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### From the 'Workshop of the World' to an emerging global city-region: Restructuring of the Pearl River Delta in the advanced services economy

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For a long time, China's economic growth and urbanization are recognized as a development outcome of its astonishing manufacturing industries. However, this conventional wisdom is increasingly challenged by the rapid growth of services, especially advanced services, in the country in recent years. This study explores the development implications of the advanced services economy for Chinese cities and regions using one of the most archetypical manufacturing city-regions in the country—the Pearl River Delta (PRD). It aims to understand how this 'workshop of the world' is being restructured by advanced service activities under the conditions of contemporary globalization, and how this process is shaped by the region's special economic, political, institutional and cultural contexts. The study contributes to three key issues (debates) that revolve around the development implications of the advanced services economy in the urban and regional context: a) the impacts of advanced services on the spatial transformations of city-regions, b) the global and local dynamics that contribute to urban transitions in the new economy, and c) the challenges to urban policy and planning presented by such transitions.

From the 'Workshop of the World' to an Emerging Global City-Region

# From the 'Workshop of the World' to an Emerging Global City-Region

## Restructuring of the Pearl River Delta in the Advanced Services Economy



Xu Zhang

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Advanced Services Economy**

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# **From the ‘Workshop of the World’ to an Emerging Global City-Region**

## **Restructuring of the Pearl River Delta in the Advanced Services Economy**

### **ACADEMISCH PROEFSCHRIFT**

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This dissertation is written on the basis of five articles. Only Chapter 3 is co-authored with Robert Kloosterman and is published as:

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Xu Zhang is the lead author of this chapter. He completed data collection and analysis and wrote most parts of the chapter. The second author Robert Kloosterman provided some insightful and useful suggestions in the framing of the argument. He also participated in the writing of some sections and helped with the editing of the text.



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# Chapter 1

## Introduction

Since the launch of the reform and opening-up programme in 1978, China has shown an unprecedented pace of economic development and urban transformation (Naughton, 2007). For over 20 years, it has maintained a remarkably high rate of economic growth, developing from a poor and backward country into the second largest economy in the world. Similar to its many East Asian predecessors, the economic take-off of China derived first and foremost from the rapid growth of its industrial sector (Zhang, 2006). Drawing on a huge and cheap workforce, China has built an export-oriented manufacturing sector within a short time mainly by relying on investments from firms in developed economies in search of low-cost labour. This has transformed the country from an essentially agrarian and early-industrial economy into a leading centre of manufacturing production (Jacques, 2012). By now, China is the largest ‘workshop’ in the world, accounting for 22 per cent of global manufacturing production and 11 per cent of goods exports (World Bank, 2012). Arguably, the industrialization of China in the past three decades is one of the most important events in the modern world economy.

However, economic development is, by definition, a dynamic process. After entering the new millennium, China’s export-oriented industrialization model has encountered growing challenges. Internally, the country suffers from the soaring labour and production costs, which put pressure on its labour- and resources-intensive manufacturing sectors (*The Economist*, 2012). Externally, the faltering demand in the developed world and the increasing competition from other low-wage countries, such as Vietnam and Cambodia, are diminishing the role of exports as a major driver of economic growth in the country. Against this background, a new wave of economic transition, boosted by assertive state policies, is emerging in China. This time, the leading sectors are advanced services. Although still lagging behind the average of its peers (ADB, 2012, p. 131), China’s service sector, especially advanced producer services, has showed a great potential of growth since the late 1990s (Yang and Yeh, 2013). There is evidence that some Chinese cities and regions- above all, those located along the coastal area- have

already begun to transform into the service-dominated, post-industrial economies (Lin, 2004a; Fang and Yan, 2004). Meanwhile, the Chinese policy makers have also recognized the importance of advanced services in the national and regional economy, and have committed to promote the development of these activities in their recent economic planning (Daniels, 2013). With the growing demand created by industrial upgrading and the supports from the central and local governments, advanced services are expected to expand in China in the next few decades (Yeh and Yang, 2013).

Contemporary urban theorists believe that urbanization and economic development are two closely intertwined processes (Castells, 1989; Harvey, 1989; Sassen, 1991; Amin, 1994; Soja, 2000; Scott, 2008, 2012). Cities, on the one hand, are dependent outcomes of capitalist development, reflecting the dynamics of the dominant production and accumulation regime. On the other hand, they also provide critical foundations for the social reproduction of capitalism (Scott, 2011, p. 289). This fundamental relationship implies that ‘every historical version of capitalism is associated with distinctive types of cities, and vice versa’ (Scott, 2008, p. vi). Research in the capitalist core countries has revealed that the crisis-generated economic restructuring and the rise of advanced services after the 1970s have triggered a profound spatial reorganization of these economies, manifested by a relative decline of the traditional centres of Fordist mass production and a simultaneous growth of new industrial areas that are identified as key locations of the so-called ‘post-Fordist’ or, more recently, ‘cognitive-cultural’ economic activities (Sassen, 1991; Amin, 1994; Soja, 2000; Scott, 2012). In addition, the transition towards the services economy has also deeply restructured the economic and spatial linkages between cities and city-regions, generating new patterns of urban systems and networks at different geographical scales (Taylor, 2004; Hall and Pain, 2006; Hoyler and Kloosterman et al., 2008; Derudder et al., 2010; Taylor et al., 2013). Compared to the extensive research in the developed world, the investigation into advanced services-led economic and urban transitions in China is still rather thin on the ground (cf. Fang and Yan, 2004; Lin, 2004a, 2005; Han and Qin, 2009; Yi and Yeh, 2011; Yang and Yeh, 2013; Yeh and Yang, 2013), in spite of the fact that advanced services are becoming increasingly crucial in driving economic and urban transformations in this country.

So, what are the development implications of the rise of the advanced services economy for Chinese regions and cities? This dissertation attempts to explore this question using one of the most archetypal manufacturing city-regions in the country- the Pearl River Delta (PRD). Through an in-depth case study of the PRD, the dissertation aims to understand how this typical manufacturing region is restructured by the emerging advanced service activities under the conditions of contemporary globalization, and how this process is shaped by the region's special economic, political, institutional and cultural context that was formed during its unique history. Five articles, which are already published in or submitted to international peer-reviewed journals or books, constitute the main blocks of the dissertation. This chapter provides a brief introduction to: the background of the research (1.1), the issues and questions to be addressed (1.2), the study area (1.3), the research methods and data (1.4), and the structure of the dissertation (1.5).

### **1.1 Structural transformation and the rise of (advanced) services**

One of the most important changes in the world economy over the past several decades is the rise of services (Bryson and Daniels, 1998). Since the early 1980s, most advanced capitalist economies have experienced 'a major reorientation in the pattern, form, and sources of ... economic growth' (James, 2009, p. 106). It has involved, on the one hand, 'a process of de-industrialization in which manufacturing's share of employment and output has been declining' and, on the other, 'a compensating growth in employment and output in services', especially in advanced producer services (Bryson, 2009, p. 368). Underpinning this structural transformation is a set of profound changes in the capitalist system (cf. Kloosterman, 2010, p. 132): the innovations in information and communication technologies (ICTs) (Castells, 1989; Graham and Marvin, 2001), the increasing specialization and flexibilization in production along with the rise of the post-Fordist regime (Piore and Sabel, 1984; Amin, 1994), the widespread policy practices of de-regulation and privatization (Harvey, 2005), and the intensification of connections and competitions between regions across the globe (Dicken, 2011). Driven by these factors, many firms in the developed economies have transferred their low-end manufacturing activities to countries and regions that have a much lower labour cost (primarily in East Asia), while retaining the knowledge-intensive, higher value-added sectors, such as management, finance, marketing, research and

development, in their home countries (Dicken, 2011). As a consequence, the service sector has become the primary source of economic and employment growth in the developed world. It is estimated that more than 70 per cent of economic output and employment in most developed countries nowadays is generated by services (ADB, 2012, pp.41-42). In economies like the US and Western Europe, professional business services- the advanced and fastest growing sector in the services economy- account for around 20 per cent of all employment (James, 2009, p. 107).

Compared with its counterpart in the developed world, the service sector makes a less significant contribution to economies in developing countries. In developing Asia, services now account for about 34 per cent of the region's employment and 48 per cent of its economic output. Both figures are still behind those in the advanced economies (ADB, 2012, pp. 41-42). Also different from developed countries, most Asian countries' service sectors are dominated by traditional types of service activities (such as wholesale and retail, hotels and restaurants, personal services, and public administration, etc.), which tend to have a much lower productivity compared to the OECD level (*ibid.*, p. 35). The relatively backward development of services in developing Asia is largely due to the fact that most of these economies are still at an early or medium stage of industrialization. In addition, the widespread national growth strategies which favor export-oriented manufacturing industries have also stunted the growth of services in many countries (Daniels, et al., 2005).

However, the contribution of services in developing economies 'is on the rise and looks poised to expand further' (ADB, 2012, p. 38). During the past two decades, the share of the service sector in employment and economic output has risen by 10-20 percentage points in most Asian countries. Even countries where services make a smaller contribution to the economy as whole, such as China, show a considerable growth (*ibid.*, p. 41). Between 1990 and 2012, the share of services in China's gross economic production (GDP) and employment increased from 31.5 and 18.5 per cent to 44.6 and 36.1 per cent respectively (NBS, 2013). This rate of growth was even faster than the expansion of industries. Producer services surged rapidly since the late 1990s. 'By 2008, a total of 1.16 million producer service establishments were operating in China, creating 34.4 million jobs' (Yang and Yeh,

2013, p. 166). Producer services' contribution to the national economy in terms of the number of establishments and employment reached 16.4 and 12.7 per cent respectively (ibid.).

A widely accepted experience of economic development is that as the economy advances, employment and production will first shift from agriculture to manufacturing, and then to services (Fisher, 1935; Clark, 1940; Elfring, 1988). With the growth potential of manufacturing industries gradually approaching its 'ceiling', we could expect that the future structural transformation in countries like China will mainly be a shift from agriculture and manufacturing to services. In addition, 'the development of new technology and associated production systems offered the possibility of relocating some service functions from high to low-cost production locations' (Bryson, 2007, p.32). Some business services (e.g. software development, call centres, data processing) 'are thus following manufacturing in the development of a [new] "global shift"' (ibid.). As the recent case of Indian and the Philippines shows, this new trend of global outsourcing and offshoring of services, which is sometimes referred to as the 'second global shift', the 'new wave of outsourcing', the 'new international division of "service" labour', or the 'next wave of globalization' (Bardhan and Kroll, 2003; Bryson, 2007; Dossani and Kenny, 2007; Kleibert, forthcoming), is also enhancing the potential of services to contribute to sustained economic growth in developing countries (Ghani and Kharas, 2010).

Due to their specific natures (e.g. knowledge- and information-rich and communication-intensive) and locational demands (e.g. access to skilled labor, advanced ICT systems, clients and other service providers, etc.), advanced services tend to demonstrate a spatial distribution that is significantly different from those of most manufacturing activities as they are much stronger oriented towards high urban milieus (Daniels, 1985; Coffey, 2000). This makes them a major force to restructure the patterns of urbanization and the interdependence between cities that used to be shaped dominantly by the progress of industrialization. As such, the transition towards a post-industrial economy not just involves 'fundamental shifts in the urban economic base and industrial structure', but also, and importantly, implies a 'reconfiguration of regional structure, the metropolitan space-economy, and urban form' and a 'repositioning of cities and city-regions within external

networks and systems' (Hutton, 2003, p. 3). The transformations of cities and city-regions in the advanced services economy have thus become a hotspot of research in contemporary urban studies. The next section will briefly introduce several key issues (debates) regarding this topic and raise the questions that this dissertation wants to address.

## **1.2 Advanced services and regional development: issues and questions**

This dissertation mainly contributes to three key issues (debates) that revolve around the development implications of the advanced services economy in the urban and regional context:

- 1) the impacts of advanced services on the spatial transformations of city-regions;
- 2) the global and local dynamics that contribute to urban transitions in the new economy; and
- 3) the policy and planning challenges presented by such transitions.

### **The spatial transformations of city-regions in the advanced services economy**

The first major issue concerning the development implications of advanced services is their impact on the redefining of urban development processes. In the past decade or so, urban scholars have identified two essential spatial changes that accompany the rise of the advanced services economy (cf. Kloosterman and Lambregts, 2007). On the one hand, the mutually reinforcing tendencies of globalization and post-industrial transformation 'have contributed to the growth of centralized service nodes for the management and regulation of the new space economy' across the globe (Sassen, 1991, p. 325). The geographical dispersion of production, including its internationalization, has fed the growth and importance of central coordination functions and a series of dedicated supporting producer service activities (ibid.). These expanding economic sectors, often operating under conditions of increasing uncertainty, instability and complexity, are subject to strong agglomeration economies (above all, the 'urbanization economies' of Jacobs, 1970) (Kloosterman and Lambregts, 2007, p. 63). Therefore, they tend to concentrate in a limited number of large cities which are endowed with top-notch infrastructure, human capital, global connections and local urban milieu (Sassen, 1991; Scott, 2012). These cities, often entitled as 'world cities' or 'global cities',

constitute the strategic sites for the operation of the capitalist system and the 'gateways' for linking major regions and states into the world economy (Friedmann, 1986; Castells, 1989; Sassen, 2001; Taylor, 2004). They demonstrate a new geography of centrality in the global economic system.

On the other hand, with the advancements in transport and communication technologies, many of the specialized advanced service activities do not necessarily concentrate in the traditional metropolitan cores. Instead, they may (re-)distribute to a series of secondary centres or lower-order cities within the same urban system, so they can 'enjoy lower wages and rent and a better living environment' while at the same time 'retaining their economic and social contacts in large cities' (Yang and Yeh, 2013, p. 161; also see Senn, 1993; Gong, 2001). This fosters the formation of multiple service clusters (Hall and Pain, 2006) or 'new industrial districts' (Storper, 1997) over the scale of a wide city-region. These specialized advanced service centres are dependent on the 'more narrow "localization economies" that mainly pertain to one specific industry' (Kloosterman and Lambregts, 2007, p. 63; also see Malmberg and Maskell, 2002). Meanwhile, they also benefit substantially from the intensive 'space of flows' (Castells, 1996) that exist between each other, enabled by high-quality transportation networks and digital communication systems. As such, 'new poles of urban growth' are created outside the older established centres, 'stretching and pinning down the urban fabric to a recentred regional constellation of cities' (Scott, 2001, p. 19).

These simultaneous processes of concentration, deconcentration and reconcentration have promoted the emergence of a new type of urban form: the polycentric global city-region (Scott, 2001) or mega-city region (Hall and Pain, 2006). According to Hall and Pain (2006, p. 1), this is an urban form that contains 'a series of anything between 10 and 50 cities and towns, physically separate but functionally networked, clustered around one or more larger central cities, and drawing enormous economic strength from a new functional division of labour'. Instead of dominated by one central city, the typical global city-region tends to encompass a number of centres, many with a strong presence of different specialized clusters of advanced services (Kloosterman and Musterd, 2001; Hoyler and Kloosterman et al., 2008). Through 'borrowing size' from each other and by enjoying various types of 'agglomeration economies' and 'network externalities',

the multiple centres constituting a global city-region may derive considerable economic strength from this special urban configuration and maintain potential competitive advantages over their monocentric counterparts (Lambrechts, 2009, p. 12; also see Kloosterman and Musterd, 2001; Phelps and Ozawa, 2003; Meijers, 2007). In the meantime, due to the information- and knowledge-intensive natures of their economies, these regions are also highly networked externally on a global scale (Hall and Pain, 2006). Many scholars support the idea that the global/mega city-region represents an advanced stage of urbanization development, or, in other words, the ‘emerging urban form at the start of the 21st century’ (Hall and Pain, 2006; Scott, 2012; Harrison and Hoyler, 2015).

While the emergence of large-scale city-regions is widely recognized as a global phenomenon (Hall, 1997; Douglass, 2000; Hall and Pain, 2006; Wu and Phelps, 2008; Florid et al., 2008; Scott, 2012), research on them seems to have followed different agendas in the established (developed) and the new (developing) economies. As discussed above, most Western scholars have treated the formation of global city-regions as a spatial outcome of the post-industrial economic transitions in the developed economies. Accordingly, the priority of their analyses falls on the economic connections and inter-urban relations generated by advanced services within and beyond these global city-regions (Hall and Pain, 2006; Hoyler and Kloosterman et al., 2008). In comparison, studies on city-regions in developing countries still largely focus on the impacts of manufacturing activities on their transformations (cf. Xu and Li, 1990; McGee and Robinson, 1995; Sit and Yang, 1997). For instance, Pain and Hall (2008, p. 1068) argue that in contrast to the development dynamics of European global mega-city regions, the formation of mega-city regions in China is tightly related to the ‘astonishing performance of their manufacturing economies’. Yeh et al. (2014, p. 6) also point out that ‘[u]nlike mega-city regions from developed countries, mega-city regions in China are embedded in a context with a different industrial structure and urban system arrangement; the manufacturing sector still contributes a large share to the regional economy, and the large number of small and medium cities is an outcome of rural industrialisation and urbanisation’. This divergence in research perspectives has resulted in a gap between the knowledge on current urban and regional transformations in the developed and the developing economies, in spite of the fact that the latter is also rapidly catching up in advanced service sectors (Hutton, 2003).

‘[I]t remains to be seen in what ways the insights gained from... European mega-city regions [can] compare with evidence from emerging megaregional urban forms and experiences outside of Europe’ (Hoyler and Kloosterman et al., 2008, p. 1061).

Therefore, the first objective of this dissertation is to fill this gap by providing a detailed exploration of the new patterns of urban systems and networks generated by advanced services in the PRD. The corresponding research question is:

*RQ1: How do advanced services restructure the PRD’s urban system and reshape its inter-city connections in the regional, national and global urban networks?*

Following the strategy adopted by most previous studies, the dissertation will address this question by examining the location patterns of the key actors in the advanced services economy- the multi-office advanced producer services (APS) firms (Sassen, 1991, Taylor, 2004)- within and beyond the PRD (see section 1.4). Comparisons will be made, firstly, between the PRD’s new regional spaces and networks created by APS firms and its former urbanization pattern that was dominated by (low-end) manufacturing activities; and, secondly, between the spatial transformations of the PRD in the advanced services economy and the experience of Western global city-regions. Through such an analysis, the dissertation will help to elucidate ‘the extent to which the formation of mega-city regions represents a gradual reworking of inherited urban structures or a genuinely new and qualitatively different spatial logic’ (Hoyler and Kloosterman et al., 2008, p. 1062).

### **The global and local dynamics of urban transitions in the new economy**

The second issue that has been widely debated in current urban studies concerns the underlying dynamics of urban and regional transitions in the new economy, or, more in particular, the question of which factors have contributed to the emergence and development of world/global cities and city-regions in the past several decades. There are basically two different perspectives:

The first, dominant perspective emphasizes the overarching role of large-scale

political-economic changes in the transitions being played out in cities and regions in the new world system. Scholars following this research tradition have adopted a largely structuralist point of view, which attempts to link many, if not most, aspects of contemporary socioeconomic transformations of major cities and city-regions in the world to the wider dynamics of globalization, capitalist restructuring (above all, the rise of the advanced services economy), and the formation of the new international division of labor (NIDL) which emerged from the late 1970s onwards (Friedmann, 1986; Sassen, 1991; Taylor, 2004; Scott, 2001, 2012). According to this argument, cities and regions are ‘the expression and outcome of ongoing worldwide economic, political and sociospatial transformations’ (Brenner and Keil, 2006, p. 7). How cities are integrated into the new capitalist system, and which functions they are playing in the world economy, will be decisive for the fundamental transformations of their local industrial structures, labour market conditions, socio-spatial morphologies, and urban landscapes, etc. Therefore, the explanation of current urban development patterns should be achieved first and foremost by examining cities’ dominant accumulation regimes and their articulations within the new global economy.

The second, alternative perspective highlights the significance of contingent local contexts in the process of urban and regional development in an even highly globalized world. Scholars holding this view argue that although the structural changes in the capitalist system are ‘more or less ubiquitous’, which do generate many similarities in cities and regions across the world, they are, however, ‘played out in different national institutional and urban contexts’, resulting in potentially diverging economic production and accumulation regimes and, accordingly, different social-spatial consequences and political implications (Kloosterman, 2010, p. 134). As such, a more comprehensive understanding of contemporary urban transformations should take into full consideration of cities’ (and regions’) specific, divergent local conditions, including, typically, their distinct development paths and histories (Abu-Lughod, 1999; Grant and Nijman, 2002; Kloosterman and Lambregts, 2007; Wolfe, 2010), the active roles played by their local actors, social forces and institutions (Hill and Kim, 2000; Wu, 2000; Hamel et al., 2003; Olds and Yeung, 2004; Wang, 2004; Dupont, 2011; Timberlake et al., 2014), as well as cities’ unique cultural heritages and local identities (King, 1991; Yeoh, 2005; Kong, 2007), etc. ‘[I]t is essential to acknowledge the significance of [these]... localized

development influences' (Hutton, 2003, p. 10).

Although these two perspectives are not entirely incompatible, they have, however, led to quite divergent research agendas and, in some cases, even critical debates in current urban studies (cf. Keil and Olds, 2001; Brenner and Keil, 2006; Roy and Ong, 2011; Thornley and Newman, 2011; McFarlane and Robinson, 2012; Harrison and Hoyler, 2015). There is a growing need for the constructive dialogue between the more general models of urban growth (which, up till now, are largely generated from Western experiences) and the more plural, complex trajectories of urban development in both theoretical and practical terms (Peck, 2015). This dissertation would like to further contribute to this discussion by examining both the global and local dynamics of the PRD's transitions in the new economy. Therefore, the second part of the research focuses on the question of:

*RQ2: What are the impacts of the PRD's specific local contexts on its urban transitions in the new economy under the conditions of contemporary globalization?*

More precisely, it will explore how the PRD's special geo-historical background, institutional arrangements and government interventions provide a counterweight to the political and economic changes at broader scales, and shape the patterns and trajectories of its cities' transitions in the current era. This question will mainly be addressed based on more in-depth, qualitative data and methods. As such, it will also provide an explanation and expansion to the outcomes of the first research question.

### **Challenges to urban policy and planning with the rise of the advanced services economy**

The third major issue that has attracted extensive attention in both academic and policy circles in recent years concerns the policy challenges relating to the rise of the advanced services economy. Due to their 'intangible', 'non-tradable' and 'unproductive' features, for a long time services were regarded as a passive or dependent sector in economic development (Cohen and Zysman, 1987; Coffey, 2000) and, therefore, were overlooked in the policy domain (Yeh and Yang, 2013, p.

3). However, this ‘negative perception of service activities’ is increasingly challenged by the rapid growth of services, especially advanced producer services, in many (developed as well as developing) economies accompanying their deindustrialization processes (ibid.). A now widely held view is that modern services can play an important role in ‘improving production efficiency’, ‘promoting technical progress and innovation’, and absorbing the surplus labour from agricultural and manufacturing sectors, which makes them a potentially new engine of economic growth (ADB, 2009; Bryson and Daniels, 2007). More importantly, with the development of new technologies and the associated reorganization of production processes, services are following manufacturing to develop a new wave of global shift and offshoring (Bryson, 2007). This globalization of services is recognized as an opportunity for developing countries and regions to move beyond (even bypass) low-end manufacturing and achieve more advanced, sustainable economic development through fostering a competitive service sector (Ghani and Kharas 2010; ADB, 2012; Ghani and O’Connell, 2014).

As a result, services, and advanced producer services in particular, are gradually moving to the central stage of economic development policies in many developing countries. In China, considerable optimism has existed in recent years concerning the potential of (advanced) services to restructure and upgrade the country’s predominant, (low-end) manufacturing-based growth model (Daniels, 2013; Yeh and Yang, 2013). Many cities and regions’ local authorities have committed themselves to promote the development of advanced (or modern) services by assigning a priority to these sectors in their recent economic development strategies and urban planning. Great efforts have been devoted by them to attracting high-order service activities, which include, above all, the construction of modern business districts and the planning of various service dedicated zones.

However, some scholars point out a clear gap between ‘the rhetoric’ and ‘the knowledge’ in these service development ‘fevers’ (Daniels, 2013, p. 30). They argue that although the growth of advanced services could be beneficial for a national or regional economy in general, such benefits, however, may not be equally distributed in space. Some cities (usually large ones) tend to be better conditioned in developing advanced services than others (Yang and Yeh, 2013). As such, while making policies to stimulate the growth of service activities, ‘consider

caution must be exercised' (Coffey and Polèse, 1989, p. 24). However, most Chinese cities and regions' service development strategies and instruments are seems still largely copied from their former successful experience in attracting manufacturing activities, which demonstrate a poor understanding of the characteristics of advanced services, especially the factors governing the locations of these activities, as well as the local conditions of specific individual cities (Yang and Yeh, 2013; Wei and Li, 2009). These problematic policy interventions may have little effect while involving relatively high costs.

Therefore, the last part of this dissertation discusses the issues and challenges raised by the development of advanced services in the PRD from a policy perspective. This leads to the third sub question of the research:

*RQ3: To what extent advanced services can provide a viable substitution to manufacturing as the leading sector of economic growth, and what services development strategies could possibly fit different cities in the PRD context?*

This final discussion will present a critical evaluation of the current local policies targeting at (advanced) services in the PRD region. In addition to that, it will also propose some more realistic, alternative policy suggestions according to cities' different development conditions for advanced services. A typology of business services economies will be constructed to provide the theoretical underpinning for the argument, while findings from previous studies and additional data constituting the empirical foundations.

### **1.3 Research area**

To address the above issues and questions, this dissertation chooses one of China's most archetypal transitional city-regions, the PRD, as the research area. As the first region that was opened to foreign investors, the PRD has taken a lead in China's dramatic industrialization and urbanization in the past three decades (Xu and Li, 1990; Sit and Yang, 1997; Enright et al., 2005). The outstanding performance in manufacturing has earned it a reputation as the 'workshop of the world'- 'the contemporary equivalent of 19th-century Manchester' (*The Economist*, 2002). However, with China gradually losing its advantages in low-cost production, the

PRD has also become the region that faces the greatest pressure of industrial upgrading in the country. As recent evidence indicates, a new wave of economic transition, enabled by relatively advanced service activities, is already emerging in the region. This can be easily observed from the new urban landscapes in its major cities (Figure 1.1).

**Figure 1.1** The new city centres of Guangzhou (left) and Shenzhen (right)



*Source:* Author

The purpose of the dissertation is to explore how a predominantly manufacturing city-region is being restructured by emerging advanced service activities, and how this process is shaped by local specific geographical, institutional and historical contexts. In methodological terms, this research belongs to the category of the single case study (Gerring, 2004). According to Gerring and McDermott (2007, p. 688), case study is ‘a form of analysis where one or a few units are studied intensively with an aim to elucidate features of a broader class of- presumably similar but not identical- units’. Because of the great depth and relative looseness it provides, the case study approach is considered to ‘enjoy a nature advantage in research of an exploratory nature’ (Gerring, 2004, p. 349). Moreover, various kinds of data (e.g. statistics, documents, interviews, and observations) and techniques can be used collectively in a case study (Ying, 2003), which makes this approach especially suitable for the investigation of complex phenomena, such as urban and regional development.

There are two basic case selection methods in the case study research: random

selection and purposive selection. Typically, in studies with a small number of cases (like the current one), purposive case selection is a more viable approach (Seawright and Gerring, 2008). Seawright and Gerring (ibid.) has suggested seven strategies for purposive case selection- ‘typical’, ‘extreme’, ‘influential’, ‘deviant’, ‘diverse’, ‘most similar’ and ‘most different’ cases. Among them, only the first four are relevant in the context of a single case study. This dissertation chooses the PRD as the study area because it has the features of both a *typical* and an *influential* case. As outlined above, the PRD is widely recognized a typical (low-end manufacturing-based, export-oriented) ‘workshop of the world’, which is currently experiencing a new trend of industrial upgrading and economic transition. This makes it an ideal case to examine the impacts of advanced services on the transformations of industrial city-regions in developing economies. On the other hand, as a much observed and studied area, the PRD could serve as an influential example to inspire extensive academic debates and to provide useful lessons for other regions that have (or ready to follow) similar economic development experiences. Admittedly, as a single case study, the dissertation is not aimed at lawlike generalization, but, instead, at enriching the understanding of the new patterns of advanced services-led urban development in places outside the capitalist core countries in both empirical and theoretical terms. Therefore, the main comparisons are made between different cities in the PRD, between the region’s current (advanced services-based) and former (manufacturing-based) patterns of urban development, and between the evidences of PRD and the experience from global city-regions in the developed world.

#### **1.4 Data and methods**

This dissertation has adopted a mixed methods research (Teddlie and Tashakkori, 2010). Multiple data and methods, including both quantitative and qualitative ones, are used to address different research questions.

Firstly, to investigate the restructuring of the PRD’s regional system and inter-urban networks in the advanced services economy, the dissertation has used the method of Interlocking Network Analysis. This method was initially developed by Taylor and the GaWC group to systematically analyze inter-city relations within the world city network (Taylor, 2001), then extended by the POLYNET project to

explore the functional connections between cities at the mega-regional scale (Hall and Pain, 2006). Its basic idea is through examining a large number of APS firms' organizational structures (i.e. office networks) to infer the relative importance of each city and the strength of their inter-urban connections in the economic spaces created by advanced services. This dissertation has collected the location information of 219 APS firms from five producer service sectors, namely banking, insurance, accountancy, law and advertising, to construct the database. To reflect the unique regional context of the study area and the special purpose of this research, several methodological modifications are introduced to the original Interlocking Network Model (INM). The details of the data collection and analysis process are introduced in chapter 3.

Secondly, for a better explanation of the outcomes of the quantitative analysis and a more comprehensive understanding of the local dynamics of different cities' economic transitions, 21 in-depth interviews with relevant actors were conducted in Guangzhou and Shenzhen between May and July, 2013. These interviewees include 15 senior staffs working in APS firms (which are selected mainly from the quantitative database), 3 managers from chambers of commerce and industrial associations, and 3 planners/experts from planning and research institutions. All interviews were undertaken in a semi-structured, face-to-face way with only two exceptions (one through telephone, and the other through e-mail). Each interview lasted for about one hour. This qualitative information provides a valuable complementation to the quantitative method.

In addition to these two main data sources, an extensive set of second-hand data is also used in different sections of the dissertation. These include official statistics, historical documents, reports from media and specialized associations, planning policies and discourses, and academic publications, etc. Data from different sources are cross-examined to increase the validity of the research. Some visualization techniques, such as Geographic Information System, are adopted for the mapping of final outcomes.

## **1.5 Structure of the dissertation**

The main block of this dissertation is organized into five chapters. Each chapter is

also a single article which is either published in or submitted to an international peer-reviewed journal or book. While most of the chapters are centred on a specific research question, their arrangement basically reflects the logic of the three issues outlined in section 2.

Chapter 2 gives an in-depth overview of the long-term evolution of the PRD in the context of changing globalization and China's state policies. It looks at how the PRD has been continuously (re)shaped in terms of global linkages, national status and regional urban system by the national and global political economic changes during different historical periods. Through such a historical mega-regional analysis, the chapter not only provides some crucial background information of the PRD for those who may not be familiar with this area, but also develops an analytical framework, which links the transitions of city-regions to the macro-level political and economic changes in a historical and context-sensitive perspective, for understanding urban and regional transformations in a globalizing world. As such, it also lays a foundation for the investigation of the following chapters.

