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs accounted for 58.2% and 36.1%, respectively. Their major targets for sales included the cities in which they were located and other cities in Guangdong province, and this accounted for about 70% of their total domestic sales. The cities in which they were located were the direct channel of sales, representing 39.4% of total domestic sales, followed by other cities in Guangdong, representing 28.9% of the total. Product sales to various provinces in the Greater YRD and Pan-PRD and other Mainland cities accounted for 12.2%, 10.7% and 8.8% respectively (Figure 4.4).

About 56% of surveyed enterprises sourced their raw materials in the Chinese market, and 71.1% of Hong Kong-funded enterprises and 39.9% of Hong Kongfunded enterprises in OCFs made use of materials from domestic suppliers. Suppliers who were located in the same cities as the enterprises, or in other cities in Guangdong, accounted for 70% of the total value of domestic purchases generated by the surveyed enterprises. The data also verified that the ancillary facilities of Guangdong's manufacturing sector were mature and complete. Domestic cities were usually the most direct source for raw materials, accounting for 41.3% of total domestic purchases, followed by other cities in Guangdong, accounting for 30.4% of the total. Raw materials sourced from various provinces in the Greater YRD and Pan-PRD and other Mainland cities accounted for 10.4%, 9.2% and 8.7% respectively (Figure 4.5).

Sales Products City of enterprise's 39.4 location Other cities in Guangdong 28.9 YRD (Shanghai, Zhejiang and Jiangsu) 12.2 Pan-PRD excluding Guangdong 10.7 Other provinces/ cities in China 8.8 0% 10% 30% 20% 40% 50% Average proportion of domestic sales (%)

Figure 4.5: Geographic Distribution of Domestic Purchases of Raw Materials



Figure 4.4: Geographic Distribution of Domestic

4.5 Imports and Exports through Hong Kong

Most of the goods exported or materials imported by the enterprises surveyed were through Hong Kong, which played an important role in logistics management for these enterprises. Enterprises that exported all their goods through Hong Kong accounted for 67% of the enterprises surveyed, while those that exported some goods through the territory represented 15.2%. An average of 43.9% of exported goods were exported through Hong Kong. Meanwhile, enterprises with all goods directly exported from China accounted for 17.8% of the enterprises surveyed. Enterprises with all their raw materials imported through Hong Kong represented 69.8% of the enterprises surveyed, while those with partial materials imported through Hong Kong accounted for 15.5%. An average of 40.9% of imported materials went through Hong Kong. Meanwhile, enterprises with all their raw materials directly imported from China accounted for 14.7% of the enterprises surveyed (Figure 4.6).

Significant Improvement in Customs Clearance

The 2003 survey on the PRD revealed that 73.4% enterprises experienced delays in customs clearance in the previous year and the median of loss was approximately HKD 100,000 (about RMB 94,000). The present survey indicated that the number of enterprises experiencing customs clearance delays had declined significantly. Only 3% of them now experienced delays and losses ranged from RMB 3,000 to RMB 5 million with the median at RMB 50,000 (*Figure 4.7*). In terms of where the delays took place, 35.3% were at Mainland ports and airports, 31.4% at inspection facilities for freight transport vehicles directly to Hong Kong and Macao and 27.5% at Hong Kong-Shenzhen land route ports. The comparison of the results of two surveys showed us that customs clearance of the PRD had an obvious improvement.





Figure 4.7: Traffic Congestion or Customs Delays whilst Transporting Goods across the Border in the Past Year (Only 3% of Surveyed Enterprises)



4.6 Competitors in Exports and Domestic Sales/Inter-Plant Transfers

Exports

When asked about likely competitors in the export business, the responding enterprises generally found that the threats from domestic manufacturing enterprises were higher than those from overseas enterprises. Those that found threats from their competitors to be serious were less than 10%, reflecting that Hong Kongfunded enterprises and Hong Kong-funded enterprises in OCFs in the delta enjoyed a unique market position and source of customers.

Calculated in scores,⁴ the marks given by the surveyed enterprises regarding the threats of competition brought by various regions were below a general level (3.0), reflecting that enterprises found the threat of competition in the export market normal. Regions that were marked with a higher score were Jiangsu (2.92), Zhejiang (2.82) and Shanghai (2.81), reflecting that threats from enterprises in Greater YRD to the surveyed enterprises were higher than those from other regions (*Figure 4.8*). The marks for threats from competition given by Hong Kong-funded enterprises to Guangdong, Jiangsu, Zhejiang and Shanghai were similar, while those given by Hong Kong-funded enterprises in OCFs to Guangdong were lower (2.7) and those given to Jiangsu and Zhejiang were higher, 2.95 and 2.89 respectively.



Figure 4.9: Scores for Threats from Competition in Domestic Sales/Inter-Plant Transfers in Different Regions/Countries



⁴ Scores for competition threats: 1 mark is given to no threat, 3 to general threat, 5 to credible threat. The higher the mark, the more the threat the enterprises feel.

Domestic Sales

Regarding domestic sales, Hong Kong-funded enterprises believed competitors in Guangdong, Jiangsu and Zhejiang were major threats. The score for competition threat given to domestic enterprises was higher than that given to overseas enterprises, reflecting that domestic enterprises still had a considerable competitive edge over the surveyed enterprises. The scores given by the surveyed enterprises regarding the threat to Guangdong enterprises in domestic sales were 3.12, while those given to enterprises in Jiangsu and Zhejiang were 2.97 and 2.95 respectively (Figure 4.9). Enterprises in Guangdong, Jiangsu and Zhejiang were the major source of competitors among domestic and overseas enterprises.

4.7 Forecast for Imports, Exports and Domestic Sales

Exports and Domestic Sales

The surveyed enterprises were very optimistic about the prospect of their businesses. About 70% of them believed that their exports would increase in the coming two to three years, 29.8% believed that their domestic sales would increase in the coming two to three years, and 0.5% and 1.3% expected their exports and domestic sales respectively would decrease. Meanwhile, 18.1% and 37.7% expected no changes in exports and domestic business respectively, while 12% and 31.2% did not have plans to expand the two kinds of businesses (*Figure 4.10*).

Imports and Exports Directly through Hong Kong

As regards the forecast of the transport mode of imports and exports, approximately 60% or more believed that it would remain intact, only approximately 10% expected an increase in exports and imports through Hong Kong and less than 5% said they would increase imports and exports directly through Mainland China (*Figure 4.11*).

The surveyed enterprises in Shenzhen, Zhuhai and Dongguan had a stronger intention to increase their export of goods and import of raw materials through Hong Kong in the next two to three years than those in Guangzhou, Foshan and Jiangmen. The proportion of surveyed enterprises in Huizhou and Zhaoqing who said that they would increase their export of goods and import of materials directly through the Mainland in the next two to three years were higher than those in other cities.



The surveyed enterprises were very optimistic about the prospect of their businesses. About 70% of them believed that their exports would increase in the coming two to three years.







Guangdong and Hong Kong in Partnership

Made in PRD (2003) indicated that the size of Hong Kong's manufacturing in Guangdong was huge and the partnership between Guangdong and Hong Kong was profound and extensive. Their relationship, generalised as "a shop in the front and a factory in the back", dated back to the opening of Guangdong's economy to the world. Hong Kong companies took advantage of plenty of cheap labour and low land costs in the Mainland to expand their businesses. The market and financial advantages of Hong Kong, generated in the free and open market, made it an ideal headquarters to manage production activities in Guangdong. With the joint efforts of Guangdong and Hong Kong, a powerful, export-oriented manufacturing industry was created.

The 2005 survey on the PRD highlighted what was missed in the previous survey. One was that the advantages of geo-economics and of human connections resulted in the economic integration of the Greater PRD to a far greater extent than the limit established by the policy makers. The second aspect highlighted in the 2005 survey was that the borderline between foreign-funded enterprises and domestic enterprises in the delta was becoming blurred. The co-operation between Hong Kong-funded enterprises and Guangdong enterprises is more equal than before, the former not necessarily taking a leading position. The relationship between Hong Kong and Guangdong has gradually developed into a complicated and diversified division of labour, changing from the idea of "a shop in the front and a factory in the back" as in the past.

5.1 Establishment of Hong Kong Offices

Among the surveyed enterprises, 52.7% had offices or factories in Hong Kong, 45.8% had none and only 1.5% once had offices or factories in the territory (Figure 5.1). Only half of the surveyed enterprises had offices or factories in Hong Kong and it could be said that these enterprises were closer to the traditional mode of "a shop in the front and a factory in the back". The other half had never set up offices or factories in Hong Kong, which only acted as their source of capital. Enterprises with "shops" and "factories" established in the nine major cities in the PRD (Guangzhou, Shenzhen, Zhuhai, Zhongshan, Foshan, Jiangmen, Dongguan, Huizhou and Zhaoging) would still make use of services provided by Hong Kong. The economic development of Guangdong, the advanced communication network, and the convenience of customs clearance between Guangdong and Hong Kong made it possible for these enterprises to use Hong Kong's services without setting up branches in the territory.

In Dongguan, Jiangmen and Shenzhen, 64.1%, 63.7% and 62% of the surveyed enterprises respectively had offices or factories in Hong Kong, these proportions were the highest among the nine major cities. In Zhuhai and Zhongshan, such enterprises accounted for 55.5% and 55.2% respectively of all enterprises in those places. In Huizhou and Guangzhou, the surveyed enterprises with offices or factories in Hong Kong accounted for 47% and 44% respectively. The proportions of the surveyed enterprises in Zhaoqing and Foshan with offices or factories in Hong Kong were the lowest: 38.3% and 25.3% respectively. Enterprises with geographic proximity to Hong Kong were more likely to maintain their offices or factories in Hong Kong.



Figure 5.1: Establishment of Hong Kong Offices by Cities

Figure 5.2: Five Major Reasons for Establishing Factories in Guangdong



5.2 Reasons of Establishing Factories in Guangdong

Among the surveyed enterprises, reducing labour costs (69.8%), lowering rental/land costs (63.8%) and scaling up production (53.3%) were three major reasons for most enterprises moving to Guangdong. Furthermore, exploiting domestic sales opportunities and enjoying tax incentives were the fourth and fifth reasons for enterprises to build factories in Guangdong, claimed by 49.3% and 49.5% respectively of the surveyed enterprises (*Figure 5.2*). The first three items were the three major reasons for the establishment of factories in Guangdong by Hong Kong businesses both in this survey and the previous survey.

Among the surveyed enterprises in Jiangmen, Hong Kong businesses believed that the second and fourth most important reasons for establishing factories there were the increased availability of professional managerial members and technicians/engineers; this was very different from the situation found in other cities in the PRD. Among the surveyed enterprises in Zhaoqing, the domicile of origin of the founder of the company in Zhaoqing was the most important reason for them to establish factories there. Hong Kong businesses there reported that the second most important reason for their move was scaling up production, followed by moving closer to suppliers, moving closer to the customer market, and greater availability of required technicians/engineers.

5.3 Reasons for Not Moving Hong Kong Offices Completely to Guangdong

About 55% of the enterprises believed that the high quality of Hong Kong's business and professional support services was the major reason for maintaining offices or factories in Hong Kong instead of moving them completely to Guangdong. Moreover, about 40% of enterprises cited Hong Kong's free port status and its efficient transportation networks as the next two important reasons for maintaining operations there. Meanwhile, free flow of information in the territory was the fourth reason. Approximately 30% of the surveyed enterprises believed that the simple tax system with low tax rates and the clustering of multinational enterprises in Hong Kong were the fifth and sixth reasons for them to continue running offices in Hong Kong (*Figure 5.3*).

Besides the above six reasons, there were others such as Hong Kong's world-class financial services, the effects of the brand "Made by Hong Kong", sound information and technology support, observance of international trade practices, absence of foreign exchange control, political stability and safety, nationwide radiant influence and business networks, and rule of law and judicial independence, each of which was selected by nearly 30% of the enterprises. Keeping offices in Hong Kong was therefore the result of various factors.

Over 45% of the surveyed enterprises in Shenzhen believed that Hong Kong's free port status, its high quality business and professional support services, and efficient transportation networks were the top three reasons for them to keep operations in Hong Kong. Fifty per cent of the surveyed enterprises in Dongguan cited the effects of the brand "Made by Hong Kong" and high quality business and professional support services as the two major reasons. Half of the surveyed enterprises in Huizhou believed that Hong Kong's free port status was the main reason that they did not move completely to Guangdong. Over 75% of the surveyed enterprises in Guangzhou believed that Hong Kong's simple tax system with low tax rates and its high quality business and professional support services were the top two reasons that they maintained Hong Kong offices.

Half of the surveyed enterprises in Zhuhai cited that the high quality of Hong Kong's business and professional support services was the reason that they did not move completely to Guangdong, while nearly half of those in Zhongshan cited efficient transportation networks in the territory as the reason. Among the surveyed enterprises in Foshan, half of them attributed it to Hong Kong's nationwide radiant influence and business networks. Among the surveyed enterprises in Jiangmen, nearly 80% cited Hong Kong's high quality business and professional support services and 60% cited the effects of the brand "Made by Hong Kong" as factors of not moving their operations completely from Hong Kong to Guangdong. Nearly 70% of the surveyed enterprises in Zhaoqing saw Hong Kong's efficient transportation networks and its nationwide radiant of the influence and business networks as the reasons. More surveyed enterprises in Foshan and Zhaoqing believed that Hong Kong's nationwide radiant influence and business networks was the reason for retaining their offices in Hong Kong.



Figure 5.3: Six Major Reasons for Keeping Offices in Hong Kong





5.4 Division of Labour between Hong Kong and Guangdong

The offices or factories in Hong Kong of the surveyed enterprises mainly acted as regional headquarters and were engaged in sales and marketing, research and development (R&D), and information technology management. 66% of the enterprises said their Hong Kong offices mainly acted as regional headquarters, 13% said both Hong Kong and Guangdong shared the work of the regional headquarters, and 21% said their regional headquarters were in Guangdong. Among the surveyed enterprises, 50.8% said their Hong Kong offices mainly took charge of sales and marketing, 41.5% claimed it for R&D and 39.2% said the Hong Kong office led IT management. Procurement of materials was important in both places. Surprisingly, the number of enterprises with financial management taking place in Hong Kong was fewer than that in Guangdong, accounting for 27.8% and 31.4% respectively. Production and logistics were mainly conducted in Guangdong, as before. 77.6% of the enterprises said that their production was mainly carried out in Guangdong and 45% said their logistics were conducted in Guangdong. Meanwhile, 30-40% of the enterprises assigned financial management, IT management, R&D and logistics equally between their Hong Kong offices and Guangdong factories (Figure **5.4**).