Chapter 3 addresses one of the three main research questions of the dissertation: the spatial transformations of the PRD in the advanced services economy. Drawing on the method of the INM, this chapter examines the internal and external urban networks of the PRD generated by APS firms. Its result shows that advanced services are leading to a profound spatial restructuring of the PRD in terms of both its internal urban system and its external connections with major national and global cities. The new patterns of the advanced services-led spatial development are rather different from the region's early mode of industrialization and urbanization in the 1980s and 1990s, which pose a challenge to the conventional wisdom of the 'workshop of the world'. This chapter also provides an evaluation of the applicability of the INM in the Chinese context.

Chapter 4 further develops the analysis of chapter 3 by presenting a more detailed comparison of the multiple inter-city networks created by different types of APS firms in the PRD. Specifically, the chapter divides the APS firms in the database into three categories (i.e., firms with headquarters in the PRD, in mainland China and overseas), and explores how firms in each category impact on the internal urban system and external relations of the PRD through their service networks. The

major finding is that the formation of advanced services-based urban networks at different geographical scales is partly determined by the origins of firms. Moreover, with the help of the interview information, the chapter also reveals that the variegated service geographies created by different types of APS firms both within and outside China not only reflect firms' different development histories, client orientations in specific markets and home regions' economic conditions, but also are significantly shaped by China's unique regulatory environment and complex state-market relations.

Chapter 5 focuses on the second main issue of the research: the global and local factors that contribute to urban and regional transformations in the new global economy. Drawing on interview information and statistical data, this chapter conducts an in-depth, comparative analysis of the development processes of two advanced services centres in the PRD- Guangzhou and Shenzhen- after the launch of China's reform and opening up programme in 1979. It tries to understand, firstly, how Chinese local authorities respond to the political-economic changes at the global and national scales and steer their cities' transformations against the background of current globalization; and, secondly, how this process is shaped by individual cities' unique economic structures and local assets that formed along their long-term development trajectories. Theoretically, the chapter further develops the framework proposed in chapter 2, and contributes to the world/global city debate by introducing the concepts of path dependency and strategic management of cities.

Chapter 6 is the concluding chapter of the dissertation, which turns to the question of policy challenges relating to the rise of the advanced services economy. It shows that many PRD cities' current policy interventions that focus on advanced services still rely heavily on their former experiences accumulated in the industrialization period, which tend to overlook the unique natures of advanced services. Therefore, the chapter argues that local policy makers should develop a better understanding of the characteristics of advanced service activities as well as the strengths and constraints of their individual cities, and formulate more targeted policies to promote the development of specific type(s) of advanced services that fits their local economic profiles. However, the implementation of such policies, as the chapter also points out, is not without challenges in the Chinese context.

## Chapter 2

### Globalization and the Megaregion: Investigating the

### Evolution of the Pearl River Delta in a Historical Perspective<sup>\*</sup>

This chapter investigates the evolution of the Pearl River Delta (PRD) megaregion in the context of changing globalization and state policies in a historical perspective. The central question is how the PRD has been continuously (re)shaped in terms of global linkages, national status and regional urban system by the national and global political economic changes during different historical periods. The chapter argues that the contemporary geography of a megaregion can only be adequately understood by referring to its long-term developmental trajectory within broader political economic processes. Moreover, such a historical and context-sensitive perspective is especially important in understanding regions outside the western world, where quite different regional and national histories and contexts may exist.

#### 2.1 Introduction

Since the 1990s, global city-regions, mega-city regions and megaregions have attracted extensive attention in both academic and policy circles (Florida et al., 2008; Hall and Pain, 2006; Hoyler and Kloosterman et al., 2008; Ross, 2009; Scott, 1998, 2001). Contrary to the views that predicted the ‘death of distance’ (Cairncross, 1997) or the ‘end of geography’ (O’Brien, 1992), many scholars believe that globalization does not lead to a simple dispersal of economic activities. On the contrary, globalization has reasserted the agglomerative tendency in many parts of the world, making large cities and urban regions even more important. On the one hand, while advances in technologies of transportation and communication enable some highly routinized economic activities to be transferred over ever-greater distances, the leading sectors of contemporary post-Fordist economy (namely high-tech production, neo-artisanal manufacturing, advanced professional

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<sup>\*</sup> This chapter is published in Harrison, J. and Hoyler, M. (eds) (2015) *Megaregions: Globalization's New Urban Form?* Edward Elgar, Cheltenham, UK and Northampton, MA, USA, pp. 175-199.

services, cultural industries, see Scott, 2008), characterized by high levels of uncertainty, instability and complexity, actually raise the necessity of instant mutual interaction and the need for spatial proximity. Large city-regions, benefiting from the concentration of flexibly networked production systems and close integration with the world market, are primary choices for most modern economic activities (Scott, 2001, 2008; Scott and Storper, 2003). On the other hand, with increasing cross-border economic activities and intensified uncertainty gradually eroding (perhaps more accurately, restructuring) the capability (and willingness) of the nation state to protect all regional and sectoral interests within their jurisdictions, regions are directly confronted with increasing global competition and forced to take greater responsibility for their own prosperity. This fosters a widespread transfer of power and resources towards the sub-national tier followed by a resurgence of region-based forms of economic and political organizations, that is, the rise of new regionalism (Brenner, 2004; Rodríguez-Pose, 2008; Scott, 2001, 2008). Both trends, the concentration of post-Fordist economy and the restructuring of spatial governance and institution-building in favour of the regional scale, are commonly used to explain the growing importance of megaregions within a new world system (Harrison and Hoyler, 2015).

Starting from this assumption, most research on megaregions tends to be framed by the conditions of the current specific form of globalization and worldwide capitalist restructuring that began to unfold in the 1970s. It also explains why economic phenomena and governance practices prefixed by ‘post’ or ‘neo’ always become the focus of analysis (cf. Hesse, 2015). However, this conceptualization of megaregions as the spatial product of a combination of recent technological progress and (neo-liberal) capitalist development is contested.

One line of argument emphasizes the historical continuity in the developmental processes of regions (Kloosterman and Lambregts, 2007; Lambregts, 2006). Accordingly urban systems with high sunk costs (in physical, social and politico-institutional terms) tend to display strong path-dependent characteristics. The current developmental trajectories and fates of regions in the modern world are, as a consequence, still significantly affected by their particular local histories as well as by their insertion centuries ago in national and international economies (Schafran, 2015; Wachsmuth, 2015).

Another critique denounces the (implicit) ‘EuroAmerican hegemony’ in theorizations of megaregions. As Roy (2009) points out, much of the dominant theoretical work on city-regions is firmly located in the urban experience of North America and Western Europe. This ‘normalized narrative of global city-regions’ has devalued the fast-growing regions of the global South and has concealed ‘the heterogeneity and multiplicity of metropolitan modernities’ (Roy, 2009, p. 821).

These two perspectives in fact reflect a more essential question about the geography of megaregions: whether the rise of megaregions predicts a convergence, even homogenization, of urban forms in the 21st century. In this chapter I will contribute to this discussion on the basis of an empirical study of such a megaregion in China. Without denying the uniqueness of contemporary global capitalist economy and the new qualities of modern city-regions as its spatial expression, I want to argue that the pattern of a megaregion can only be adequately understood through referring to its long-term developmental trajectory within broader political economic processes. Although the current wave of globalization shows unprecedented power to include ever more parts of the world into a seemingly single capitalist economic system, the way that a region is integrated in this system is still deeply influenced by its unique developmental path and contingent local context. Moreover, such a historical and context-sensitive perspective is especially important in understanding regions outside the western world, where quite different regional and national histories and contexts may exist and, therefore, the applicability of mainstream theories should be questioned and tested.

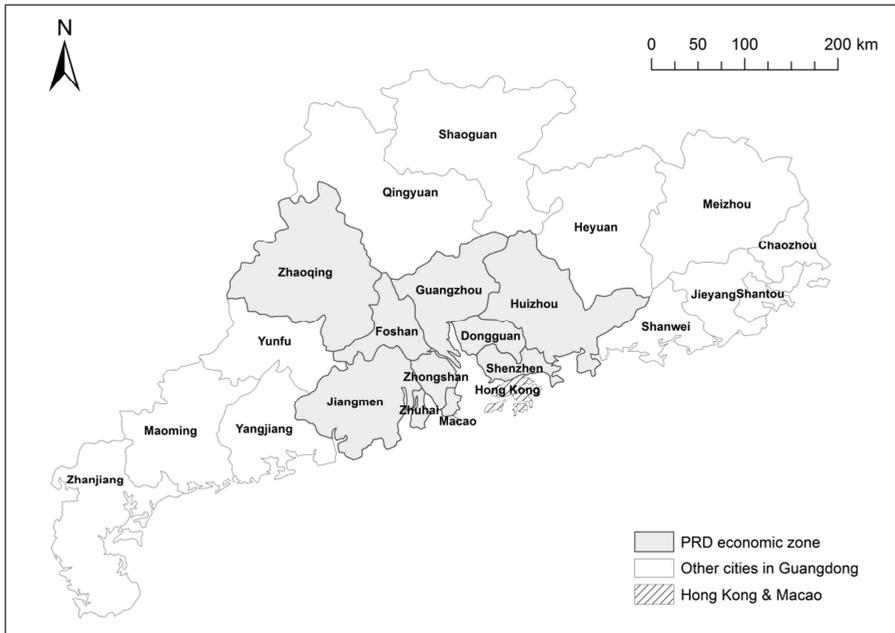
To achieve this purpose, this chapter takes the Pearl River Delta (PRD), a megaregion with a history going back at least two millennia and with dramatic changes in the last three decades, as the case to investigate its formation and evolution in the context of changing globalization and state policies in a historical perspective. The central question is how the PRD has been continuously (re)shaped in terms of global linkages, national status and regional urban system by the national and global political economic changes during different historical periods. In the next section, I will give a brief introduction to both the Pearl River Delta region and the analytical framework. After that, empirical data will be presented to

substantiate the claim that ‘history matters’ in a more concrete way. In the conclusion, I will discuss the implications of this study and make an evaluation of two available frameworks, ‘accumulation and concentration of capital’ (Kloosterman and Lambregts, 2007) and ‘state-city relationship’ (Taylor, 1995, 2004), for analysing the long-term evolution of cities and regions in the global economy.

## **2.2 The Pearl River Delta: a brief history**

Located on the southern coast of China (Figure 2.1), the PRD is known as the country’s ‘Southern Gate’ with a history of more than 2000 years. In 214 BC this region was unified into the Qin Empire (China’s first centralized empire) with the administration centre at Panyu (now Guangzhou). Since then the PRD started increasing communications with Central China, accelerated remarkably after a new route to the North was created (in 716) in the Tang Dynasty (Xu et al., 1994, p. 28). More and more immigrants from the North arrived, especially during eras when Central China was suffering from war. Meanwhile, due to its strong foreign maritime trade, this region began to develop in a way rather different from most other parts of the country. Guangdong province was set up in 1370 under the regime of Ming with Guangzhou as its capital. The ‘Canton System’ (Van Dyke, 2005) in early Qing brought this region rapid prosperity within a short time. However, after the Opium Wars (1840-1842, 1856-1860) it experienced nearly one century of turbulence together with the whole country. The founding of the communist regime in 1949 and the establishment of a centrally planned economic system thereafter turned out to be the start of a period of slow development for this region. After 1978, Guangdong regained a special status in China’s reform and opening up practice and entered a period of dramatic economic growth. In merely three decades it was transformed into the famous ‘workshop of the world’ and turned into a major ‘regional powerhouse’ in China (Enright et al., 2005). Since the late 1990s, we can observe a new development, namely a process of industrial upgrading and economic transition in the region.

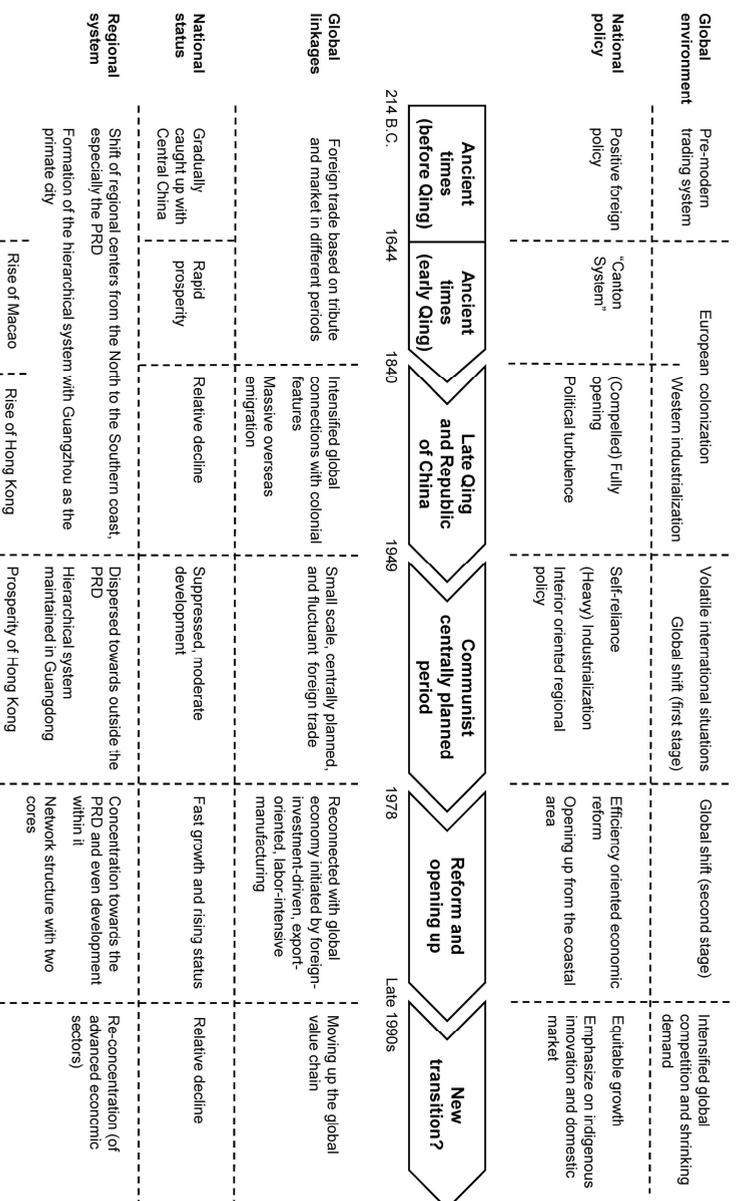
**Figure 2.1** The geography of the Pearl River Delta



*Source:* Author.

Combining a rich history with global connections and periods of radical changes, the PRD provides a valuable case to explore the evolution of the megaregion from a long-term perspective. In addition, China’s political context, represented by a strong (but constantly changing) central state, and historical patterns of urbanization make it a topical case to examine the impacts of national policies on regional development across different stages of globalization. To undertake this type of historical megaregional analysis, an analytical framework was developed, linking the transformations of the PRD’s global connections, its economic status within China and its internal urban system to the changes in the global and national political economic contexts within different historical periods. This framework is used to structure this chapter (Figure 2.2).

**Figure 2.2** Historical framing of megaregion development in the Pearl River Delta



Source: Author.

Since the concept of the PRD economic zone is relatively new, the following analysis is not limited to nine municipalities in this special zone, but also includes other parts of Guangdong province and even Hong Kong and Macao. This area is more similar to the so-called Greater PRD. The information for mapping the developments before 1949 comes mainly from local histories and relevant studies. Such data are relatively sketchy and mostly descriptive. More recent data are collected from various national and regional official statistics. Municipality is the main unit of analysis because data are more easily available and consistent at this level.

### **2.3 Rises and falls: tracing the long-term evolution of the Pearl River Delta**

#### ***2.3.1 Towards the sea: booming of Guangdong in ancient times (214 BC-1840)***

The analysis begins with the period from 214 BC, when the region was first unified into China's national system, to the onset of the First Sino-British Opium War (1840). This is commonly regarded as the ancient period of China's history, ruled (although with interruptions) by powerful empires with a centralized bureaucratic system. The process of globalization during this period can be roughly divided into two stages: a pre-modern, merchant-led trading system based on overlapping regional city networks before the 16th century (Abu-Lughod, 1991; Taylor, 2012) and European expansion and colonization after that. China was at the heart of the East-Asian power system and trading network in the first stage and still maintained a high degree of autonomy until 1840.

As an agriculture-based economic entity with a huge territory, China did not have a strong need to involve itself in foreign trade in ancient times. However, since foreign trade provided an important way to acquire rare luxury goods and to increase national revenue, most royal courts adopted positive foreign policies and sometimes even actively participated in the tribute-type trade before the Ming Dynasty (Xu et al., 1994). Benefiting from its geographical location at the estuary of the Pearl River system and the starting point of maritime business routes to southern and eastern Asia and the Arabian world (China's major trading partners before the 16th century), Guangdong gained importance in the country's trading system (ibid.). China's first ancient foreign trade department (*Shibo Si*) was

established in Guangzhou in the Tang Dynasty (661). The Ming (1368-1644) and Qing (1644-1911) authorities treated foreign trade with suspicion due to the concern of coastal safety and difficulties of managing foreigners. Foreign trade was restricted, sometimes even completely banned, by several emperors. However, the regulation in Guangdong was relatively relaxed. As the farthest port from the 'heart' of the empire, Guangzhou even became the only place designated by the Qing government for foreign trade under the highly regulated *Cohong* trading system between 1757 and 1842, monopolizing China's foreign trade for more than 80 years (Huang, 1988).<sup>1</sup>

Against this background, Guangdong gradually became China's major centre of foreign trade and connected with many ancient civilizations through the pre-modern trading networks. Major imports were rare luxury goods at first. Later, after Europeans became the main trading partner, raw cotton, woolen products and opium also became important. Exports were largely handicraft products and tea (Xu, et al., 1994). Following the Southern Dynasty (420-589), Guangzhou became the largest port city in China and one of the world's most famous ports. Except for being shortly surpassed by Quanzhou (in Fujian) during the Yuan Dynasty (1271-1368), Guangdong maintained its dominant status in China's foreign trade for about 1400 years (Xu et al., 1994).

Foreign trade, in turn, promoted Guangdong's social and economic development. Since far away from China's traditional political-economic centre, for a long time this region developed very slowly and lagged behind the central area. Guangdong's economic potential only started to emerge after transportation was improved and maritime trade started to thrive. During the Ming Dynasty, Guangdong caught up with Central China in terms of its overall economic level (Ye, 2007). The monopoly on foreign trade during the early Qing Dynasty brought the region prosperity based on commercial economy within a short time span. Its commercial networks spread to most major cities across the country (CCLCG, 2004). By 1839, Guangdong became the most populous province in China with nearly 23 million residents (Zhu, 1988).

There were three major changes in the regional spatial structure over this time. Firstly, the regional demographic and economic centre gradually shifted from the

north of Guangdong, where immigrants first arrived, to the southern coastal part, where commercial economy and trade were more prosperous (Zhu, 1988). Secondly, a distinct, hierarchical, regional system was formed. At the top of the hierarchy was the political and economic centre Guangzhou. With approximately 900,000 residents Guangzhou was the second largest city (after Beijing) in China and the third largest city in the world by 1825 (Chandler, 1987). Below Guangzhou were several smaller commercial and handicraft towns or ports, including Foshan, Jiangmen, Chaozhou and Dongguan (CCLCG, 2004; Xu et al., 1994). The remainder of the region was mainly rural. The third remarkable change was the rise of Macao after being occupied by the Portuguese in 1573. Benefiting from Portuguese maritime power and Ming/Qing's dependence on Guangdong for foreign trade, Macao quickly grew from a small fishing village (with only 400 residents in 1555) to become an international trans-shipment centre on several important shipping routes: Guangzhou-Macao-Goa-Lisbon, Guangzhou-Macao-Manila-Mexico and Guangzhou-Macao-Nagasaki. At its peak, the population of Macao rose to 40,000 in 1640 (Huang, 1999).

### ***2.3.2 Decline from eminence: turbulent eras during the late Qing and the Republic of China (1840-1949)***

The industrial revolution started in England at the end of the 18th century and other major European countries followed in her wake. This economic development underpinned an acceleration of European colonial expansion in Asia. The balance of power between China and the Western world was gradually altered and the Qing Empire was defeated by the British in the Opium Wars. This defeat turned out to be a major break in China's history. After the war the Qing authority was compelled to open five ports for foreign trade according to the Treaty of Nanking (Nanjing), and more ports (including inland ones) were added over time. China also lost much of its sovereignty in affairs concerning foreign trade, tariffs and judiciary. Of more consequence, after the Opium Wars China experienced nearly one century of significant sociopolitical and socioeconomic turbulence: the collapse of the Qing Dynasty and the establishment of the Republic of China, the Warlord Era, the Sino-Japanese War and the Civil War. These subsequent political-economic changes had great impacts on the PRD.

With the penetration of European power into China, Guangdong was drawn further into the fast emerging international capitalist system. However, such intensified international connections were characterized by colonial features. Foreign capital became an important power in the region, not only controlling its foreign trade, but also heavily investing in manufacturing, shipping, railway and financial sectors. Guangdong became a main supplier of raw materials and handicraft products as well as a market for exporting industrial products for European countries, which means its specific position in the international division of labour was not very advantageous. From the beginning of the Republic of China (1912) to the end of the Sino-Japanese War (1945), Guangdong had a trade surplus in only three years (CCLCG, 2004). In addition, local domestic industries were severely restrained in the face of foreign competitors.

Political economic changes also shaped the region's global connections in another way: large-scale overseas emigration. Migrating to nearby countries had been a long history in Guangdong, but due to the unstable political economic environment, emigration entered a new stage after the Opium Wars. According to records, in 1941 there were about 5.42 million Chinese from Guangdong living overseas, mainly in Southeast Asia (79 per cent), Hong Kong (14 per cent), Macao (2.5 per cent) and North America (2.6 per cent) (CCGY, 1941). This large diaspora expanded Guangdong's overseas connections and contributed to its development through remittances and investment in local industry.<sup>2</sup> Their active role in the region, as we will see later, was further displayed after China implemented its Open Door policy in 1978.

At the national scale, Guangdong lost the predominant status in foreign trade due to the fierce competition from other opened regions, especially the Yangtze River Delta (YRD). Benefiting from its geographical location at the central point of China's coast and the estuary of the Yangtze River network, as well as a broad economically developed hinterland (including China's main producing areas of silk and cotton products), Shanghai replaced Guangzhou as the prime gateway for foreign products entering China. Between 1844 and 1867, Shanghai's share in China's imports and exports increased from 9 per cent to 67 per cent. At the same time, Guangzhou's share declined from 90 per cent to only 15 per cent.<sup>3</sup> Guangzhou's foreign trade volume further dropped to 7 per cent of that of

Shanghai in 1947 (Yan, 1955). The loss of advantage in relation to foreign trade and the unstable political economy (especially due to the damage caused by war) severely constrained Guangdong's development. Indeed, from 1840 to 1947, Guangdong's population only increased from 25.3 million to 28.6 million (Zhu, 1988).

The most impressive change in the regional system during this period was the rise of Hong Kong under British rule. For a long time Hong Kong was only a small harbour (Tuen Mun) in Guangdong. After the Opium Wars, the British acquired it from the Qing government and made it part of their colonial empire. Excellent port conditions, its strategic geopolitical location, the free port status and its sociopolitical stability provided by the colonial government made Hong Kong a very attractive port for international trade, especially for trade with China. Hong Kong quickly replaced Macao as China's most important entrepôt centre. Between 1865 and 1900, 41 per cent of China's imports and 27 per cent of its exports were with Hong Kong (Keller et al., 2011). Trade-related activities, such as shipping and financial services, also grew very fast. Gradually, Hong Kong became a major provider of business services to Guangdong. Although located in two very different political systems, the fortunes of these two places were closely intertwined with each other. This unique geopolitical relationship has had very profound consequences, which are highly relevant even today.

### ***2.3.3 Suppressed development during the centrally planned economy period (1949-1978)***

The establishment of the communist regime in 1949 led to fundamental political, economic and ideological reorientations in China. The communist leaders abolished the market-based private economy and replaced it with a centralized economic system characterized by public ownership and a high degree of state control and planning. They also gradually retreated from the outside world and turned to self-reliance, partly for ideological reasons and partly because of the volatile international situations (the Cold War, the Korean War, Western embargo on China, worsening Sino-Soviet relations, the Vietnam War). Therefore, regional development in China was tightly bound up with national policies during the planned economy period.

Similar to the USSR, the Chinese central government placed a great emphasis on industrialization with exceptional prominence given to heavy industries. Meanwhile, the priority of investment turned to inland areas, which were considered to be closer to natural resources and energy, less vulnerable to foreign military power and beneficial for the 'balance' of national economy. As a traditional region focusing on trade, commerce and consumption, and lacking a robust industrial base and natural resources, Guangdong was not well-positioned in this national developmental strategy. The region's location at the coastal 'front line' also made it a very low priority for receiving state interior-oriented investment. From 1949 to 1978, Guangdong only received 2.5 per cent of national investment in state-owned enterprises (Zhang, 1992).

Under such circumstances, the role of Guangdong (and the PRD in particular) as a commercial and trade centre was deeply suppressed. Its connection with the global economy was limited to a small-scale, volatile foreign trade, which was seldom over 10 per cent of the national volume (Table 2.1). Foreign capital was excluded. Overemphasizing industrialization and self-reliance prevented Guangdong from exploiting traditional advantages in commerce and trade. Even worse, it disturbed the balance among different economic sectors. Therefore, fast industrialization<sup>4</sup> did not lead to corresponding economic development in the region. During the centrally planned period, Guangdong's importance in the national economic system was not prominent.

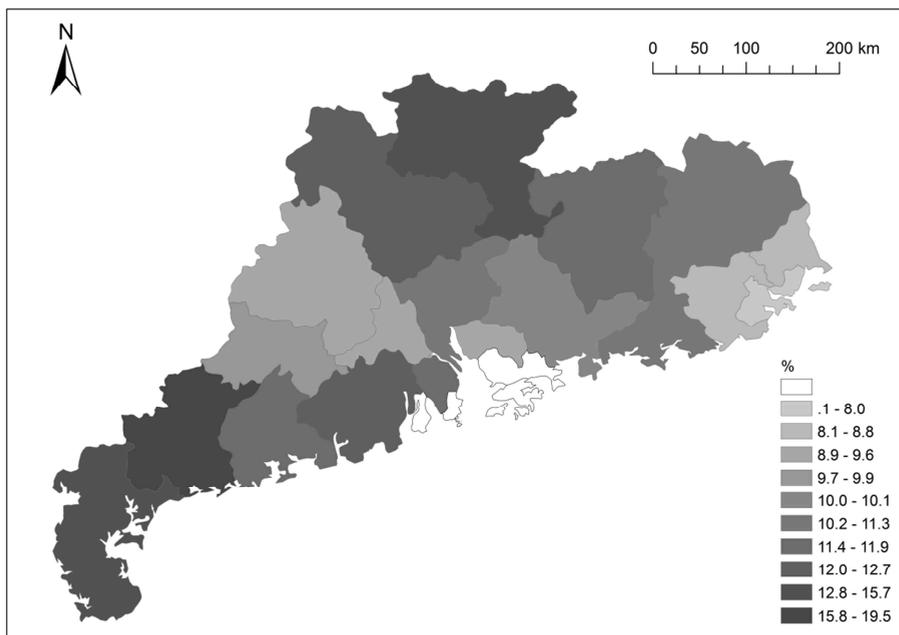
**Table 2.1** Economic indicators of Guangdong (1952-2010)

Items	1952	1955	1960	1965	1970	1975	1978	1985	1990	1995	2000	2005	2010	
Population (million)	Guangdong	29.1	31.5	34.7	38.7	43.8	48.6	50.6	56.7	63.5	73.9	86.5	104.4	
	% of National Total	5.1	5.1	5.2	5.3	5.3	5.3	5.3	5.4	5.6	6.1	6.8	7.8	
GDP (RMB billion)	Guangdong	2.95	4.76	7.28	8.7	11.21	15.77	18.59	57.7	155.9	593.3	1,074.1	2,253.7	4,601.3
	% of National Total	4.3	5.2	5	5.1	5	5.2	5.1	6.4	8.4	9.8	10.8	12.2	11.5
Capita GDP (RMB)	Guangdong	101	152	210	227	258	326	370	1,026	2,484	8,129	12,736	24,647	4,4736
	% of National Total	84.9	101.3	96.3	94.6	93.5	99.1	97.1	119.6	151.1	161.1	162.1	173.8	149.2
FDI (USD billion)	Guangdong	-	-	-	-	-	-	-	0.5	1.5	10.2	12.2	12.4	20.3
	% of National Total	-	-	-	-	-	-	-	26.3	41.9	27.1	30.1	20.5	19.2
Imports and Exports (USD billion)	Guangdong	-	-	-	0.35	0.48	1.26	1.59	5.2	41.9	104	170.1	428	784.9
	% of National Total	-	-	-	8.1	10.5	8.5	7.7	7.4	36.3	37	35.9	30.1	26.4

*Note:* Due to changes in the statistical method, the absolute value of FDI since 2004 cannot be compared with that before it.  
*Sources:* GSB, 1984-2011, 1999; NBS, 2010, 2011.

Following the national policy, Guangdong's most important investments were targeted at the interior municipalities, such as Shaoguan and Qingyuan. Consequently, regional growth hotspots shifted from the PRD, where most industrial assets and outputs concentrated before 1949, to the northern mountainous and the western resource-rich areas (Figure 2.3). As the 'planning centre' of the region, the capital city Guangzhou maintained (even strengthened) its dominant status in the state-led growth. But development among the other municipalities showed a dispersed spatial pattern. By the end of this period, the spatial structure of Guangdong was featured by a strong core plus several administrative centres relatively evenly distributed over space (Figure 2.4).

**Figure 2.3** Average annual growth rate of industrial output in Guangdong (1952-1978)

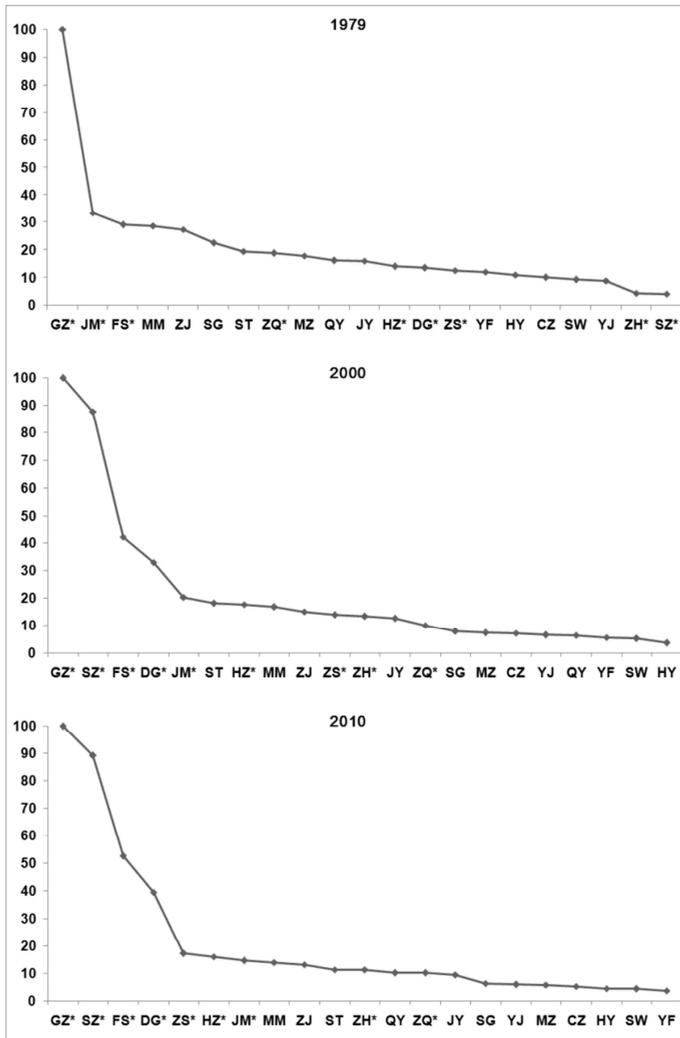


*Notes:*

1. Calculated by the author based on data in two years (current price).
2. No data for Shenzhen, Zhuhai.

*Sources:* DSB, 2004; GSB, 1999; SSB, 2011.

**Figure 2.4** GDP ranking of cities in Guangdong (1979, 2000, 2010)



Notes:

1. CZ-Chaozhou, DG-Dongguan, FS-Foshan, GZ-Guangzhou, HY-Heyuan, HZ-Huizhou, JM-Jiangmen, JY-Jieyang, MM-Maoming, MZ-Meizhou, QY-Qingyuan, SG-Shaoguan, ST-Shantou, SW-Shanwei, SZ-Shenzhen, YF-Yunfu, YJ-Yangjiang, ZH-Zhuhai, ZJ-Zhanjiang, ZQ-Zhaoqing, ZS-Zhongshan.
2. \*: Cities in the PRD.

Sources: GSB, 1984-2011, 1999.

While mainland China gradually fell behind international competitors, Hong Kong entered a period of fast industrialization in the 1950s. This colonial city lost its role as the entrepôt centre after western countries imposed a blockade against China after the outbreak of the Korean War (Vogel, 1989). However, refugees from the mainland during the civil war (1945-1949) brought entrepreneurs (mainly from Shanghai), capital, technology and a large, cheap supply of labour to this land, which promoted the first wave of industrial growth based on textile industry. Later, industrialization diversified into clothing, plastics, toys and other labour-intensive export-oriented manufacturing in the late 1950s and early 1960s, and further moved to low-grade electronics in the late 1960s after Japan started to transfer some low end production activities to Asian neighbours (Schenk, 2008; Vogel, 1989). Hong Kong's average annual growth rate of real GDP reached 9.9 per cent between 1961 and 1981, and even in terms of GDP per capita the growth rate was 7.4 per cent (Chen, 1987). Hong Kong's population had more than doubled from 2.25 million to 4.61 million between 1952 and 1978 (UN, 1953, 1979), with many immigrants arriving from mainland China (mostly from Guangdong). Hong Kong transformed from a pure entrepôt into a successful industrial city. Notwithstanding the spatial proximity, its interaction with the Guangdong region was limited until the end of the 1970s.

#### ***2.3.4 One step ahead: re-engaging the world after 1978***

The economic transition that started from 1978 turned out to be another important break in China's history. To improve productivity and raise the basic living standard of the nation, the Chinese central government incrementally launched a series of reforms and opening up measures in the economic domain, including introducing market mechanisms, reducing state planning and intervention, actively attracting foreign investment and promoting exports to the global market. The state also abolished the 'balance' ideology and introduced an efficiency-oriented developmental strategy which gave more priority to coastal areas (Yang, 1990). Almost at the same time, a new 'global shift' of manufacturing activities from Asian Newly Industrialized Economies (Hong Kong, Taiwan, South Korea, Singapore) to their less developed neighbours started (Dicken, 2011). These two parallel processes triggered rapid industrialization and economic growth in China, with profound regional implications.

Guangdong was chosen by the central government as the first place to practice flexible economic policies. The region was close to Hong Kong and had extensive social network connections with overseas Chinese entrepreneurs. It was far away from Beijing and only contributed modestly to China's treasury therefore its change would have a lower risk of causing unrest in the central government. Local officials in Guangdong were also more open-minded and receptive to new programs and technologies (Vogel, 1989). As a result, three of the four earliest Special Economic Zones (SEZs), Shenzhen, Zhuhai and Shantou, were established in Guangdong in 1980, Guangzhou and Zhanjiang became the first group of 'Open Coastal Cities' in 1984, and one year later, the entire PRD was designated an 'Open Economic Zone'. Instead of investing heavily in Guangdong through top-down, state-led projects, the central government gave it preferential policies and greater autonomy to make economic decisions. Local governments, private entrepreneurs and foreign capital became major actors in regional development after 1978.

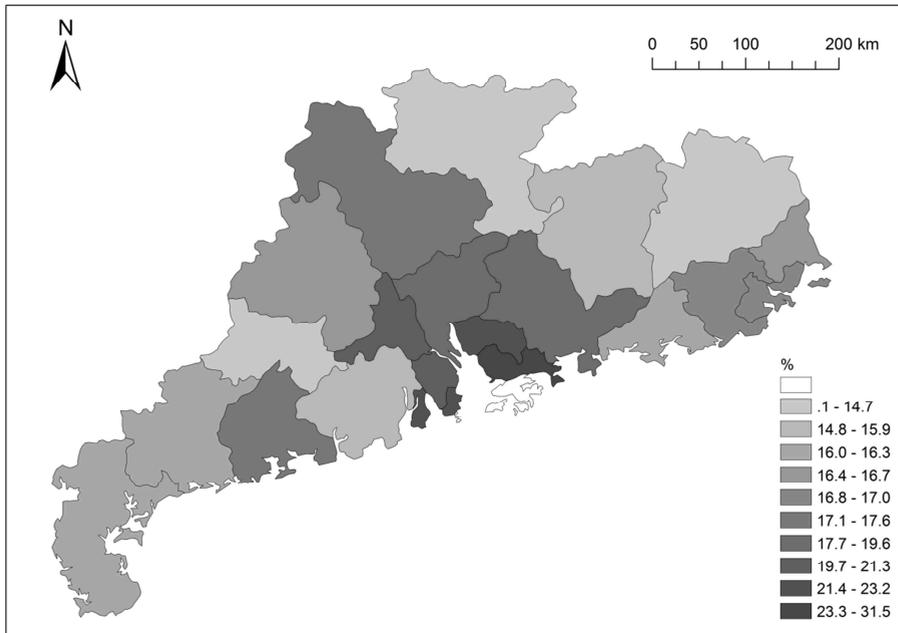
Guangdong regained its role as the 'Southern Gate' of China and started to re-connect with the global economic system. Foreign investment-driven, export-oriented, labour-intensive manufacturing was the most important linkage between the region and the outside world in the 1980s and early 1990s (Sit and Yang, 1997). Hong Kong played a crucial role in this process. This city recovered its status as mainland China's entrepôt centre. Meanwhile, as its economy started to transform from manufacturing to services-based, Hong Kong firms began to transfer their low-end, labour-intensive production to Guangdong (mainly the PRD) to take advantage of its cheaper labour, land resources, flexible policies, as well as the similar cultural and linguistic environment. By the end of 1997, the cumulative value of FDI from Hong Kong in Guangdong was estimated at 48 billion USD, accounting for nearly 80 per cent of the total FDI there. Hong Kong companies and joint ventures employed about 5 million workers in Guangdong, most of whom were working in labour-intensive assembly for export (Schenk, 2008). A 'front shop, back factory' style cross-border spatial division of labour between Hong Kong and Guangdong was formed (Sit and Yang, 1997). Following Hong Kong, investment from Western countries, as well as Japan, Taiwan and Singapore also grew rapidly. Guangdong became the largest recipient of FDI among all provinces in mainland China, attracting over 40 per cent of total FDI and contributing to a similar scale of export/import in the peak years (Table 2.1). The PRD was quickly

transformed into the famous ‘workshop of the world’ and home to many world-leading manufacturing clusters (Enright et al., 2005).

The intensive inflow of foreign investment induced rapid industrialization in Guangdong after 1978 (Sit and Yang, 1997), which was further boosted by more diversified forces in the mid 1990s (Lu and Wei, 2007). The average annual growth rate of industrial output reached 21.6 per cent during the period 1979-2008, that is, 10.5 percentage points higher than the three decades before 1979.<sup>5</sup> Guangdong entered a new period of economic prosperity and acquired a rising status in the national system. By the end of the 1990s, Guangdong contributed to more than 10 per cent of mainland China’s economy, with a much higher GDP per capita than the national average (Table 2.1).

This particular type of industrialization also caused a strong reconfiguration of the regional urban system. In contrast to the balanced developmental pattern during the planned economy period, a new process of concentration towards the PRD happened (Figure 2.5). Benefiting from advantages in policy, human capital, transportation condition and proximity to Hong Kong (the de-facto regional growth pole), the PRD was more attractive to foreign (especially Hong Kong) investors in the early years of opening up. Therefore, cities in this region grew faster than inland areas. However, within the delta, since small-scale, processing-type industrial investments were biased towards smaller cities and counties, where they could find cheaper labour, large undeveloped land and flexible, active local governors, these small urban places and rural areas experienced the fastest growth (Sit and Yang, 1997). In contrast, the capital city Guangzhou, constrained by its rigid administrative system and industrial burdens inherited from the centrally planned era, grew relatively slowly and lost many regional growth pole functions. Shenzhen experienced the most dramatic changes. Within just three decades, Shenzhen grew from a small town into an international metropolis with millions of residents. Many other cities in the PRD (Zhuhai, Dongguan, Foshan and Zhongshan) also grew faster than Guangzhou. In short, a trend of more even development occurred *within* the PRD while there was a spatial concentration towards the PRD at the provincial scale. As a result, the regional system evolved from a hierarchical structure dominated by Guangzhou into more of a horizontal urban system with two principal centres.

**Figure 2.5** Average annual growth rate of GDP in Guangdong (1979-2000)



*Note:* Calculated based on data in two years (current price).

*Sources:* GSB, 1984-2011, 1999.

#### **2.4 The unfinished story: towards a new transition?**

In the 21st century, the PRD has encountered enormous challenges with its export-oriented economic growth model. The region suffers from a shortage of labour and, hence, rising labour costs in conjunction with price rises of raw materials, and an appreciation of RMB (Yang, 2012). This situation is further exacerbated by changes at the global scale as the PRD has to face shrinking demand in the industrialized world and intensified global competition from other lower-wage developing countries (Asia Business Council, 2011). Alongside this, to narrow the gap between the coastal and the inland areas, the Chinese central government has adjusted its regional policies from ‘coast-preferred’ to ‘equitable growth’, which pushes forward reform and opens up more regions and sectors, and

promotes the development of inland provinces (ibid.). It has also given more emphasis to indigenous innovation, sustainable growth, internal demand and the domestic market. The advantageous position of Guangdong, based on export-oriented, labour-intensive industries, has thus been eroded.

Against this background, a new trend of industrial upgrading and transition promoted by the local government is emerging in the region. Both provincial and municipal governments have initiated relevant policies, such as *teng long huan niao* ('replacing the bird but keeping the cage'; in other words, removing the outdated, low value-added sectors to make room for innovative, high value-added activities) and 'withdrawing secondary (industries) and promoting tertiary (industries)' in their plans to promote the development of high value-added manufacturing and knowledge-based service sectors (Asia Business Council, 2011, p. 2). To realise these goals, local governors have also put great effort into constructing a modern transport and communication infrastructure together with launching hundreds of mega-projects through government-led investment, attracting companies in high-tech, capital-intensive industries, and enhancing cooperation with actors based in Hong Kong and Macao after they became part of China again.

At the moment, it is only possible to give a preliminary evaluation of the impacts of these changes. First of all, the region is showing some signs of upgrading in the global value chain. For example, between 2000 and 2010 the share of heavy industry in Guangdong's gross industrial output increased from 47.1 per cent to 61.7 per cent. Export of high- and new-tech<sup>6</sup> products grew from 17 billion USD to 175 billion USD, which means from 18.5 per cent to 38.7 per cent of total exports (GSB, 2011). In service sectors, 75 per cent of realized FDI among all services (27 per cent among all sectors) went into producer services<sup>7</sup> during 2006-2010. Employment in producer services almost doubled from 2.41 million to 4.65 million between 2003 and 2010 (GSB, 1984-2011). However, the region's ambition to transform from the 'workshop of the world' into a leading global city-region in the 21st century is not without pitfalls (see Liao and Chan, 2011; Yang, 2012).

At the national scale, although Guangdong still maintains a high-speed growth

economy, its leading position in the country has declined in relative terms due to the faster development of other provinces and the fierce competition from China's other two major powerhouses: the YRD and the Bohai Economic Rim. This is reflected, firstly, in the fall of Guangdong's share in FDI and imports/exports. Since 2005, Guangdong's contribution to the national GDP, although remaining the largest among all provinces, has also started to drop (Table 2.1).

The regional urban system has not been significantly affected by these new changes (Figure 2.4). However, it is worth noting that advanced economic activities are more inclined to concentrate in the two core cities (Table 2.2). As the historical political, cultural and transportation centre, Guangzhou has a leading position in scientific research, technical services, logistics, cultural and recreational industries. Shenzhen, benefiting from its financial centre status, is more attractive to business services, real estate and financial sectors. Their different comparative advantages are obviously related to distinct developmental paths. In the long run, economic transition and the new trend of concentration may shift the fortunes of different cities in the PRD and cause another restructuring of the regional system. However, when, how and to what extent this will happen is still undetermined.

**Table 2.2** Guangzhou and Shenzhen's share of employment in Guangdong in selected economic sectors (2010)

Sector	Guangzhou (%)	Shenzhen (%)	Combined (%)
Scientific Research, Technical Services and Geological Prospecting	50	29	79
Leasing and Business Services	26	41	67
Real Estate	24	37	62
Information Transmission, Computer Services and Software	27	30	57
Finance	19	27	46
Transport, Storage and Postal Services	25	17	42
Culture, Sports and Recreation	24	13	37
Manufacture	14	17	31
All Sectors	14	12	26

Sources: GSB, 2011; SBG, 2011; SBS, 2011.

## 2.5 Conclusion

This chapter has reviewed the evolution of the PRD through unpacking its global linkages, national status and regional system in the context of changing globalization and state policies from the pre-modern to the current era. Undoubtedly, for a region with a history of more than two millennia, the above analysis is necessarily brief and reductionist. I chose to organize the analysis based on five major stages in the region's history and focus on important structural forces driving regional changes in different periods. This leaves little space for variations within each stage and the internal dynamics. That said, the analysis still generates some clues towards a better understanding of the development of the megaregion.

Firstly, the formation of a megaregion is a long-term process. Although globalization and worldwide capitalist restructuring in the past three or four decades have profoundly altered the fortunes of many regions and cities, history still matters in terms of indicating possible directions for change. In the case of the PRD, the external-oriented features of its economy have already been formed centuries ago. Its revitalization in the current stage of globalization should be treated as the continuation of this long-term trajectory, albeit adding some new elements. Historical legacies from former periods, such as colonial heritage (Hong Kong), diaspora (overseas investment), institutional arrangement (Shenzhen) and cultural legacy (Guangzhou), still have significant impacts on the patterns currently observed in the PRD megaregion. Based on the particular combination of these elements, cities within the same region (for example, Guangzhou and Shenzhen) may find different opportunities in the contemporary global economy.

Secondly, this process is constantly shaped and reshaped by political economic changes at supraregional scales, which (through re-organizing a region's natural, economic, social and geopolitical conditions) may provide possibilities for fundamental path breaks for the region. Several such breaks can be identified in the PRD's evolutionary trajectory: some brought it rapid prosperity within a short time, such as the Canton System in the early Qing Dynasty and the Reform and Opening Up after 1978, while others seriously constrained its development, including the invasion of foreign colonial forces and political turbulence between 1840 and 1949 and the excessive intervention of the central state during the communist centrally

planned period. The transition from one stage to another is the result of interaction between the continuing global capitalist restructuring (pre-modern world system, industrialization and global capitalist expansion, global shifts) and the transformation of the state (centralized empires, semi-colonial sovereignty, communist regime, reforming state).

Therefore, it is proper to conclude that the formation and evolution of megaregions may not follow the same pattern, but reflect the local specific combination of historical legacies and contingent political economic contexts. There are two available frameworks for analysing the long-term evolution of cities and regions in the world economy, but both of them have limited applicability in the case of this chapter. Kloosterman and Lambregts (2007) have set up a framework for comparing long-term trajectories of regional urban systems through examining the accumulation (the quantity of capital that is accumulated in the regional economy) and concentration (the extent to which a region's capital stock is concentrated in the major cities) of capital according to different stages (which they divide into pre-industrial, industrial and post-industrial) of capitalism (cf. Phelps and Ozawa, 2003). However, China's unique history makes the three-phase division seem over-simplified. For example, the PRD has experienced at least three identifiable stages of industrialization. The first stage happened in the late 19th and early 20th centuries, in which colonial investment and demand played a major role. The second stage took place during the communist centrally planned period, which was characterized by over-industrialization with great emphasis on heavy industries. Both processes were to a large extent the outcomes of interventions from outside and, due to either the control of colonial power, or the ignorance of basic regional conditions, none of them was able to bring sustainable accumulation of capital in the region. It was only in the third stage that a significant accumulation and redistribution of capital took place in the PRD. This time, it was the foreign investment-induced fast industrialization after 1978, which was also initiated by forces at higher levels, but 'strategically coupled' with local interests and motivations (Yang, 2009). Therefore, the process of industrialization in the PRD is not a simple linear path, but accompanied with several ruptures and even retrogresses. In addition, considering its unique legacies of industries, capital and labour, there seems to be little reason to believe that the region will follow a similar route of de-industrialization or post-industrialization as most western megaregions

in the near future.

The second framework, as developed by Peter Taylor (1995, 2004), tries to understand the rises and falls of cities and regions in the world system through the lens of their relationship with nation states. Taylor distinguishes three phases in the evolution of the historical world system: First, a mercantilism-based, city-centred, pre-modern transcontinental ‘world system’ up to the end of the European medieval age. Second, the rise of territorial nation states and the nationalization of cities from the 17th to the mid 20th century, which surrendered cities to a state-centred modern world system. Third, the undermining of states and the rise of a worldwide network of cities and regions as the major spatial organization of the world economy since the 1970s. Opting for such a prominent role to opposing city-state relationships is deeply rooted in what is arguably the rather idiosyncratic history of European political-territorial fragmentation and mercantilist tradition; thereby it tends to treat the fortunes of cities and states as opposite to each other. In my view, this approach has underestimated the power and influence states have had in cities and regions, at least in the Chinese context. As the PRD shows, the central state has always played a key role in regional development, not only influencing a region’s internal structure (spatial developmental pattern), but also shaping its connections (flows of goods, capital, knowledge and people) with the outer economic systems. Only in very rare and short periods (like the end of the Qing Dynasty) can we observe a weakening or absence of state power in a limited number of cities and regions. In most times, the destinies of the state and its cities and regions are closely intertwined with each other. Instead of the ‘state versus cities’ metaphor, state regulation, policy, strategy, even direct intervention, set up one of the most important preconditions for regional development in China.

The experience of the PRD may be a unique case. Even in China, we can find regions with quite different developmental trajectories and diverse ways to integrate with the national and global systems. However, the story of the PRD shows that a full consideration of local history and context can enrich our understanding of the megaregion as ‘globalization’s new urban form’. Moreover, in a world with increasing similarities and growing inter-regional competition, concepts like ‘global city’, ‘global city-region’ or ‘megaregion’ are quite easily overused by local policy makers and managers as an ideal model to guide city and

regional development, as well as a marketing strategy to highlight regions on the map of the global economy. This urges both the academic and the policy world to rethink the applicability of these ‘fashionable’ concepts in different local contexts, and to look for the specific mode of development which fits the unique path, conditions and identity of a place. In this sense, our search has just begun.

## Notes

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<sup>1</sup> A similar policy was also adopted by the Ming government during the period 1523-1566 (CCLCG, 2004).

<sup>2</sup> Between 1864 and 1948 remittance flows into Guangdong reached 2.87 billion USD, accounting for 82 per cent of the national total volume. It is estimated that 40 per cent of domestic industries in Guangdong was invested by overseas Chinese capital in 1949 (CCLCG, 2004).

<sup>3</sup> Calculated based on Yao (1962).

<sup>4</sup> For example, the share of the secondary sector (manufacturing and construction) in regional GDP increased from 13 per cent to 47 per cent between 1949 and 1978 (NBS, 2010).

<sup>5</sup> Source: report from Guangdong Statistics Bureau, available at [http://www.gdstats.gov.cn/tjfx/t20091009\\_74223.htm](http://www.gdstats.gov.cn/tjfx/t20091009_74223.htm) (accessed 18 July 2013).

<sup>6</sup> ‘Biotechnology’, ‘Life Sciences Technology, Photoelectric Technology’, ‘Computer and Communication Technology’, ‘Electronic Technology’, ‘Computer Integrated Manufacturing Technology’, ‘Material Technology’, ‘Aerospace Technology’, ‘Others’.

<sup>7</sup> ‘Transport, Storage and Postal Services’, ‘Information Transmission, Computer Services and Software’, ‘Finance’, ‘Real Estate’, ‘Leasing and Business Services’, ‘Scientific Research, Technical Services and Geological Prospecting’.

## Chapter 3

# Connecting the ‘Workshop of the World’: Intra- and Extra-Service Networks of the Pearl River Delta City-Region<sup>†</sup>

Most research on globalization and city-regions in developing countries has focused on manufacturing activities, disregarding the considerable growth of producer services. Drawing on the Interlocking Network Model, this chapter presents a first analysis of the intra- and extra-service networks of the Pearl River Delta (PRD) city-region in China. The central question is how cities in the PRD are (re)positioned in the regional urban networks and which national and global cities are their major external connections in the service economy. The result reveals a new pattern of producer-services-led development that differs from the former industrialization experience in the region.

### 3.1 Introduction

Since the 1970s, globalization and worldwide capitalist restructuring have profoundly changed the spatial organization of world economy. Selective economic concentration, deconcentration and re-concentration have not only reconstructed the economic structures of cities and regions, but also reshaped their functional connections with the outside world. One significant outcome is the emergence of prominent city-regions with complex internal networks and external linkages all over the world (Hoyler and Kloosterman et al., 2008; Pain, 2012). These city-regions, often preceded by ‘global’ or ‘mega’, have become key arenas for high-end economic activities and the generation of innovations (Herrschel and Newman, 2002; Scott, 2001, 2012). At the same time, their prosperities are increasingly attached to their capability to combine a fruitful ‘local buzz’ with ‘global pipelines’ (Malmberg, 2003; Bathelt et al., 2004).

Many studies have been undertaken to capture the mechanisms of such

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<sup>†</sup> This chapter is co-authored with Robert C. Kloosterman and is published in *Regional Studies* (2014, online before print), doi: 10.1080/00343404.2014.962492.

global/mega city-regions in the current process of global economic restructuring (Hall and Pain, 2006; Hoyler and Kloosterman et al., 2008; Taylor et al., 2009; Lüthi et al., 2010; Derudder et al., 2012). One common feature of them is that most are limited to developed economies. However, with ongoing globalization, regions in developing areas are also increasingly connected to the global economic system, being reshaped by such processes and, in their turn, boosting globalization into a new level (Douglass, 2000; Florida et al., 2008; Jones and Douglass, 2008; Scott, 2012). Due to their success in manufacturing, research on these regions has basically focused on the process and influence of rapid industrialization. In comparison, although displaying considerable growth, services, especially advanced producer services (APS), have only attracted marginal attention (Daniels et al., 2005). How regions in developing countries are reshaped by advanced service activities and are connected to the global urban system through them have remained mostly a black box.

This research focuses on the Pearl River Delta (PRD), the famous ‘workshop of the world’, to explore its internal and external service networks drawing on the method of the Interlocking Network Model (Taylor, 2004). Several characteristics compared to its western counterparts make the PRD especially interesting: its extraordinary size, its rapid industrialization and urbanization, its importance in China’s economic landscape, and a distinct path of modernization with complicated, even opaque, state-market relations (Jacques, 2012). The purpose is to provide some new insights on the global/mega city-region, this globalization’s new urban form (Hall and Pain, 2006), from the perspective of the developing world. The central question is how cities in the PRD are (re)positioned in the regional urban networks and which national and global cities are their major external connections in the service economy.

The chapter is structured as follows. It begins with a brief review of the theoretical progress on globalization, economic restructuring and regional development in China, focusing on the PRD. Next, the development of producer services in the PRD is introduced in the third section. The fourth section deals with methodology and data. The fifth section describes and interprets the inter-city connections at regional, national and global scales of the PRD produced through the intra-firm networks of five APS sectors. The concluding section discusses the implications of

the empirical results for understanding the new phase of service-led economic transition and urbanization in some emerging economies (like China), as well as the applicability of the Interlocking Network Model in the Chinese context.

### **3.2 Globalization, economic restructuring and regional development in the Pearl River Delta**

In the past two decades, the integration of China with the world economy and its regional restructuring and development have become an important field of research. The PRD, as the first region experiencing globalization and economic transition in China, is of particular interest. Due to the key role of foreign investments (primarily from Hong Kong) in the region during its initial developmental stage, most early studies focused on the characteristics of foreign investments and their spatial effects, especially their influence on the regional urbanization process. A common finding is that, during the 1980s and the 1990s, many Hong Kong industries outsourced their production activities to the PRD, which induced a process of rapid export-oriented industrialization in the region. Meanwhile, Hong Kong was upgraded into an international commercial and financial centre, focusing on marketing, logistics, trading, banking and other high-value-added services. A ‘front shop-back factory’ model was proposed to describe the unique regional division of labour between Hong Kong and the PRD (Sit and Yang, 1997). Spatially, since foreign direct investment (FDI) flowing into the PRD concentrated mainly in small and medium scale, labour-intensive and processing-types manufacturing activities, it promoted the predominant growth of smaller urban places and rural areas, at the expense of a declining primacy of Guangzhou and other traditional centres (Sit and Yang, 1997; see also Xu and Li, 1990; Eng, 1997; Lin, 2001). This pattern of ‘urbanization from below’ or ‘bottom-up urbanization’ distinguished China’s industrialization and urbanization process from the Western experience (Ma and Fan, 1994; Ma and Cui, 2002).

Since the 2000s, reflecting some new trends of economic development in the PRD, researchers have diversified their interests into more directions, including, mainly, the shifting spatial dynamics of FDI (Shen et al., 2000; Zhao and Zhang, 2007); the linkages and interactions between the PRD and the global production networks (Yang, 2007; Yang and Liao, 2010); and the localization of foreign capital and

industrial restructuring in the region (Lu and Wei, 2007; Meyer et al., 2012; Lin, 2009; Yang, 2012). These studies have captured an emerging new stage of development in the PRD, which is characterized by more complex industrial linkages with the global production system, increasing importance of internal forces in driving economic development and shaping regional space, and upgrading and diversification (although with pitfalls) of local industries. They have challenged the ‘export-oriented growth’ and ‘front shop-back factory’ model which typified the early development of the PRD. However, as the primary driving force of the ‘workshop of the world’, manufacturing has still taken up the central position of investigation. Service sectors, especially APS, so far have only attracted marginal attention (Yeh, 2005; Lin, 2005; Yi et al., 2011) in spite of, as shown below, their consider growth in the region.

According to Western experiences, producer services can have direct and indirect beneficial effects on regional economic development: creating added value and employment, generating multiplier effects to the regional economic base, boosting productivity and competitiveness of the entire production system, and facilitating economic change and adaption (Illeris, 1996; Coffey, 2000; Daniels et al., 2005; Bryson and Daniels, 2007). Moreover, compared with the Fordist-type manufacturing, whose major concern is to minimize production and delivery costs, producer services tend to have a stronger demand on high-level knowledge and professional labour, advanced infrastructure and communication systems, and the co-presence with clients and other service providers to reduce transaction costs. Therefore, producer services demonstrate a location pattern (typically, a disproportionate concentration in a large metropolitan regions, and particularly in their central business districts) different from that of most manufacturing activities, which makes them a major force to reconfigure urban and regional structures and to reposition cities and city-regions in the broader networks and systems in the ‘Post-Fordist’ economic transition (Daniels, 1991; Illeris, 1996; Scott, 2001; Hutton, 2003; Taylor, 2004; Hall and Pain, 2006; Hoyler and Kloosterman et al., 2008; Sassen, 2011).

It has been noted that the expansion of high-end services into traditional manufacturing areas in developing countries and the concomitant rise of service centres in the ‘East’ (Derudder et al., 2010) seem to take place along different

trajectories than those taken by the mature economies of the Atlantic core (Daniels et al., 2005; Yeh and Yang, 2013). Detailed empirical work is needed to understand how current manufacturing regions in developing countries are being reconstructed by modern service activities and how this process is influenced by local specific contexts. Specific to the PRD, the rise of advanced service economies raises some questions to the current understanding of the ‘workshop of the world’. Does the development of producer services in the region demonstrate a spatial pattern similar to that in the West, that is, a disproportionate concentration in large cities, or it is affected, at least partially, by the region’s former unique decentralized industrialization and urbanization trajectory? Does Hong Kong maintain its ‘front shop’ function and dominate most of the PRD’s external service connections or, considering the diversification of the region’s local economy and global linkages, is it challenged by other global cities? A more general theoretical question is how the new service-led transitions in the PRD can help understand the continuing globalization and regional development in emerging economies? This chapter explores these questions through the lens of the location strategies of APS firms. Before that, it is necessary to briefly review the producer services development in the PRD in the past decades.

### **3.3 The development of producer services in the Pearl River Delta**

With China gradually reforming economies and opening up to the world from 1978 onwards, the PRD has become one of the fastest growing and globalizing city-regions in the world. Geographic proximity to Hong Kong and extensive social network connections with overseas Chinese entrepreneurs enabled this region to be chosen by the central government as the first place to practice flexible economic policies (Lin, 2001). Two of China’s earliest special economic zones (SEZs), Shenzhen and Zhuhai, were established here in 1980 and the entire region was designated as an open economic zone in the late 1980s. A large and cheap labour force, sufficient land supply and support from local authorities attracted huge overseas investments, primarily from Hong Kong, Macao and Taiwan, but also from Japan, the United States and other developed economies (Sit and Yang, 1997). Based on the export-oriented, assembly manufacturing types of industrialization (Sit and Yang, 1997), the PRD has quickly transformed into the famous ‘workshop of the world’- the home to many world leading manufacturing clusters and an

important gateway in integrating China with the world economy. Such internal economic transformation and global integration have brought this region dramatic growth and a rising status within China's economic landscape in the past thirty years (see Table 3.A1 in the appendix of this chapter).

However, great success in manufacturing does not tell the whole story. Although triggered by manufacturing, economic growth in the PRD has also been accompanied by the development of services. The tertiary sector experienced the fastest growth in the region after 1979. In 2010, it already took over the secondary sector as the primary contributor to local gross domestic production (GDP) (see Figure 3.A1 in the appendix of this chapter). Unlike the linear consecutive and progressive sector transition in Western countries, economic growth and transition of the PRD is characterized by a simultaneous expansion of both manufacturing and service economies (cf. Lin, 2005).