According to *Made in PRD* (2003), division of labour between Guangdong and Hong Kong reflected that Hong Kong offices acted mainly as regional headquarters in addition to taking charge of financial management, sales and marketing, and IT management, while Guangdong factories were mainly responsible for production and logistics. The major difference between this survey and the previous one was a sharp decrease in the share of financial and IT management work for Hong Kong offices and a significant rise in these two areas for Guangdong.

Eastern PRD

Most of the surveyed enterprises in Shenzhen and Dongguan were export-oriented enterprises. Enterprises in these two cities had similar modes of division of labour between Guangdong and Hong Kong. In regards to regional headquarters, 71% of Shenzhen enterprises and 78.2% of Dongguan enterprises believed that Hong Kong played a leading role in this area. Regarding production, 80.3% of Shenzhen enterprises and 77.8% of Dongguan enterprises believed that Guangdong played a leading role in this area. In respect to other businesses, the proportion of enterprises in Dongguan believing that Hong Kong played a leading role was obviously higher than that of the surveyed enterprises in Shenzhen. For example, 53.7% of the enterprises in Dongguan believed that Hong Kong played a leading role in sales and marketing and 42% believed it was for R&D, and the corresponding proportions of the surveyed enterprises in Shenzhen were 42.3% and 35.1%. The surveyed enterprises in Dongguan relied more on the support of Hong Kong offices for IT, procurement of materials, financial management and logistics than their counterparts in Shenzhen (Figure 5.5).

Most of Huizhou's businesses were handled by Guangdong factories. In respect to regional headquarters, only 36.1% of the enterprises believed that Hong Kong played a leading role and 45.4% believed that Guangdong played a leading role. Regarding sales and marketing, only 25.2% of the enterprises believed that Hong Kong played a leading role while 47.9% believed that Guangdong played a leading role. Over 60% of the surveyed enterprises believed that Guangdong played a leading role. Over 60% of the surveyed enterprises believed that Guangdong played a leading role. The surveyed enterprises believed that Guangdong played a leading role in logistics and production, and only less than 10% believed that Hong Kong played a leading role for the same.

Central PRD

In Guangzhou, most of the enterprises believed that Hong Kong played a leading role in regional headquarters, IT management, sales and marketing, and R&D, accounting for 63.3%, 62.7%, 61.6% and 58.8% respectively of the surveyed enterprises. In terms of financial management, 49.2% of enterprises believed that Hong Kong played a leading role. For the procurement of materials, the proportions of Hong Kong offices and Guangdong factories playing the leading role were quite similar at 44.6% and 41.2% respectively. About 33% of enterprises believed that Hong Kong played a leading role in logistics, while 66.1% believed this role was played by Guangdong.


The high quality of Hong Kong's business and professional support services was the major reason for maintaining offices or factories in Hong Kong instead of moving them completely to Guangdong.

Western PRD

In terms of regional headquarters, 68.6% of enterprises in Zhuhai believed that Hong Kong played a leading role. Regarding logistics and production, 42.3% and 77.4% of the enterprises respectively believed that Guangdong played a leading role. As for other businesses, Hong Kong and Guangdong played a similar role.

The situation in Zhongshan was similar to that of other cities, with Hong Kong playing a leading role in regional headquarters and Guangdong playing a leading role in production. In respect of R&D, approximately 41% of the enterprises believed that Hong Kong played a leading role, while 41% believed that Guangdong played a leading role in sales and marketing, and 50.4% said it played a leading role in the procurement of materials. As for IT, financial management and logistics, both Hong Kong and Guangdong shared similar proportions.

Most of the surveyed enterprises in Jiangmen conducted their main businesses through Hong Kong offices and only their production was handled by factories in Guangdong. Hong Kong offices or factories of nearly 70% of the enterprises dominated in the businesses of regional headquarters and sales and marketing. In respect to production, nearly 90% of the enterprises believed Guangdong had a dominating role. About 20-30% of the surveyed enterprises said that Hong Kong dominated in R&D, IT, financial management and logistics. Nearly 50-60% of them said both Hong Kong and Guangdong shared similar proportions and only 10-20% believed that Guangdong played a leading role. 47.7% of the surveyed enterprises believed that Hong Kong dominated in the procurement of materials and it was the highest proportion among various cities in the PRD.

In Foshan, the main businesses of the surveyed enterprises were conducted through Guangdong, with Hong Kong dominating in sales and marketing. For regional headquarters, R&D, IT, procurement of materials and financial management, over half of the enterprises said Guangdong played a dominating role. For logistics, 70% of the enterprises believed that Guangdong played an important role, and for production, 87.5%.

Furthermore, the surveyed enterprises in Zhaoqing believed Hong Kong dominated in most aspects of these enterprises, such as regional headquarters, sales and marketing, R&D, IT management and procurement of materials, while Guangdong played a leading role in logistics and production.



Figure 5.5 (1-8): Choice of Location for Businesses in Various Cities







Figure 5.5 (4): IT Management



Figure 5.5 (3): Research and Development



Figure 5.5 (6): Financial Management











5.5 Forecast of Division of Labour in Future

Over half of the enterprises expected that division of labour between Guangdong and Hong Kong in regional headquarters, sales and marketing, R&D, IT management, financial management, and logistics would not change in the near future. 41% of the enterprises believed that the share of production in Guangdong would continue to increase and 15.8% indicated that they would move all their production to Guangdong. In terms of regional headquarters, sales and marketing, and R&D, more enterprises believed that their share in Hong Kong would increase, with 5.1% and 5.4% of the enterprises indicated that they would maintain all their regional headquarters and sales and marketing in Hong Kong, respectively. In respect to IT management, procurement of materials, financial management, logistics and production, more enterprises believed that their share in Guangdong would increase (Figures 5.6 and 5.7). In summary, in the coming two to three years, surveyed enterprises expected that there would not be any significant changes in division of labour in manufacturing, with Guangdong still focusing on the expansion of production, logistics and procurement of materials and Hong Kong taking on the role of regional headquarters and implementing the sales and marketing function.



Figure 5.6: Forecast of Division of Labour between Guangdong and Hong Kong

Figure 5.7 (1-8): Forecast of Division of Labour between Guangdong and Hong Kong in Various Cities











Figure 5.7 (3): Research and Development

Figure 5.7 (4): IT Management



Figure 5.7 (5): Procurement of Materials



Figure 5.7 (6): Financial Management





Figure 5.7 (8): Production



5.6 Hong Kong Employees and Mainland Employees

According to the estimation of this survey, the ratio of Hong Kong employees to Mainland employees was 1 to 170, which meant that one Hong Kong employee would be hired¹ for every 170 Mainland employees. For *Made in PRD* (2003), the ratio was 1 to 120. By comparison, it showed that the ratio of Hong Kong employees to Mainland employees was declining. In fact, most of the work in the Mainland factories of Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs had been conducted by Mainland employees.

In respect to Hong Kong employees' positions within management, engineering, finance, accounting, legal, sales and marketing, and R&D, approximately 30-50% of the enterprises said they would not be replaced by Mainland employees. Approximately 15-30% enterprises failed to express their opinions (*Figure 5.8*).

For positions in management and engineering held by Hong Kong employees, few enterprises, or only 5.9% and 8.3% respectively, said they had been replaced by Mainland employees; 5.8% said management employees and 7.5% said engineering employees would be replaced by Mainland employees within five years; 8.9% said management employees and 17.6% said engineering employees would be replaced by Mainland employees after five years; and as high as 49.4% said management employees and 42.5% said engineering employees would not be replaced. For positions in finance, accounting and legal held by Hong Kong employees, 20.3% enterprises said they had been replaced by Mainland employees; 14.8% said they would be replaced by Mainland employees within five years; 17% believed that they would be replaced by Mainland employees after five years; and 32.7% said they would not be replaced by Mainland employees. Most enterprises believed that the positions in finance, accounting and legal would most likely be replaced by Mainland employees in the future.

For positions in sales and marketing previously held by Hong Kong employees, 18.3% of the enterprises said they had been replaced by Mainland employees; 6.8% expected that they would be replaced within five years; 16% said that they would be replaced after five years; and about 34.1% believed that they would not be filled in by Mainlanders.

Regarding positions in R&D previously held by Hong Kong employees, 26.6% of the enterprises said that they had been replaced by Mainland employees; 7.8% believed they would be replaced within five years; about 9.2% expected they would be replaced after five years; and about 37.9% did not expect them to be replaced.

¹ Over half of the working time is in Mainland China.



This survey estimated the ratio of Hong Kong employees to Mainland employees was 1:170. Compared to the ratio of 1:120 estimated in the 2003 survey, it showed that the ratio of Hong Kong employees to Mainland employees was declining.

The opinions of the surveyed enterprises in Shenzhen, Dongguan and Zhuhai regarding the replacement of Hong Kong employees by Mainland employees were similar to those in the above-mentioned mode. Positions in R&D were mostly replaced by Mainland employees in the three cities, accounting for 35.1% of Shenzhen enterprises, 42.8% of Dongguan enterprises and 56.2% of Zhuhai enterprises. The positions in management held by Hong Kong employees were least replaced by Mainland employees in these cities, accounting for only 12.9%, 5.8% and 8.8% respectively.

Approximately 70% of the surveyed enterprises in Guangzhou believed that Hong Kong employees would not be replaced by Mainland employees. 22.6% of the positions in finance, accounting and legal in Guangzhou were replaced by Mainland employees and 10.2% in engineering, and less than 10% in other positions.



Few of the surveyed enterprises in Huizhou and Jiangmen said Hong Kong employees were replaced by Mainland employees. In Huizhou, approximately 30% of the enterprises said various positions held by Hong Kong employees would finally be replaced within five years or after five years and this opinion was expressed by 10% of the surveyed enterprises in Jiangmen.

In the western cities of the PRD, about 30-40% of the surveyed enterprises in Foshan, Zhongshan and Zhaoqing believed that positions in finance, accounting, legal, sales and marketing, and R&D would finally be replaced by Mainland employees. Only slightly more than 10% of them said positions in management would finally be replaced by Mainland employees, but 40-50% held the opposite opinion. In these cities, about 20-30% of the surveyed enterprises said positions in engineering would finally be replaced by Mainland employees.

In conclusion, surveyed enterprises in various cities held different views over the replacement of Hong Kong employees by Mainland employees. In cities where Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs had a long history of investment, such as Shenzhen and Dongguan, the proportion of past or future replacement of Hong Kong employees was higher due to sufficient Mainland human resources trained over the years. On the other hand, as Hong Kong businesses did not invest in the western cities of the PRD as much as in the eastern cities, their trained human resources were insufficient to replace Hong Kong employees. Thus, the proportion of businesses in the western cities of PRD who believed Mainland employees would finally replace Hong Kong employees was relatively low.

5.7 Utilisation of Hong Kong Services

In addition to using their Hong Kong offices for services, the factories in Guangdong make use of various services provided by other companies in Hong Kong. In this survey, 18.1% of the enterprises said they had used services provided by other Hong Kong companies. 30.8% of the surveyed enterprises in Huizhou and 27.6% in Shenzhen said they had used various services provided by other Hong Kong companies, while the proportions in Guangzhou and Zhuhai stood at about 20% and those in Zhongshan and Dongguan at 17.9% and 14% respectively. The western cities of Foshan, Jiangmen and Zhaoging used fewer services provided by other Hong Kong companies, accounting for only 5-6%. The data indicate that there is considerable room for the development of Hong Kong's service industry in the western cities of the delta.

The top five business services provided by Hong Kong companies to Hong Kong businesses in the PRD included import and export services, logistics, customer relationship management, retail and wholesale, and finance and insurance services. Among the surveyed enterprises that obtained services from other Hong Kong companies, 58.2% said they used import and export services provided by Hong Kong companies; 31.5% said they used logistics management services; 28.4% indicated it was customer relationship management; 22.5% said retail and wholesale services; and 15.3% said they used finance and insurance services. It was not common for surveyed enterprises to use other Hong Kong companies to conduct R&D, and the ratio only accounted for 8.5% (*Figure 5.9*).

Industry Import / export services 58.2 Logistics (transportation by air, sea or land) 31.5 Customer relationship 28.4 22.5 Retail and wholesale Finance and Insurance services 15.3 R&D activities 8.5 Hotel and restaurant services 3.7 Government and public services 3.5 Real estate investment 1.8 0 10 20 30 40 50 60 70 % of enterprises

Figure 5.9: Utilisation of Hong Kong's Service Industry

6.1 Business Environment of the PRD

Changes in the business environment of the PRD have been of concern to various sections of the society. Since the 1990s, customs regulations, boundary crossing arrangements and immigration have all along been the hottest topics of discussion among Hong Kong businesses. In recent years, following the improved arrangements for the import and export of goods through customs, discussions of topics relating to the relevant issues seem to have decreased. Instead, they seem to have been replaced by topics about the shortage of labour and electricity, and the pollution of the environment.

This survey measured the views of Hong Kong businesses on the business environment of various cities in the PRD. The questionnaire measured such views in five areas: (1) government policies; (2) legal protection; (3) production operations; (4) infrastructure and support services; and (5) the social, cultural and natural environment. We used 34 indicators to measure the satisfaction of Hong Kong businesses with the business environment of Guangdong, with 1 mark representing unsatisfied, 3 marks representing neutral, and 5 marks representing satisfied; overall satisfaction was measured by averaging the scores. Low scores represent low satisfaction, and vice versa.