After entering the new millennium, export-oriented industrialization in the PRD has encountered enormous challenges due to the rise of labour and production costs, the appreciation of RMB and the increasing external competitions (Yang, 2012). Instead, producer services seem to have become a potentially new engine of economic growth in the region. Based on statistics on six producer service sectors in Guangdong,<sup>1</sup> it is clear that these activities showed significant growth between 2003 and 2010. Employment in these sectors almost doubled from 2.41 million to 4.65 million. Their share in the employment of all services and all sectors increased from 19.8% and 5.5% to 23.8% and 8.1% respectively (see Table 3.A2 in the appendix of this chapter). Meanwhile, FDI actually realized in these six sectors also doubled from 2.83 USD billion in 2006 to 5.68 USD billion in 2010. In total, 75% of FDI in services and 27% in all sectors went into them (see Table 3.A3 in the appendix of this chapter). Realizing the important function of producer services in attracting investment and stimulating economic growth, both provincial and municipal governments take fostering their growth as a key development strategy. APS stand out in 'The Outline of the Plan for the Reform and Development of the Pearl River Delta (2008-2020)' and most cities' 'Twelfth Five-year Plans'. It is quite common to see local municipalities actively building modern infrastructures (central business district, technical park, logistics centre, etc.) as a way to attract higher-end business services.

With the increasing pressure to upgrade economic structure, the ongoing diversification and specialization of local industries and the interventions from the government, it seems likely that the PRD is now entering a new phase of economic transition toward the higher-end of the global value chain. Modern producer services will be both a key driving force and a major beneficiary. This transition will not only affect the PRD's economic performance, but also restructure its connections with the broader economic network.

### **3.4 Method and data**

#### ***The Interlocking Network Model (INM)***

The INM was originally developed by Taylor and the Globalization and World Cities (GaWC) group to investigate inter-cities relations within the global service networks (Taylor, 2004). The POLYNET project expanded it into the study of functional connections between cities at a regional scale and generated new insights (Hall and Pain, 2006). As recent publications have demonstrated, this method can also be used in diverse geographic contexts (Bassens et al., 2011; Derudder et al., 2013). Its basic idea is that the spatial organizations of multi-location APS firms are the outcomes of their long-term operational strategies, reflecting their considerations of the investment conditions and potential values of different places. A city chosen by a firm to be part of its office network can be interlocked with other cities through flows of information and knowledge within such network. Two cities may have a stronger connection if they share more office networks from the same firms. The importance of a city in the overall economic system can also be deduced from the features of networks to which it is connected. So, in the absence of comprehensive relational data, a close examination of firms' office networks can provide a surrogate measure of the functional connections between cities where these offices located in and the position of each city within the regional/national/global economies.<sup>2</sup>

Five APS sectors were selected for this research: banking, insurance, accountancy, law and advertising. This is a smaller selection compared with the POLYNET project which used eight sectors. Design consultancy and management consultancy

were excluded because a pilot data collection showed that these two sectors were still very new in the PRD and only a few multi-location firms existed. Logistics was left out due to data collecting difficulties.<sup>3</sup> Considering the unique regional context, several methodological modifications were introduced while applying the model in this study. They will be specified in the following introductions to the service value matrix constructing process.

### ***Selecting cities***

To make data collecting and analyzing feasible, a limited but sufficient number of cities were selected at the regional (PRD), national (mainland China) and global scales. Regionally, all nine cities within the PRD were selected. National cities were chosen according to cities' economic performance (GDP) and, considering the significance of political factors in Chinese cities, administrative function (provincial capital) in the national urban system. The selection of global cities was primarily based on the GaWC's world city index 2008 (all ALPHA and BETA cities), complemented by some extra cities which were found important during data collecting. Finally, nine regional cities, 43 national cities and 95 global cities constitute the city set.

### ***Selecting firms***

Typically, studies using the INM only focus on leading international firms. But in this research, since APS sectors were not highly developed in the PRD and only a limited amount of international firms were located there, it was necessary to include firms varying from large multinationals to small local operators. To conduct the analysis, a firm had to meet two basic criteria: it should have at least two offices (multi-location firms), and at least one of its offices should be located within the PRD. Besides, some firms only had offices within the region, while others also had offices outside it and even abroad, so the sets of firms were different according the scale of analysis. No single database containing a complete list of all APS firms within the region was available. Firms were identified from various sources, including statistical yearbooks, reports from specialized associations and business rankings etc. Different sources were mutually checked to ensure that all important firms were included.

In China, there were only a limited number of banks and insurance firms and only some of them had offices in the PRD, so all firms from these two sectors met the criteria were selected. The number of firms in the sectors of law, accountancy and advertising was quite large. However, most of them were small single-office firms which could not be used for network analysis, and the number of identifiable multi-location firms was, hence, relatively small. So, most multi-location firms that can be identified in these three sectors were also included. It is reasonable to believe that the database contains the majority of important multi-location firms in the five sectors in the PRD.

Information about office location and function was collected mainly from firms' official websites, supplemented by some specialist statistical websites and other internet sources. Firms with no information available were excluded. The final database comprises 219 APS firms (Table 3.1).

### ***Determining service value matrix***

To make different firms comparable, each of their locating cities was allocated a service value, which indicated the importance of the city within a firm's business network. Service values need to be allocated on a unified scale. GaWC used a 6 grades system from 0 (no office) to 5 (headquarter) to study the world city network, while the POLYNET project reduced it into four grades (from 0 to 3) to coordinate different research teams. A single valuing system is less problematic when firms are similar in size (e.g. when all of them are large international firms). However, since firms used in this research differed in size, ranging from small firms with only two offices to large international ones, it is necessary to consider such difference.

The strategy used was setting a maximum service value for each firm according to the amount of its locating cities, ranging from 3 (headquarters city of a firm locating in fewer than 20 cities) to 5 (headquarters city of a firm locating in more than 40 cities). All cities with a firm's presence were initially allocated a standard service value 2 (a standard office), while cities with no office scored 0. Then, a city's service value might be lowered to 1 or be raised to 3, 4 or 5 according to the

sizes and/or functions of its offices. It was relatively easy to identify headquarters and the absence of an office. But the identification of higher- or lower-level offices proved more difficult due to the limitation of information. This might result in some subjective valuation for some cities. Since the number of firms was large enough, the aggregated service values should be valid to reflect cities' real conditions.

**Table 3.1** Distribution of advanced producer service firms across selected cities

City	Banking	Insurance	Law	Accountancy	Advertising	Total
Guangzhou	42	29	39	28	36	174
Shenzhen	45	30	30	27	7	139
Dongguan	17	20	6	3	1	47
Foshan	20	20	3	3	0	46
Zhuhai	16	18	3	3	1	41
Zhongshan	16	21	1	1	0	39
Huizhou	13	19	0	0	1	33
Jiangmen	10	19	1	0	0	30
Zhaoqing	6	14	0	0	0	20
Gross number of firms	55	33	58	37	36	219
Gross number of offices in the Pearl River Delta (PRD)	185	190	83	65	46	569
Number of offices per firm in the PRD	3.4	5.8	1.4	1.8	1.3	2.6
Gross number of offices in all cities	1,937	1,326	461	1,885	1,244	6,853
Number of offices per firm in all cities	35.2	40.2	7.9	50.9	34.6	31.3

*Note:* 'Gross number of offices' only counts the existence/inexistence of a firm's office(s) in a city, regardless of the number of its office(s).

## 3.5 Mapping the intra- and extra-service networks of the Pearl River Delta

### 3.5.1 *Firms and offices*

The 219 firms operate through 569 offices (without repetitively counting offices belonging to a firm within the same city) in the region (Table 3.1). Most firms (79%) choose to maintain a presence in Guangzhou. Especially in advertising, all 36 firms have set up an office(s) in this provincial capital. Shenzhen follows not far behind Guangzhou, attracting about two-thirds of all firms and even leading in banking and insurance. The gap between these two cities and others is quite large. Among the rest, Dongguan, Foshan, Zhuhai and Zhongshan can be classified as the second tier. However, none of them has offices of over 50 firms. Three geographically peripheral cities (Jiangmen, Zhaoqing and Huizhou) are chosen by only a few firms.

Table 3.1 also shows that different APS activities have quite diverse location strategies. Insurance and banking are two most widespread sectors within the PRD, which also maintain extensive international service networks. This indicates that banks and insurance firms have a strong demand to keep close relations with local clients and, therefore, need to maintain a broader service network. They make significant contribution to the region's overall connectivities. Accountancy is the most ubiquitous sector at the global scale, but is relatively concentrated in the PRD. Most accountancy firms choose to provide services to the region through only Guangzhou and/ or Shenzhen. Advertising is also a highly internationalized sector. About half of the advertising firms in the database are international companies with headquarters outside China (Table 3.2). However, advertising firms prefer a single-office operating strategy in the PRD. Apparently, Guangzhou is the most attractive city. This sector significantly improves the PRD's global connectivity but contributes almost nothing to its connectivity at the regional scale. Law is highly concentrated at both scales. Although this sector contains the largest number of firms, their average size is the smallest at the global level and the second smallest in the PRD. It is the most localized sector with quite limited contribution to the region's overall connectivities.

**Table 3.2** Distribution of firms' headquarters

City/Region	Banking	Insurance	Law	Accountancy	Advertising	Total
Pearl River Delta	6	4	10	3	7	30
Guangzhou	2		6	2	5	15
Shenzhen	3	4	3	1	2	13
Dongguan	1					1
Foshan			1			1
National Cities	25	21	30	17	11	104
Beijing	9	11	24	14	8	66
Shanghai	4	5	3		1	13
Others	12	5	3	3	2	25
Global cities	24	8	18	17	18	85

### ***3.5.2 Networks and connections***

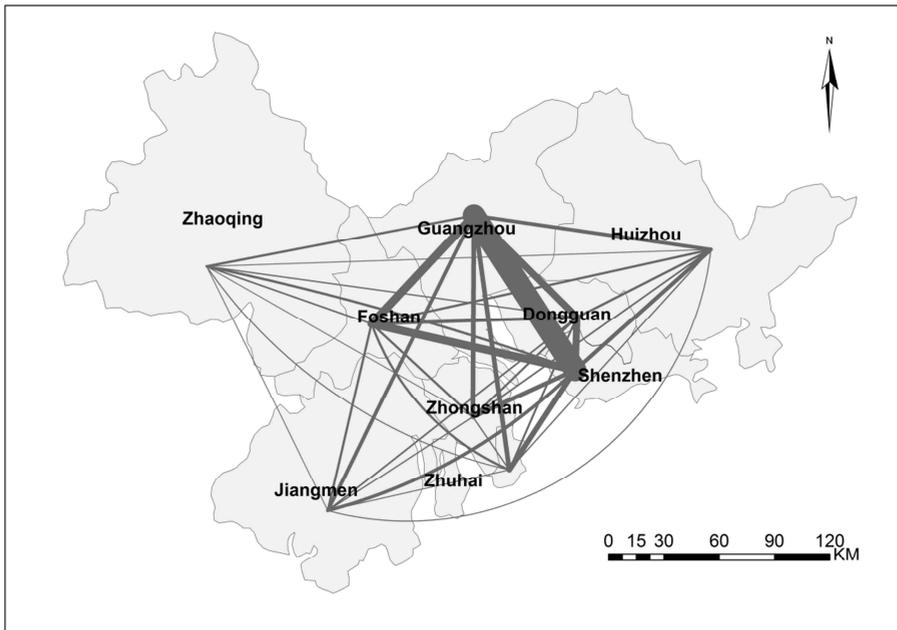
This part examines the patterns of the PRD's service connections by adding up office linkages between pairs of cities and mapping outcomes within different geographic territories.

#### ***Regional connections***

Figure 3.1 shows that the strongest service connection within the PRD is the one that linking Guangzhou and Shenzhen, confirming the dominance of these two core cities in the regional service market and the intensive interactions between them. Next are four connections between this pair of cities and two important regional manufacturing centres: Guangzhou-Foshan, Shenzhen-Foshan, Guangzhou-Dongguan and Shenzhen-Dongguan. However, they are much weaker compared to the primate one. Even the second strongest connection (Guangzhou-Foshan) is only about 37% of that between Guangzhou and Shenzhen. Other relatively robust connections are those between Guangzhou/Shenzhen and two smaller cities (Zhongshan and Zhuhai). Obviously, most minor urban centres in the PRD are primarily connected with Guangzhou and Shenzhen, but not well connected with each other. In general, four geographically nearby cities

(Guangzhou, Shenzhen, Foshan, Dongguan) compose a well-connected regional core. The connections of other cities decay with the increase of their distances from this core area.

**Figure 3.1** Regional connections of the Pearl River Delta (PRD)



*Note:* The width of each line is in proportion to the value of the connection it represents.

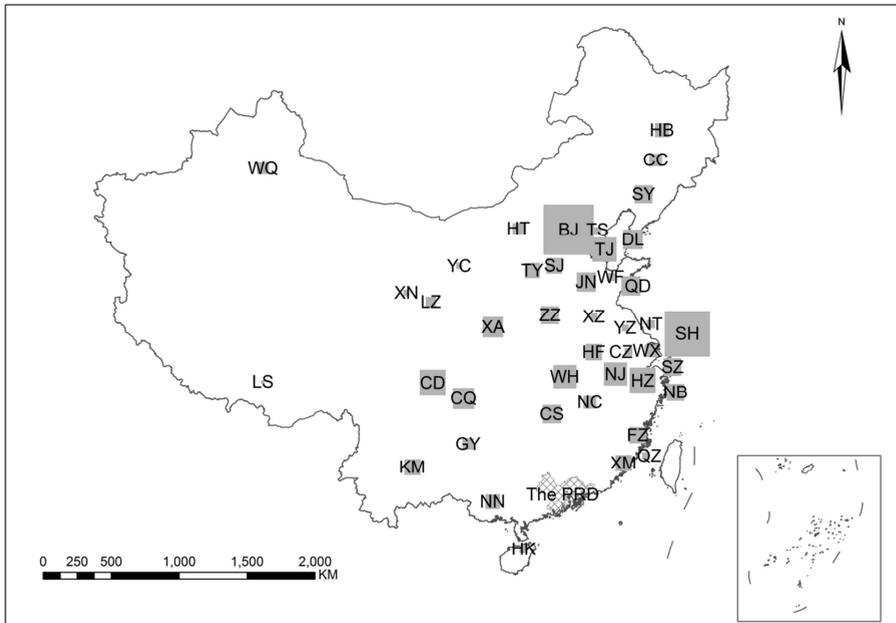
This pattern indicates that an emerging regional service network, although still at an early stage, is in formation in the PRD, promoted mainly by the financial sectors. This service network has a very strong bias toward regional core cities, especially the provincial capital Guangzhou and the financial centre Shenzhen. Most firms' regional headquarters concentrate in these two cities with only two exceptions (Table 3.2). It can be inferred that market demand is the primary driving force for firms to extend their networks into other cities.

### *National connections*

Beijing and Shanghai are the two best-connected national cities with the PRD (Figure 3.2). As Lai (2012) indicates, these two cities perform ‘qualitatively different roles’ with Beijing as the historical political centre and home to key political and economic institutions, and Shanghai as the largest business and commercial hub in mainland China. They occupy key positions in China’s national urban system and share most national headquarters of APS firms (Table 3.2). Following them are a series of important regional centres in both economic and administrative senses, such as Chengdu, Hangzhou, Tianjing, Nanjing and Wuhan. In comparison, provincial capitals with less economic importance in the middle and western part of China (e.g. Guiyang, Langzhou, Lasha, Yinchuan, Xining) have the weakest connections. Some cities (Suzhou, Wuxi, Tangshan etc.), showing very impressive economic performance but undertaking less administrative functions compared with provincial capitals, only have middle-level connections with the PRD. So it is appropriate to infer that most regions in China are connected with the national service network mainly through one or two regional centres. These centres are not solely determined by pure economic achievements, but also influenced by their administrative functions.

Specific to individual cities, their national connections are quite similar to each other and to the region’s general pattern. For all cities, Beijing and Shanghai are two best connected service centres with an obvious advantage. After them are several major regional centres in China, such as Hangzhou, Chengdu, Wuhan and Tianjing. The gaps between these cities are quite small (see Figure 3.A2 in the appendix of this chapter). This pattern suggests that cities in the PRD have very similar ways to connect with the national service network. No city has a unique orientation toward any preferential area.

**Figure 3.2** National connections of the Pearl River Delta (PRD)



BJ-Beijing, CC-Changchun, CD-Chengdu, CQ-Chongqing, CS-Changsha, CZ-Changzhou, DL-Dalian, FZ-Fuzhou, GY-Guiyang, HB-Haerbin, HF-Hefei, HK-Haikou, HT-Huhehaote, HZ-Hangzhou, JN-Jinan, KM-Kunming, LS-Lasha, LZ-Lanzhou, NB-Ningbo, NC-Nanchang, NJ-Nanjing, NN-Nanning, NT-Nantong, QD-Qingdao, QZ-Quanzhou, SH-Shanghai, SJ-Shijiazhuang, SY-Shenyang, SZ-Suzhou, TJ-Tianjing, TS-Tangshan, TY-Taiyuan, WF-Weifang, WH-Wuhai, WQ-Wulumiqi, WX-Wuxi, XA-Xian, XM-Xiamen, XN-Xining, XZ-Xuzhou, YC-Yinchua, YZ-Yangzhou, ZZ-Zhengzhou

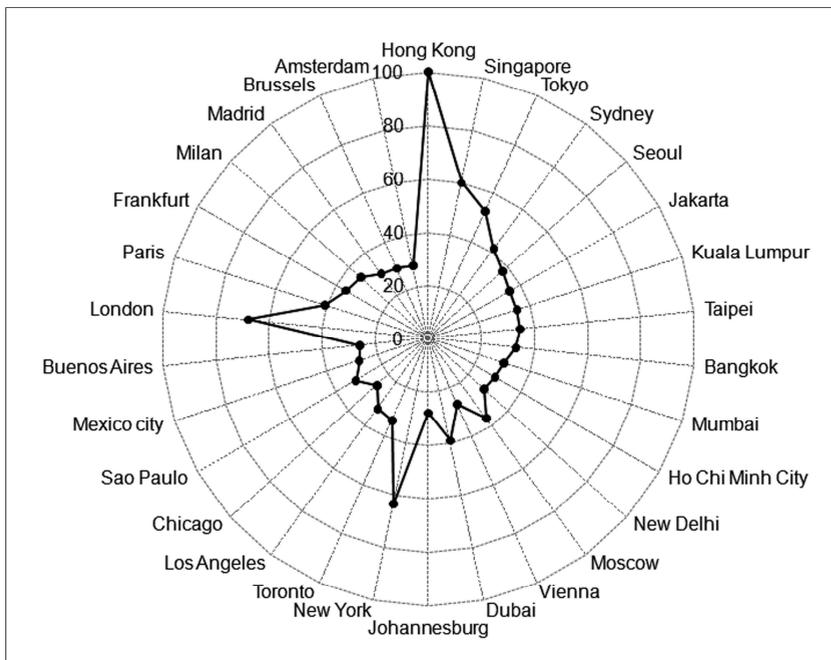
*Note:* The size of each rectangle is in proportion to the value of that city’s connection with the PRD.

### ***Global connections***

Figure 3.3 shows the top 30 global cities in terms of connections with nine cities in the PRD. Hong Kong is the city with which most connections exist. Due to its global city status, competitive institutional and regulatory environment, geographic and socio-cultural advantages and, moreover, the role of an ‘offshore financial centre’ which offers an enclave within China with much less currency restrictions (Lai, 2012), Hong Kong is chosen not only by most international service firms as

the hub of management and control in the market of China (and even Pacific Asia), but also by many Chinese firms as the first springboard for abroad. This dual role makes it an important gateway to connect the PRD with the global services market. There are three cities whose connections with the PRD reach or exceed 60% of that of Hong Kong: London, New York and Singapore. London and New York are the two leading global cities which can be found on tops of most rankings of global economic or financial centres. Their multiple connections with the PRD benefit from hosting headquarters of most large international APS firms. Singapore's situation is similar to Hong Kong's but to a lesser degree. It is preferred by both international and Chinese APS firms as the hub of South East Asia. So its high degree of connection reflects the tight relations between the PRD and this area. After these four cities are a series of familiar global cities such as Tokyo, Sydney, Paris, Dubai, Seoul, Moscow and Frankfurt. Most of them are leading management and service centres in their respective regional markets and the first choices of international firms to setup regional headquarters.

**Figure 3.3** Global connections of the Pearl River Delta



In general, Pacific Asia is the best connected region with the PRD. More than one-third of the top 30 connected cities are from this area. Geographic proximity, socio-cultural similarity and close economic connections are important explaining factors. After Pacific Asia, Western Europe and North America are highlighted, reflecting the dominance of these two areas in the global service market. In comparison, although China's economic connections with Africa and Eastern Europe have grown in recent years, only a few cities sharing important service connections with the PRD can be found in these two areas. It is worth noting that most well-connected cities are also the core cities in countries which are the PRD's major trade partners (GSB, 2011). This implies a close interrelation between international trade and business services, and the key role of core cities in both trade and service networks.

Like the national connections, the global connections of individual cities also show a high similarity. Every city has the strongest connection with Hong Kong, followed by several major global cities like London, New York, Singapore and Tokyo at some distance (see Figure 3.A3 in the appendix of this chapter). This is because minor centres in the PRD are connected with the global service network mainly through several big international firms, whose location choices are quite similar to each other.

### ***3.5.3 Cities within networks***

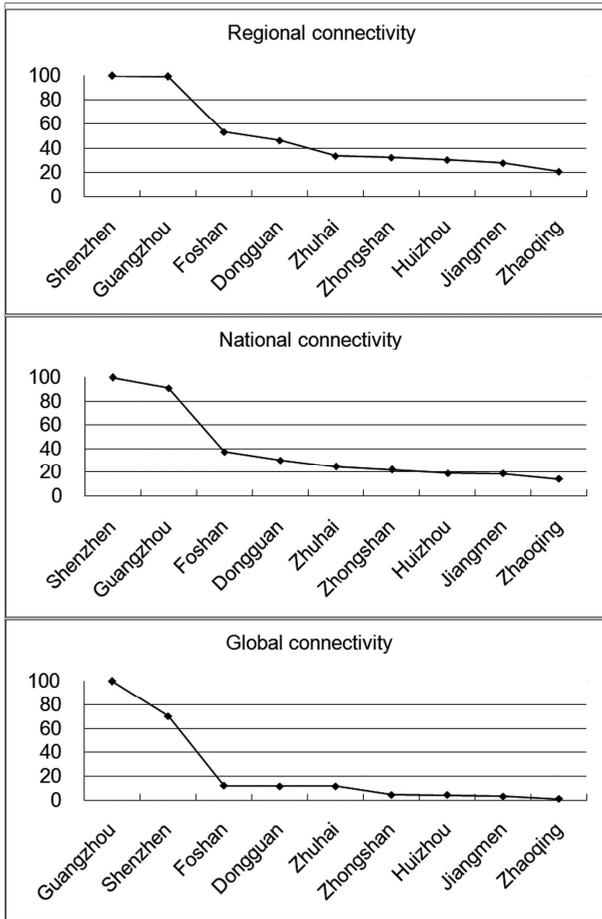
The final part compares the relational significance of cities within the service networks through accumulating their connections with other cities at different scales. Figure 3.4 shows that Guangzhou and Shenzhen have maintained their predominance in all regional, national and global networks. Their importance also increases sharply with the upgrading of geographic scales. Clearly, these two cities function as hubs in the regional service networks and in linking the PRD with the wider service markets. It is interesting to observe that, although lagging behind in the absolute number of offices, Shenzhen equals Guangzhou in network connectivity at the regional scale and even slightly surpasses the latter at the national scale. The explanation can be found in Shenzhen's good performance in banking and insurance, not only in terms of the quantity of offices, but also with respect to their functions within the whole networks. Shenzhen hosts 12 national

headquarters (including foreign firms' headquarters in China) of banks and insurance firms, much more than Guangzhou which has only two. Since these two sectors are well-distributed regionally and nationally, they help Shenzhen compete with, even surpass, Guangzhou at these two scales. This outcome reflects Shenzhen's important role as a financial centre in mainland China. The development of financial services is a relatively new phenomenon in China. Instead of being encumbered by a short history, Shenzhen benefits from its newly emerging urban identity and SEZ status. One of the two stock exchanges in mainland China was located here in 1990. This gives Shenzhen significant advantages in attracting financial investments in the PRD. Building on this, Shenzhen has rapidly grown into a major national financial centre, attracting headquarters of several important Chinese financial institutions such as Ping An Insurance (Group) Company and China Merchants Bank. According to 'Global Financial Centres Index 10',<sup>4</sup> Shenzhen ranks 25th of all 75 global financial centres and third in mainland China following Shanghai and Beijing. Financial services become a pillar sector in Shenzhen which also play a key role in connecting it with the broader economic system.

Interestingly, Guangzhou regains the 'First City' status at the global scale with a clear lead. Advertising and law are the main contributors. Most foreign firms (for law, also firms from Hong Kong) in these two sectors choose to set up their regional offices in Guangzhou, contributing to creating a near monopoly in connecting the region with the global legal and advertising markets. These two sectors should be attracted by Guangzhou's longstanding significant regional influence and institutional legacies. Guangzhou has been the regional economic, political and cultural centre for more than 2000 years. For a long time, it was the largest port in China and, linked to that, a major gateway to connect the country with the world economy (Xu and Yeh, 2003; Zhang, 2015). Although under challenges (particularly in manufacturing) from other regional cities since the 1980s, it is still the most important regional hub in southern China, performing a coordinating role in commerce and trade. Besides, related to this historical heritage, Guangzhou is also the location of most important regional institutions (e.g. provincial government, justice, court, etc.) and big media groups (e.g. most official media of Guangdong province), which are also very important factors in legal and advertising firms' locational choices. It can be expected that, Guangzhou's strategic

role in the regional commercial network and institutional-cultural legacies could be very attractive for foreign advertising and law firms who want to enter the market in southern China.

**Figure 3.4** Network connectivities of the Pearl River Delta at regional, national and global scales



*Note:* Values are calculated as proportions of the value of each primate city.

There is a clear gap between two leading cities and the other ones. The nine cities can be divided into three categories, with Guangzhou and Shenzhen as leaders in

the first tier, Foshan, Dongguan and (to a lesser degree) Zhuhai following in the second, and the other five in the last. Foshan is an important manufacturing centre with a strong local industry based on domestic enterprises. Dongguan, in contrast, is a typical foreign-investment-boosted and export-oriented city. High service connectivities of both cities reflect their robust economic foundations and relatively large markets created by manufacturing activities. Another interesting case is Zhuhai. Although with the smallest population and the second lowest GDP in the PRD, Zhuhai ranks fifth among nine cities at all scales. This is, arguably, related to its SEZ status and geographic proximity to Macao. It also attracts some back-end processing functions in the banking sector. In general, the spatial distribution is more or less in correspondence with cities' geographic locations spreading from the Guangzhou-Shenzhen axis to the periphery of the PRD.

### **3.6 Conclusions**

This research has examined the intra- and extra-regional service networks of the PRD city-region. It has shown how advanced service activities are being inserted into the regional urban system, and also how a predominantly manufacturing city-region is being reshaped by APS activities and re-connected to the national and global economic systems.

With the rapid growth of APS activities, an emerging service network is taking shape in the PRD. However, unlike manufacturing, which has a more balanced developmental pattern, producer services, prone to strong economies of agglomeration, display a strong bias toward major regional centres. The two core cities, Guangzhou and Shenzhen, act as hubs in the regional service market and in linking the region with the broader service networks. In comparison, other cities function mainly as customers of such services in these networks.<sup>5</sup> On the one hand, this reflects the uneven development created by producer services, 'leaving nonmetropolitan, and even smaller metropolitan areas, relatively disadvantaged' (Coffey, 2000, p. 172). On the other, it indicates a top-down developmental trajectory of producer services in the PRD. This is a pattern quite different from the PRD's early 'bottom-up' mode of industrialization and urbanization, which were led by low-end manufacturing industries, but similar to the experience in many Western countries.

Due to the important role of foreign investments in the region, one may expect that the PRD's global service connections will resemble its FDI pattern. However, this research shows that although some similarities do exist, there are also clear divergences. Hong Kong is the best connected global city with the PRD, but compared with its dominance in channeling FDI into this area, this city's influence in the service sector is less preponderant. London and New York also show a high level of linkages with the region, monopolizing most global headquarters of large international firms. With only a modest global headquarter function (except in banking), Hong Kong is more like a service intermediary between the PRD (and mainland China) and the global service market. The same pattern can be found in two other important regional FDI sources, Taiwan and Macao. Singapore and Tokyo, instead, appear as major overseas service centres for the PRD in Asia. This pattern reflects the dominance of Western international firms in global services and the concentration of 'command and control' functions in a few cities (Sassen, 2011). It also implies that, with remarkable improvements in economic performance, urban infrastructure and labour skills in the past three decades, the PRD cities, mainly Guangzhou and Shenzhen, have also developed their own producer service sectors, which, to some extent, make them possible to link directly with global players and bypass the equivalent facilities available in Hong Kong and Macao (cf. Yeh, 2005). It is, then, rather inappropriate to treat the PRD still as a 'back-factory' of Hong Kong.

However, this does not mean that geographic and socio-cultural factors no longer matter. East Asian cities are prominent in the PRD's external service network, especially compared to their rankings in the GaWC's world cities assessment (GaWC, 2012). The reason is that, besides large, Western-dominated international firms, there are also many Asian and Chinese firms (now concentrating in financial sectors) operating in the East Asian local market. These emerging service providers tend to choose geographically proximate and culturally similar regions, which already have a long history of intensive economic interactions, as first places to extend overseas business. They thus improve the connections between cities and regions in the East Asian area. Although still smaller, these rapidly growing firms may create a unique East Asian service network and economic space in the future.

The findings also shed light on the processes of globalization and regional development in emerging economies. Firstly, the impacts of globalization can change very quickly. In just three decades, foreign-investment-driven, export-oriented manufacturing has transformed the PRD into the famous ‘workshop of the world’ with a more decentralized regional structure. However, with the region starting to move up the value chain, such balanced developmental pattern already seems to change. High value-added, advanced services activities are much more prone to agglomeration economies. This raises some important questions with both academic and policy relevance. For instance, how can smaller cities which used to benefit from low-end manufacturing break away from their former developmental path, capture the new opportunities in the service-led development and, thereby, avoid the ‘rust belt’ trap appeared in the Western developed countries? How will the long tradition of state intervention in China and many other Asian countries function in this process?

Secondly, cities can follow different routes of development and globalization. Guangzhou, although lagging behind in the last round of low-end manufacturing-led development, starts to regain the leading position in advanced service economies, drawing on its regional centre status and institutional-cultural legacies formed in a long history. Shenzhen, benefiting from its SEZ status, also attracts some high-end service functions and maintains its advantage in the region. These two contrasting cases show how local specific factors can interact with globalization and influence cities’ development in different ways. More in-depth, comparative studies with a special consciousness of historical dependency and contingency are needed to capture cities’ diverse pathways of restructuring in the modern capitalist economy.