Of the five areas, production operations was the area which Hong Kong businesses felt most satisfied about and gave it an average score of 3.32; this was followed by legal protection and infrastructure and support services, with an average score of 3.29 for each. Satisfaction with government policies had an average score of 3.24. The average score for social, cultural and natural environment stood lowest at 3.08. In comparison with the findings of Made in PRD (2003), Hong Kong businesses showed the biggest increase in satisfaction for government policies and legal protection in the cities of Guangdong. The scores given to various cities of Guangdong by Hong Kong businesses in respect to government policies and legal protection in the previous survey were 2.52 and 2.43, respectively. At that time, the marks given to infrastructure and support services and production operations by the respondent enterprises were 3.25 and 3.19, respectively, being the highest scores then. In the present survey, the marks given by Hong Kong businesses showed a slight increase. In the previous survey, we did not measure the views of Hong Kong businesses on social, cultural and natural environment. In the present survey, we found social, cultural and natural environment to be the aspect of the nine cities in the PRD that was given the lowest score by the surveyed enterprises (Figure 6.1).



Figure 6.1: Impression of the Business Environment in the Nine Major Cities of the PRD

Figure 6.2: Changes in the Business Environment of the Nine Major Cities of the PRD in the Last Three Years



Regarding the business environment of the nine major cities in the PRD (Guangzhou, Shenzhen, Zhuhai, Zhongshan, Foshan, Jiangmen, Dongguan, Huizhou and Zhaoging) in the preceding three years, approximately 40% of the surveyed enterprises opined that there was a slight or significant improvement, and approximately 20% of the surveyed enterprises considered that there was a slight or obvious deterioration. In comparison, a higher proportion of enterprises (nearly 30%) considered that there was a slight or significant deterioration in the social, cultural and natural environment (Figure 6.2). In the previous survey, when being asked about any change in the business environment in the preceding three years, a majority of the respondent enterprises considered that Guangdong showed an improvement or significant improvement on most of the indicators, approximately 10% of them considered that there was deterioration, and less than 4% of the respondent enterprises held such views about infrastructure and support services. This survey demonstrated that Hong Kong businesses were varied in their views on the business environment of the PRD for the preceding three years, but the enterprises which considered that there had been improvement nevertheless outnumbered the enterprises which considered that there was deterioration.

Chapter 6



The various forms of charges and foreign exchange administration policies were the areas with which the highest number of the surveyed enterprises felt unsatisfied.

6.2 Government Policies

Regarding the measurement of government policies, we selected the following as a measure: (1) continuity of local policies; (2) flow of information on policies and legislation; (3) customs regulations on import and export; (4) customs regulations on inter-transfers of bonded goods for deep processing; (5) labour legislation; (6) collection of various fees and charges by local government agencies; (7) foreign exchange policies; (8) investment incentives; (9) admission scheme for talent and professionals; (10) efficiency of local government; (11) public administration co-ordination among Guangdong's cities; and (12) public administration co-ordination among adjacent provincial governments.

Approximately 40% of the surveyed enterprises were fairly satisfied or satisfied with the government policies of the PRD, approximately 30-40% of them were neutral, and approximately 20% of them were slightly unsatisfied or unsatisfied with the government policies (Figure 6.3). In comparison with the survey Made in PRD (2003), enterprises were more satisfied with the policies of the governments of the PRD than previously, and with the policies and operations of customs in particular. Previously, customs policies and operations were the two areas with which most of the respondent enterprises were unsatisfied. But the present survey showed that the dissatisfaction of surveyed enterprises with the customs had abated significantly. In the present survey, the various forms of charges, the foreign exchange administration policies, and the introduction of an admission scheme for talent and professionals were the areas with which the highest number of the surveyed enterprises felt unsatisfied.

Regarding the government policies, the average score given by the surveyed enterprises in respect to various indicators for the cities in Eastern PRD lay between 3.02 and 3.3. The satisfaction of these enterprises with government policies was only slightly higher than the general level. The scores given by these enterprises regarding flow of information and introduction of the admission scheme for talent and professionals were relatively low. 37.4% of the surveyed enterprises expressed that they were slightly satisfied or satisfied with government policies, 34.4% felt neutral and 28.2% were slightly unsatisfied or unsatisfied with them.

The surveyed enterprises were more satisfied with Guangzhou. The indicators on the government policies of Guangzhou showed that 50.2% of the enterprises were slightly satisfied or satisfied and only 4.1% expressed that they were slightly unsatisfied or unsatisfied, making Guangzhou the city with the lowest level of dissatisfaction among the nine major cities in the PRD. The scores given to various indicators on the government policies of Guangzhou lay between 3.47 and 3.56. The differences of scores given to various indicators were small. The data reflected a high level of satisfaction with the government policies of Guangzhou among Hong Kong businesses, and, furthermore, most of them considered that there had been continuing improvements to the government policies of Guangzhou in the preceding three years.

The scores given by the surveyed enterprises in respect to various indicators on the cities in Western PRD lay between 3.11 and 3.37. The satisfaction of these enterprises with government policies was only average. The scores for information flow on policies and legislations were the lowest. 40.9% of the surveyed enterprises expressed that they were slightly satisfied or satisfied with government policies; 34.7% felt neutral about them, and 24.4% were slightly unsatisfied or unsatisfied with them.

About 43% of the surveyed enterprises considered that there was a slight improvement or improvement in the government policies of the nine major cities of the PRD when compared with the preceding three years. Meanwhile, as high as 36.5% of the surveyed enterprises considered that there was no change. 20.6% of the surveyed enterprises considered that there was a slight deterioration or deterioration in this respect.

Figure 6.3: Assessment of the Policies of the Governments of Nine Major Cities in the PRD



6.3 Legal Protection

The quality of work of law enforcement, honouring commercial contracts, and protection of intellectual property rights are three important indicators for measuring legal protection. 41.8% of the surveyed enterprises were slightly satisfied or satisfied with the legal protection of the nine major cities in the PRD. 38.3% of the surveyed enterprises expressed that they felt neutral about the legal protection, and 19.9% expressed that they were slightly unsatisfied or unsatisfied. Surprisingly, the score for protection of intellectual property rights given by the surveyed enterprises was 3.4, the highest score of indicators for measuring legal protection. In previous study, this was the less satisfied area in the PRD (*Figure 6.4*).

To compare the current state with the preceding three years, 41.2% of the surveyed enterprises considered that there was a slight improvement or improvement in legal protection in the nine major cities of the PRD. However, as high as 38.2% of them indicated that there was no improvement. 20.5% opined that there was in fact a slight deterioration or deterioration.







Figure 6.4: Assessment of Legal Protection in the Nine Major Cities in the PRD



The data reflected a high level of satisfaction with the government policies of Guangzhou among Hong Kong businesses.

6.4 Production Operations

Regarding production operations, we selected six indicators, namely (1) costs and supply of workers; (2) quality of local universities and R&D centres; (3) quality of management staff; (4) quality of skilled workers; (5) quality of non-skilled workers; and (6) local supply of raw materials. Regarding production operations, 43.3% of the surveyed enterprises in the nine major cities of the PRD expressed that they were slightly satisfied or satisfied; 37.6% expressed that they felt neutral; and 19.1% were slightly unsatisfied or unsatisfied. The scores given by the surveyed enterprises to the quality of management staff, quality of skilled workers and guality of non-skilled workers were 3.35, 3.37 and 3.35 respectively, the three highest satisfaction factors of the surveyed enterprises. The score given by the surveyed enterprises to the quality of local universities and R&D centres was only 3.22, a low satisfaction factor in the survey. Most of the surveyed enteprises expressed their dissatisfaction with the quality of local universities and R&D centres in the Eastern and Western PRD cities (Figure 6.5).

Regarding Guangzhou, a city in the central part of the PRD, the scores given by the surveyed enterprises to production operations ranged between 3.44 and 3.59, which were obviously higher than the scores given to the eastern and western cities of the PRD. The three operation factors which scored high marks were: quality of local universities and R&D centres, quality of management staff, and quality of skilled workers. 48.9% of the surveyed enterprises expressed that they were slightly satisfied or satisfied with the production operations. 47.5% expressed that they felt neutral about the production operations, and only approximately 3.6% were slightly unsatisfied or unsatisfied with it.

To compare the current state with the preceding three years, 43.4% of the surveyed enterprises considered that there was a slight improvement or improvement in production operations in the nine major cities of the PRD. However, as high as 37% of them indicated that there was no change. 19.6% opined that there was a slight deterioration or deterioration.



Small-Sized Enterprises: Environmental Protection and Labour Shortage

Mr Zhang established a food factory in Dongguan by processing supplied materials. He opined that environmental issues had been very worrying in recent years. What impacted his food factory the most was the ban on using coal boilers. Using heavy oil, will incur higher costs. An alternative was to use natural gas. Natural gas pipelines were mostly laid out in Guangdong. The installation cost was RMB 2 million, and the cost was cheaper than that of heavy oil. Although the monthly cost was reduced, the installation cost was high and the recovery period was long. At present, the natural gas pipelines have reached Dongguan but not yet to Feng Gang. Mr Zhang visited Shanghai and found that Shanghai no longer approves the use of any type of boiler, whether it is a coal boiler, rubbish boiler, heavy oil boiler or natural gas boiler, while Dongguan only places restriction on the fuels.

In addition to environmental protection, the remuneration of workers had increased at an annual rate of 20%. In the past, the monthly salary of workers was RMB 600, but the average minimum wage had now risen to RMB 1,000. There was a higher mobility of labour. There were increasing choices of work and increasing welfare, local government labour protection, and social security in force. In addition to workers' wage payment, enterprises are required to make a monthly contribution to an insurance company in an amount equivalent to 20-30% of workers' monthly wages. Social security is jointly contributed to by workers, companies and the government. In fact, the workers considered their "monthly nominal salary" and did not take into account the abovementioned underlying costs. In the early years of social security insurance, local governments implemented it progressively. The proportion of social security to be taken out by factory owners for workers has increased progressively.

Labour insurance is usually taken for all workers. However, given that there is a high mobility of labour, the non-flexible policy design of insurance companies only results in additional costs. Insurance cannot be taken on a non-registered basis and has to be taken for at least a year; it cannot be taken for a shorter period. Also, the premium will not be returned after a worker resigns.

Mr Zhang's factory usually only take insurance for workers who had worked for more than one month. Recently, however, there was a serious accident. A worker who had been employed for less than a month was injured and subsequently hospitalised in the intensive care unit. The factory had to pay the hospitalisation fee in full. In contrast, insurance companies in Hong Kong accept unregistered policies, and the terms of policies are more flexible. Although this is an attractive option for Mainland factories, they are not permitted to take insurance policies with Hong Kong insurance companies.

The implementation of Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA) seems to have increased the convenience for and reduced the restrictions on investment in Hong Kong and China. However, Mr Zhang said that establishing a factory in Dongguan was subject to increasingly stringent restrictions. For example, earlier registered capital requirement for establishing a factory was RMB 4 million, but now had gone up to RMB 8 million.

6.5 Infrastructure and Support Services

Regarding infrastructure and support services, we selected the following factors as a measure: (1) electricity supply; (2) water supply; (3) transportation infrastructure; (4) telecommunication services; (5) financial/banking services; (6) production technology support; (7) information technology support; and (8) professional services (e.g. accounting and legal services). Regarding infrastructure and support services, an average of 43.3% of the surveyed enterprises in the nine major cities in the PRD expressed that they were slightly satisfied or satisfied with them; 35.6% expressed that they felt neutral, and 21.1% were slightly unsatisfied or unsatisfied (*Figure 6.6*).

In Made in PRD (2003), the factors in respect to which the largest number of companies expressed slight satisfaction or satisfaction were transportation infrastructure, telecommunication services, water supply and electricity supply. In this survey, the satisfaction of Hong Kong investors with transportation infrastructure and telecommunication services was still high. The score given by the surveyed enterprises were 3.37 and 3.42 respectively, with higher satisfaction level. However, water supply, electricity supply and professional services (e.g. accounting and legal services) became three of the items with which Hong Kong investors felt unsatisfied. In terms of scoring, the marks given by the surveyed enterprises to water supply, electricity supply and professional services (e.g. accounting and legal services) in the present survey were only 3.11, 3.19 and 3.27 respectively.



Figure 6.6: Assessment of the Infrastructure and

For Guangzhou, the scores given by the surveyed enterprises to its infrastructure and support services were obviously higher than the scores given to the eastern and western cities of the PRD. Transportation infrastructure, telecommunication services, water supply and electricity supply were the four infrastructure and support factors of Guangzhou to which the surveyed enterprises gave higher scores. 54.7% of the surveyed enterprises were slightly satisfied or satisfied with the infrastructure of Guangzhou; 42.6% felt neutral about the infrastructure of Guangzhou, and only 2.7% were slightly unsatisfied or unsatisfied.

To compare the current state with the preceding three years, 42.8% of the surveyed enterprises said that there was a slight improvement or improvement in the nine major cities of the PRD. However, as high as 36.2% considered that there was no change; 20.9% considered that there was a slight deterioration or deterioration.

6.6 Social, Cultural and Natural Environment

We selected the following five factors as a measure of satisfaction with the social, cultural and natural environment: (1) public security; (2) convenience and comfort of life; (3) medical and health services; (4) children's education services; and (5) quality of living environment (greenery, air guality, etc.). Compared to the indicators in government policies, legal protection, production operations, and infrastructure and support services, the satisfaction level of surveyed enterprises for social, cultural and natural environment was comparatively low, with the overall score being 3.08 only. The score given by the surveyed enterprises to public security, convenience and comfort of life, medical and health services, children's education services, and quality of living environment were 3.05, 3.08, 3.24, 3.19 and 2.84 respectively. Except for the medical and health services which got a score of about 3.24, the scores for other indicators were lower than the overall score for business environment. It reflected the lower satisfaction level of the surveyed enterprises with PRD in the area of social, cultural and natural environment (Figure 6.7).

In Guangzhou, the scores given by the surveyed enterprises to various social, cultural and natural environment indicators ranged between 3.34 and 3.84, and were obviously higher than the scores given to the eastern and western cities of the PRD. The score given to public security was only 3.34, the lowest among the scores given to various business environment indicators of Guangzhou. The scores given to the quality of living environment and children's education services were high, making them the two factors with the highest scores among the various business environment indicators of Guangzhou. 56.8% of the respondents expressed that they were slightly satisfied or satisfied with the social, cultural and natural environment; 39.7% felt neutral about it, and 3.5% were slightly unsatisfied or unsatisfied.