Although there are obvious similarities between Western and, in this case, Chinese urban development trajectories, there are also clear differences. The timing, pace, scale and, importantly, complex relationship between the national state, local public authorities, firms and other actors (cf. Jacques, 2012) necessitate at least a recalibration of theories of urban development, if not a more fundamental overhaul. More work has to be done to even be able to sketch the contours of such a new framework.

What is clear on a lower level of abstraction, though, is that the INM, based on the experience of Western countries, in general provides an effective instrument to investigate systematically the inter-cities' relations in the service economy in the Chinese context. The modeling technique, as testified in this chapter, can be applied at different scales and in different contexts, although some modifications are needed when it focuses on a specific country or region. However, the real challenge lies in the understanding of the underlying mechanism of what comes out of the analysis. Specific to China, one major feature that distinguishes it from western countries is the different institutional environment, especially the state-market relations. As was shown, the spatial pattern of the PRD's APS networks is not purely driven by market logic. The idiosyncratic performance of Shenzhen in financial sectors has, to a large extent, benefited from its SEZ status designated by the central government in 1979. More generally, a city's importance in the national service network is not determined completely by sheer economic factors, but also influenced by its position in the national administrative system. Administrative capitals, national or provincial, enjoy more advantages in attracting higher-end APS functions than other cities. Understanding regional development in China also means taking institutions, the state-market relations and even different developmental paths of cities and regions seriously. How these factors work have gone beyond the capability (and focus) of any specific model or technology. To answer these questions, further in-depth, qualitative studies are still needed.

## Appendix

**Table 3.A1** Growth of the PRD (1979-2010)

Year	Permanent population (million)	Employed persons (million)	Industrial output value (RMB billion)	GDP (RMB billion)	GDP per capita (RMB yuan)	FDI actually utilized (USD billion)	Export (USD billion)
1979	18	9	14	11	621	0.04*	0.49
2010	56	34	7,210	3,767	67,132	18	432
% to the national total (2010)	4.1	4.5	10.3	9.3	223.8	17	27.4

*Notes:*

1. 'GDP per capita' is calculated by the authors based on 'GDP' and 'Permanent population'.
2. '% to the national total (2010)' is calculated based on the regional and the national values.
3. Indices in 1979 are calculated by adding up values of individual cities.
4. No data for Zhongshan and Jiangmen.

*Sources:* GSB, 1999, 2011; NBS, 2011.

**Table 3.A2** Growth of employment in six producer service sectors in Guangdong (2003-2010)

Items	2003	2004	2005	2006	2007	2008	2009	2010
Employment in six sectors (10000 persons)	241	277	306	336	373	399	424	465
Share of six sectors in total service employment (%)	19.8	20.8	20.4	20.7	21.8	22.3	22.9	23.8
Share of six sectors in total employment (%)	5.5	5.9	6.1	6.4	6.9	7.2	7.5	8.1

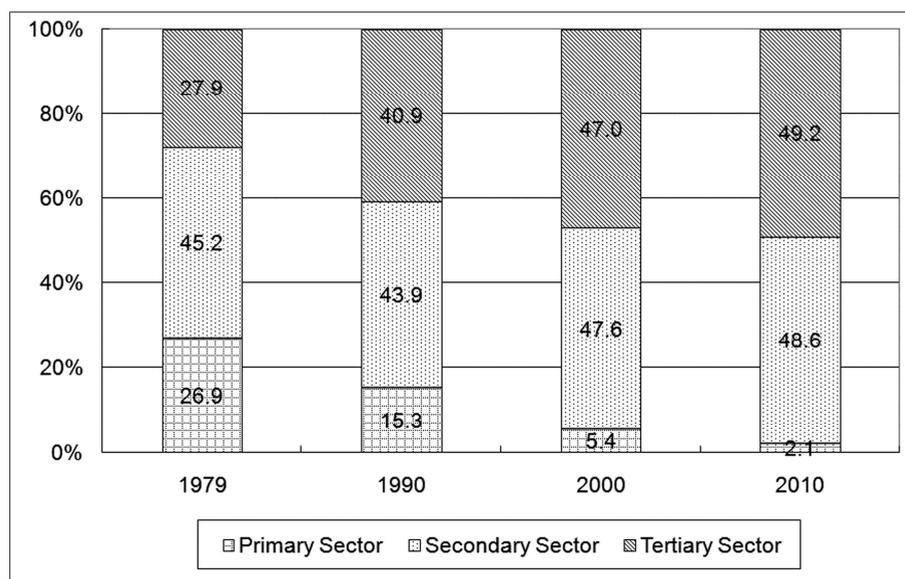
*Sources:* GSB, 2004-2011.

**Table 3.A3** FDI actually realized in six producer service sectors in Guangdong (2006-2010)

Items	2006	2007	2008	2009	2010	2006-2010
FDI actually realized in six sectors (USD billion)	2.83	5.11	5.44	5.27	5.68	24.33
Share of six sectors in total FDI in services (%)	80	82	76	70	71	75
Share of six sectors in total FDI (%)	19	30	28	27	28	27

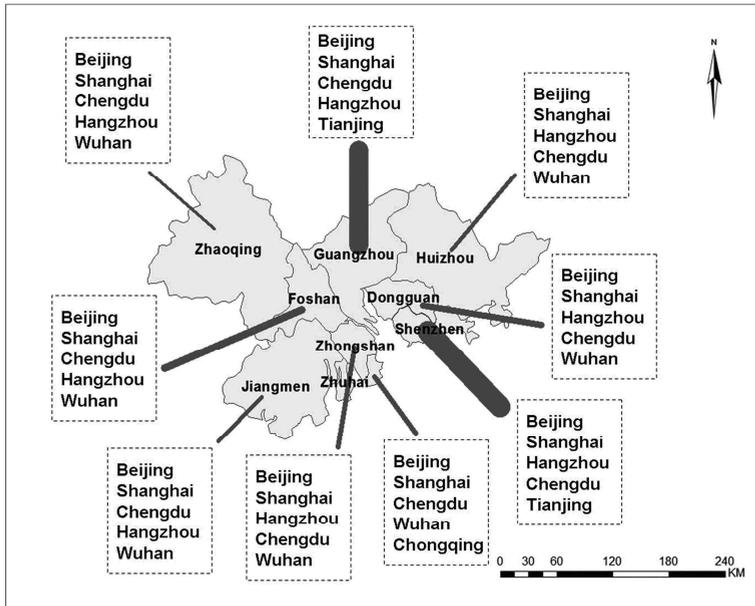
Sources: GSB, 2004-2011.

**Figure 3.A1** Changes of the composition of GDP in the PRD (1979-2010)

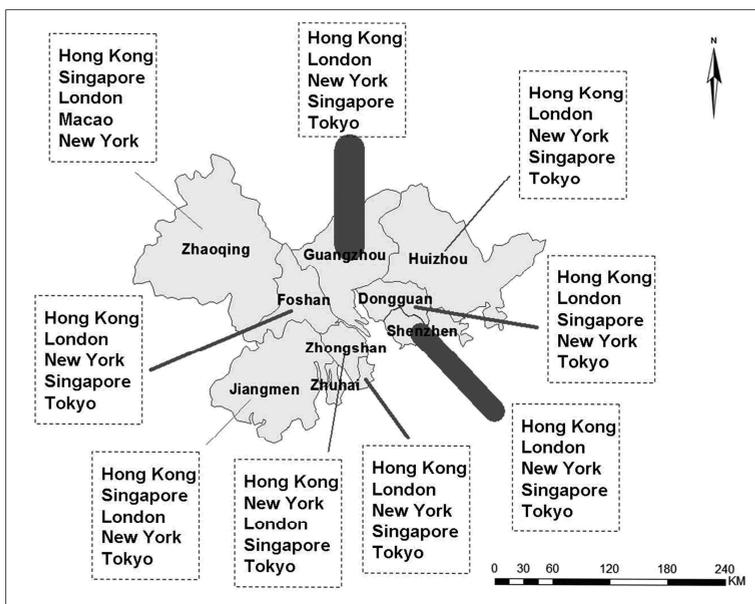


Sources: Cheng et al., 2004; GSB, 2011.

**Figure 3.A2** Top five connected national cities of different cities in the PRD



**Figure 3.A3** Top five connected global cities of different cities in the PRD



## Notes

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<sup>1</sup> These six sectors include ‘Transport, Storage and Postal Services’, ‘Information Transmission, Computer Services and Software’, ‘Finance’, ‘Real Estate’, ‘Leasing and Business Services’, ‘Scientific Research, Technical Services and Geological Prospecting’. Undoubtedly, this selection can only partly reflect producer services and may also contain some consumer service activities. However, they are the only available data which at least provide a baseline for evaluating some structural changes in the study area.

<sup>2</sup> For a detailed introduction to this model, see Taylor et al. (2004).

<sup>3</sup> The INM may not be an appropriate method to study logistics since it is nigh impossible to identify the locations of back-end activities (like storage), which should be at least as important as the front-office functions, of logistics firms from their public information. This may partly explain why logistics is also not included in the GaWC’s work.

<sup>4</sup> The Global Financial Centres Index (GFCI) is produced by the Z/Yen Group, URL: [http://www.qfc.com.qa/Files/Reports/Global\\_Financial\\_Centres\\_Index\\_10\[1\].pdf](http://www.qfc.com.qa/Files/Reports/Global_Financial_Centres_Index_10[1].pdf).

<sup>5</sup> Hong and Chin (2007) show that in logistics there is a similar concentration of foreign firms in Guangzhou and Shenzhen in the PRD.

## Chapter 4

### Multiple Creators of Knowledge-Intensive Service Networks:

#### A Case Study of the Pearl River Delta City-Region<sup>‡</sup>

Functional differentiation between cities and the characteristics of inter-urban networks in the emerging knowledge-intensive services economy have attracted extensive attention in urban studies. However, research on urban networks generated by advanced producer services (APS) has so far focused either on the structures of the networks in general or on the patterns created by various service sectors. In comparison, the question if advanced services from different geographical origins might generate different inter-city networks is less well covered. Drawing on both quantitative and qualitative methods, this chapter explores how APS firms with headquarters either in the Pearl River Delta (PRD) region itself, in mainland China or overseas impact on the internal urban system as well as on the external relations of the PRD through their business networks. The findings indicate that while cities in the PRD are connected with each other and with other Chinese cities primarily through local and national APS firms' business networks, the region's linkages with overseas services centres are shaped predominantly by major international firms from the developed world. The variegated service geographies created by different types of APS firms both within and outside China not only reflect firms' different development histories, client orientations in specific markets and home regions' economic conditions, but also are significantly shaped by China's unique regulatory environment and complex state-market relations.

#### 4.1 Introduction

Over the past three decades, globalization and capitalist restructuring have enabled a reorganization of the spatial development processes. One major expression is the resurgence of cities as the organizational foundations of the new world economy (Friedmann, 1986; Sassen, 1991; Castells, 1996; Scott, 2012). The functional

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<sup>‡</sup> This chapter is prepared for a special issue of an international peer-review journal and is currently under review with the editor.

differentiations between major cities, the patterns of their inter-connections, and the characteristics of urban networks/hierarchies at different geographical scales have attracted extensive attention from urban researchers (Beaverstock et al., 2000; Taylor, 2004; Hall and Pain, 2006; Hoyler and Freytag et al., 2008; Derudder and Witlox, 2010; Derudder et al., 2010, 2012). Knowledge-intensive advanced producer services (APS), as a key driver of current globalization and an important builder of modern urban systems (Sassen, 1991; Castells, 1996), have become one of the most studied activities.

However, research on urban networks generated by APS activities has so far focused either on the structures of the networks in general or on the patterns created by different service sectors. In comparison, the question if advanced services from different geographical origins (for instance, firms headquartered in different countries or regions) might generate different inter-city networks is less well covered. This chapter fills the gap through exploring the diverse location strategies of APS firms from different areas and their roles in creating the multi-scalar urban networks based on a case study of the Pearl River Delta (PRD) city-region in China. The key research question is how APS firms with headquarters either in the PRD region itself, in mainland China or overseas impact on the internal urban system as well as on the external relations of the PRD through their business networks. A database containing the office location information of 219 producer service firms is used for such an analysis, drawing on the method of the Interlocking Network Analysis (Taylor, 2001, 2004). The result is a detailed mapping of the multi-scalar APS-based urban networks of the PRD, which demonstrates the complex and variegated service geographies created by different types of service firms both within and outside China. In addition to this quantitative work, 21 in-depth interviews with actors working in producer service firms and other related institutions in the study area are conducted to add valuable qualitative information.

The chapter is structured as follows. The next section briefly reviews the available research on inter-city networks in modern knowledge economy and addresses the purpose of this study. After that, information about the development of producer services in China is provided in the third section. The fourth section outlines the methodology and data that form the basis of the empirical investigation. The fifth

section describes and interprets the multiple inter-city networks of the PRD generated by different types of firms based on both the quantitative analysis and the interview information. Finally, the implications of this study are discussed in the concluding section.

## **4.2 Inter-city networks in modern knowledge economy**

In contemporary urban studies, the world/global city has become one of the most focused topics. Many researchers try to understand the restructuring of major cities (and city-regions) in the new, knowledge-based global economy, as well as the various inter-urban networks they have formed. According to Castells, the development of globalization and the knowledge-intensification of economies have produced a 'new spatial logic', which is characterized by the pre-eminence of 'space of flows' over 'space of places'. In this knowledge economy-based 'network society', major world cities, instead of territorial nation-states, constitute the critical hubs and nodes of various 'spaces of flows' (Castells, 1989). Friedmann defines world cities as the 'major sites for the concentration and accumulation of international capital' in the 'new international division of labour'. Through looking at cities' 'command and control' functions, he describes a transnational urban network with a hierarchical structure as the major geographical frame of the current capitalist world economy (Friedmann, 1986, Friedmann and Wolff 1982). Sassen further develops Friedmann's world city theory, but focuses on how cities' global control functions are produced and practiced. In her argument, it is the trans-nationalization of APS (finance, accountancy, legal services, advertising, etc.) firms and the simultaneous concentration of them in major cities that lead to the formation of the current transnational urban system (Sassen, 1991).

While Castells, Friedmann and Sassen have offered a conceptual framework for a networked understanding of cities in contemporary global economy, Taylor (2001, 2004) has provided an empirical instrument for systematically analyzing inter-city relations through the lens of the organizational structure of APS firms. In his Interlocking Network Analysis, the office networks of a selection of 'global' APS firms are modeled to generate the world city network. So far, Taylor and his colleagues from the Globalization and World Cities Research Network (GaWC)<sup>1</sup> have already conducted four rounds of data collection and analysis in 2000, 2004,

2008 and 2010 separately. To some extent, their work has filled the gap between theory and empirical evidences in world/global city research. Through comparing outcomes from different years, they have discovered a gradual shift of global services centres from the 'West' to the 'East', that is, a decline of connectivity of US cities and a rise of Asian, especially Chinese, cities in the global services economy (Derudder et al., 2010).

Taylor's work has triggered many follow-ups on inter-city networks at the global (Derudder et al., 2010; Hanssens et al., 2011; Taylor et al., 2013), the national (Derudder et al., 2013; Liu et al., 2013; Zhen et al., 2013) and the regional (Hall and Pain, 2006; Hoyler and Freytag et al., 2008; Lühti et al., 2010; Hanssens et al., 2013) scales in the modern services economy. Despite their richness in terms of area and sector, there is little information on the location strategies of firms from different geographical origins and their roles in the formation of urban networks. On the one hand, since the current global advanced services economy is largely dominated by a number of international service providers from the Western developed world, scholars focusing on inter-city networks at the larger (global or national) scale tend to select their observations from those leading (Western) international APS firms rather than from national or regional ones. On the other hand, although some studies on the intra- and extra-service networks of European city-regions (Hoyler and Freytag et al., 2008; Lühti et al., 2010) have used both local and foreign firms, they have not distinguished between the networks created by firms from different areas.

One important reason for why we should give special attention to the origins of firms is that each country or region has its unique history, regulation, business environment, and socio-cultural background. These specific local contexts, especially when they are different from the Western mode, may give local firms an opportunity to compete with their international counterparts and play a greater role in the regional and national markets. For example, Hill and Kim have found that, unlike New York or London, Tokyo and Seoul are not primarily the 'global basing-point[s] for the operations of stateless TNCs', but the 'national basing-point[s] for the global operations' of Japanese or Korean TNCs. Both Tokyo and Seoul's global city status is derived from the global operations of their indigenous, rather than foreign, companies. They attribute this difference to the

‘late industrialisation and especially the relationship between industrial policy and finance institutionalised in a developmental state’ (Hill and Kim, 2000, p. 2167). Hill and Kim’s finding implies that, although the formation of the current world city network is driven mainly by key ‘global’ players from the developed world, at the lower scales urban or regional development can be promoted by more diverse forces and actors.

In addition, with the shift of global economic power eastwards and the rapid rise of newly industrializing countries, we may expect that many firms from these countries will have the intention to extend businesses beyond their domestic markets and search for new opportunities at the international arena. Their behaviors may not fully comply with those of the currently dominant ‘global’ players from the developed world, but reflect the specific commercial, regulative and cultural customs of their home regions. Based on their latest data, Taylor et al. have observed ‘a very distinctive servicing geography’- the ‘China strategy’- with its own regional concentration and worldwide distribution of firms in formation. They speculate that this unique service geography may ‘reflect Chinese overseas past, present and possible future investments’, and could possibly become a new type of intervention in the world city network (Taylor et al., 2013). Their finding points to the possibility that firms originating from different areas may generate rather different patterns of inter-city relations.

Specific to this study, some characteristics of China’s development after 1978 make the PRD an especially interesting case. Firstly, economic development and urbanization in China are happening at an unprecedented scale. Unlike that of most European countries, China’s national economic landscape is not dominated by any city or region, but constituted by a large number of cities and regions at different development levels. This diversity requires a special sensitivity to the scale in focus while investigating the spatial development processes in China. For instance, the leading actors at the national scale do not necessarily play an equally important role in a specific region. It is meaningful to incorporate and compare different actors in analyzing regional development in China.

Secondly, the pace of economic development and transition in China is much faster compared to early developed countries. It only takes China three decades to finish

the industrialization and urbanization that used to take many Western countries one or two centuries (cf. Jacques, 2012). One consequence of this high-speed growth is that the process of economic development and transition in China may not fit the conventional wisdom of advanced capitalist economies. For example, Lin (2005) emphasizes that economic development in Chinese cities does not follow the Western model of linear transition from the primary to the secondary and then the tertiary sector, but displays a simultaneous expansion of both industrial and service sectors. This study further shows that within the (producer) service sector itself a simultaneous development of both regional, national and international actors is also existing. In addition, starting from a centrally planned economic system, dramatic changes within such a short period are inevitably accompanied with many transitional features, including the complicated, even opaque, state-market relations (Jacques, 2012). This unique transitional context presents an important precondition for understanding many economic and social phenomena in China. As we will see later, the diverse service geographies created by different categories of firms not only reflect their respective development histories, market orientations and home regions' economic conditions (cf. Whitley, 1999), but also are significantly shaped by China's regulatory environment and complex state-market relations.

Before presenting the empirical work, in the next section we will briefly review the development history of producer services in China.

### **4.3 The development of producer services in China**

The development of producer services is a relatively new phenomenon in China. In the centrally planned economic period, due to the anti-market and anti-consumption ideology, as well as the dominance of the state in allocating resources and organizing production, the demand for services was minimized in China. Most producer service activities were internalized into individual state agencies and state-owned enterprises (Yeh and Yang 2013, p. 10; Yang and Yeh, 2013). Between 1950 and 1978, there was only one, central government-owned bank, the People's Bank of China (PBOC), which controlled about 93% of the gross national financial assets and handled almost all financial transactions (Allen et al., 2006). Accounting work was basically managed by the Ministry of Finance

through a unified accounting system, whose main function was to manage public resources and to comply with state economic guidelines (Chow, 1995). Legal services were suspended after the Ministry of Justice was abolished in 1959 (Zhang, 1997). As a result of the waning necessity for commercial insurance in a centralized planning economy, insurance services were also stopped in 1959 with only a small amount of foreign currency-related insurance left (Sun et al., 2004). In short, producer services were severely suppressed in such a harsh economic and political environment.

The economic reforms and opening up since 1979 have turned out to be the start of a period of dramatic changes in China. The introduction of market mechanism has gradually removed the obstacles for the development of services, while the fast-growing domestic economy has generated an increasing demand for them. In the financial sector, the PBOC was separated from the Ministry of Finance and established as China's central bank in 1979, and three (the fourth one was formed in 1984) state-owned banks took over parts of its commercial banking businesses. Regional commercial banks (partially owned by the local government) and non-bank financial intermediaries also emerged (Allen et al., 2006). The insurance sector was restored with the approval of the State Council in 1980 and developed rapidly in the ensuing years (Sun et al., 2004). Similarly, legal services started to recover with the rebuilding of the legal system since 1979. More than 200 legal advisory offices were set up in 1980 (Cai, 1999), and the first law firm was established in the Shenzhen Special Economic Zone (SEZ) in 1983. Reforms were also introduced in other service sectors and triggered their growth (Hong, 1994; Chou, 1995).

As a result, over the three decades between 1978 and 2009, service sectors experienced dramatic development in China. Their share in the national GDP and employment increased from 23 per cent and 12 per cent to 43 per cent and 34 per cent respectively (Yeh and Yang, 2013, p. 10). Producer services have expanded rapidly especially since the 1990s. Between 1990 and 2006, the annual growth rate of the output value of producer services reached 19 per cent (*ibid.*, p. 4). It is estimated that, by 2008, '1.16 million producer service establishments were operating in China, creating 34.4 million jobs' (Yang and Yeh, 2013, p. 166). Producer services' contribution to the national economy amounts to 16.4 per cent in

terms of the number of establishments and 12.7 per cent in terms of employment (ibid.).

Meanwhile, China also gradually opened its service sectors to foreign companies and investors, especially after it joined the WTO in 2001. By 2012, China's import and export of services have reached 280 billion and 190 billion USD respectively, making it the third largest importer and the fifth largest exporter of services in the world (MoC, 2013a). Foreign investment in services increased to 53.8 billion USD, accounting for 48.2 per cent of the gross foreign investment in the country (MoC, 2013b). Many global leading producer service firms have set up their branches or representative offices in mainland China. Some Chinese service firms, especially in the financial sector, have also grown into giant producer service providers even according to the international standard. For example, in the 2013 *Fortune* Global 500 list, four banks from mainland China had entered the world's top-100 enterprises, and nine more financial companies had entered the top-500 (*Fortune*, 2013).

However, it is worth noting that the Chinese service market is still far from an open, competitive market. State regulation and intervention are still pervasive, and tend to treat domestic and foreign firms differently in many sectors. Service activities that are deemed as 'lifelines' of national economy (like finance) or related to state sovereignty (like law) are still highly regulated (in some cases, even tightly controlled) by the government. For example, in the financial sector, most commercial banks in China are majority-owned by either the central or the local government. Although foreign banks started to enter the country as early as the late 1970s, they were not granted full access to the Chinese market in terms of both geography and product until 2006, when most restrictions were officially removed as part of the WTO agreement (Huang et al., 2010). In legal services, foreign (including Hong Kong) law firms are still only allowed to set up 'representative offices' in mainland China. They must be approved by the judicial administrative department under the State Council, and cannot provide services involving Chinese legal affairs or hire Chinese lawyers.

Therefore, producer services provide a strategic window to understand key aspects of the structural transitions of China's economy: the degree of openness, the

state-market relations, and the possible patterns of spatial development in the future, etc. In the remaining part, we will probe into some of these questions in detail based on the evidences of the PRD.

#### **4.4 Data and method**

In this chapter we use the Interlocking Network Analysis to map and evaluate the inter-city networks generated by APS activities within and beyond the PRD. This method was initially developed by Taylor (2001) to systematically analyze inter-city relations at the global scale, then extended by Hall and Pain (2006) to explore similar relations at the mega-regional scale. Its basic idea is that, APS firms, as a major driving force of economic development in contemporary globalization, have created worldwide, city-centred office networks to provide specialized services to their global customers (Sassen, 1991). Each of these office networks is the outcome of an APS firm's long-term location strategy, and reflects its consideration of the investment conditions and potential values of different places. Cities in such a network can be linked with each other through the communications of information, knowledge, idea and people between different offices, constituting part of what Castells (1996) calls 'space of flows'. Therefore, a close examination of a large number of APS firms' office networks can provide a surrogate measure of the knowledge-based service connections between cities where these offices located in, as well as the importance of each city within the regional/national/global service networks.

A detailed explanation of this method can be found in Taylor (2001) and Taylor et al. (2008). Due to the limitation of space, here we only dwell on the data collecting and analyzing process, focusing on the modifications we made to make the method more compatible for the current purpose.

##### ***Selecting firms***

This chapter selected five APS sectors for analysis: banking, insurance, accountancy, law and advertising. There were two criteria for selecting firms: the firm should have offices in at least two cities (multi-location firms), and at least one office in the PRD. Different from the GaWC's work, which only focused on

leading international firms, this chapter's database contained firms varying from large international service providers to small local operators. The sets of firms were different according the scale (global, national, regional) of network in analysis, because some firms only had offices within the PRD while others also had offices in other cities in mainland China or abroad.

Firms were identified from different sources (including statistical yearbooks, reports from specialized associations, business rankings, etc.), which were cross-checked with each other to ensure that most important firms were included. Information about the location and function of offices was collected mainly from firms' official websites, supplemented by some specialist statistical websites and other internet sources. Firms with no information available were excluded. The final database comprised 219 APS firms (Table 4.1).

**Table 4.1** Distribution of firms' headquarters

City	Banking	Insurance	Law	Accountancy	Advertising	Total
The PRD	6	4	10	3	7	30
Guangzhou	2		6	2	5	15
Shenzhen	3	4	3	1	2	13
Dongguan	1					1
Foshan			1			1
National Cities	25	21	30	17	11	104
Beijing	9	11	24	14	8	66
Shanghai	4	5	3		1	13
Others	12	5	3	3	2	25
Global Cities	24	8	18	17	18	85
Hong Kong	4		12			16
New York	3	1		3	10 <sup>(1)</sup>	17
London	2		1	13	6	22
Tokyo	3	4			2	9
Others	12 <sup>(2)</sup>	3 <sup>(3)</sup>	5	1	2	23
Total	55	33	58	37	36	219

*Notes:*

(1) Two advertising firms have dual headquarters in both New York and London

(2) Paris 3, Singapore 3, Seoul 2, Frankfurt 1, Los Angeles 1, Bangkok 1, Edinburgh (not in the global cities list) 1

(3) Seoul 1, Munich 1, Taipei 1

### *Selecting cities*

To make data collecting and analyzing feasible, a limited number of cities were selected at the regional (PRD), national (mainland China) and global scales. Regionally, all nine cities within the PRD were selected. National cities were chosen according to their administrative function (i.e. provincial capital) and economic performance (i.e. GDP) in the national urban system. The selection of global cities was primarily based on the GaWC's world city index 2008 (all ALPHA and BETA cities), complemented by some extra cities which were found important during data collecting. Together, nine regional cities, 43 national cities and 95 global cities constituted the city set.

### *Creating the service value matrix*

To make different firms comparable, each city was allocated a service value which indicated the importance of this city in a firm's business network. Service values should be allocated on a unified scale. The GaWC used a six grades system (from 0, which means no office, to 5, which means headquarter) to study the world city network. A single valuing system is less problematic when firms are similar in size (e.g. when all of them are large international firms). However, since this chapter used firms ranging from small local firms with only two offices to large international ones, it is necessary to take this diversity into consideration.

The strategy we used was setting a maximum service value for each firm according to the number of its location cities (i.e. the firm's size), ranging from 3 (headquarter city of a firm locating in less than 20 cities) to 5 (headquarter city of a firm locating in more than 40 cities). All cities with a firm's presence were initially allocated a standard service value 2, while cities with no office scored 0. Then, a city's service value might be lowered to 1 or be raised to 3, 4 or 5, according to the size and/or function of its office(s). It was relatively easy to identify headquarters and the absence of an office. But the identification of higher or lower level offices proved more difficult due to the limitation of information. This might lead to a more subjective valuation for some cities. Since the number of firms was large enough, the aggregated service values should be valid to reflect cities' real conditions.

After that, the connection between each pair of cities was calculated based on the measure of the method. Firms with headquarters in the PRD, outside the PRD but in mainland China, and outside mainland China were analyzed separately. For each category of firms, inter-city connections were calculated at three (regional, national and global) different geographical scales. This created nine matrices of inter-city connections. Each city's connectivities (the sum of its connections with all other cities) were also calculated at three scales and according to firms from different origins. Outcomes were visualized using some mapping technologies.

In addition, 21 interviews (respectively, 15 with senior managers of APS firms, 1 with a representative of a foreign chamber of commerce, 2 with service industrial associations and 3 with experts) were conducted in Guangzhou and Shenzhen between May and July, 2013. All but four firms were selected from the quantitative database. Each interview was undertaken in a semi-structured way and lasted for about one hour. This first-hand information is used to explain the outcomes of the quantitative analysis.

## **4.5 The multiple geographies of knowledge-intensive service networks in the Pearl River Delta**

### ***4.5.1 Firms and connectivities***

Among the 219 APS firms in the database, only a small number (30, or less than 14 per cent) have their headquarters in the PRD (named the 'PRD firms' hereafter), and all of them are located in either Guangzhou (leading in law and advertising) or Shenzhen (leading in insurance) with only two exceptions- one bank in Dongguan and one law firm in Foshan (Table 4.1). About half (104) of the firms originate from other cities in mainland China (named the 'National firms' hereafter) and most (66) concentrate in the national capital Beijing. Shanghai's underperformance in headquarter function is somewhat unexpected, given its great economic importance and global financial centre status. Although it has the second largest amount of headquarters among all national cities, the number (13) is much lower than that in Beijing (66). Other headquarters of the 'National firms' are spread across a number of major regional political and economic centres in China. There

are 85 (39 per cent) firms headquartered outside mainland China (named the ‘Overseas firms’ hereafter) with nearly two-thirds concentrating in three cities—London, New York and Hong Kong. It is interesting to note the division of sectors between these three cities, with London leading in accountancy, New York in advertising and Hong Kong in legal services. Tokyo also hosts a number of headquarters in the sectors of banking, insurance and advertising. We can also observe that, compared to their western counterparts, Asian firms (firms with their headquarters in Asian cities) tend to concentrate in financial sectors (banking and insurance).

The aggregate analysis of the multi-scalar network connectivities of the PRD reveals that three categories of firms function diversely in the creation of service networks at different scales (Table 4.2). The ‘National firms’ are the most important contributors to the PRD’s internal networks and, particularly, to its connections with other Chinese cities. Nearly 60 per cent of the PRD’s regional connectivities and more than 70 per cent of its national connectivities are created by these firms. The ‘PRD firms’ account for nearly 30 per cent of the region’s internal connectivities, which is quite remarkable compared to the small number of them. But their significance declines sharply at the national scale, and almost vanishes at the global scale. The functioning of the ‘Overseas firms’ is very modest at the regional and national scale. However, they are the main agents in linking the PRD with the global service networks. Over 90 per cent of the PRD’s global connectivities are created by firm with overseas origins.

**Table 4.2** Firms’ contributions to the multi-scalar network connectivities of the Pearl River Delta

	Unit: %		
Connectivity	PRD firms	National firms	Overseas firms
Regional	28	58	14
National	15	72	13
Global	1	9	91

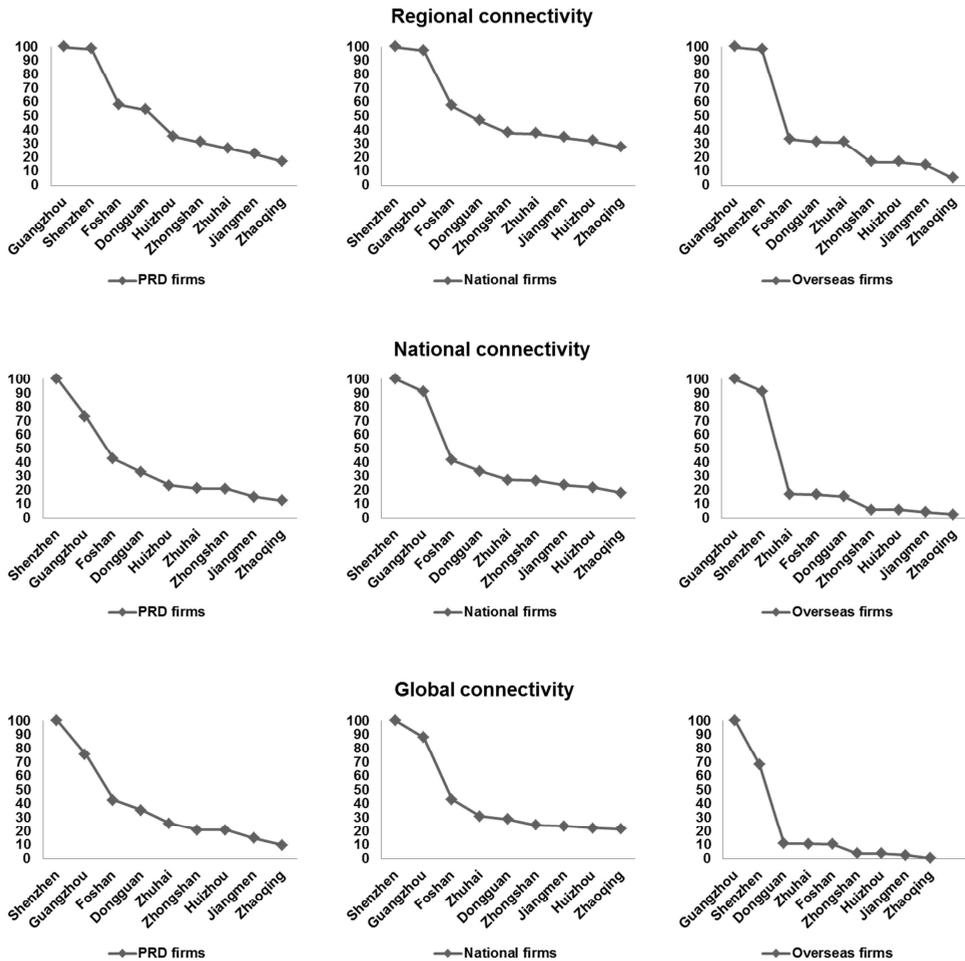
The differences among firms also exist in their spatial distributions within the region. Figure 4.1 shows the relative importance of individual cities in the

multi-scalar networks created by firms from different areas. Obviously, the ‘Overseas firms’ tend to provide services mainly in two core cities- the regional administrative centre Guangzhou and the SEZ Shenzhen- while the ‘National’ and the ‘PRD’ firms have more polycentric business networks. According to the interviewees, this divergence comes out of two related factors: For one thing, the clients of the ‘Overseas’ APS firms in the PRD are mainly foreign and Chinese large corporate customers (and some ‘*high-level*’ individual customers). These firms’ offices in the region have a strong tendency to follow the headquarter functions of their major customers, which basically concentrate in either Guangzhou or Shenzhen. The ‘National’ and the ‘PRD’ firms, in comparison, have more diverse customers varying from big companies to small entrepreneurs (and individuals as well), whose locations are spread within the region. Therefore, they need more extensive office networks to cater to the demand of these local clients.

For another, based on their advantages in the domestic market brought by the unequal state regulations on Chinese and foreign firms, and their local embeddedness formed in history, those Chinese big APS firms (e.g. banks and insurance firms) have more (formal and informal) resources to maintain a large number of offices and provide services to customers at a broader geographical scale. It is very costly for foreign firms to build similar networks and compete with existing Chinese firms after their entered the region, which forces them to adopt differentiated marketing and location strategies from their Chinese counterparts. As one interviewee from a foreign bank explains: *‘The early expansion of Chinese banks was largely supported by the government. It was much easier for them to get the permission (to set up a branch or office), and the cost (e.g. office space) was much cheaper’*. *‘It is very costly for us to set up branches now. ... (Therefore,) our emphasis is not scattered, small clients, and we only maintain a small number of offices’*. Another interviewee points out, one major reason for them to ‘locate mainly in the first-tier cities’ is *‘because the policy environment in the second- or third-tier cities is more beneficial for domestic banks’*. *‘Due to their relations with the local government, they (domestic firms) can have a far wider range of businesses (in these cities), including those government-related ones, such as the payoff of employees working in government and public institutions, social security fund and the loan of state owned enterprises (SOE). ... Foreign banks cannot access to these businesses, so we focus on the first-tier cities so far’*. As a result,

networks created by the ‘National’ and the ‘PRD’ firms are more polycentric and finely grained than those of the ‘Overseas’ firms in the PRD.

**Figure 4.1** Multi-scalar network connectivities of cities in the Pearl River Delta according to firms from different origins



*Note:* Values are calculated as proportions of the value of each primate city.

Although our database only contains those major multi-location APS firms in the PRD, excluding hundreds, maybe even thousands, of small, single-office local

firms, the above outcome still provides some interesting insights. Firstly, high-end service activities have the tendency of concentration at different geographical scales (cf. Daniels, 1985, 1991; Coffey, 2000). The headquarter functions of APS firms are highly concentrated in several core cities at both the global, national and regional scales. Secondly, there is a simultaneous development of both regional, national and international service operators in the PRD. Local firms only occupy a small part of the leading APS operators in the region, overshadowed by firms with headquarters in other Chinese (particularly Beijing and Shanghai) and overseas cities. This is in part attributed to the PRD's former development trajectory in the 1980s and early 1990s, which focused on low-end, small-scale manufacturing production (Yang, 2012) and, hence, *'could not provide sufficient demand for the internal growth of high-end producer services in the region'* (information provided by an interviewee from an advertising association). Thirdly, while Chinese APS firms, in general, have very limited presence in the global arena, they dominate the producer service market and networks within mainland China, even in one of its most opened areas. On the one hand, this reflects the relatively short development period and low level internationalization of China's producer service sectors. On the other, it confirms that many parts of the country's service market are still not freely accessible for foreign actors.

#### ***4.5.2 Profiles of external connections***

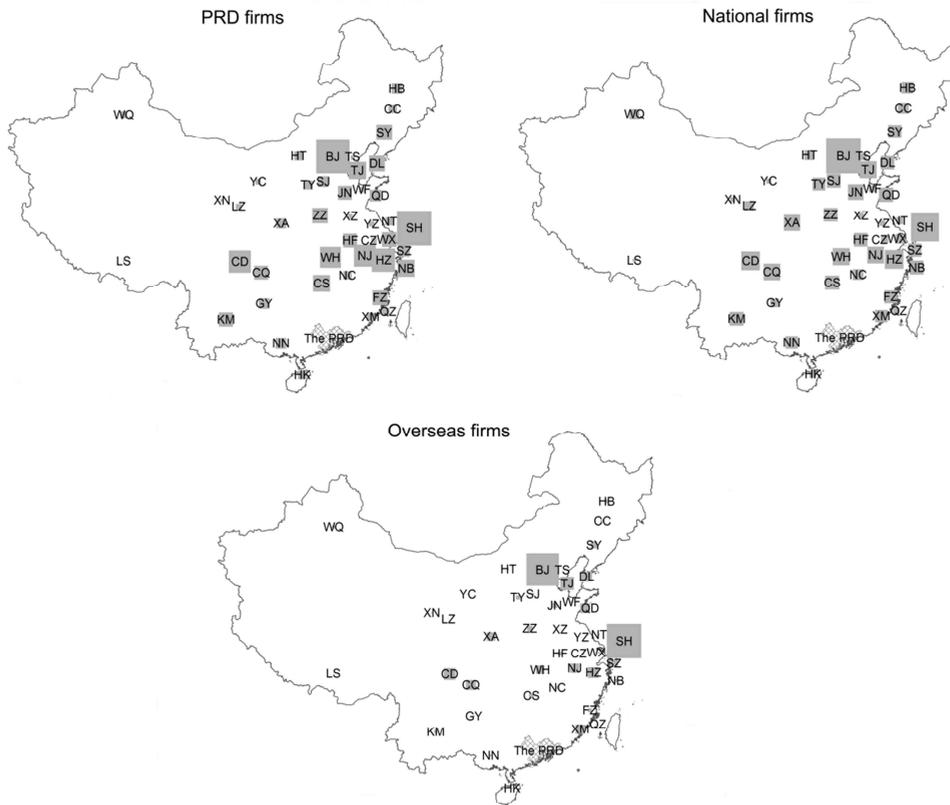
##### ***National connections***

The mapping of the national connections reveals the dominance of Beijing and Shanghai in the networks created by all three categories of APS firms (Figure 4.2). Due to their unique positions in China's economic and political landscapes, that is, Beijing as the capital and the location of most Chinese SOEs' headquarters and Shanghai as a world financial centre and the location of most international companies' Chinese headquarters, these two gateway cities are not only the birthplace of most Chinese leading APS firms, but also the first choice for foreign firms to enter mainland China (information provided by several interviewees from APS firms). Notably, although Shanghai has much less headquarters than Beijing (Table 4.1), it only lags slightly behind Beijing in the 'National' firms' networks and even surpasses the latter in the 'PRD' and the 'Overseas' firms' networks. This

is because many Chinese APS firms, even having headquarters somewhere else, tend to set up a sub-headquarter or major office in Shanghai; and for foreign firms, Shanghai is slightly more attractive than Beijing to locate their headquarters or branches in mainland China. Both Chinese and foreign APS firms are attracted by Shanghai's financial resources (e.g. the Stock Exchange and the Foreign Exchange Trading Centre), market diversity and more internationalized business environment. For foreign firms, the concentration of a large number of transnational companies' headquarters is also an important reason for them to choose Shanghai (information provided by interviewees from APS firms).

We can also observe some differences between the national networks created by firms from different areas. The 'Overseas' firms have more centralized networks in China. They are highly concentrated in Shanghai and Beijing and, to some extent, prefer cities in the eastern coastal area and the Chengdu-Chongqing region, reflecting the economic prosperity and the higher degree of openness of these cities. In the 'National' and the 'PRD' firms' networks, cities at a higher political level, i.e. provincial capitals (Chengdu, Hangzhou, Wuhan, Nanjing etc.), are relatively better connected, which is arguably related to their administrative functions within their respective regions. Besides, for the 'PRD' firms, although Shanghai and Beijing are still the best connected cities, the gap between them and other national cities is not as large as in the 'National' and the 'Overseas' firms' networks. The explanation lies in the intense competition in these two cities. Since Beijing and Shanghai are already two leading service centres and homes to many large APS firms, it is relatively difficult for firms from other regions in China to set up branches and compete with local firms in these two cities. Therefore, although Beijing and Shanghai have the best resources and market opportunities for APS activities, firms from other regions normally do not choose to set up branches in these two cities, but, instead, prefer those fast-growing, but with less-intensive competition, Chinese cities (e.g. Changsha, Ningbo, Dalian, Shenyang, Zhengzhou, etc.) as the first place to extend businesses (information provided by interviewees from some 'PRD' APS firms).

**Figure 4.2** National connections of the Pearl River Delta according to firms from different origins



BJ-Beijing, CC-Changchun, CD-Chengdu, CQ-Chongqing, CS-Changsha, CZ-Changzhou, DL-Dalian, FZ-Fuzhou, GY-Guiyang, HB-Haerbin, HF-Hefei, HK-Haikou, HT-Huhehaote, HZ-Hangzhou, JN-Jinan, KM-Kunming, LS-Lasha, LZ-Lanzhou, NB-Ningbo, NC-Nanchang, NJ-Nanjing, NN-Nanning, NT-Nantong, QD-Qingdao, QZ-Quanzhou, SH-Shanghai, SJ-Shijiazhuang, SY-Shenyang, SZ-Suzhou, TJ-Tianjing, TS-Tangshan, TY-Taiyuan, WF-Weifang, WH-Wuhai, WQ-Wulumiqi, WX-Wuxi, XA-Xian, XM-Xiamen, XN-Xining, XZ-Xuzhou, YC-Yinchua, YZ-Yangzhou, ZZ-Zhengzhou

*Note:* The size of each rectangle is in proportion to the value of that city’s connection with the PRD.

### **Global connections**

Several interesting patterns can be observed in the global service connections of the PRD (Table 4.3). Firstly, the ‘PRD firms’ have very few overseas connections (in only six cities), and most of them concentrate in Hong Kong. Considering the

geographical proximity and socio-cultural similarity between two locations, it is not hard to understand that APS firms in the PRD will choose Hong Kong as the first place to extend their businesses overseas. Other connected overseas cities in the ‘PRD’ firms’ networks include Macao- another geographically adjacent but institutionally different city, New York and London- two leading global financial and service centres, Taipei- an important source of FDI in the PRD, and Montevideo. These cities have only one or two linkages with the PRD. Therefore, they reflect the choices of a few pioneer firms.

**Table 4.3** Top 20 connected global cities according to firms from different origins

Cities	PRD firms	Cities	National firms	Cities	Overseas firms
Hong Kong	100	Hong Kong	100	London	100
Macao	25	Singapore	35	Hong Kong	91
New York	20	New York	31	New York	87
Taipei	9	London	28	Singapore	82
London	9	Tokyo	28	Tokyo	74
Montevideo	3	Macao	27	Paris	68
		Frankfurt	21	Dubai	64
		Seoul	21	Sydney	62
		Sydney	18	Milan	57
		Jakarta	15	Moscow	57
		Luxembourg	13	Taipei	56
		Ho Chi Minh City	13	Kuala Lumpur	56
		Moscow	12	Mumbai	53
		Rotterdam	11	Sao Paulo	53
		Los Angeles	10	Toronto	52
		Toronto	10	Seoul	52
		Kuala Lumpur	10	Jakarta	52
		Bangkok	10	Bangkok	52
		Johannesburg	9	Los Angeles	50
		Dubai	8	Frankfurt	50

*Note:* Values are calculated as proportions of the value of the best connected city.

Secondly, geographical and cultural proximity also matters in the ‘National’ firms’ overseas location strategies. Hong Kong, once again, stands out with a substantial lead in the overseas networks created by these firms. There are only very few cases in which the ‘National’ firms do not choose Hong Kong as the first springboard to go outside. In addition, nearly half of the top 20 connected global cities (e.g. Singapore, Tokyo, Macao, Seoul, Jakarta) are from East and Southeast Asia, reflecting China’s intensive connections with these geographically nearby areas. But the absence of Taipei from the top 20 is rather unexpected. An important reason could be that in Taiwan there are some investment restrictions on financial firms from mainland China (information provided by an interviewee from a bank). Other relatively well connected cities are basically the leading global financial centres, such as New York, London, Frankfurt, Sydney and, particularly, Luxembourg. This is not surprising since the largest and most influential Chinese APS firms concentrate in the financial sector. Rotterdam’s high value should be related to its function as a major port in Europe.

Thirdly, the networks created by the ‘Overseas firms’ are more widespread in geography at the global scale. The ranking of cities is more flat, with London as the best connected city, but followed closely by Hong Kong, New York and Singapore. All of the top 20 connected cities are ‘Alpha’ world cities in the GaWC’s world cities list, or, in other words, ‘centres that link major economic regions and states into the world economy’ (GaWC, 2012). In comparison, the influence of some special factors, like geography (e.g. Macao, Ho Chi Minh City), is less important as in Chinese firms’ networks. Apparently, the leading international APS operators whose headquarters concentrating in several major world cities have developed more mature global business networks, which rely on main regional centres to provide services for different areas.

#### **4.6 Conclusions**

Since the 1970s, some technological and organizational reconfigurations of the capitalist system have led to a new wave of urbanization and spatial development. This is characterized by the rise of a globally-interconnected network of cities and city-regions, incorporating not only the old geographical centres, but also, and increasingly, many formerly peripheral areas of the capitalist economy (Scott,

2012). After more than 30 years of economic growth and opening up, China has actively participated in the emergence of this new global network, at first through introducing low-end, export-oriented manufacturing production, now promoted by the fast growth of more advanced economic activities. Meanwhile, dramatic economic growth and urbanization within such a short period are inevitably accompanied with many transitional elements, including, for instance, the complex state-market relations, varying degrees of openness between sectors and regions, and the polarized spatial development pattern, etc. This unique pace, scale and, importantly, political and institutional context (cf. Jacques, 2012) necessitate both theoretical and empirical progresses to understand China's urbanization process.

Based on the case of the PRD, in this chapter we try to capture some new patterns of China's economic transition and urbanization in the emerging knowledge-intensive services economy. The main finding is that the formation of APS-based urban networks at different geographical scales is partly determined by the origins of firms. While cities in the PRD are connected with each other and with other Chinese cities primarily through local and national APS firms' business networks, the region's linkages with overseas service centres are, up till now, shaped predominantly by those major international APS firms from the advanced economic world. This pattern reflects a simultaneous, rather than sequential, development of both regional, national and international service operators in China. Moreover, different types of firms have created quite diverse service geographies both within the PRD, in China and at the global scale. The patterns of this nested city-service network certainly reflect the different development histories of firms, their client orientations in specific markets and their home regions' economic conditions (cf. Whitley, 1999). However, they are also significantly shaped by China's unique regulatory environment and complex state-market relations. Different from the bottom-up, foreign investment-triggered and export-oriented industrialization in the 1980s and early 1990s (Yang, 2012), the development of the modern services economy in China has been driven mainly by domestic (public and private) demand under tight state regulation and government guidance at the outset. It leaves, for a long time, very limited space and opportunity for foreign capital and actors to participate. In the meantime, the huge domestic demand, along with different commercial and regulatory environments in the domestic and the international market, also become an obstacle that hinders Chinese producer

service firms from going out and extending businesses at the global scale.

One major challenge in understanding economic development and urbanization in China is capturing the speed of change, above all, in regions and sectors that are experiencing the fastest growth. The transnational characteristics of the economy, the co-existing and simultaneous development of various sectors and actors, and the huge, but diversified domestic market make it very difficult, if not impossible, to explain and predict China's development purely based on the Western experience. In this respect, the finding of this chapter raises an important question worth further discussion: Will the further integration of China with the global economic system change the patterns we just observed, and in what way? We will unpack this question from two sides.

Firstly, with China gradually opening more parts of its economy to the world, especially after the ending of its transitional period for accession to the WTO, it can be expected that more and more foreign companies and capital will enter the country. The state will have to change, if not totally abolish, many current discriminatory regulation policies regarding foreign firms, bringing about a more open and competitive market environment. Will this transition shift the competitive advantage and market orientation of both foreign and Chinese firms and, in turn, cause a restructuring of the urban system we have just observed? Based on the information from our interview, a dramatic change seems very unlikely to happen, at least in the near future. Although many formal restrictions on foreign operators have been (or are being) removed,<sup>2</sup> Chinese APS firms (especially government-backed ones) still have great advantages in cooperating with the (national and/or local) government, building tight, long-term (sometimes informal) relationships with Chinese clients, and accessing to information and resources through inter-personal connections, etc. These advantages are even '*more prominent in the interior regions and smaller urban areas*', where '*the development of market still lags behind the more open metropolitan areas*', and where non-market factors (such as '*inter-personal relations*') tend to play a greater role (information provided by some interviewees from APS firms). Therefore, most new foreign APS investors, as the interviewees reflect, still prefer cities at the top of the current national urban system, which have a '*relatively more transparent market*', a '*less bureaucratic administrative system*', a '*large labour pool*' and a

*'concentration of headquarters of international companies'*, as the locations for operating in the Chinese market. This tendency will probably intensify the agglomeration of advanced economic activities in major cities and consolidate the current hierarchical urban system.

Secondly, with a growing number of Chinese companies starting to go out through foreign investment, mergers and acquisitions, cooperation and alliance etc., their demand for APS regarding overseas businesses will also increase very fast. Will this promote the internationalization of Chinese producer service firms and, following Taylor et al. (2013), bring 'a possible new intervention' in the global services economy and the world city network? According to this study, the globalization of Chinese APS firms still has a long way to go. Although the fast growth and expanding of some Chinese APS firms (especially in the financial sector) are frequently reported in recent years, the result of the quantitative analysis shows that, compared with the leading global players, the degree of internationalization of Chinese APS firms and their capability to link cities and regions in China with the global services economy are still quite limited. Some interviewees also report that it is very difficult for Chinese firms to set up branches in foreign countries due to the *'high costs'*, *'different rules of games'*, *'cultural and institutional barriers'*, the *'intensive competition from local firms'*, and even some *'political reasons'*.<sup>3</sup> Since mainland China is already a huge market, they will not consider developing overseas businesses when *'it is much easier and profitable to only focus on the domestic market'*. Moreover, even Chinese clients also prefer to choose leading global APS providers instead of Chinese ones for their overseas businesses, not only because of the extensive *'worldwide networks and resources'* of foreign firms, but also because of their *'reputation'* and *'brand effect'*. We can note that most Chinese financial firms with overseas branches are either state-owned or state-sponsored, whose main function is to provide services for Chinese companies and individuals operating or living in foreign countries. The globalization of advanced producer services is much slower compared to many other sectors (e.g. manufacturing, construction) in China.

## Notes

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<sup>1</sup> More information about the GaWC is available at URL: [www.lboro.ac.uk/gawc/](http://www.lboro.ac.uk/gawc/).

<sup>2</sup> According to the WTO agreement, since 2007 China started to fully open its service sectors. The sectors committed to open cover 10 (out of 12) main categories and 100 (out of 160) sub-categories of the General Agreements on Trade in Services, accounting for 62.5% of all service sectors. This level of openness is close to that of developed countries (Li, 2011).

<sup>3</sup> For example, one interviewee mentioned that *'since the Chinese financial market is still not very open to foreign firms, many foreign governments also adopt similar strict regulations on Chinese banks'*.

## Chapter 5

# Path Dependency and Strategic Management: Transitions of Guangzhou and Shenzhen in Contemporary Globalization<sup>§</sup>

This chapter investigates the transitions of Guangzhou and Shenzhen, two leading cities in one of the fastest growing regions in China, after the launch of China's reform and opening up programme in 1979. Our major concern is twofold: Firstly, how do Guangzhou and Shenzhen's local authorities respond to the political-economic changes at the global and national scales, and steer their cities' transformations against the background of current globalization? Secondly, how is this process shaped by two cities' unique, path-dependent local conditions? Theoretically, the chapter draws on the world/global city framework, but extends it to a broader geographical context by introducing the concepts of path dependency and strategic management of cities. Through such a comparative study, we would like to argue that although the ceaseless restructuring of the capitalist world economy is fundamental in understanding the patterns of contemporary urban and regional transformations in China, it is filtered by the strategic choices made by the national and local leading political actors, as well as individual cities' unique economic structures and local assets that formed along their long-term development trajectories.

### 5.1 Introduction

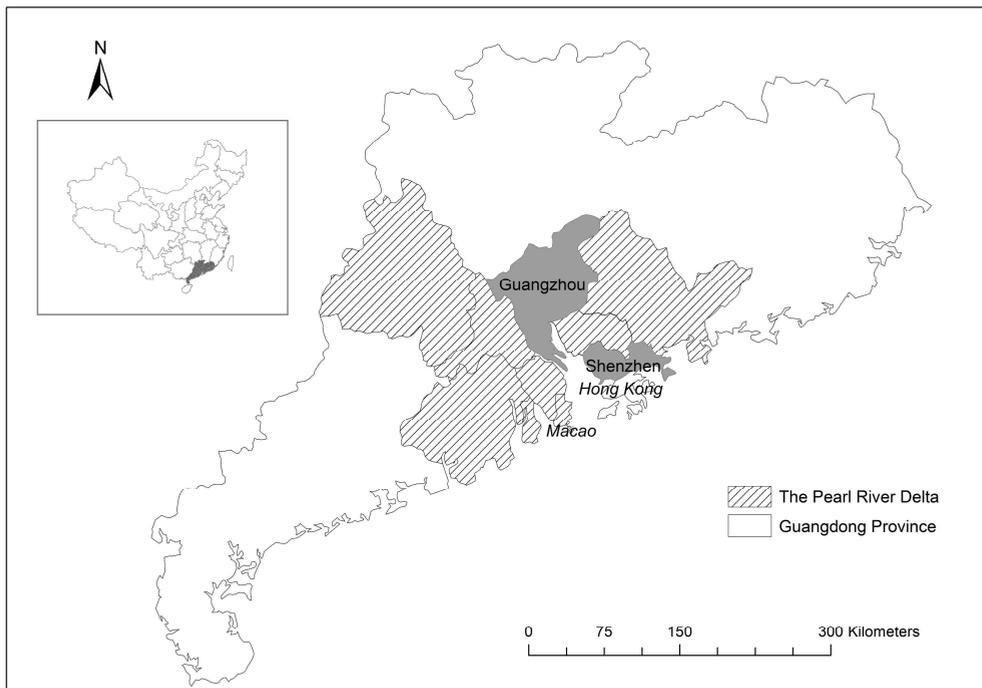
Before 1979, Guangzhou and Shenzhen, now both megacities located in China's Pearl River Delta (PRD) region (Figure 5.1), were in entirely different urban leagues. With a history of more than 2,000 years, Guangzhou is one of the oldest cities in China, a famous hub for (international) trade and commerce since ancient times, and a major political and cultural centre in the south of the country (Xu and Yeh, 2003). Although its leading status in trade and commerce started to decline after the 'Chinese-Anglo Opium Wars' (1840-1842, 1856-1860), and was even further weakened during the communist centrally planned period (1949-1978)

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<sup>§</sup> This chapter is submitted to an international peer-reviewed journal for publication and is currently under review.

(Zhang, 2015), by 1979 Guangzhou was still the dominant economic, political and cultural centre in Guangdong province and, moreover, a city with a population of nearly five million (Table 5.1&5.2). In contrast, even in China itself, Shenzhen could hardly raise any public attention until 1979. Before that time, it was just a small county (named ‘Bao’an’) with about 300 thousand residents at the periphery of Guangdong province. Its economy amounted for less than 5 per cent of the size of that of Guangzhou (Table 5.2), consisting mainly of pre-industrial agriculture and service activities (Table 5.3). Probably, Shenzhen only appeared on the radar of the Chinese central government as a source of illegal migrants into Hong Kong- the adjacent ‘booming capitalist heaven’ (Ng, 2003).

**Figure 5.1** The location of Guangzhou and Shenzhen



**Table 5.1** Share of Guangzhou and Shenzhen in Guangdong and the Pearl River Delta (1979-2012)

Unit: %

		Guangzhou				Shenzhen			
		1979	1990	2000	2012	1979	1990	2000	2012
Share in Guangdong	Resident Population	9.6	10.0	11.5	12.1	0.6	2.6	8.1	10.0
	GDP	23.3	20.5	23.2	23.7	0.9	11.0	20.4	22.7
	Gross Industrial Output*	37.0	23.3	18.3	15.2	0.3	11.6	18.2	22.3
	Exports	9.5	10.6	12.8	10.3	0.5	36.7	37.6	47.3
	FDI	5.4	12.8	24.4	19.4	17.8	26.7	16	22.2
Share in the PRD	Resident Population	27.4	26.8	23.2	22.6	1.7	7.1	16.3	18.6
	GDP	43.6	32.2	29.6	28.4	1.8	17.3	26.0	27.1
	Gross Industrial Output*	58.7	31.7	24.0	18.6	0.4	15.1	24.0	26.7
	Exports	33.4	11.5	13.9	10.8	1.9	65.2	40.8	49.5
	FDI	24.0	14.9	24.7	21.3	37.4	28.4	23.5	24.3

*Notes:*

1. All percentage values are calculated based on the corresponding values of Guangzhou/Shenzhen and Guangdong province.
2. \* The number in 2012 is the gross output of industrial enterprises with an avenue of at least 20 million RMB Yuan.

*Sources:* GSB, 2013; NBS, 2010; SBG, 2008, 2012; SBS, 2012.

However, after merely three decades of rapid economic development, Guangzhou and Shenzhen have transformed into a pair of ‘twin stars’ on the southern coast of mainland China. Both cities have become huge metropolises with a population of over ten million (Table 5.2). They both occupy high positions in China’s national urban system, with Guangzhou ranking third and Shenzhen fourth among all (mainland) cities in terms of the size of economy. According to the Globalization and World Cities Research Network’s ranking, both of them are classified as ‘beta level cities’, that is, ‘important world cities that are instrumental in linking their region or state into the world economy’ (GaWC, 2012). Besides, visitors to Guangzhou and Shenzhen will firstly be impressed by the modern, world-class urban infrastructure (e.g., business districts, industrial parks, shopping malls, international airports and harbors) in both cities.

**Table 5.2** The growth of Guangzhou and Shenzhen (1979-2012)

Item	City	1979	1985	1990	1995	2000	2005	2008	2009	2010	2012
Resident population (million)	Guangzhou	4.9	5.4	6.3	7.9	9.9	9.5	11.2	11.9	12.7	12.8
	Shenzhen	0.3	0.9	1.7	4.5	7.0	8.3	9.5	10.0	10.4	10.5
GDP (RMB billion)	Guangzhou	4.9	12	32	126	249	515	829	914	1,075	1,355
	Shenzhen	0.2	3.9	17	84	219	495	779	820	958	1,295
FDI (USD million)	Guangzhou	2	104	186	2,144	2,989	2,649	3,623	3,773	3,979	4,575
	Shenzhen	5	180	390	1,310	1,961	2,969	4,030	4,160	4,297	5,229
Exports (USD billion)	Guangzhou	0.16	0.4	2.4	10	12	27	43	37	48	59
	Shenzhen	0.01	0.6	8.2	21	35	102	180	162	204	271

*Sources:* GSB, 2013; SBG, 2008, 2012; SBS, 2012.

**Table 5.3** The three-sector composition of Guangzhou and Shenzhen's Gross Domestic Production (1979-2012)

		Unit: %									
City	Sector	1979	1980	1985	1990	1995	2000	2005	2010	2012	
Guangzhou	Primary	11	11	10	8	6	4	3	2	2	
	Secondary	55	55	53	43	46	41	40	37	35	
	Tertiary	34	35	37	49	48	55	58	61	64	
Shenzhen	Primary	37	29	7	4	1	1	0	0	0	
	Secondary	20	26	42	45	50	50	53	47	44	
	Tertiary	43	45	51	51	48	50	46	53	56	

*Sources:* GSB, 2013; SBG, 2012; SBS, 2012.

This chapter investigates the transitions of Guangzhou and Shenzhen after the launch of China's reform and opening up programme in 1979. This is also a period during which we have witnessed a dramatic urbanization process in China accompanied by the post-1970s global economic restructuring. Our major concern here is twofold: Firstly, how do Guangzhou and Shenzhen's local authorities respond to the political-economic changes at the global and national scales, and steer their cities' transformations against the background of current globalization?