The scores given by the surveyed enterprises to the quality of the living environment in various cities in the PRD differed widely (*Figure 6.8*). The score given by the surveyed enterprises to the quality of living environment in Guangzhou was 3.84, the highest among the scores given to various business environment indicators. On the other hand, the scores given by the surveyed enterprises to the quality of living environment in the eastern and western cities of the PRD were 2.64 and 2.65 respectively, the lowest among various business environment indicators. The data reflected that Guangzhou compared quite favorably with other cities in the PRD in terms of quality of living environment.

Figure 6.7: Assessment of the Social, Cultural and Natural Environment of Nine Major Cities in the PRD



Figure 6.8: Scores for Business Environment of the Cities in Eastern, Central and Western PRD



In comparison with the preceding three years, 38.1% of the surveyed enterprises considered that there were a slight improvement or improvement, but there was also a high proportion (33.7%) who considered that there was no improvement, and 28.2% considered that there was a slight deterioration or deterioration, making it the factor considered by the largest number of Hong Kong businesses to be deteriorating among all business environment indicators. In particular, nearly 45% of the surveyed enterprises considered the quality of living environment (greenery, air quality, etc.) of the PRD to be slightly deteriorating or deteriorating.

In conclusion, a comparison of the average scores of the cities in the eastern, central and western part of the PRD demonstrated that Hong Kong businesses had higher satisfaction with Guangzhou, a city in the central part. "Social, cultural and natural environment" was given the highest score. The eastern and the western parts of the PRD had the lowest score. The average scores of the eastern cities in various areas were slightly lower than their western counterparts. The differences in the scores of the eastern cities in the PRD, namely Shenzhen, Dongguan and Huizhou, were not significant. The differences in the scores of the scores of the exception of Zhaoqing, were not significant, and were very approximate to the scores of the cities in the PRD.



The various types of taxes and charges paid by the surveyed enterprises accounted for 9.8% of the operating costs.

6.7 Problematic Issues in Guangdong

In *Made in PRD* (2003), 97% of the Hong Kong businesses surveyed had encountered problems of various kinds in business operation, and only 3% of them had not encountered any problems. In the present survey, 62% of the surveyed enterprises expressed that they encountered problems in business operation, and 38% of them did not encountered any problems. It can be deduced from the above that the business environment of Guangdong had been improving progressively.

In Made in PRD (2003), the five major problematic issues faced by Hong Kong businesses in Guangdong were customs regulations on import and export, customs regulations on inter-transfers on bonded goods for deep processing, collection of various fees and charges by local government agencies, labour regulations, and foreign exchange regulations. All the five major problems originated from government policies. In the present survey, the enterprises in the nine major cities of the PRD considered the following as the five major problems: collection of various fees and charges by local government agencies, customs regulations on import and export, electricity shortage, labour shortage, and taxation (individual income tax). The surveyed enterprises opined that three of the five major problematic issues originated from government policies, while electricity shortage and labour shortage were related to local resources. Although foreign exchange regulations are yet to be perfected, they are no longer one of the five major problems faced by Hong Kong businesses in conducting business in Guangdong.

This present survey requested respondents to grade each of the problems on a scale of 1 to 5, with the highest grade denoting the most troublesome issue. The issue which scored the highest mark was collection of various fees and charges by local government agencies, with 71.4% of the enterprises considering it to be a major issue. The second was customs regulations on import and export, with 55.6% of the enterprises considering it to be one of the major problems. Lack of electricity supply was bemoaned by 42.6% of the enterprises and 36.3% bemoaned labour shortages as major problems in business operation, while 40.1% of the surveyed enterprises considered taxation to be one of the five major problems in business operation (*Figure 6.9*).



Figure 6.10: Taxes and Charges in the Nine Major Cities of the PRD



6.8 Taxes and Charges in the Nine Major Cities in the PRD

In both the previous survey and the present survey, the respondents were greatly troubled by the various types of taxes and charges levied on the Mainland. In the previous survey, collection of various types of taxes and charges was the third biggest trouble of business operation. Following the gradual improvement in customs supervision on import and export activities, collection of various types of taxes and charges became the biggest trouble faced by Hong Kong businesses in the PRD.

To calculate by the proportion of operation costs, the various types of taxes and charges paid by the surveyed enterprises accounted for 9.8% of the operating costs. They considered this to be a very high proportion of their business operation. In Shenzhen, Dongguan, and Huizhou, the various types of taxes and charges levied by local government accounted for 10.5%, 9.7% and 9.2% of the operating costs of the surveyed enterprises, respectively. In Guangzhou, the various types of taxes and charged paid by the surveyed enterprises to the local government accounted for 10.3% of the operating costs. In Zhuhai, Zhongshan, Jiangmen, Foshan, and Zhaoging, cities in the western part of the PRD, the various types of taxes and charges paid by the surveyed enterprises to the local governments accounted for 10.4%, 9.6%, 6.1%, 11.2% and 10.3% of the operating costs, respectively (*Figure 6.10*).

The various taxes and charges of the government are divided into central taxes¹, local taxes, and district and township levies and charges. The surveyed enterprises in the PRD expressed that, in terms of the proportion of the total taxes, levies and charges of the government, 38.7% was central taxes, 44.9% was local taxes, and 16.5% was charges and fines levied by district and township government.

¹ In 1994, China carried out a financial system reform to divide the taxation system. Division was made based on levying administration authority and tax allocation authority. The tax revenue is divided into three kinds: (1) Central taxes include: value-added tax, consumption tax, business tax, enterprise income tax, profit tax of foreign investment enterprises and sales tax paid centrally by railways, head offices of bank, and head offices of insurance companies and so on. (2) Local taxes include: sales tax, urban construction tax (except for those levied by the state administration for taxation), enterprise income tax, individual income tax, resources tax, urban and township land use tax, land value-added tax, real estate tax, tax on vehicles and vessel, stamp tax, and so on. (3) Taxes shared between central and local government include: value-added tax, income tax, resources tax, and securities transaction stamp tax.

6.9 Disputes in the Past Year and Effective Resolution

In the past one year, only 6.4% of the surveyed enterprises were involved in disputes, and the rest were not. Of the enterprises which were involved in various forms of disputes, 34.6% were involved in commercial disputes with business partners, one-third in disputes with the law-enforcement agencies of the government, 13% in intellectual property rights disputes, and 34.6% in labour disputes. The accumulated economic losses of these enterprises accounted for approximately 10% of the total taxes paid to governments at various levels on the Mainland. Regarding the most effective method of dispute resolution, 61.6% of the surveyed enterprises opined that the most effective way was through the local government, followed by the Mainland's judiciary system (28.7%), direct private negotiations (18.2%) and negotiations through private channels (e.g. partners) (15.5%). Only 6.4% considered that there was no effective way to resolve disputes (*Figure 6.11*).



Research & Development

7.1 Research and Development in PRD cities

In our survey, 2,529 enterprises were interviewed and 899 or 35.5% of them expressed that they carried out research and development (R&D) activities. In Guangzhou, Foshan, Huizhou and Zhuhai, the proportion of surveyed enterprises conducting R&D was relatively high, amounting to 71.4%, 46.8%, 43.5% and 41.1% respectively. In Shenzhen and Dongguan, the proportion of surveyed enterprises conducting R&D activities were 32% and 30.2% respectively. In Zhongshan, Zhaoqing and Jiangmen, these figures were low: only 18.4%, 6.8% and 4.5% respectively (*Figure 7.1*).

The proportion of Hong Kong-funded enterprises conducting R&D was higher (41.5%) than that of Hong Kong-funded enterprises in OCFs (29.1%). Regarding the surveyed enterprises with R&D activities in the PRD, designing and developing new products or new functions were the principal R&D activities carried out by them and accounted for 66.5% of all enterprises with R&D activities, while developing new materials accounted for 20.1% and developing new production technology accounted for 15.7% of the surveyed enterprises with R&D activities.

Figure 7.1: R&D Activities of All Enterprises in the Nine Major Cities of the PRD



Figure 7.2: R&D Expenditure to Turnover Ratio of the Enterprises in the Eastern, Central and Western Cities of the PRD





About 65% of the surveyed enterprises did not carry out any R&D activities, which indicated that most of the PRD factories invested in by Hong Kong businesses had the characteristics of a low technology industry.

7.2 The Ratio of R&D Expenditure to Total Turnover

A generally acknowledged rule of thumb for R&D expenditure is that if it accounts for less than 0.7% of the total turnover, the manufacturing industry is a low technology industry; 0.7-1.5% makes it a medium-low technology industry; 1.5-5%, a medium-high technology industry; and over 5%, a high technology industry.¹

About 65% of the surveyed enterprises did not carry out any R&D activities, which indicated that most of the PRD factories invested in by Hong Kong businesses had the characteristics of a low technology industry. The median ratio of R&D expenditure of the surveyed enterprises to their turnover was 2-3%. Eight per cent of the enterprises had an R&D expenditure to turnover ratio of less than 1%; 37.9% had a ratio of 1-2%; 20% had 2-3%; 10.8% had 3-4%; 15.8% had 4-5%; and 7.5% had a ratio of 5% or more (*Figure 7.2*). The median R&D expenditure to turnover ratio of the surveyed enterprises in the eastern, central and western cities of the PRD were 2-3%, 1-2%, and 2-3% respectively. In Guangzhou, a city in the central part of the PRD, over 70% of the surveyed companies carried out R&D activities. However, 88.2% of them had an R&D expenditure to turnover ratio of less than 3%. In the eastern cities of the PRD, 34% of the surveyed enterprises carried out R&D activities, and approximately half of them had an R&D expenditure to turnover ratio of less than 3%, and the other half over 3%. In the western cities of the PRD, 23.2% of the surveyed enterprises carried out R&D activities, and 63.7% of them had an R&D expenditure to turnover ratio of less than 3%, and the rest, over 3%. It can be deduced from the above data that of the Hong Kong businesses in Guangzhou, a relatively high proportion carried out R&D activities, but the R&D expenditure to turnover ratios were relatively low. In Shenzhen, the median R&D expenditure to turnover ratio of enterprises set up by Hong Kong investors was nearly 4%, which was the highest among the nine major cities.

Chapter 7



Most of the surveyed enterprises outsourced their R&D activities to Hong Kong's commercial organisations and to universities in Mainland China.

7.3 High Calibre R&D Experts

The surveyed enterprises which conducted R&D activities were more inclined to hire employees with a tertiary education than those without. Employees with a tertiary education accounted for 9.5% of the employees of all surveyed enterprises, 13.7% of the employees of enterprises with R&D activities, and 7.3% of the employees of enterprises without R&D activities (*Figure 7.3*). 5.5% of the employees of the surveyed enterprises with R&D activities (*Figure 7.4*).

The percentage of employees with a tertiary education employed by enterprises with R&D activities in the eastern, central and western parts of the PRD was 13.5%, 14.1% and 13.4%, and the ratio of actual R&D personnel was 5.2%, 6.7% and 4.4% respectively. Meanwhile, employees with a tertiary education only accounted for 6.9%, 11.5% and 6.9% of the employees of enterprises without R&D activities in the eastern, central and western parts of the PRD respectively.

The outsourcing of R&D activities was not widely adopted by the surveyed enterprises. About 95% of the enterprises carried out their own R&D activities and did not have any co-operation with other organisations. Only 5% of them expressed that they outsourced R&D activities. Regarding the regions of outsourcing, most of the surveyed enterprises outsourced their R&D activities to Hong Kong's commercial organisations and to universities in Mainland China.

 20%

 15%

 10%

 13

 2.1

 1.4

 1.9

 5%

 12.2

 6.5

 0%

 With R&D

 No R&D

 All Sample

Bachelor or college



Master's degree or PHD



Figure 7.3: Proportion of Employees with Tertiary Education

7.4 Considerations in Establishing R&D Organisations and Difficulties Encountered at Present

About 67% of the surveyed enterprises believed that supply of talent was the most important factor in R&D activities. Regarding other factors, overall R&D costs, research facilities and protection of intellectual property rights were considered to be nearly the same in importance and were respectively selected by 55.7%, 53.7% and 53.3% of the surveyed enterprises (*Figure 7.5*). In addition, 48.8% of the enterprises considered that free flow of information was also a factor in determining a location for R&D activities.

Regarding R&D activities for design and development of new products or new functions, development of new production technology, and development of new materials, 76.4% of surveyed enterprises said they carried them out in Guangdong, 47.2% said they did it in Hong Kong, 20.9% in other cities in Mainland China and 16.2% in Taiwan (*Figure 7.6*). Most of the surveyed enterprises thought that it was more difficult to carry out R&D activities in Guangdong and Hong Kong than in Mainland China and Taiwan.



Figure 7.5: Factors Determining R&D locations

Figure 7.6: Difficulties Encountered in R&D Activities in Guangdong, Other Cities in Mainland China, Hong Kong and Taiwan











Approximately 60% of the surveyed enterprises thought that high R&D costs and insufficient supply of highcalibre R&D experts were the two principal difficulties in carrying out R&D activities in Guangdong. 45.9% considered insufficient protection of intellectual property to be the third difficulty (*Figure 7.7(1)*). Approximately 30-40% of the surveyed enterprises thought the insufficiency of local technological support for scientific research, difficulties in obtaining technology transfer, and difficulties in identifying and sourcing R&D partners to be the major difficulties in carrying out R&D activities in Guangdong.

This survey indicated that nearly 80% of the enterprises considered high R&D costs to be the greatest difficulty for R&D activities in Hong Kong, and approximately 50% considered difficulties in obtaining technology transfer and difficulties in identifying and sourcing R&D partners to be the other two major difficulties in carrying out R&D activities (*Figure 7.7(2)*).



Hong Kong was a region of low R&D expenditure and high per capita average income.

7.5 Future R&D Plans

Although the surveyed enterprises encountered various difficulties in R&D activities in Guangdong and Hong Kong, 45.3% of them said they would employ more R&D staff in the coming two or three years and 42.8% would increase their R&D expenditure (*Figure 7.8*). Only less than 2% of them would reduce their R&D activities. Meanwhile, over half of them decided to maintain the status quo or were yet to determine their R&D plans for the coming two or three years.

Of the surveyed enterprises in Dongguan, Shenzhen and Huizhou, 51.9%, 51.1% and 34% would increase their R&D expenditure respectively, and 53.9%, 51.6% and 37.9% would employ more R&D staff. 32.8% of the surveyed enterprises in Guangzhou reported they would increase their R&D expenditure and employ more R&D staff. Of the surveyed enterprises in Zhaoqing, Zhuhai, Zhongshan, Foshan and Jiangmen, 62.1%, 44.7%, 42.5%, 39.9% and 17.9% respectively said they would increase their R&D expenditure, and 62.6%, 51.2%, 56.1%, 36.1% and 19.4% respectively said they would employ more R&D staff.

Figure 7.8 (1-2): Future R&D Plans



7.6 Plans for Production Expansion

When being asked about their plans for production expansion, most of the enterprises were optimistic. 65.8% of them claimed that they would scale up their local production and less than 1% would scale it down (*Figure 7.9(1)*). Others expressed that they would not change their present scale or that they had not made any decision yet. 31% of them expressed that they would scale up their production in the other cities of Guangdong, while 6.1% would scale it down (*Figure 7.9(2)*).







Multinational enterprises played a leading role in global R&D activities and, globally, half of the world's R&D expenditure was spent by multinational enterprises.

7.7 Source of Funds for Expansion

Since the surveyed enterprises had gradually developed their domestic sales and some of their customers had moved to Mainland China, not all of the funds for business expansion came from abroad. Enterprises with high proportions of domestic sales were more inclined to obtain expansion funds within Mainland China. 31.1% of the surveyed enterprises obtained their expansion funds on the Mainland, 23.5% obtained approximately half of their expansion funds from the Mainland and the other half from abroad, and 45.4% obtained all of their expansion funds from abroad (*Figure 7.10*).

For both Hong Kong-funded enterprises and Hong Kong-funded enterprises in OCFs, enterprise profits and capital injected by shareholders were the two principal sources of funds in Mainland China. Of the surveyed enterprises, 80.5% considered enterprise profits and 30.2% considered capital injected by shareholders to be the main source of funds for their business development. Compared with Hong Kong-funded enterprises in OCFs, Hong Kong-funded enterprises seldom relied on banks and co-operative societies of credit for loans, nor on civil loans for expansion funds. 24.9% of Hong Kong-funded enterprises used loans from banks and co-operative societies of credit for expansion funds and 2.3% used civil loans; these figures were 39.4% and 8.3% for Hong Kong-funded enterprises in OCFs. Meanwhile, Dongguan and Foshan had 27.2% and 21% of Hong Kong-funded enterprises in OCFs using civil loans, being the cities having the highest proportion of expansion funds among their counterparts (Figure 7.11).

Figure 7.10: Proportion of Expansion Funds from Mainland China and from Abroad





Figure 7.11: Sources of Domestic Funds

7.8 R&D Indicators of the Organisation for Economic Cooperation and Development ("OECD") and Asian Economies

An increasing number of countries are attaching importance to R&D activities. During the period 2000-2004, most of the OECD members increased their R&D expenditure and those in Asia were no exception. In 2004, the R&D expenditure of South Korea, Taiwan and Singapore accounted for 2.85%, 2.56% and 2.25% of their GDP respectively. The first two were higher than the average of those of the OECD members and the last was very close to it. Although Hong Kong, one of the Four Dragons, recorded an increase in R&D expenditure in the past few years, its R&D expenditure to GDP ratio was 0.74% as of 2004, which obviously fell behind that of South Korea, Taiwan and Singapore (*Table 7.1*).

The R&D expenditure to GDP ratio of China increased from 0.9% in 2000 to 1.23% in 2004 and further to 1.34% in 2005, although China still fell far behind the OECD members in its R&D expenditure to GDP ratio. Nonetheless, with its 926,000 full-time equivalent (FTE) researchers in 2004, China ranked second in terms of the number of researchers in the world. Regarding the amount of R&D expenditure, China ranked sixth in the world as early as in 2002.²

From 2000 to 2004, 95% of the utility patents granted by the United States Patent and Trademark Office belonged to OECD members. If the number of utility patents per 1,000 researchers was used as a yardstick for the scientific research achievements of each country, Taiwan's scientific research achievements would be obvious, and were higher than the average of the OECD members. The scientific research achievements of China and Hong Kong were still far below the average of the OECD members, and most of the achievements made in China and Hong Kong were actually made by foreign organisations instead of local enterprises. Excluding some oil producing countries with abundant resources, and based on prevailing standards for measuring R&D expenditure, Hong Kong was a region of low R&D expenditure and high per capita average income. In 2005, the revenue of the service industry accounted for over 90% of the GDP of Hong Kong. At present, the statistics on R&D activities focus on the manufacturing industry. The collection of data on the R&D expenditure of the service industry did not start until recently. Some countries taking systematic statistics of R&D expenditure of the service industry have noticed an interesting phenomenon: the R&D expenditure to sales volume ratios were usually higher in the case of service enterprises than in the case of manufacturing enterprises.

The World Investment Report of 2005 pointed out that the following trend had been developing in global R&D activities since the 1990s:

- (1) The number of multinational enterprises which set up overseas R&D centres had been increasing since the 1990s. For instance, the number of overseas R&D centres set up by Germany in the 1990s was bigger than the accumulated total of the past 50 years.
- (2) Multinational enterprises played a leading role in global R&D activities and, globally, half of the world's R&D expenditure was spent by multinational enterprises. In 2003, the R&D expenditure of six multinational enterprises (Ford Motor, Pfizer, DaimlerChrysler, Siemens, Toyota Motor and General Motors) exceeded USD5 billion, which was larger than the national expenditure on R&D of many developing countries.

² United Nation Conference on Trade and Development, World Investment Report 2005.

- (3) Seven hundred of the largest multinational enterprises spent more than 80% of their R&D expenditure in the United States, Japan, Germany, England and France.
- (4) The R&D expenditure of these enterprises were mainly incurred for a small number of industries. In 2003, over 70% of the R&D expenditure was incurred on IT hardware, automotive, pharmaceuticals and biotechnology, electronic and electrical, and IT software and computer services.
- (5) The R&D expenditure incurred by the overseas branches of multinational enterprises increased from 10% of their global R&D expenditure in 1993 to 16% in 2002. Over 50% of the R&D expenditure of Singapore were incurred by the overseas branches of multinational enterprises. It is particularly significant to countries which seek to enhance their scientific and technological strengths to engage the attention of multinational enterprises, as this means the introduction of new technologies and high-calibre R&D experts to these countries.

	R&D percen GI	as a tage of DP	R	&D expendit performed	ture % l by	Total Re: Full Time	searchers Equivalent	Number of Utility Pat- ents Granted by USPTO	Number of Utility Patents Per 1000 FTE researchers
	2000	2004	Industry	Higher Education	Government	2000	2004	2000-2004	2000-2004
OECD Members Economies									
Total OECD	2.23	2.26	67.9	17.1	12.5	3,363,301	3,559,133	782,690	45.2
United States	2.74	2.68	70.1	13.6	12.2	1,261,227	1,334,628	257,240	39.6
Japan	2.99	3.13	75.2	13.4	9.5	647,572	677,206	170,243	51.4
South Korea	2.39	2.85	76.7	9.9	12.1	108,370	156,220	19,010	28.7
European Union-25	1.77	1.81	63.3	22.1	13.4	969,143	1,178,116	131,028	24.4
Non-Member Economies									
China	0.90	1.23	66.8	10.2	23.0	695,062	926,252	1,304	0.3
Hong Kong	0.48	0.74	41.0	56.0	2.0	9,149	18,846	1,236	17.7
Taiwan	2.06	2.56	62.5	12.0	24.9	55,460	72,720	26,705	83.3
Singapore	1.89	2.25	64.4	11.6	23.4	16,740	21,359	1,800	18.9

Table 7.1: Main Science and Technology Indicators in OECD and SelectedNon-member Asian Economies, 2004

Source : OECD, Main Science and Technology Indicators, 2006 Volume 1; Statistics on Research and Development in HK (1999-2003), Hong Kong Monthly Digest of Statistics June 2006

7.9 China's R&D Expenditure

As of 2004, there were 700 foreign-invested enterprises with R&D centres in China, mainly located in Beijing, Shanghai, Tianjin, Suzhou, Nanjing, Shenzhen, Dongguan, Dalian, Qingdao, Guangzhou, and Chengdu.³ Motorola, which had taken the lead in setting up an R&D centre in Beijing before 1990, had set up 15 R&D centres in Beijing, Shanghai, Tianjin, Suzhou and Nanjing and so on. General Electric, Microsoft, Nokia and Intel had R&D centres in Beijing, Shanghai and Hangzhou and so on.

A survey conducted by the United Nations on multinational enterprises indicated that China became the third choice of multinational enterprises for locations of R&D centres in 2004,⁴ and 35.3% of the respondent enterprises had already set up R&D centres in China. Approximately 70% of them expressed that they would scale up their overseas R&D centres from 2005 to 2009. As many as 61.8% of the respondent enterprises considered China to be the ideal place for their R&D centres in the future. China was also the country selected by the largest number of multinational enterprises for setting up their R&D centres.

To invite and encourage multinational enterprises to set up R&D centres in China is one of the objectives of China's Eleventh Five-Year Plan.⁵ In fact, results of the efforts by Beijing to encourage the establishment of R&D centres and attract talent were gradually surfacing. In 2005, R&D expenditure accounted for 5.55% of the GDP of Beijing, being the highest percentage among all cities in China. In 2005, Beijing had 170,000 FTE researchers, and residents with tertiary education accounted for 23.6% of its population. The percentages of both FTE researchers and residents with tertiary education were the highest among all the cities in China (*Table 7.2*).

In 2005, the R&D expenditure of Beijing, Guangdong and the YRD (Shanghai, Jiangsu and Zhejiang) accounted for 51.7% of the total R&D expenditure of China. In terms of R&D expenditure, the proportion of R&D expenditure to the GDP, and the total number of full-time researchers in China, Guangdong ranked second, sixth and second in 2001 and ranked third, tenth and third in 2005 respectively. In Guangdong, R&D expenditure was mainly incurred on the manufacturing industry and R&D personnel mainly worked in this field. In 2001, Guangdong ranked first in terms of the above indicators in China. In 2005, Guangdong still ranked first in R&D expenditure but ranked second in the number of R&D researchers, following Jiangsu closely.

³ United Nation Conference on Trade and Development, World Investment Report 2005.

⁴ America and England are the first and second choices.

⁵ In 2003, R&D expenditure in China accounted for 23.7% of the commercial R&D expenditures of foreign-invested enterprises.

Table 7.2: R&D Expenditure and Personnel of Some Provinces of China and Hong Kong in 2005

												Hong Kong (2004)
	China	Beijing	Rk	Shanghai	Rk	Jiangsu	Rk	Zhejiang	Rk	Guangdong	Rk	(HKD100 Mn)
Total R&D (RMB 100 Mn)	2,450.0	382.1	1	208.4	4	269.8	2	163.3	8	243.8	3	95.1
As % of GDP	1.33%	5.55%	1	2.28%	3	1.47%	6	1.22%	8	1.09%	10	0.74%
Scientific Research Institutions	513.1	182.0	1	44.9	3	31.8	5	11.6	9	8.0	15	2.1#
Higher Education	242.3	36.6	1	23.7	2	23.0	3	13.9	5	12.2	8	47.1
Large & Medium Enterprises	1,250.3	39.6	7	107.9	4	175.8	2	92.4	5	180.4	1	4E 0*
Other Units	444.3	123.9		31.8		39.1		45.4		43.2		45.9
Total Full-time Equivalent of R&D Personnel	1,364,799	171,045	1	67,048	6	128,028	2	80,120	5	119,359	3	18,846
of which : Scientists & Engineers	1,118,698	147,591	1	56,987	6	97,232	3	60,008	5	101,223	2	14,594
-												
Scientific Research Institutions	215,263	55,050	1	16,653	4	12,326	5	3,189	20	4,618	11	353#
Higher Education	227,163	24,531	1	14,781	3	16,535	2	10,643	9	12,041	8	9,011
Large & Medium Enterprises	606,376	22,153	11	21,703	12	72,388	1	39,360	4	71,749	2	0.402*
Other Units	315,997	69,311		13,911		26,779		26,928		30,951		9,482
Number of Patents granted in 2005												
Total Domestic Patents	171,619	10,100	6	12,603	4	13,580	3	19,056	2	36,894	1	
Invention	20,705	3,476	1	1,997	2	1,241	4	1,110	5	1,876	3	
Utility	78,137	4,498	5	4,437	6	6,483	4	6,778	2	11,017	1	
Design	72,777	2,126	7	6,169	3	5,856	4	11,168	2	24,001	1	

* Business # Government

Source : China Statistical Yearbook 2006, China Statistical Yearbook on Science and Technology 2006, Hong Kong Monthly Digest, June 2006

Chapter 7



In 2005, Guangdong still ranked first in R&D expenditure but ranked second in the number of R&D researchers, following Jiangsu closely.

The annual growth rates of R&D expenditure and the total number of full-time researchers during the period 2001-2005 were 28.9% and 12.1% respectively, and the rates of the Greater PRD were 15.5% and 8.1% respectively. In the past five years, the input into R&D activities in the Greater PRD grew at a much slower rate than that of the Greater YRD.

In 2001, Guangdong ranked fourth, first and first in terms of the number of invention patents, utility models and design patents granted by the Patent Office of China, and third, first and first respectively in 2005. Using the number of patents as a yardstick for the performance of R&D activities, it was visible that Guangdong had made some progress in R&D activities in the past three years, although its R&D expenditure was smaller than that of Jiangsu in 2004. From 2001 to 2005, 1,296 utility patents and 1,783 design patents were granted by the United States Patent and Trademark Office to Hong Kong inventors. During the same period, 1,304 utility patents and 653 design patents were granted to Chinese inventors. Regarding the achievements of R&D activities , the R&D activities of the Greater PRD sustained comparison with that of the Greater YRD.

Our research revealed that approximately 20% of the respondent enterprises with R&D activities in the PRD carried out R&D activities in other regions of China as well. It can be deduced from the above that there is much room for the enterprises in the Greater PRD, Beijing and the Greater YRD to co-operate with one another in R&D activities.