Secondly, how is this process shaped by two cities' unique, path-dependent local conditions? Through such a comparative study, we would like to argue that although the ceaseless restructuring of the capitalist world economy is fundamental in explaining the patterns of contemporary urban and regional transformations (cf. Scott, 2012), it is filtered by the strategic choices made by the national and local leading actors, as well as cities' unique economic structures and local assets that formed along their long-term development trajectories.

Theoretically, the chapter draws on the world/global city framework (Friedmann, 1986; Sassen, 1991), but extends it by introducing the concepts of path dependency (Mahoney, 2000; Martin and Sunley, 2006) and strategic management of cities (Wolfe, 2010) from the recent path dependency and urban/regional resilience literature. The data used in this chapter are collected mainly from various national, provincial and municipal censuses and statistics. In addition, to get a better understanding of Guangzhou and Shenzhen's different patterns of economic transitions, especially in the newly emerged advanced services economy, we also conducted 21 interviews with, respectively, 15 actors working in advanced business service firms, 3 from chambers of commerce and industrial associations, and 3 from research and planning institutions in the two cities between May and July, 2013. All but two (one through telephone, the other through e-mail) interviews were undertaken in a semi-structured, face-to-face way. Each interview lasted for about one hour.

The chapter proceeds as follows. After the introduction, we briefly review the world/global city theory and identify, from our perspective, two major limitations, namely neglecting both the specific historical trajectory of a concrete city and the absence of agency. Accordingly, in section three we introduce the concepts of path dependency and strategic management of cities to present a more comprehensive framework for exploring urban and regional transitions under contemporary conditions of globalization. Based on this framework, we compare Guangzhou and Shenzhen's distinct patterns of economic transitions after 1978, with a focus on the strategic choices made by local leading actors and the impacts of city-specific, path-dependent factors in section four. In the last section, we give a brief summary of the findings and reflect on the wider implications.

## **5.2 Globalization, economic restructuring and the new patterns of urbanization**

In the past two decades or so, the concept of world (or global) city has been widely adopted in geography, urban studies and other related disciplines for the investigation of the relationship between globalization and urbanization (Friedmann and Wolff, 1982; Friedmann, 1986; Sassen, 1991; Taylor, 2004; Scott, 2001, 2012). The key feature of this concept is its explicit effort to link many, if not most, aspects of contemporary socioeconomic transformations of major cities (and city-regions) in the world to the wider dynamics of capitalist restructuring, globalization, and the new international division of labour (NIDL) that started to unfold since the late 1970s. In short, the key assertions can be summarized as (cf. Friedmann 1986; Sassen, 1991; Brenner and Keil, 2006; Scott, 2012): With the intensification of globalization and the formation of the NIDL, the world's major cities are integrated into an overarching, worldwide capitalist economic system. These cities have become the 'basing points' for the global operations of transnational corporations, the production sites and markets for advanced producer and financial services, the major locations of innovation, and the destinations of most international and domestic migrations. Therefore, they function as the 'organizing nodes' of global capitalism and the 'gateways' for linking their home regions and countries into the world economy. In the meantime, how cities are integrated into this global capitalist-urban system also profoundly shapes the transformations of their local industrial structure, labour-market segmentation, socio-spatial stratification, and urban landscape including architectural features. The typical pattern of current global urbanization, hence, is the rise of a transnationally networked hierarchy of cities and city-regions across the world (Taylor, 2004; Scott, 2012).

By placing cities within a macro-geographical context defined by the restless restructuring of capitalist world economy, the world city theory offers a penetrating window for investigating the new patterns of urban growth and development in the current era. This makes it a useful point of departure for the explorations of this chapter. Since the implementation of economic reform and opening up policy in 1979, China's major cities, including Guangzhou and Shenzhen, have demonstrated a trend of growing integration with and orientation toward the world economy (Lin,

2004b, p. 144). These ‘globalizing cities’ not only function as ‘the most important centres of the Chinese national economy’, but also serve as ‘the spearheads for both global capitalism to enter the Chinese territory and the Chinese economy to join the world’ (ibid.). They thus become an integral part and an important promoter of the worldwide, capitalist restructuring-led urban booming in the past three decades. As such, the context of global political-economic changes depicted in the world city theory is instrumental for exploring the post-1979 transitions of Chinese cities.

The classical world city theory, however, also has some obvious limitations. One major deficiency of this paradigm is that most contributions have adopted a largely structuralist point of view, which tends to overemphasize the role of large-scale political-economic changes and, accordingly, downplay the (possible) responses made by local actors, especially the actions adopted by national and local states. For them, ‘globalized urbanization was reducing the capacity of local political actors and state institutions to influence socioeconomic life’ (Brenner and Keil, 2006, p. 11). However, more recent studies argue that, rather than passively accepting the outcomes of globalization, local actors may actively participate in the process of urban transformation and world city formation, and play a critical role in shaping the impacts of globalization on concrete urban areas (cf. Hill and Kim, 2000; Wu, 2000; Olds and Yeung, 2004; Wei and Yu, 2006; Dupont, 2011). It has been pointed out that the existence of ‘developmental states’ in East Asian countries clearly differs their world city formation experiences from the classical, Anglo-American model (Hill and Kim, 2000; Wu, 2000; Olds and Yeung, 2004).

Another common critique against the world city theory is that much of this literature has been ‘remarkably ahistorical’ (Abu-Lughod, 1999). That is, they are firmly structured within the latest progresses of global capitalism (i.e., the end of the Fordist-Keynesian hegemony and the rise of the NIDL), and devalue the impacts of individual cities’ specific development trajectories and historical legacies (cf. Grant and Nijman, 2002; Kloosterman, 2010). Instead of fundamentally breaking from the past, cities ‘mostly adapt to changes by adding new layers to the existing outlay’ (Kloosterman and Lambregts, 2007, p. 56). In this complex process, cities will display their own typical, path-dependent characteristics. ‘It is the contingent mix of the local historical context and the more

general trends of change, which help to shape the concrete opportunities and constraints for individual cities' (Kloosterman, 2010, p. 140). Therefore, a more comprehensive understanding of contemporary patterns of urban development demands careful considerations of the detailed evolutionary histories of individual cities and regions.

In short, the classical world city model has overstressed some general trends being played out in major world cities driven by external, macro-economic forces, which limits its applicability in explaining the multiple pathways associated with world city formation processes forged by cities' diverse geographical, institutional and historical contexts (cf. Olds and Yeung, 2004). To fill this gap, in the next section we introduce, drawing mainly from the path dependency and urban/regional resilience literature, the concepts of path dependency and strategic management of cities to present a more comprehensive framework for analyzing urban transformations in the Chinese context.

### **5.3 Filtering globalization: path dependency and strategic management of cities**

Path dependency is a notion now applied in a variety of social science disciplines to characterize and explain the evolutions of technologies, industries, institutions and other socioeconomic phenomena (North, 1990; Mahoney, 2000; Pierson, 2000; Martin and Sunley, 2006; Boschma and Frenken, 2006; Wolfe, 2010). 'A path-dependent process or system is one whose outcome evolves as a consequence of the process's or system's own history' (Martin and Sunley, 2006, p. 399). In an urban or regional context, the path-dependency approach suggests that the development of a city or region tends to be shaped by a series of economic, social and cultural factors that were formed in the city or region's past trajectory. These factors not only are slow to change, but also exhibit obvious self-reinforcing or path-dependent features (Kloosterman, 2010, p. 134). They thus strongly condition the range of possibilities that a city can pursue in the future. Wolfe (2010, p. 141) elaborates the functioning of path dependency mechanism in cities as follows:

'During the early phase of technology development, many cities have the potential to emerge as the location where a technology and its

corresponding industry take root. Once a city establishes itself in a particular set of production activities, its opportunities for continued growth are reinforced by the impact of increasing returns to the technological and institutional advantages it enjoys. ... By the same token, ailing places may face greater challenges in improving their fortunes when their principle industries and technologies begin to decline.’

In other words, a city’s historically developed economic structure (and related physical, institutional features and cultural underpinnings) may either constrain or facilitate its capability to respond and adjust to external changes at a later stage. These external changes may include both sudden shocks (e.g., a nature disaster or a financial crisis) and slowly developing challenges (e.g., globalization and deindustrialization) (Pendall et al., 2010). For this reason, ‘what looks like and is portrayed as regional success in one era does not necessarily look the same when conditions change’ (Christopherson et al., 2010, p. 6). The mechanism of path dependency therefore provides an explanation on why each round of profound technological-economic changes in history has always been accompanied by a parallel growth and decline of different types of cities and regions.

The early path dependency literature, however, also largely appeals to external factors in explaining the ‘delocking’ of old paths and the formation of new ones. According to them, ‘once it is locked in, a technology, industry, or industrial location pattern is assumed to persist and remain stable until it is disrupted or dislodged by an “external shock” or some kind’ (Martin, 2010, p. 4). More recent studies start to emphasize the importance of endogenous forces, particularly the role played by local actors, in shifting the paths of urban and regional development (cf. Simmie and Martin, 2010; Wolf, 2010; Oosterlynck, 2012). These scholars argue that regional economies always ‘consist of collections of agents and institutions that learn and change their behaviors’ (Simmie and Martin, 2010, p. 35). Through processes of ‘socially organized learning’, local actors may formulate and implement strategic management policies to mobilize (or cultivate) their unique jurisdictional assets (which may include, for instance, ‘endowment of nature resources’, ‘infrastructure and built environment’, ‘regionally specific institutions’, sets of ‘knowledge and skills’, etc.) and, based on those assets, to chart a new path of development for their cities and regions (Wolf, 2010). Therefore, although

‘[p]ath dependency plays a role in determining the outcomes,... that role... is framed by the strategic choices of local actors and the degree to which local institutional structures [and other resources] constrain or support the realization of their goals’ (ibid., p. 151).

In our view, the concepts of path dependency and strategic management of cities can be used as a useful extension of the world city framework. Accordingly, the patterns of urban restructuring and development in the face of macro-scale economic, political and technological changes should be examined by looking at the combination of the city’s existing economic structure that determined by its past development trajectory, its available, unique local assets, and critically, the strategic choices made by its local leading actors based on these specific local conditions (cf. Wolf, 2010). Such a more comprehensive perspective enables us to, on the one hand, rightly emphasize the capitalist underpinnings of current global urban transformations, while, on the other hand, avoid neglecting the divergent local contexts that exist between cities and regions. In the next section, we will use this framework to analyze the transitions of Guangzhou and Shenzhen since 1979 (Figure 5.2).

**Figure 5.2** Overview of the transformation processes in Guangzhou and Shenzhen after 1979

Stage	City	External changes		Local path dependent factors			Strategic choices of the local authority
		Global environment	National policy	Dominant economic structure	Regional assets/ constraints		
Low-end manufacturing based-industrialization	Guangzhou	Shift of low-end manufacturing activities from East Asian 'tiger' economies to nearby countries	Selectively reforming and opening up	An economy dominated by a large, outdated industrial sector	Limited space, deficient infrastructure, institutional burdens from the centrally planned period	No effective measures	
	Shenzhen			Small-scale, pre-industrial (agricultural and service) economy			Special Economic Zone privilege and new city status
Restructuring and upgrading	Guangzhou	Shift of more capital- and technology-intensive industries from developed economies to industrializing countries	Expanding reform and opening up to more regions	More balanced economy	Formerly established (state owned) industrial foundations and merchant traditions	City rebuilding, promoting heavy industries and services	
	Shenzhen			Export oriented, (largely low-end) manufacturing-based economy			Rising production costs, lack of land and other resources
Advanced services-led transition	Guangzhou	Economic crisis, increasing global competition	Emphasizing equitable growth and endogenous development	Diverse and complex urban economy	Provincial-level state institutions, attractive local culture and urban milieu	Promoting advanced (service) economies	
	Shenzhen			An economy led by innovation-related sectors			Well-established market system, better regulatory environment, crucial financial institutions

## **5.4 Transitions of Guangzhou and Shenzhen since 1979**

The year 1979 was a major watershed in China's modern history (Naughton, 2007). From that year, the Chinese central authority started the reform and opening up programme to remedy the nearly collapsed national economy. But different from the measures in the planned period, the central government granted 'sizable de jure control rights', and endowed 'even greater de facto control rights' over most regional economic issues (such as 'land allocation', 'business development', 'infrastructure construction', 'fiscal matters', 'law making and enforcement') and resources to lower-level governments to let them initiate and test new reform practices (Xu, 2011, p.p. 1086, 1095). In the meantime, through redefining the financial responsibility between the central and local states, and, more importantly, attaching the appointment and promotion of subnational government officials to their jurisdictions' economic performances, the central government motivated local officials to follow its national policies and to devote to developing their economies (ibid.). As a result, the local governments 'shifted from a passive agent of the central state to an active promoter and manager of urban development' (Xu and Yeh, 2005, 287). They thus became leading actors in the development of Guangzhou and Shenzhen after 1979.

### ***5.4.1 Low-end manufacturing-based growth***

#### ***Shenzhen: formation of an export-oriented economy (1979- the early 1990s)***

In order to reduce the political resistance and risks that might come from reform, the Chinese central authority adopted a gradual reform strategy (Xu, 2011) by firstly selecting several cities on the coast, which were relatively small but had advantageous geographical locations and/or extensive social connections with overseas Chinese communities, as the experimental field of new economic policies. As the place most close to Hong Kong, Shenzhen was designated (with the suggestion from Guangdong provincial officials) by the central government as a Special Economic Zone (SEZ) in 1980 (Jang, 2010). According to the design of the central government, Shenzhen would function as 'a "window" for observing global trends in economic, scientific, technological, managerial and market development', 'a "training ground" for talents in the Mainland', and an 'experimenting ground'

for special economic measures and the cooperation between China and foreign countries (Ng, 2003, p. 431). This strategic position allowed Shenzhen to go one step ahead of most Chinese cities to explore innovative ways of economic development and to (re)connect with the world economy. The government of Guangdong province, on the other hand, also provided substantial supports for the SEZ. It not only granted Shenzhen same political status as that of the provincial capital Guangzhou, but also assigned several key provincial officials (even including a provincial party secretary) as the early leaders of Shenzhen municipality. As such, Shenzhen acquired remarkable policy advantages in exploring new economic practices.

At almost the same time, the global capitalist system had changed significantly. After two decades of rapid industrialization, the East Asian ‘tiger’ economies, namely Hong Kong, Singapore, Taiwan and South Korea, started to upgrade their economy and transfer many low-end production activities to nearby less-developed countries (Dicken, 1998). Benefiting from its location advantage and social connections, Shenzhen was in highly suitable position to receive these industrial transfers from Hong Kong. However, in the first several years after the setup of the SEZ, Shenzhen was not very successful in attracting foreign capital compared with attracting domestic investments from ministry- and province-led enterprises. Its high rate of economic growth (Table 5.2) was also built largely on the massive urban construction investments, rather than (as the central government wishes) on industrial production or exports (Jang, 2010, p. 111). This situation lasted until the mid-1980s, when a national-wide economic fluctuation and the following stringent financial control gave a fatal blow to Shenzhen’s domestic investment-led growth. To rectify Shenzhen’s ‘problems’, the central government decided to adjust the municipality’s leadership by directly appointing its top leaders from Beijing in 1985 (Su, 2008, p. 56). Meanwhile, it also further opened 14 coastal cities to overseas investors (Ng, 2003, p. 433). Under these circumstances, Shenzhen’s new authority realized the best choice to sustain the city’s economic growth and to reduce external suspicions on the SEZ would be to develop a genuine export-oriented, industry-based economy through introducing foreign investments (information provided by a planner from Shenzhen; also see Ng, 2003, p. 433; Jang, 2010, pp. 129-133).

Therefore, in the SEZ's 'Seventh Five-Year Plan (1986-1990)' and 'Second Master Plan (1985-2000)', 'building an export-oriented economy' was set up as a basic goal and became crucial in the allocation of land use. Since the mid-1980s, Shenzhen municipality adopted a series of measures, such as improving urban infrastructure, carrying out administrative reforms, providing tax exemption and other incentive policies, and conducting overseas marketing, to attract foreign investments (Ng and Tang, 2004). As a newly established city, Shenzhen had two resources that were especially attractive to foreign industrial investors: a large amount of vacant land, and a cheap labour force composed mainly by domestic immigrants. Also benefiting from its SEZ privilege and new city status (which means fewer ideological and institutional restrictions and less opposition from the vested interests), Shenzhen local government was able to introduce some innovative economic practices (many were 'imported' from Hong Kong), such as China's first foreign bank (in 1985), foreign exchange centre (1985), land leasing market (1987) and stock exchange (1990), that later were proven to have fundamentally changed the whole country. It also took a lead in the reforms of State Owned Enterprises (SOE), housing system, employment, salary and social welfare system in the country. These innovative reforms gave Shenzhen an institutional advantage compared to other mainland cities.

The endeavors to transform Shenzhen into an export-oriented economy turned out to be a considerable success. Foreign investment had flooded into the SEZ in the second half of the 1980s (Table 5.2). Main investors were Hong Kong manufacturing firms who transferred their production facilities to Shenzhen in search of cheap labour and land. Since their investments almost exclusively concentrated in low-skill and labour-intensive manufacturing activities, the industrial structure of Shenzhen was dominated by small- and medium-sized, low-value-added enterprises (Table 5.4). Although this differed from the local government's original desire, which preferred capital- and technology-intensive enterprises (Ng and Tang, 2004), it helped Shenzhen build an export-oriented economy within a short time. From 1979 to 1990, Shenzhen's export increased from 0.01 billion to 8.2 billion USD (Table 5.2), which means from 0.5 to 37 per cent of the total export of Guangdong province (Table 5.1). By 1988, it already had the second largest export among all cities in mainland China (Zhong, 2011).

The explosive growth of export boosted rapid economic development. Shenzhen's average GDP growth rate reached 50 per cent annually in the 1980s,<sup>1</sup> making it the second largest city (only after Guangzhou) in terms of economic size in Guangdong province by 1990. Manufacturing was the sector experienced the most rapid growth, at the expense of agriculture (Table 5.3). Fueled by the booming economy, Shenzhen attracted large numbers of migrants from across the country. Its residents approached nearly 1.7 million by 1990 (Table 5.2).

**Table 5.4** The composition of Guangzhou and Shenzhen's Gross Industrial Output (1979-2012)

		Unit: %								
		1979	1980	1985	1990	1995	2000	2005	2010	2012
Guangzhou	Light industry	61	65	65	64	60	57	42	35	34
	Heavy industry	39	35	35	36	40	43	58	65	66
Shenzhen	Light industry	88	87	79	75	54	45	27	25	26
	Heavy industry	12	13	21	25	46	55	73	75	74

*Note:* Data in 2012 represent industrial enterprises with revenue of at least 20 million RMB Yuan.

*Sources:* GSB, 2013; SBG, 2012; SBS, 2012.

### ***Guangzhou: weakening of the leadership (1979- the mid 1990s)***

While Shenzhen and other smaller cities in the PRD were rising at an unprecedented speed after 1978, Guangzhou was struggling with many at least seemingly intractable problems, most of which were inherited from the centrally planned period. Following the central government's (heavy) industry-centred development ideology, Guangzhou had established a large industrial sector during the planned period. However, the equipment of most factories was dated back to the 1950s, which was outdated and very costly to upgrade or replace. The city's historical development had been largely confined to the old urban area, which was now densely populated and overcrowded, leaving very limited space for developing new industrial activities. There was also a lack of a reliable urban infrastructure as a result of the over-emphasis on 'production' and the neglect on infrastructure investment in the planned era. These tangible challenges were

exacerbated by such institutional burdens as a bloated and inefficient bureaucratic system, a dominating SOE sector that lacked the motivation for innovation, and a large number of retired workers and cadres who needed support in housing and welfare from the local government (Vogel, 1989, pp. 196-198). In short, the economic, infrastructural and institutional conditions of Guangzhou were still characterized by substantial legacies from the old planned system, which could not meet the demand of the growing processing-type manufacturing activities. In addition, compared to their counterparts in Shenzhen, the governors of Guangzhou, who were basically selected locally or from Guangdong province, were relatively less open-minded or competent (information provided by several interviewees from Guangzhou; also see Su, 2008, pp. 116-117). Due to these reasons, the economic and planning measures adopted by the municipal government did not work out effectively (Su, 2008, p. 123). Guangzhou moved relatively slower in the market-oriented economic transition compared to other cities in the PRD, and lagged behind them in the competition for low-cost-searching investments from Hong Kong in the 1980s.

Even though, Guangzhou's economy still grew and developed after 1978. For instance, the city's GDP had increased over five times from 1979 to 1990 (Table 5.2), much faster than the growth in the planned period. The structure of its economy also shifted from a dominance of industry to a more balanced composition of industrial and service sectors (Table 5.3). However, such a speed of change was not only far slower than that of Shenzhen (Table 5.2), but also overshadowed by most other cities in the PRD. In the 1980s, Guangzhou's share of GDP, foreign investment and, particularly, industrial production and export in the PRD had all declined sharply (Table 5.1). Its industrial foundation was challenged by numerous emerging factories in Shenzhen, Foshan and Dongguan, while its conventional status as the regional services hub was also weakened by the modern service sectors in Hong Kong and, increasingly, Shenzhen (Xu and Yeh, 2005). For the first time in history, the central role of Guangzhou in the region was severely challenged.

#### ***5.4.2 Restructuring and upgrading***

##### ***Shenzhen: from the export-oriented SEZ to the national high-tech centre (the***

### *mid 1990s- the 2000s)*

By the early 1990s, the prospect of Shenzhen met some serious challenges. Externally, the central government decided to promote China's reform and opening up into a new level and, as a symbol, set up Pudong New Area in Shanghai in 1990. Without enjoying obvious policy advantages, Shenzhen had to face increasing competitions from other opened cities, especially those in the PRD and the Yangtze River Delta (YRD). Internally, the city was confronted with rising production costs and an increasing shortage of land, which put pressure on its labour-intensive industries. These changes made Shenzhen's local governors realized it was necessary to upgrade the city's industrial structure and search for a new path of sustainable development (information provided by a planner from Shenzhen).

In the meantime, at the global scale there emerged a new wave of shift of relatively more capital- and technology-intensive activities, represented by electronic and information industries, from developed economies (mainly Japan, Hong Kong, Taiwan and South Korea) to emerging industrializing countries. Observing this trend, the local authority of Shenzhen believed it would be a good opportunity for Shenzhen to upgrade from a manufacturing-based SEZ into a new 'international city' through developing high-tech sectors. Therefore, they started to promote the transitions of local low-end manufacturing enterprises and introduce high-tech investments. However, these early efforts, which focused on microscopic management, did not achieve the desired results (Jang, 2010, p. 201).

Learning from this experience, the Shenzhen local government gradually turned its emphasis to formulating broader policy directions and providing relevant supporting institutions and infrastructure. In the 'Ninth Five Year Plan (1995-2000)' and the 'Third Urban Master Plan (1996-2010)', high-tech industry was highlighted as the most important leading sector of Shenzhen's economic growth. Following the strategies outlined in these plans, the municipal government started to build, with the participation of international designers and foreign capital, several mega projects (e.g., a national-level high-tech industrial development zone, a new city centre in Futian district, the Bao'an International Airport, and new port facilities) to facilitate urban restructuring and to provide high-standard infrastructure for high-tech activities. Since 1998, the Shenzhen government

further issued several influential documents which introduced preferential tax and industrial policies to attract investment in high-tech (electronic and information) sectors. Meanwhile, it also adopted a series of measures, such as further simplifying government regulations, legislating to protect intellectual property rights,<sup>2</sup> setting up venture capital funds and high-tech investment service companies, organizing the 'China Hi-Tech Fair', to improve the 'soft' environment of the city (Ng and Tang, 2004; Jang, 2010, pp. 201-205). In particular, to remedy the shortage of local knowledge and high-quality labour, the municipality issued special policies to encourage inland talents to move to Shenzhen and establish their businesses there.

Most of these efforts, in retrospect, were quite far-sighted and innovative at that time. Shenzhen became a pioneering city which chose a high-tech-based development strategy in mainland China. Favorable local policies and friendly entrepreneurial environment attracted numerous professionals and technicians who left government institutions and universities in the inland to start a business in this 'city of entrepreneurship'. The city's geographical proximity to Hong Kong once again became a great advantage. Many early-established enterprises in high-tech sectors started businesses by introducing (or, in many cases, imitating) products and technologies from their counterparts in Hong Kong (information provided by a director from a high-tech company in Shenzhen). As such, Shenzhen experienced remarkable transformations in urban economy. High-tech industry maintained a high rate of growth since the early 1990s. Between 1991 and 2004, the value of high-tech production and its share in the gross industrial output in Shenzhen grew from 2.3 billion RMB and 8 per cent to 327 billion RMB and over 50 per cent respectively. The export of high-tech products also increased (from 0.2 billion USD in 1992) to 35 billion USD in 2004, contributing to 45 per cent of the city's total export and one fifth of the high-tech export in China (SMG, 1997; Li, 2005; SBS, 2005). In 2009, the number of patents filed with the Patent Cooperation Treaty (PCT) applied in Shenzhen reached 3,800, accounting for 47 per cent of the national total (Jang, 2010, p. 7). It is worth noting that, due to the lack of state-funded research institutions and universities, market-oriented enterprises were the leading actors in developing high-tech industries in Shenzhen. Over 90 per cent of R&D institutions and researchers concentrated in enterprises, and 82 per cent of research funding was also from them (SMG, 1997). This distinctive characteristic

enabled Shenzhen to have a very high efficiency in transforming scientific research into products. In addition, the fast growth of high-tech industries also generated an increasing demand for advanced business services, such as finance, real estate, logistics and information services. In 2000, high-tech industry, finance and modern logistics were identified by the Shenzhen government as three pillar sectors of urban economy.

Economic restructuring brought Shenzhen a high rate of growth. Soon after the year 2000, it already could rival Guangzhou with respect to the size of economy (Table 5.2). Meanwhile, industrial upgrading further boosted the cost of labour and land, which forced many low-end manufacturing activities to be transferred to other cities and towns in the PRD and, in turn, consolidated Shenzhen's functions in management, finance, logistics and other services in the region. In less than three decades, Shenzhen turned into a new leading centre in Guangdong province.

### ***Guangzhou: revival of the old capital (the late 1990s- the 2000s)***

During the 1990s, Guangzhou's city development was further improved. For instance, the municipality constructed its first metro line and two ring roads, and started to build a new city centre in Tianhe district. However, many old problems still persisted. By the late 1990s, the disarray of Guangzhou contrasted sharply with the achievements made in those fast-growing cities like Shenzhen and Shanghai, and caused much discontent among its residents (Xu and Yeh, 2005). The prospect of China's accession to the World Trade Organization (WTO) also posed new external pressures to the city. Meanwhile, the newly nominated (in 1998) party secretary of Guangdong province paid high attention to Guangzhou's urban construction and economic development issues. He proposed to strengthen the capital's regional central city function, and put forward a 'three-stage-change' goal for Guangzhou municipality (Lin, 2013, pp. 24-27). Against this background, the municipal government of Guangzhou initiated a large-scale city rebuilding project, aiming at rectifying the city's urban problems and regaining its central status in the region.

Firstly, in 2000, with the support from the central and provincial governments, Guangzhou municipal government re-adjusted the city's administrative boundary

by transforming two county-level cities (Huadu and Panyu) into two new sub-districts of the municipality. This adjustment greatly expanded the land (from 1,444 to 3,719 square kilometers) under the direct administration of Guangzhou municipal government, which enabled it to conduct massive urban construction projects. Following that, the municipality invited several top planning and designing institutions in China to make a 'Strategic Planning of Comprehensive Development' for the city. It was the first strategic planning in China, aiming at breaking through the limitations of the traditional urban master planning system and outlining the direction for Guangzhou's future development (Xu and Yeh, 2005). In this plan, the goal for Guangzhou was defined as becoming a 'modern, internationalized, regional central city'. This seemingly somewhat contradictory statement actually reflected the local authority's ambition to revival Guangzhou's former glorious as both an important international port city and a major centre in Southern China. The plan also set up a polycentric spatial strategy- 'expansion in the south, optimization in the north, advancement in the east, and linkage in the west'- as the outline for the city's future development (ibid.). Under its guidance, over 30 mega-projects, covering almost all parts of the municipal territory, were initiated in the following years. A new city transport network including several new metro lines and a Bus Rapid Transit (BRT) system was also planned. As a way of city marketing and promoting, several world-famous design firms and architects were invited by the municipal government to participate in these projects.

In the economic domain, realizing the opportunities offered by the transfer of automobile and electronic industries from Japan, the USA and Western Europe to newly emerging economies, as well as the rising consumption market for these products in China, the Guangzhou government adopted a heavy industry-based (re)industrialization strategy to restructure the city's economy. In 1998, three sectors- 'transportation equipment manufacturing', 'electronics' and 'petrochemical industry'- were identified by the government as the pillar industries of the urban economy (Su, 2008). The main approaches used by them were setting up giant industrial complexes through merging and reorganizing former local SOEs,<sup>3</sup> introducing foreign capital and technologies via joint ventures,<sup>4</sup> and establishing new companies with the participation of central state-owned enterprises.<sup>5</sup> In addition, the local government also tried to promote the development of service sectors to restore the city's traditional advantages in commerce and trade. Many

constructed or planned projects (such as the new CBD, the exhibition centre, the new airport and port) were supposed to meet the future demand of service activities. A great effort was also devoted by the local government into attracting international leading companies in the service domain.<sup>6</sup>

Guangzhou's former industrial foundations accumulated during the planned period, together with the introduction of foreign and domestic leading companies, provided necessary inputs in technology, capital and management experiences. Its historically-established merchant traditions and resources, such as 'the China Import and Export Fair (Canton Fair)', also generated new advantages (information provided by an interviewee from Guangdong Modern Service Industrial Association). With the stimulations from the local government, Guangzhou started its most significant post-1979 transition, characterized by the parallel heavy-industrialization and tertiarization, since the late 1990s. The leading sector of the city's industrial growth gradually shifted to the manufacturing of capital- and technology-intensive products. The weight of heavy industry in the local gross industrial output increased from 36 per cent in 1990 to over 60 per cent in 2010 (Table 5.4), with 48 per cent contributed by three pillar sectors (SBG, 2011). Service sectors, whose share in local GDP increased from 48 per cent in 1995 to over 60 per cent in 2010, experienced even faster growth, implying that Guangzhou had revived as a 'mercantile city'. After 2000, Guangzhou basically stopped its sharp decline in the region (Table 5.1). In 2010, it became the third city (after Shanghai and Beijing) with a GDP of over one trillion RMB in mainland China (Table 5.2). The urban built environment, after years of multibillion dollar investment in infrastructure, had also been significantly improved.