Changes in the Education Demographic in China, 2001-2005

From 1990 to 2000, the number of people with a tertiary education in Guangdong grew at an average annual rate of 13.8%, higher than that of the Greater YRD during the same period, indicating that a lot of inland talent was attracted to working in Guangdong because of its rapid economic development in the 1990s. This was the case even though the colleges and universities of Guangdong were fewer in number and inferior in quality when compared to their counterparts in the Greater YRD. The 2005 population data indicated that the Greater YRD had become slightly more attractive than Guangdong as a working place, although Guangdong continued to be attractive.
A comparison between China's Population Census of 2000 and the latest one in 2005 surveying 1% of the population showed that China's tertiary education population had increased by 23.62 million and the average annual growth rate for that was 9%. In the eastern regions with rapid economic development, such as Beijing, Shanghai, Jiangsu, Zhejiang and Guangdong, the average annual growth rates for people with tertiary education were above the national average. From 2001 to 2005, the number of people with tertiary education in Guangdong increased by 1.95 million, and the average annual growth rate was 10.4%, slightly lower than 11.2% of the Greater YRD (Figure 7.12). According to the results of 2006 Population By-census in Hong Kong, population with tertiary education in Hong Kong increased by 442,973 in 2006 compared with that in 2001. The average annual growth of population with tertiary education rose by 8.2% during the period. Although population growth in Hong Kong slowed down, the proportion of population with tertiary education to total population increased at a fast rate in the past five years.

Figure 7.12: Increase of Population with Tertiary Education in the Major Inland Provinces and Municipalities of China, 2001-2005



Source : Tabulation on the 2000 population Census of the People's Republic of China and Announcement of the results of 2005 Sample Census of China

R&D Activities of the Manufacturing Industry in the PRD in 2005

Figure A: R&D Expenditure and FTE Staff of Large and Medium-sized Enterprises in the PRD, 2005



expenditure In Guangdong, the R&D was mainly in two major industries, namely telecommunications, (1)computers and other electronic equipment manufacturing, and (2) electric equipment and machinery. Meanwhile, R&D activities were mainly carried out in Shenzhen. In 2005, Guangdong's R&D expenditure amounted to RMB 18 billion and there were 80,808 researchers in Guangdong. The R&D expenditure of the medium and largescale enterprises of Shenzhen amounted to RMB 10.2 billion, representing 56.6% of Guangdong's R&D expenditure. There were 39,083 researchers in Shenzhen, representing 48.4% of the total number of researchers in Guangdong.

In 2005, the R&D expenditure of Foshan and Guangzhou accounted for 15.3% and 9.6% of the total R&D expenditure of Guangdong, respectively, and their researchers accounted for 8.9% and 10.5% of the total number of researchers in Guangdong, respectively. The R&D expenditure and researchers in the other cities of the PRD accounted for only 14.4% and 23.5% of the total of Guangdong. The R&D expenditure and number of researchers of the cities outside the PRD accounted for only 4% and 8.7% of the total of Guangdong (*Figure A*).

7.10 Opportunities Opened up to Hong Kong

The production and service industries of Hong Kong have been integrated with that of Mainland China, and Guangdong in particular. In Guangdong, investments in R&D activities were made by industry and not the scientific research organisations affiliated to universities or government departments. From 1990 to 2000, thanks to the introduction of new talent, the population with tertiary education in Guangdong grew at a rate higher than that of China and of the Greater YRD, even though Guangdong did not have many research organisations or universities. From 2001 to 2005, the tertiary education population was attracted to Guangdong at a rate faster than the national average. However, during the same period, the Greater YRD experienced Guangdong's explosive development mode from the 1990s, whether it was regarding attracting foreign investments, increasing export volume, or attracting a population with tertiary education. In fact, it attracted the tertiary education population at a rate faster than that of Guangdong. In recent years, foreign investors gradually set up R&D centres in Beijing and Shanghai, resulting in the two places attracting scientific researchers. A survey conducted by the United Nations on multinational enterprises showed that approximately 60% of them were interested in establishing R&D centres in China from 2005 to 2009.

A statistical study conducted by the OECD showed that expatriates who were born in Hong Kong and worked in OECD member countries in 2000 totalled 587,400, of which 42.8% were highly skilled expatriates. That is to say, there were 88 persons working in OECD member countries per 1,000 Hong Kong residents in 2000, and 38 of them were highly skilled. The expatriates who were born in Mainland China and worked in OECD member countries totalled 1.65 million, and 39.6% of them were highly skilled expatriates. Approximately 30% of the Hong Kong population was born in Mainland China. It can be surmised from the above that some of the expatriates born in Mainland China must have received their education in Hong Kong, and that the number of Hong Kong expatriates who worked in OECD member countries was bigger than those from South Korea, Taiwan and Singapore.

These data showed that the capability of Hong Kong to cultivate scientific and technological professionals is quite strong. Today, while Guangdong, Beijing and the Greater YRD are seeking to invite and encourage multinational enterprises to establish R&D centres, shall Hong Kong take science and technology development as its long-term development objective? It is a challenging and meaningful topic!

Policy Recommendations

8.1 Overview of the Economic Relationship between Hong Kong and the Pearl River Delta

Hong Kong entrepreneurs were able to seize the unique opportunities that presented themselves with the opening of the PRD region, to overcome the many constraints in the business environment there, and to help build it into an economic juggernaut. As a consequence, the scale and scope of economic development in the Greater PRD went further than the wildest imaginations of all the observers and participants that were present at the beginning of this unfolding saga.

The partnership between Hong Kong and Guangdong has gradually evolved into a highly complex division of labour that no longer resembles the original model of "front-end shop and back-end factory" started in the 1980s, where the main pattern of joint ventures were in three forms of processing/assembly operations and compensatory trade. In the past, joint ventures were primarily funded by capital from Hong Kong, and knowledge of client contact and factory management were controlled by Hong Kong side. Now, however, the business model has changed into a dual pattern: combining export and domestic sales instead of concentrating only on an export-oriented mode. Hong Kong-funded enterprises and Guangdong enterprises today co-operate on a much more equal footing than they used to, and lead positions are no longer necessarily taken up by Hong Kong-funded enterprises.

In the process, the distinction between foreign-invested enterprises (FIEs) and domestic enterprises has become increasingly blurred in the PRD. Today, nearly half of the Hong Kong-funded enterprises and enterprises closely related to Hong Kong are not in the form of foreign investments, and operate in the Mainland as domestic enterprises. In addition, the ancillary facilities for industries in Guangdong are so comprehensive that these enterprises do not need to rely on Hong Kong to be their regional headquarters to handle import and export matters. Therefore, many of them do not need to be involved in complying with complicated import and export regulations imposed by customs. Most of them have been established as domestic enterprises from the very start and have spared no efforts in developing the domestic market. Like the Hong Kong-funded enterprises in other contractual forms established in the early days, they are considered domestic enterprises instead of FIEs.

In the past, any equipment brought into the Mainland for the processing and assembling of exports was exempt from import taxes and surcharges and no export tax rebates or value added taxes were involved. Nowadays, enterprises with businesses in industries supported by the state enjoy tax exemptions for importing equipment regardless of their status as foreign or domestic enterprises. The administration of export tax rebates has improved over time. Large enterprises have developed great expertise in dealing with tax-related matters, while smaller enterprises can engage import and export companies to help them deal with tax-related matters. Approximately 30% of the products of processing and assembling enterprises with imported materials can be sold in the domestic market provided that the corresponding applicable taxes have been paid. This is a far more flexible mode of operations than the old system.



After more than 20 years of opening up to the world, China has trained a large pool of its own managerial talent to staff both foreign-invested and domestic enterprises.

Traditional enterprises were primarily engaged in three forms of processing/assembly operations and compensatory trade (TFP), and they were mainly export oriented and relied heavily on imported materials. In our current survey, we found that a considerable proportion of enterprises are no longer engaged in TFP. They departed from the traditional model of relying on foreign materials and foreign markets and instead often procure materials on the Mainland and sell to the domestic market. These enterprises are very different from the enterprises established in the early 1980s.

Today, domestic enterprises that are jointly owned by Mainland and Hong Kong investors do not have to be established in the form of enterprises engaged in TFP. In addition, the division of labour between partners is on a more equal footing than before. The Mainland Chinese are now often better than their Hong Kong counterparts in managing factories. After more than 20 years of opening up to the world, China has trained a large pool of its own managerial talent to staff both foreign-invested and domestic enterprises; hence, there is less need to rely on managerial talent from Hong Kong. The advantages that their Hong Kong counterparts now have are their sensitivity to the market and their ability to source clients. In general, one would expect export-oriented enterprises to establish offices in Hong Kong, using the traditional model of a shop in the front and a factory at the back. However, we found in our survey that only half of the surveyed enterprises used this traditional model. The other half had never set up offices in Hong Kong; for them, Hong Kong was only a source of capital. These enterprises, although both their "shop" and "factory" were in the nine major cities of the PRD, would continue to make use of various services provided by Hong Kong. With the rapid improvement of the communication network and the convenience of customs clearance between Guangdong and Hong Kong, the market linkages have greatly improved and cross-border market integration has been effectively achieved. Hence, it is possible for these enterprises to use Hong Kong services without having to set up shop in the territory.

8.2 Recommendations for the Hong Kong Government

Hong Kong is an international business centre where multinational companies establish regional headquarters, regional offices and local offices. In 2006, multinational companies had already established 1,228 regional headquarters, 2,517 regional offices and 2,509 local offices in Hong Kong. These regional headquarters and overseas offices employed about 339,000 staff in Hong Kong, accounting for about 10% of the working population in Hong Kong. The parent companies of these multinational companies were mainly engaged in manufacturing, wholesaling, retailing, and import and export businesses. Their regional headquarters in Hong Kong managed businesses in four countries and regions on average, with a focus on business in Asian countries. About 87% of the regional headquarters managed business in Mainland China, of which about 72% were businesses in Guangdong. Meanwhile, these offices often managed businesses in other cities in Mainland China as well as in other Asian countries.

Hong Kong is the most direct and obvious liaison between the multinational companies and the Hong Kong-funded enterprises we surveyed in the PRD. These surveyed Hong Kong-funded enterprises were mainly engaged in original equipment manufacturing (OEM) activities, mostly for export but with a growing proportion shifting their sales efforts towards the domestic market. Companies in Hong Kong provided the essential producer services that created, bound and fuelled these global supply chains to bring together the operations of the Hong Kong-funded enterprises in the PRD with the multinational companies in Hong Kong. The vibrancy and strength of this increasingly sophisticated global supply chain is one of the key elements of Hong Kong's economic competitiveness. Promoting and sustaining the development of a vibrant production base for Hong Kong's industry in the PRD region is crucial if Hong Kong is to continue to establish itself as a hub of logistics and financial and producer services. Such a hub will need a very large and growing production base to generate a sufficient volume of money, goods and service flows. It is also important that the production base be geographically close to Hong Kong so that the demands for services can be directed to and serviced by Hong Kong service providers in the first instance. The importance of the PRD for Hong Kong is that it generates an obvious demand for Hong Kong producer services in a way that the Greater YRD would be less likely to do so. Guangdong's interest is not better served if Hong Kong's producer services are increasingly diverted to the fast growing YRD as professionals and companies continue to move away.

Maintaining a good business environment is the single most important goal of the economic policy to sustain the vibrancy of the production base in the Greater PRD region, making it a hospitable platform for connecting the production base to the global supply chain and linking it with multinational companies. A favorable business environment includes numerous elements. It means a simple tax system and low tax rates, a free flow of information, an absence of foreign exchange control, a clean government, a stable and secure policy environment, an implementation of the rule of law and judicial independence. This view is supported by the recent survey of the enterprises in the nine major cities of the PRD as shown in *Figure 8.1*.



Hong Kong will need a very large and growing production base to generate a sufficient volume of money, goods and service flows if it is to continue to establish itself as a hub of logistics, financial and producer services.

The top five measures recommended by the surveyed enterprises in our survey were: (1) maintain a good business environment, 72.2%; (2) co-ordinate Hong Kong's infrastructure development with Guangdong, 74.2%; (3) provide assistance to Hong Kong companies encountering commercial disputes in Guangdong, 67.6%; (4) strengthen Hong Kong's research and development (R&D) capabilities, 63.7%; and (5) relax the policies relating to admission of talent and technology personnel from the Mainland to Hong Kong, 48.8%. These top five recommendations are basically the same as those given in *Made in PRD* (2003).

In *Made in PRD* (2003), cross-border freight service by land transportation was considered the foremost problem that needed to be addressed. Two out of every three enterprises reported cross-border delays. In 2005, this figure had dropped significantly as the improvement in the efficiency of customs contributed to smoother logistics operations in the Greater PRD. However, 65.8% of the surveyed enterprises still believed that the flow of people and goods across the border should be accelerated. In fact, the delays in the construction of the western corridor and the plans for the Hong Kong-Zhuhai-Macao Bridge and other crossborder infrastructure facilities resulted in inconvenience and hence lack of interest from enterprises in the PRD to expand in the less accessible cities of Guangdong.

Figure 8.1: Five Top Measures for Hong Kong to Improve Business Environment



With the rapid rise of the Greater YRD and the improving efficiency of its transportation and aviation network, many manufacturers believed it was more convenient to operate a business in the YRD than in Guangdong. For Guangdong, the acceleration of the construction of transit channels with Hong Kong has a direct impact on whether cities outside the PRD can gain access to a rapid channel that connects to the international commercial and trading network, which in turn could help less accessible cities in Guangdong achieve sustainable economic development.

The provision of assistance to Hong Kong companies encountering commercial disputes in Guangdong made progress with the establishment of the Hong Kong Economic and Trade Office in Guangdong by the Hong Kong government in July 2002. In addition, the Federation of Hong Kong Industries and other chambers of commerce have gradually established their presence in Guangdong. The establishment of the Greater PRD Business Council by Hong Kong government also helps to remove the policy barriers encountered in the economic and trade activities between Guangdong and Hong Kong. Further assistance through both public and private sector initiatives, through existing vehicles and forums, to open up Mainland's domestic market for Hong Kong manufacturers should be high up on the policy agenda in the future.

Most of the surveyed enterprises in the PRD expressed an intention to increase R&D investment and to employ more R&D personnel. In 2006, the Hong Kong government established five research centres in an attempt to integrate the resources and talents of enterprises and universities so as to encourage enterprises to devote more resources to the R&D. The enormous business opportunities in the cities of the PRD, particularly in Shenzhen, have attracted talent from all over the country. According to the data released by the Organization for Economic Co-operation and Development (OECD), as many as 580,000 Hong Kong-born professional talents were working in the member states of the OECD. The figure reflects that a substantial number of professional talent, originally from Hong Kong, is currently engaged in a variety of R&D activities. They are now developing their careers in countries that are devoting more resources to support R&D investments.

It is not possible to rely solely on the government to strengthen the technological research foundations of industry. Initiatives taken by private enterprises to promote R&D are equally if not more important. A comprehensive system to protect intellectual property and a more flexible policy to attract Mainland professional talents to Hong Kong will help promote R&D in Hong Kong. In recent years, Chinese enterprises have been putting a greater emphasis on R&D investments and an increasing number of multinational companies are considering China as their top choice in setting up R&D centres. Attracting outstanding Mainland students to Hong Kong and strengthening the R&D capabilities of the Greater PRD will help attract multinational enterprises to set up R&D centres in the region. If a virtuous circle can be begun with the establishment of R&D centres in the Greater PRD by more multinational enterprises, many Hong Kong or Mainland-born professionals who are now working in the member states of the OECD may be attracted to develop their careers in the region.

In assisting Hong Kong industries to move up the valueadded chain, the effort of some of these R&D centres could be focused on the easier and more cost effective tasks of strengthening and upgrading traditional industries. Such efforts could include the nurturing of a robust creative industry in Hong Kong to help companies boost their design and brand-building capabilities such that a "Made by Hong Kong" brand would provide a



Efforts could be focused on the easier and more cost effective tasks of strengthening and upgrading traditional industries, such as the nurturing of a robust creative industry in Hong Kong to help companies boost their design and brand-building capabilities.

strong positive image for all products and services that come from the region.

The Hong Kong government should encourage and incentivise R&D activities by maintaining a close tripartite government-academia-business relationship. This would ensure that the government was aware of the emergence of new industries that had the potential to become new engines of growth. This close alliance would also facilitate collaboration in projects undertaken by research institutes in Hong Kong and the PRD.

In the area of management-production efficiency and environmental standards, the Hong Kong government should work with regional and local governments across the border to allow government-funded, nongovernment organisations (NGOs) from Hong Kong to provide services, such as training and technical consultation, to Hong Kong manufacturers operating across the border. This would be an effective way of providing a range of support and assistance to Hong Kong's small- and medium-sized manufacturers operating in the PRD to help them upgrade the environmental standards of factories.

With the relaxation of China's policy on residents working, studying and residing overseas, more and more Chinese citizens may start their careers in Hong Kong. Restrictions imposed on tertiary education institutions in the admission of Mainland students prevent these institutions from attracting talent from different regions in China. With the relaxation of restrictions and the streamlining of the review and approval procedures, it is expected that the number of professionals coming to Hong Kong will increase. The increasing exchange and flow between Hong Kong and Mainland professionals allows the Greater PRD to capitalise on the best qualities each has to offer. Hong Kong should work with the Mainland authorities, especially with those in Shenzhen and Zhuhai, to further relax the conditions for visitor entry into Hong Kong for different purposes and for longer lengths of stay.

Summary of Recommendations for the Hong Kong Government

- 1. Maintain a good business environment with a simple tax system and low tax rates, a free flow of information, an absence of foreign exchange control, a clean government, a stable and secure policy environment and an implementation of the rule of law and judicial independence.
- Formulate a strategy to work with Guangdong and the cities in the PRD to promote and sustain the Greater PRD region as a vibrant and growing industrial base for Hong Kong companies and build up the "Made by Hong Kong" brand internationally.
- 3. Strengthen Hong Kong's role as a financial, trading and services hub supporting the manufacturing and logistics development for the region to continue attracting multinational companies to Hong Kong.
- 4. Co-ordinate Hong Kong's infrastructure development with Guangdong, especially the transportation and aviation network.
- 5. Provide assistance to Hong Kong companies encountering commercial disputes in Guangdong and co-ordinate initiatives to help Hong Kong companies to open up the domestic market on the Mainland.
- 6. Strengthen Hong Kong's R&D capabilities throughout the region and help build R&D centres in partnership with the private sector and encourage investment in R&D.

- 7. Reduce the barriers relating to the admission of Mainland talent and technology personnel to Hong Kong for work and study, and relax visiting arrangements for residents from neighbouring cities such as Shenzhen and Zhuhai.
- 8. Assist Hong Kong's traditional companies to move up the value-added chain by focusing efforts on R&D centres, enhance their design and brand building capabilities, and nurture a robust creative industry in Hong Kong.
- 9. Identify and support promising new emerging industries by maintaining close tripartite government-academia-business relations to enhance information exchange and to provide appropriate support to encourage collaborating projects in these areas undertaken by research institutes in Hong Kong and the PRD.
- 10.Enhance management-production efficiency and environmental standards in the PRD region by helping government-funded NGOs to establish themselves across the border in order to provide training and technical consultation services to Hong Kong manufacturers operating across the border to support them to upgrade the environmental standards of their factories.

8.3 Recommendations for the Guangdong Government

When asked how the business environment in Guangdong could be improved, business operators suggested that the most important measure that could be improved was streamlining and reducing of the various fees charged by the local government. Among the selected enterprises in the nine major cities of the PRD, 69.3% believed that streamlining and reducing the fees charged by the local governments was the most important element in improving the business environment, while 45-49% thought that accelerating the construction of the electricity supply system, simplifying the Customs Ordinance, relaxing foreign exchange control, improving banking services and devoting more resources for infrastructure construction could effectively improve the local business environment (Figure 8.2).

Enterprises in both Made in PRD (2003) and the present survey were very concerned of the various taxes and fees charged by local governments on the Mainland. According to them, taxes and fees charged by local governments were the third most troublesome factor. Since the import and export regulations improved gradually, taxes and fees charged by local governments came to be the most important issue that Hong Kong businessmen in the PRD were concerned about. The surveyed enterprises estimated that taxes and fees charged by central and local governments accounted for an average of approximately 9.8% of their operating costs. Taxes imposed by the central government, taxes charged by local governments, and fees and fines collected by the district and township governments accounted for 38.7%, 44.9% and 16.5%, respectively, of the total taxes and fees they paid.

The 2004 survey of enterprises in the YRD is worth noting here. Enterprises operating in the YRD were asked to rate their perception of the impact of local government policies on the business environment in the YRD. It is particularly interesting and revealing to see that they too awarded low marks to local government policies in the YRD, the lowest rating awarded to policy measures on the various fees charged by the local governments. This reflects a high degree of dissatisfaction with the fiscal policies of the government in both the PRD and the YRD.

In reality, the local government's preferential policies for foreign investors have a compensating effect against the burdens of the existing system of taxes and fees. As a consequence, the tax revenues of the local government have not fallen with the adoption of preferential policies to attract foreign investors, and it has certainly been favourable for the continued economic development of the PRD. Indeed, a further reduction and simplification of the system of taxes and fees would lead to more favourable and sustainable effects on economic development.

In 2004 and 2005, numerous provinces around the country were faced with the problem of electricity shortage, with the fast growing PRD bearing the brunt of these power shortages. The surveyed enterprises believed that accelerating the construction of the electricity supply system would help improve the business environment. From 2001 to 2005, investment made by the energy sector of Guangdong amounted to RMB 191.45 billion, accounting for 91% of the investment in industrial infrastructure facilities and representing an average annual growth rate of 27.3%. Guangdong has been devoting an enormous amount of resources to the construction of electricity supply systems. In 2006,



Figure 8.2: Top Five Measures of Improvement of Guangdong's Business Environment[#]

[#] During the survey, the respondent companies might choose five measures to improve the business environment and rank them in order. The most effective measure would score five marks and the fifth most effective measure would score one mark. The importance of the measures in improving the business environment would be determined by the average score, the lowest score indicating the least important issue and the highest score the most important issue. We selected five measures to improve the business environment on the basis of their average scores.

there were fewer reports on electricity shortages, but Guangdong is still one of the three provinces in the country (Zhejiang and Yunnan are the other two) that experienced the most severe electricity shortages. The slow progress in the reform of the market system for electricity is one of the reasons for electricity shortages.

The survey on the PRD conducted in 2002 and 2005 showed that enterprises believed that the overall business environment of Guangdong had continued to improve. A substantial proportion of enterprises believed, however, that the business environment did not change and in fact had even worsened. Although customs policies and clearance have seen improvement, there is room for much more improvement in the Greater PRD. When compared with the efficiency of the customs policies in the Greater YRD and the advantages brought about by a unified standard adopted throughout the region there, it is obvious that the efficiency of the logistics operations in the Greater PRD can benefit similarly from an adoption of a unified standard throughout its regions. Shenzhen's electronic customs declaration system could be widely adopted in Guangdong, unifying the declaration systems used in Shenzhen, Dongguan, Guangzhou and the other cities of the PRD, including even cities as far away as Qingyuan, Heyuan and Shaoguan. If there were a more unified standard applicable to all the enterprises as they expanded to all other cities in Guangdong, it would be a big step forward in establishing an efficient logistics system in the Greater PRD, which could facilitate the co-ordinated development of the cities in the region and enhance the ability of the enterprises to manage government-induced policy risks.

The Eleventh Five-Year Plan has made a call for the nation to enhance its industrial structure, to speed up the development of the service sectors and to attain an environment of development that can be sustained. Such new policy objectives are laudable in sustaining future development and need to be taken seriously. In ensuring a well co-ordinated advance in achieving these objectives, the importance of effective communication between Hong Kong manufacturers and Guangdong authorities on the one hand and between the Hong Kong and Guangdong authorities on the other is of crucial importance. Establishing an efficient and effective communication mechanism and forum to consider policy matters would reduce uncertainty for Hong Kong investors so that they could continue investing in Guangdong and have sufficient time to adapt to new industrial policies and the changing investment environment. It should be emphasised that sudden and unexpected changes are extremely detrimental to continued investment incentives and risk disruption to steady, sustained development and growth. While change and progress are always positive for development, uncertainty in the midst of policy changes should be minimised as far as possible.

In ensuring that the PRD affects a smooth transition to meet these new development objectives and maintains its competitiveness as an economic region within China, it is important to appreciate the subtle challenges of transformation without disruption, especially where employment and growth are concerned. The shift from a labour-intensive production base to a knowledge-based, technology-intensive industrial structure can only take place smoothly if the labour force is well trained and the ability to harness new technology and production methods have been thoroughly tried out. For this reason vocational and professional training is an essential support infrastructure that has to be developed. Hong



About 70% of the surveyed enterprises believed that streamlining and reducing the fees charged by the local governments was the most important element in improving the business environment.

Kong has well-established institutes for this purpose and can readily follow the local manufacturing base into the Mainland to continue servicing them there. Opening up Guangdong's vocational and professional sector to these institutes will enhance Guangdong's transformation as promulgated in the Eleventh Five-Year Plan. It would not only contribute to industrial transformation but would also speed up the development of the service sector.

The development of financial infrastructure, particularly banking, is another crucial dimension to help support economic and industrial transformation in Guangdong. Unfortunately, the small number of branches set up by overseas banks in the nine major cities of the PRD is far from being able to cater to the business needs of Hong Kong enterprises. The slow development of the financial sector in the PRD has been an inconvenience to enterprises. The relaxation of foreign exchange control and an improvement in banking services ranked fourth in the recommendations made by the selected enterprises. The 2005 survey showed that capital earmarked for the expansion of enterprises came mainly from corporate earnings while the utilisation of private borrowings accounted for 27% and 21% of expansion funds in cities such as Dongguan and Foshan respectively.

In 2005, deposits placed with financial institutions in Guangdong were RMB 3,812 billion and a loan-todeposit ratio was only 61%, lower than Jiangsu's 70% and Zhejiang's 81%. Deposits placed with financial institutions in Guangdong were 88% of the sum of those placed with financial institutions in Jiangsu and Zhejiang, and loans granted by these financial institutions were only 71% of those granted in Jiangsu and Zhejiang. The lagging development of the banking system in the PRD presents an enormous opportunity for financial institutions. With the gradual exploration of the domestic sales market by Hong Kong enterprises, Hong Kong banks may be able to provide their clients with more customised financial services with the establishment of more branches in the nine major cities of the PRD.

The economic transformation from a labour-intensive industrial structure to a knowledge-based, technologyintensive one must take special heed of that fact that clusters of mutually supportive enterprises that are linked together along an interconnected production chain exist on the ground together. It is not possible to remove one segment of the chain without adversely affecting the productivity and efficiency of the rest of the members. For this reason, the efficient transfer of semi-products along the interconnected production chain of up-stream and down-stream industries must be handled with special care. Economic transformation can be facilitated with the provision of targeted incentives and general support to those manufacturers that are committed to transforming their businesses to meet the targets of the Eleventh Five-Year Plan. Reducing the red tape and bureaucratic procedures that set up barriers to overseas investors wishing to enter the domestic market, say, for example, in vocational and professional training and banking services, inevitably speeds up the process of service sector development that is increasingly essential for the enhancement of industrial structure.

Summary of Recommendations for the Guangdong Government

- 1. Streamline and reduce various fees charged by the government.
- 2. Accelerate the construction of electricity and transportation infrastructure, in particular, in areas designated for new industrial parks/processing zones in the eastern, western and northern parts of Guangdong.
- 3. Establish an efficient and effective communication mechanism and forum with the Hong Kong government as well as Hong Kong manufacturers, so that Hong Kong investors will have sufficient time to adapt to the new industrial policies and the changing investment environment.
- 4. Provide specific incentives and general support to manufacturers who are committed to transforming their businesses to meet the targets of the Eleventh Five-Year Plan, including the enhancement of the industrial structure, speeding up the development of the service sectors and attaining a sustainable development environment.
- 5. Ensure a smooth process when undergoing the transformation from labour-intensive to knowledgebased, technology-intensive industries. Special attention has to be given to the efficient transfer of semi-products along the interconnected production chain of up-stream and down-stream industries to avoid disruption to the production chain-clusters in the PRD.
- 6. Reduce red tape and bureaucratic procedures that obstruct foreign investors from entering the domestic market.
- 7. Open the vocational and professional training sector to Hong Kong institutes.
- 8. Speed up the entry of overseas banks.

8.4 Recommendations for Guangdong and Hong Kong

The surveyed enterprises suggested that the top five measures that had to be addressed by the governments of Guangdong and Hong Kong were: (1) increase the feasibility of Hong Kong service providers to do business or practise in Guangdong and in the pan-PRD region under CEPA; (2) facilitate outward processing operations in the Mainland to enter the Mainland market, (3) liberalise the flow of people and goods across the borders, (4) support the development of manufacturing industries in Guangdong, and (5) facilitate investment flows between Hong Kong and Guangdong. These five measures were considered to be of top priority by, respectively, 79.6%, 70%, 65.8%, 65.6% and 58.6% of the surveyed enterprises (*Figure 8.3*).

Nearly 80% of the surveyed enterprises believed that the governments of Guangdong and Hong Kong should facilitate cross-border investments for Hong Kong service providers. In 2006, there were approximately 290,000 commercial enterprises operating in Hong Kong, of which 94.8% operated in the service sectors. CEPA has been in place for three years since the signing of the agreement in 2003. The total number of service sectors in the Mainland that have been opened to Hong Kong operators has increased from 18 to 27. At the end of September 2006,¹ a total of 995 applications were approved for operation, mainly in the logistics, transport, distribution, advertising, construction and management consultancy industries and 40% of the applicants chose to invest in Guangdong. At the end of June 2006, approximately 2,200 individually owned stores in the Mainland were registered by Hong Kong residents, of which more than 80% were in Guangdong. The small number of applications approved under CEPA and the small number of private business and commercial enterprises registered by Hong Kong residents in the Mainland shows that the vast capability of the Hong Kong service sector has been barely tapped.

¹ "Address of the Permanent Secretary for Commerce, Industry and Technology at the 2006 CEPA Seminar on Services" by the Permanent Secretary for Commerce, Industry and Technology on 9 October 2006.

Although Hong Kong professionals have not yet started to set up their businesses across the border, the number of Hong Kong residents working in the Mainland has been on the rise. From January to March 2005, there were approximately 237,000 Hong Kong residents working in the Mainland, half of whom worked in the service sectors in various cities in Guangdong. In 2005, the number of Hong Kong residents arriving in the Mainland and that of Mainland residents arriving in Hong Kong were, respectively, 62.8 million and 12.5 million. The percentage of Hong Kong residents entering Shenzhen, elsewhere in Guangdong, and outside Guangdong were, respectively, 52%, 42% and 6%.² The vast cross-border flow of people contributes significantly to the integration of the service economies in Guangdong and Hong Kong and this is taking place before the business and commercial enterprises in Guangdong and Hong Kong have begun to build up their access to each other's markets in a convenient, unfettered manner.

Approximately 70% of the surveyed enterprises agreed that Guangdong government should streamline procedures to facilitate export processing enterprises to expand their domestic sales business. According to our current survey, there were still approximately 14,000 traditional processing and assembly plants in the PRD and most of them were located in Dongguan and Shenzhen. Since processing and assembly plants neither have the taxpayer status nor the receipt of value-added tax, they cannot engage in the business of domestic sales. The application procedures for acquiring domestic sales permits are onerous and enterprises may have to face unprecedented tax and customs hurdles. In addition, domestic sales businesses can account at most for approximately 30% of the business of the processing and assembly plants. They are also subjected to numerous onerous regulatory procedures when they





² HKSAR Census and Statistics Department, "Consumption Expenditure of Hong Kong Residents Travelling to the Mainland of China, 2005" Hong Kong Monthly Digest of Statistics, May 2006.

operate the domestic sales business. According to the 2004-2005 report of the Greater PRD Business Council, negotiation with the Mainland government regarding the entry of outward processing plants into the Mainland market was conducted by the council. However, some processing and assembly plants started their domestic sales business in 2005 but eventually decided to cease doing so because of the complicated tax and customs procedures.

In view of the huge potential of the domestic sales market and the close cultural and social ties and personal network connections between Guangdong and Hong Kong residents, Hong Kong can develop all kinds of businesses because of these favorable conditions. The distinction between FIEs and domestic enterprises is becoming blurred. The interaction between investors from different regions in the PRD has allowed the original investors to enjoy various recognised statuses. They may choose to develop their domestic sales and export business using a variety of favourable approaches and investment modes. According to this survey, Hong Kong investors may choose to invest in the form of processing plants with supplied materials, FIEs and domestic enterprises. With the gradual improvement of ancillary facilities for industries in Guangdong and the Mainland, there is no more need to import raw materials and equipment. This in turn creates a flexible environment for the development of domestic sales businesses. In order to develop domestic sales businesses, some of the processing and assembly plants have gradually transformed into FIEs in recent years or have been established as domestic enterprises in collaboration with Mainlanders holding approved licences.

In 2006, Hong Kong enterprises were most concerned about the processing, trading and environmental protection policies that were recently introduced on the Mainland. Industry participants recognised that the aims behind these policies were well intended. But they were concerned that since these new policies were implemented shortly after they were announced, there was little time for them to adapt to the new environment. These industry participants believed that a longer buffer or transition period should be provided to enable enterprises to adapt to the new policies. According to the surveys conducted in the PRD and the YRD, FIEs believed that the lack of transparency of many Mainland policies when they were formulated and implemented was the major reason why they found it hard to adapt.

Notwithstanding this, industry participants thought that progress was made in the formulation and implementation of Mainland policies and the scope of arbitrary decisions was giving way to more rule-based management methods. The rule of law was gradually replacing the rule of man as an adopted concept of governance. Nevertheless, many of them still pointed out that they had yet to adapt to the new changes. For the Mainland government, formulating feasible rules in line with actual development and unifying the standards of law enforcement represent the biggest challenge. The feedback and responses of the industry participants channelled through the various chambers of commerce is recognised as the most effective way to improve these evolutionary changes.



2006 – The Environmental Protection Year of Guangdong

2006 is the environmental protection year of Guangdong.* Inspection groups on environmental protection have been formed under the auspices of the environmental protection bureaus at the provincial, local and municipal levels in an unprecedented move to ensure stringent law enforcement. The practice of "pollute first and govern later" or remedial procedures no longer exists. Enterprises have to apply for drainage permits each year to ensure clean production and all the major projects have to be evaluated by the Environment and Technology Centre of Guangdong Province. According to the provincial government of Guangdong, a large number of Hong Kong enterprises are engaged in labourintensive industries, such as the electroplating and leather industries, causing a large amount of pollution and affecting the skies over Hong Kong. Guangdong will have to implement environmental protection policies to combat pollution, and the provincial government believes that Hong Kong businessmen will have to adapt to such changes.

Most of the Hong Kong businessmen in the Mainland live in the PRD and have a good idea of the environmental pollution in the Greater PRD. Industry participants were positive about the initiatives to combat pollution and believed that the major problem lay in various environmental protection standards and enforcement levels between different municipalities and towns. They believed that all the cities in Guangdong should adopt uniform law enforcement standards and ensure fairness in law enforcement. Since smalland medium-sized enterprises lack the capital and land to address some of the pollution problems, the affected enterprises are making a case for a buffer or transition period to adapt to the changes.

* Sing Tao Daily, "Stringent Law Enforcement on Environmental Protection; Drainage Permits Required", 3 October 2006.

Attracting foreign investment is no longer the top priority for some cities in the PRD, for example, Dongguan. Instead, they are more concerned about how to optimise industry structure and to upgrade the industries. The increasing shortage of resources of all kinds in the nine major cities of the PRD means that these economic zones have little choice but to accept the discipline of the market based on the principle of survival of the fittest in order for industrial upgrading to evolve naturally. The government will have to consider its traditional role in such a process and decide whether to continue upgrading industries by administrative fiats or to perform its role as a market regulator and facilitator. The exercise of excessive administrative direction and guidance may not always be the best approach to retaining the most suitable cluster of enterprises for advancing economic development and maintaining competitiveness. It may even inadvertently ruin the original natural industrial clustering that has evolved in the PRD to make it one of the most competitive industrial bases in the world. The upgrading of industrial structure is a very important step in the next stage of the PRD's evolution, but it has to be managed in a manner that is evolutionary and market driven, in a manner that seeks to reduce the scope of arbitrary and sudden policy changes that disrupt the existing competitiveness before new comparative advantages have been fully developed and realised.

In both the surveys conducted in Hong Kong and in the nine cities of the PRD, surveyed enterprises were least supportive of policies that grant direct subsidies or land to facilitate the development of certain industries or enterprises and that pick or target certain industries for development. This reflected that most of the enterprises did not expect the government to grant direct subsidies or provide particular support to any industry. Most of them indicated that the government was able to perform its duties and formulate relevant and feasible policies catering to the actual needs in the areas of government taxation, cross-border infrastructure, logistics, people and investment flows, a level playing field based on the market competition, and a favorable business environment.

Summary of Recommendations for Guangdong and Hong Kong

- 1. The Guangdong and Hong Kong governments should join hands to promote the Greater PRD region's strategic position as a gateway for international companies to enter the Mainland market and a springboard for Mainland companies to reach out to the world market.
- 2. Both governments should ensure good co-ordination on the planning of transportation and aviation infrastructures so that the development of the PRD is carried out as a whole rather than fragmented into individual cities and sub-regions.
- 3. Both governments should address the issue of environmental degradation in the PRD together and come up with a policy that provides practical solutions to enhance the prospect of sustainable development for the whole region. The solutions should be based on guidelines that are clear, transparent, predictable, consistent, as well as applicable across industrial sectors and different local jurisdictions. It is also important for industries and enterprises to have sufficient lead time to put such changes in place and to consult affected industries and enterprises for the formulation of appropriate fit for purpose policy guidelines.
- 4. Both governments should co-operate to increase the cross-border transport efficiency to help maintain the existing volume of passenger and goods flows, and to further attract more traffic, into the Greater PRD region.

- 5. Increase the feasibility of Hong Kong service providers to do business or practise in Guangdong and pan-PRD under CEPA and to further facilitate investment flows between Hong Kong and Guangdong.
- 6. Facilitate outward processing operations in Mainland China to enter the Mainland market, such as setting up of "one-stop shop" agents to simplify tax-paying procedures.
- 7. Facilitate the flow of people and goods across the Hong Kong-Shenzhen border, in particular by investing in the software and hardware arrangements at border and checkpoint facilities.
- 8. Support the development and upgrading of manufacturing industries in Guangdong through a market-driven mechanism rather than administrative fiats.
- 9. Assist industry participants to mitigate policy risk through greater transparency and communication in matters relating to policy changes and adopt a gradual evolutionary approach to allow industry participants to prepare for policy changes.

Glossary

FIEs (Foreign Invested Enterprises)

FIEs (外資企業) refer to those joint ventures or cooperatives established in the Mainland with foreign investment, as well as establishments wholly funded by foreign capital. Statistical data usually categorise foreign invested enterprises (FIEs) into either foreignfunded enterprises or Hong Kong, Macao and Taiwanfunded enterprises, based on the source of capital.

Domestic Enterprises

Domestic Enterprises (內資企業) refer to those enterprises registered in forms such as state-owned enterprises, collectively owned enterprises, private enterprises, co-operative enterprises, share-holding enterprises etc.

OCFs (Other Contractual Forms)

OCFs (其他合同形式) refer to three forms of processing and assembly operations, compensatory trade and any other processing arrangements or relationships into which a foreign company enters with a Mainland factory. OCFs include OFIs and OTHs.

Three Forms of Processing/ Assembly Operations and Compensatory Trade (TFP)

Three forms of processing and assembly operations (\equiv 來一補) refer to processing with supplied materials (來 料加工), assembly with supplied parts (來件裝配) and processing in accordance with supplied samples (來樣 加工).

OFIs (Other Foreign Investments)

OFIs (外商投資) refer to "three forms of processing and assembly operations and compensatory trade" (\equiv 來一補), in which the foreign partner does not have legal ownership of the companies. In China, they are classified as domestic enterprises even though the management of these companies is controlled by their foreign partners.

OTHs (Other Arrangements)

OTHs (其他安排) refer to other arrangements by means of which Hong Kong based companies have share in, control of, or manage domestic enterprises.

Hong Kong-Funded Enterprises

As per FIEs, Hong Kong-funded enterprises (港資企 業) were selected with any one of the three conditions: (1) if they had offices or branches in Hong Kong; (2) if major decision-making, management or operation rights were controlled by Hong Kong residents; or (3) if the source of capital was Hong Kong.

Hong Kong-Funded Enterprises in OCFs

As per domestic enterprises, Hong Kong-funded enterprises in other contractual forms (OCFs) (其他合同 形式的港資企業) were selected with any one of the two conditions: (1) if major decision-making, management or operation rights of the enterprises surveyed were controlled by Hong Kong people or (2) if they had offices or branches in Hong Kong.

General Trade*

General trade (一般貿易) refers to the import or export of goods by enterprises in China with import-export rights.

Processing trade*

Processing trade (加工貿易) refers to the business activity of importing all or part of the raw and auxiliary materials, parts and components, accessories, and packaging materials from abroad in bond, and re-exporting the finished products after processing or assembly by enterprises within the Mainland. It includes (1) processing and assembly with supplied materials and (2) processing and assembly with customers' materials.

Processing and Assembly with supplied materials/ Processing and Assembly with customers' materials*

Under processing and assembly with supplied materials/ processing and assembly with customers' materials (來料加工), the imported materials and parts are supplied by the foreign party which is also responsible for selling the finished products. The business enterprise does not have to make foreign exchange payment for the imports and only charges the foreign party a processing fee.

Processing and assembly with imported materials*

Under processing and assembly with imported materials (進料加工), the business enterprise makes foreign exchange payment for the imported materials and parts and exports the finished products after processing.

Compensatory Trade

Compensatory trade (補償貿易) is an arrangement whereby a foreign company provides a loan (either in the form of money, equipment or technology) to a Mainland enterprise to either set up a factory (or factories) or to explore resources. When the project is completed, the domestic enterprise uses its products or other products to pay back the loan by instalments within an agreed period of time.

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