#### ***5.4.3 Recent trends: the emerging advanced services-led transition***

The 2008 global economic crisis dealt a serious blow to the PRD's export-oriented economic growth model, which had already suffered from the rising cost of labour and land, the appreciation of RMB, and the intense competitions from other fast-growing regions in China (encouraged by the central state's 'equitable growth' and 'endogenous development' policy) and many newly emerged low-cost countries. Even relied relatively less on low-value-added sectors, Guangzhou and Shenzhen also experienced a decline in export in 2009 (Table 5.2). In response, the

local authorities of both cities chose to speed up the pace of economic transition through promoting advanced economic activities, particularly high-order business services. The municipal government of Guangzhou formulated a strategy of ‘withdrawing the secondary (sectors) and promoting the tertiary (sectors)’ to help push out low-end manufacturing activities and make space for modern service economies. Shenzhen, in order to consolidate its leading role in institutional innovation, chose to strengthen its cooperation with Hong Kong in service sectors through setting up the ‘Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone’- a ‘Special Zone within the SEZ’ that aimed to become a leading centre of service innovation in the mainland. To secure the demand for high-skilled labour of advanced economic activities, the governments of both cities, in addition to their traditional industrial and investment policies, devoted special efforts to upgrade their labour structure. For instance, both of them recently formulated a ‘Medium- and Long-Term Talent Development Plan (2010-2020)’, which not only introduced special financial and policy supports (in business establishment, residency permit, housing, social welfare, etc.) for attracting top-notch talents from across the world, but also sought to improve the education and training system by increasing public investment and strengthening cooperation with local and external research institutions.

Although the prospects of these policies are still uncertain, what can be expected is that Guangzhou and Shenzhen will have a great potential to benefit from the new wave of advanced services-led economic transition. Unlike low-end manufacturing industries, whose major concern is to minimize production costs, high-order business services, relying on strong economies of agglomeration, tend to concentrate in a limited number of large metropolises that can provide a pool of well-educated labour, a concentration of large companies (as clients), as well as excellent urban infrastructure and global connections (Daniels 1985; Coffey, 2000). This will give Guangzhou and Shenzhen significant advantages in developing these activities in the region. As already shown in Table 5.5, while both cities’ contributions to GDP and industrial output in Guangdong province had declined between 2004 and 2012, they had gained increasing shares and/or dominance in most advanced service sectors, such as ICT, business services, financial sectors, scientific and technical services, and cultural industries. More importantly, we can also observe that a new division of labour, with Guangzhou taking a lead in the

provision of many traditional services (e.g., transport and storage, wholesale and retail, leasing and business services, hotels and catering, and culture and entertainment services) and Shenzhen dominating in innovation-related service sectors (e.g., finance, real estate, high-tech sectors), is emerging between two cities. Such evidences indicate that Guangzhou and Shenzhen are heading to two centres for advanced business services in the region.

**Table 5.5** The share of Guangzhou and Shenzhen's GDP in Guangdong by sectors  
Unit: %

	Guangzhou		Shenzhen	
	2004	2012	2004	2012
<b>GDP</b>	<b>24</b>	<b>23</b>	<b>23</b>	<b>22</b>
<b>Primary Sector</b>	<b>9</b>	<b>8</b>	<b>1</b>	<b>0</b>
<b>Secondary Sector</b>	<b>19</b>	<b>17</b>	<b>24</b>	<b>20</b>
Industry	19	17	24	20
Construction	24	24	19	19
<b>Tertiary Sector</b>	<b>31</b>	<b>32</b>	<b>25</b>	<b>26</b>
Transport, Storage and Post	56	40	22	21
Wholesale and Retail Trade	23	28	23	22
Hotels and Catering Services	26	29	19	20
Leasing and Business Services	38	51	19	17
Financial Intermediation	29	29	45	54
Real Estate	24	27	37	27
Information Transmission, Computer Services and- Software	31	32	24	34
Scientific Research, Technical Services and-Geological Prospecting	45	43	34	34
Culture, Sports and Entertainment	42	65	22	28
Education	29	32	12	12
Health Care, Social Security and Social Welfare	29	37	16	14
Services to Households and Other Services	26	17	20	15
Public Management and Social Organizations	23	21	15	14
Management of Water Conservancy, Environment and- Public Facilities	28	29	29	24

Sources: GFNECO, 2006; GSB, 2013; SBG, 2005; SBS, 2006.

Our interview information reveals that the comparative advantages of Guangzhou and Shenzhen in the advanced services economy are also highly related to two

cities' respective economic structures and local assets that formed along distinct development trajectories. As a traditional commercial hub and a major economic centre in Southern China, Guangzhou has established a diverse and complex urban economy with a cluster of variegated economic sectors (Table 5.5), a concentration of specialized trading markets, and extensively-distributed (domestic and overseas) commercial and trade networks in the long history of development. *'Its comprehensive economic strength, solid developmental foundation, balanced industrial structure, and central status in the region bring it significant advantages in providing transitional services, such as commerce and trade related services, exhibitions, logistics, etc.'* (information provided by an interviewee from Guangdong Modern Service Industrial Association). Meanwhile, as the provincial capital, Guangzhou is also the site of all provincial-level state institutions, including the provincial governments, the Higher Court and the Justice, etc. These institutions are indispensable in the provision of many business services (e.g. legal services) and, therefore, make Guangzhou an attractive location for service firms in relevant sectors. A diverse urban economy, the regional centre status, and key institutions are the main reasons why many business service firms choose Guangzhou as the hub to provide services for the regional market (information provided by several interviewees from business service firms in Guangzhou). In addition, the deeply rooted, distinctive *'Cantonese Culture'* and the *'lively, diverse urban atmosphere'* also strengthened the city's (cultural) appeal to high-quality service talents, especially to those from foreign countries (information provided by most interviewees living in Guangzhou).

On the other hand, Shenzhen, based on its leading role in institutional and technological innovation after 1978, has developed into a major high-tech-based innovation centre which has a number of world-class high-tech companies (e.g. Huawei, ZTE and Tencent) in mainland China. High-tech industries not only contribute to a large part of Shenzhen's local economy and export, but also provide a strong demand for high-order, innovation-intensive producer services. For example, as an interviewee from a financial firm in Shenzhen explained, *'since high-tech enterprises normally need a large investment of capital, but at the same time run higher risks, their concentration will create a large demand for innovative financial services, such as security, equity, venture investment'*. Therefore, it can be observed that the leading service sectors in Shenzhen, such as finance, ICT,

scientific services and real estate (Table 5.5), are all closely related to the city's high-tech and innovative industries. In addition, the unique development trajectory as a SEZ and a newly built city, and the weakness of the SOE sector<sup>7</sup> also help Shenzhen establish '*a relatively higher level of marketization and competition*', '*a more transparent and flexible regulatory environment*' and '*a more efficient local government*' compared to other cities, including Guangzhou (information provided by three interviewees from the Guangdong Modern Service Industrial Association, Shenzhen University, and a high-tech company in Shenzhen respectively). This market-oriented regulatory environment is especially beneficial to the development of private enterprises<sup>8</sup> and, thus, further contributes to the clustering of high-tech and innovation-related industrial and service firms (whose growth, as an interviewee from a high-tech firm in Shenzhen told us, '*relies on a competitive market environment*') in Shenzhen. Lastly, as the fruit of the city's former innovation exploration, the Shenzhen Stock Exchange- one of the two stock exchanges in mainland China and the only one that contains Main Board, Small and Medium Enterprises Board and ChiNext (a NASDAQ-style board)- '*has already formed an agglomeration effect*' which is still '*playing a key role in supporting the development of financial firms ... and high-tech industries in Shenzhen*' (information provided by an interviewee from a financial firm in Shenzhen). An urban economy focusing on innovation, a well-established market system and regulatory environment, and the crucial financial institutions have contributed to Shenzhen a sustainable advantage (which differ from that of Guangzhou) in the new transition led by advanced service activities.

## **5.6 Conclusions**

In this chapter, we conducted a comparative analysis of the transitions of Guangzhou and Shenzhen- two leading cities in one of the fastest growing regions in China- under conditions of contemporary globalization. Our main purpose is to expand the world city framework to a broader geographical context (such as China) by highlighting the impacts of specific urban evolutionary trajectories as well as the strategic roles played by local leading actors. Our main findings can be summarized as follows.

Firstly, the development and transitions of Guangzhou and Shenzhen in the past

three decades are part and parcel of what Scott (2012, p. 12) calls the ‘third wave of urbanization’ that is promoted by the reorganization of the capitalist world economy since the 1970s. The transfer of different types of economic activities (beginning with low-end manufacturing, later shifting to relatively capital- and technology-intensive industries, then to more knowledge-intensive advanced services) from developed countries/regions to the PRD at various stages has provided an important impetus for the continuous restructuring of the urban economies and spaces in two cities after 1978. This reintegration with the modern global economic system makes Guangzhou and Shenzhen’s new development patterns rather different from their former experiences in terms of the scale, speed and complexity of urbanization (Zhang, 2015). In this sense, the ‘restless capitalist restructuring’, as emphasized in the world city theory, is also fundamental in understanding contemporary urban transformations in China.

However, this does not suggest a simple cause-and-effect relationship between macroeconomic changes and concrete changes in cities. Instead, both national and local states have played an active role in this process, which constantly shapes the paths and patterns of urban development in the Chinese context. At the national level, the major Chinese cities are not only the ‘organizing nodes’ of global capitalism and the ‘gateways’ for linking the country into the world economy, but also the grounds for the central government to test innovative policies and practices, and to carry out its national development plans. The setup of the Shenzhen SEZ is a key part of the central government’s early explorations in introducing foreign capital and technology to promote the modernization of the national economy. The recent positioning of Guangzhou as one of the five ‘national central cities’, however, reflects the national authority’s higher expectations on core cities to lead the new transitions and strengthen the global competitiveness of the country’s economy. Similar measures have been undertaken in a variety of cities throughout the whole process of Chinese reform and opening up. The spatial development strategies formulated by the central government constitute one of the most important preconditions for urban and regional development in China.

On the other hand, to increase local revenue and get better promotion opportunities, local governments also actively respond to these external political-economic changes at the global and national scales, and make great efforts to direct the

development paths of their individual cities. The major transitions of Guangzhou and Shenzhen after 1978 were all initiated and further promoted by the two cities' local municipalities through various measures, including, firstly, providing preferential tax, low-cost land, and necessary infrastructure and institutions to attract low-end manufacturing investments; then, conducting urban strategic plans and large-scale construction projects to promote the growth of more technology- and capital-intensive industries; and more recently, introducing special supports for high-skilled labour to meet the demand of knowledge-intensive advanced services. These strategic choices, in most cases, are made by the local government through a combined effort of learning from its own former experiences, imitating other successful cities and regions, and inviting external, even international, experts and specialists to participate. The local state's interventions provide a power counterweight to the general trends that are played out at higher scales.

Finally and importantly, to what extent the strategic measures adopted by the local government can effectively stimulate economic growth and urban transition is largely constrained (or promoted) by the city's existing economic structure and unique local assets that are formed during its past development history (cf. Wofle, 2010). The contrasting circumstances experienced by Guangzhou and Shenzhen during the low-end manufacturing-based industrialization period were very much results of their distinct economic, physical and institutional conditions that inherited from the centrally planned period. Similarly, the newly emerged division of labour between two cities in the advanced services economy is also derived from their different comparative advantages that formed along diverse evolutionary paths. These two cases demonstrate that urban and regional development is a highly path-dependent process. Instead of leading to a convergence of the patterns of urbanization, the intensification of globalization and the rise of new economies may highlight the value of local assets and qualities of places, thereby resulting in the differentiation of production and diverging patterns of urban and regional development in the current era.

## Notes

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<sup>1</sup> Calculated based on data in Table 5.3.

<sup>2</sup> Shenzhen was granted by the Chinese National People's Congress with the authority of legislation in 1992.

<sup>3</sup> For example, 66 automobile-related companies owned (or hold) by Guangzhou government were merged to establish the 'Guangzhou Automobile Industry Group Co., Ltd.'. The nearly bankrupted 'Guangzhou Ethylene Company' was taken over by another SOE 'Guangzhou Petrochemical Company'.

<sup>4</sup> Three Japanese automobile companies- Honda, Toyota and Nissan- were introduced to form joint ventures with local automakers.

<sup>5</sup> A new 'Guangzhou Longxue Shipbuilding Co., Ltd.' with an annual shipbuilding capacity of up to 3.5 million dwt was established with the participation of three leading central state owned enterprises.

<sup>6</sup> For example, after 23 rounds of negotiation, Guangzhou successfully attracted FedEx to build its Asia-Pacific hub (with a 2.4 billion RMB investment) at Baiyun Airport.

<sup>7</sup> According to the 2008 national economic census, Shenzhen had only 938 SOEs, accounting for 13 per cent of the gross asset and 6 per cent of the gross annual revenue of all enterprises in the city. In comparison, the numbers of Guangzhou are 3,039, 26 per cent and 19 per cent respectively (GSNECO, 2010). Most leading companies in Shenzhen are also private enterprises.

<sup>8</sup> One interviewee called Shenzhen as '*the paradise for private enterprises*'.

## Chapter 6

# From the ‘Workshop of the World’ to the ‘Office of the World’? Rethinking Service-Led Development in the Pearl River Delta<sup>\*\*</sup>

### 6.1 Introduction

In recent years, the service economy and service sector-led development have attracted increasing attention in both academic and policy circles in China. Rising production costs and stagnating external demand for manufactured products are affecting the country’s industrial advantages and slowing down the pace of its economic expansion (*The Economist*, 2012). Simultaneously, the success story of emerging offshore business services hotspots, such as India and the Philippines, has opened up a new way to capture the ‘next wave of globalization’ (Dossani and Kenney, 2007; Beerepoot and Vogelzang, 2015; Kleibert, 2015) and achieve socio-economic modernization through tapping into the booming global services economy (Ghani and Kharas, 2010). Services, once considered as ‘non-productive’ and therefore overlooked by policy makers (Lin, 2005), are now taking up the centre stage of many Chinese cities and regions’ economic development plans (Yeh and Yang, 2013). Service sector-led development is also advocated by many scholars as an effective way to restructure and upgrade the country’s predominant (low-end) manufacturing-based growth model (cf. Lu, 2008; Shen, 2011; *Economic Daily*, 2011).

In contrast to this widespread emphasis on the economic significance of services, there is little reflection on whether service sector-led development will be a viable choice for most cities in China. Similar to many other East Asian economies (e.g. Japan and South Korea), China’s great economic success in the past three decades

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<sup>\*\*</sup> This chapter will be published in Lambregts, B., Beerepoot, N. and Kloosterman, R. (eds) (2015) *The Local Impact of Globalization in South and Southeast Asia: Offshore Business Processes in Services Industries*. London and New York: Routledge.

is primarily built on its powerful, export-oriented manufacturing sector. High-speed industrialization has not only led to impressive economic growth in a large number of Chinese cities and regions, but also profoundly shaped their urban systems, labour market structures and institutional settings in a way that fits their manufacturing bases. However, given the differences that exist between services production, especially knowledge-intensive advanced business services, and manufacturing activities (see section 6.4), the transition from an industry-based to a service sector-led economy is not a smooth process. As the experience of South Korea shows, ‘success in manufacturing does not necessarily translate into success in services’ (ADB, 2012, p. 47). It has been pointed out that most Chinese cities may not be well structured to address the demand of advanced business service firms (Daniels, 2013). Most cities also lack an appropriate strategy to direct the development of their service sectors (Yeh and Yang, 2013). Therefore, more theoretical and empirical research work is needed for a better understanding of the characteristics of business services economies and more grounded evaluations of relevant policies in the Chinese context.

This chapter discusses whether advanced business services can provide a viable substitution to manufacturing as the leading sector of economic growth in Chinese cities. In addition to that, it explores what service sector development strategies could fit different cities in China. The focus in this chapter is on cities in the Pearl River Delta (PRD).<sup>1</sup> This region has led China’s dramatic industrialization in the past three decades (Enright et al., 2005), but is now affected by a new wave of economic restructuring enabled by relatively more advanced service activities. The PRD therefore provides an ideal case to examine the role of services in a transitional industrial region.

The chapter proceeds as follows. The next section presents a typology of business services economies and compares their distinction in market orientation, modes of development, key resources needed and locational preferences. Based on this framework, section three examines the patterns of service sector development in the PRD. Section four provides an evaluation of the currently widespread business service focused development policies in the PRD and identifies their major problems. Section five discusses what business service development strategies will be appropriate for different kinds of cities in the PRD. The chapter ends with

concluding remarks and suggestions for further research.

## **6.2 A typology of business services economies**

Business (or producer) services (already excluding consumer and public services) encompass a great variety of activities and products. Such heterogeneity makes it difficult to unambiguously categorize them. Although various standard statistical classifications of economic activities, such as the International Standard Industrial Classification of All Economic Activities (ISIC), the North American Industry Classification System (NAICS), and the Statistical Classification of Economic Activities in the European Community (NACE), have included service sectors, they mainly aim to divide services into various domains according to the main or final products produced (e.g. finance, insurance, accountancy, legal services, advertising, etc.). These classifications are less sensitive to the functional differences between business services as this chapter concentrates on. Functional differences commonly referred to in the literature include those between front-office and back-office services (Metters and Vargas, 2000), routine and knowledge-intensive business services (Wood, 2009), and regular and advanced producer services (Daniels and Moulaert, 1991; Taylor et al., 2014). These differences are instrumental in separating types of service activities/products and exploring the dynamics of their spatial distribution and agglomeration. Therefore, they provide useful building blocks for the development of a typology of business services economies.

In most advanced economies and increasingly in emerging economies, the average city or town is very likely to be home to a quite varied collection of business service firms that participate in various types of service activities and produce a multitude of service products. Each city's exact mix of business service firms is likely to be affected by the city's general economic profile and, to a certain degree, reflect this profile. This is because due to the nature of services production and delivery (which in many cases still requires more or less intensive face-to-face interactions between producers and clients), the bulk of producer service firms still need to co-locate with (a good part of) their major clients derived from the local economy to grow (cf. Daniels and Moulaert, 1991; Illeris, 1994; Bennett et al., 2000). As a result, we can observe that, for instance, in a city functioning as a

transport hub there tends to be a concentration of logistics services providers. The same also goes for legal services providers in an administrative centre, and for financial services providers in a trade hub, etc. This describes the archetypical or regular urban business services economy: a varied collection of producer service activities (e.g., financial and insurance services, legal advice, logistics, advertising, IT and management consultancy, etc.) that mainly caters to the demand of the local economy and, in terms of specialization, to a certain degree reflects the general profile of the local economy. Such a business services economy applies to the vast majority of cities and towns across the world.

In addition to this regular business services economy, there are three major exceptional types which tend to develop only in a selective number of cities. The first one is the global, all-round higher-order business services hub: cities such as London, New York, Tokyo, Paris, Hong Kong and Singapore. These cities, often prefixed by 'global' or 'world' in the literature, have over time developed into the 'command and control' centres of the global economy and have, on top of their regular business services, grown a sizable concentration or cluster of top-notch, knowledge-intensive business service firms (cf. Sassen, 2001; Wood, 2009; Taylor et al., 2014). These advanced business service firms not only cater to the demand of local economic actors, but also, and importantly, provide services to large international companies located elsewhere through their worldwide office (or affiliation) networks.

The second one is the highly specialized business services centres. These are cities, small or large, that have grown (again in addition to their regular business services) substantial concentrations of specialized service providers that either cater to the needs of the highly specialized local economy (e.g. oil and energy production in Aberdeen; international organizations in Geneva) or find their *raison d'être* in a city's unique position in, for instance, specific international trade networks (e.g. Antwerp as a hub of global diamond trading) or cultural spheres (e.g. Teheran and Kuala Lumpur as centres for Islamic banking) (cf. Cumbers, 2000; Bassens et al., 2010; AWDC, 2013). A critical mass of specialized regional demand and competition may encourage local business service providers to specialize and thus compete in wider markets (Wood, 2009, p. 42). Therefore, this type differs from the 'archetypal business services economy' as defined above in the sense that its

degree of specialization and export potential are more profound.

Third, there are centres that specialize in offshore services production. This is a more recent phenomenon made possible by advances in information and telecommunication technologies and related changes in the organization of the production of routine, particularly back-office, services. As a result, many firms in advanced economies have relocated certain service production activities to lower-cost locations around the world. Cities such as Bangalore, Mumbai, Manila, Cebu City, Dalian and Dublin, that offer the right mix of cost reducing potential, sufficiently qualified labour and adequate ICT infrastructure, have emerged as offshore services production centres specializing in, amongst others, IT services, customer services, and related activities (c.f. Dossani and Kenney, 2007; Tholons, 2014; Kleibert, 2015).

As such, we can distinguish four basic types of business services economies, of which one (the ‘archetypal or regular business services economy’) is very common, and three (the ‘global advanced producer services hub’, the ‘specialized services economy’, and the ‘offshore production centre for back-office services’) are less so. The differences between them are articulated in Table 6.1.

These four types of business services economies also differ from each other in terms of the mode (or dynamic) of development and the types of resources needed. The development of the first three business services economies is more close to an organic process, which is fuelled either by the demand from local economic actors (the ‘regular business services economy’), or by that plus the demand from large or specialized international companies (the ‘global advanced producer services hub’, and some of the ‘highly specialized services economies’). In comparison, the ‘offshore services production centres’ are mostly formed through foreign or domestic direct investments to take advantage of the availability of specific human resources in these locations to respond to the external (often foreign) demand for particular (back-office) service tasks.

**Table 6.1** A typology of business services economies

Types of business services economies	Market orientation and types of clients	Mode of development	Human resources needed
A) Regular local, all-round business services economies	Predominantly firms and other organizations making up the local economy (local economic actors)	Organic (fuelled by demand from local economic actors)	Generally well-educated labour force
B) Global advanced producer services hubs	Apart from local economic actors, large international firms located elsewhere	Organic (fuelled by demand from local economic actors and external demand)	Highly-educated labour force, international connectivity
C) Highly specialized business services economies	Local economic actors and possibly specialized international firms located elsewhere	Organic (initially fuelled by demand from local economic actors, later possibly also by external demand)	Generally well-educated labour force plus a good number of people with specialized knowledge
D) Offshore production centres for back-office services	Predominantly medium-sized and large international firms	Foreign or domestic direct investments	Low-cost but yet sufficiently well-educated labour force, decent ICT infrastructure

In terms of key resources, the formation and growth of all four types of business services economies, in general, rely on a well-educated labour force. Some services economies may also have additional requirements on the quality (the ‘global advanced producer services hub’), the specialized knowledge (the ‘highly specialized services economy’) or the cost (the ‘offshore production centre for back-office services’) of the labour. In addition, to secure efficient communication between local service firms and their worldwide offices and clients, the ‘global advanced producer services hub’ also needs to maintain top-notch international connectivity, such as first-class international airports and bandwidth. Similarly, the formation of the ‘offshore services production centres’ also demands high quality ICT infrastructure.

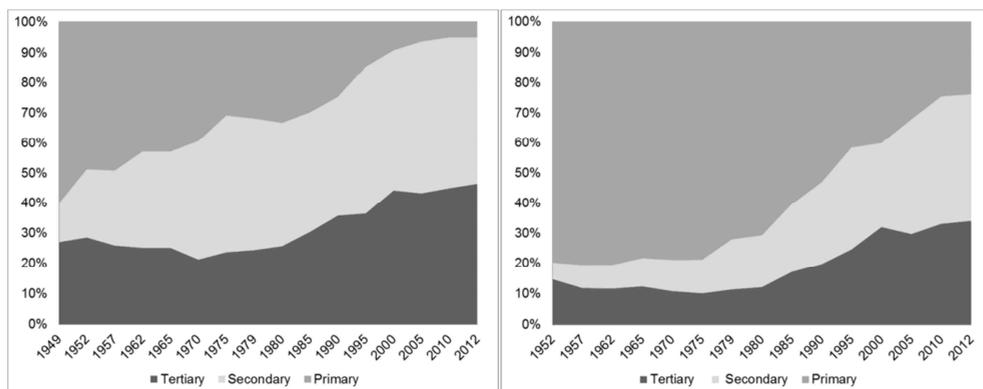
The boundaries between different types of business services economies are neither clear-cut nor static. For instance, after accumulating sufficient levels of knowledge

and skills (normally accompanied with the sophistication and globalization of the local economy), a ‘regular business service economy’ may start to export one or more types of services to the national or even international market and, accordingly, gradually upgrade into a more ‘advanced’ (type B) or ‘specialized’ (type C) business services economy. Likewise, an ‘offshore production centre for back-office services’ also has the potential to move to a higher value-added position in global value chains. On the other hand, when a city loses its comparative advantage in its favourable economic sector(s) (e.g. through technological changes or the spatial reorganization of production), it may also downgrade from a ‘highly specialized business services economy’ back to a more ‘regular business service economy’, or from a ‘global advanced services hub’ to a mainly national (or even regional) services hub. But in general, this typology of business services economies gives a basic reference to examine and compare service sector developments in different places. It also provides a useful tool to evaluate the conditions for developing business services and the feasibility of government policies in a specific city or region. Based on this framework, the following part explores the process and patterns of service sector development in the PRD.

### **6.3 The development of services in the Pearl River Delta**

The economic significance of services in the PRD has only become apparent after 1978 (Figure 6.1). During the centrally planned period (1949-1978), services were seriously constrained in China due to the pro-industry national development strategy (Lin, 2005, p. 285) and the dominance of the state in organizing production and allocating resources/products (Yang and Yeh, 2013). In the PRD, in contrast with the fast growth of industries, services’ share in the regional economic production and regional employment declined from 27 per cent and 15 per cent to 24 per cent and 11 per cent respectively between 1949 and 1979 (Figure 6.1). Most service activities were concentrated in the trade and logistics domain, such as wholesale, retail, transportation, storage and post (Table 6.2), which meant that the role of services was confined to meeting the basic need for the operation of the regional economy during this period.

**Figure 6.1** Changes of the structure of GDP (left) and employment (right) in Guangdong after 1949



Sources: GSB, 1999, 2013.

**Table 6.2** The composition of the services economy in Guangdong

Sectors	Unit: %		
	1979	2000	2012
Transport and communication	22.0	23.9	15.0
Trade, catering and accommodation	46.5	26.0	28.8
FIRE and business services	13.2	24.2	36.0
Public services	18.3	25.8	20.2

Sources: Calculated based on GSB, 2001, 2013.

After 1978, China's market-oriented economic reform and opening up led to dramatic growth and restructuring in the PRD and transformed it into the often cited 'workshop of the world'. Meanwhile, the region also witnessed a period of rapid development of services. High-speed industrialization (and urbanization) and the growth of local income in the PRD created a large demand for both producer and consumer services, which now needed to be provided through the market. With the growing employment pressure caused by massive rural-urban migration and a large number of lay-offs due to the reforms of state-owned enterprises, the Chinese political leaders also gradually recognized the positive role of services in creating

jobs, and removed many restrictions on them (Lin, 2005, Li et al., 2008). Fuelled by these two factors, between 1979 and 2000 the share of the service sector in the region's economy increased substantially from 24 per cent to 44 per cent, which was more remarkable than the growth of industry (which only increased slightly from 44 per cent to 47 per cent). The regional employment structure also underwent a similar transformation. As shown in Figure 6.1, from 1979 to 2000 employment in agriculture went down sharply (from 72 per cent to 40 per cent), the industrial sector saw a modest increase in employment (from 17 per cent to 28 per cent), and the service sector experienced a significant rise (from 11 per cent to 32 per cent). The service sector actually became the primary driver of both economic and employment growth in the PRD during this period. However, traditional types of services (e.g. transport, trade, catering, accommodation and public services) still largely dominated the sector (Table 6.2), reflecting the 'back factory' status of the PRD (Sit and Yang, 1997) in the international division of labour at that time.

Since the year 2000, service sector development in the PRD has entered a new stage. The pace of service growth has slowed down. As Figure 6.1 shows, the share of services in the regional economy and employment only increased slightly from 44 per cent and 32 per cent to 46 per cent and 34 per cent respectively between 2000 and 2012. However, in the meantime, FIRE and business services have quickly advanced and taken the lead in service sector growth in the region. These sectors only accounted for about 24 per cent of the regional gross services production in 2000, but soared to 36 per cent by 2012 (Table 6.2). This change reflects the increasing demand for higher-order business services in the PRD, spurred by the recent upgrading of the regional economy. With the region engaged in more advanced kinds of economic production and becoming more intensely tied up in the global economy, its demand for higher-order business services is also rising. Such services used to be provided by local manufacturing branch plants' parent companies, or by contractors or service suppliers that were located overseas, especially in Hong Kong, but now with improvements in the local infrastructure, skills and service quality, the PRD is developing its own business service sector (Yeh, 2005).

The above review shows that, although constantly shaped by China's changing political agenda, service sector development in the PRD is primarily a response to

the growing demand from the region's local economy, particularly that from the local industrial sector. Changes in the composition of the service sector also reflect the transformations of the local economic profile. In this sense, the service sector in the PRD can be classified as a 'regular business services economy' to use the typology of Table 6.1. Rather than emerging as a substitution to manufacturing, advanced (business) services contribute to the regional economy mainly through catering to the demand of the local industrial and other economic actors. To what extent they can develop an extra-regional orientation<sup>2</sup> (like type B and C in Table 6.1) and thus become an independent engine of regional economic growth remains to be seen.

#### **6.4 Evaluating local policies for business services**

Although still mainly playing a supporting role in the PRD's economy, services, especially advanced business services and international outsource services, have attracted a fair share of attention from local policy makers in recent years. The increasing pressures in the industrial sector (e.g. rising cost of land and labour, faltering global demand, intense competition from other low-wage countries as well as China's inland areas) led that both provincial and municipal governments in the PRD are eagerly searching for new sectors which can stimulate economic growth and enhance local competitiveness. High-order business services,<sup>3</sup> commonly recognized as a symbol of a modern economy and a beckoning prospect for future development, have become the focus of various regional and urban development plans. In 'The Plan for the Reform and Development of the Pearl River Delta (2008-2020)'- one of the most important regional-scale policy guides in recent years- the goal for the PRD is defined as becoming 'a world-class base for advanced manufacturing and modern service industries'. To 'prioritize development of modern services' is highlighted (ahead of manufacturing) as the principal strategy to 'build a modern industrial system'. In the recent 'Twelfth Five Year Plans' (2011-2015), all cities in the region promise to accelerate the development of a 'modern' or 'advanced' service industry to replace their low-end manufacturing sectors. Guangzhou and Shenzhen, the two leading cities in the region, both position themselves as a 'national service centre' with important international influences. Other cities have also set up ambitious targets and aim to become at least major service centres in the region.

Within China's political-economic context, policy makers' acknowledgement and commitment will become a strong incentive for the development of business services. However, examining their service development plans, it is not hard to observe 'a gap between the rhetoric and the knowledge' (Daniels, 2013). In the PRD, most cities' service development priorities overlap with each other, which cover almost all typical sectors in the 'global advanced services hub' and 'offshore services production centre' types of business service economies (Table 6.1). These often include, for instance, 'finance', 'modern logistics', 'science-technology service', 'creative industry' and 'international outsource' etc. The stimulation efforts basically involve the physical construction of central business districts (CBDs) and various service dedicated zones, instead of sector-based and context-sensitive policy guides. It seems these cities' development targets, strategies and instruments for service sectors are largely copied from their former successful experience in attracting manufacturing activities (Yang and Yeh, 2013). This indicates a poor understanding of the characteristics of business services economies as well as the specific local conditions of individual cities.

As discussed above, the development conditions and location preferences of business service firms are not only different from one type to another, but also quite distinct from that of manufacturing. Unlike low-end manufacturing activities, whose major concern is to minimize production and delivery costs, business services, especially higher-order ones, prefer locations which provide a large pool of well educated (sometimes also specialized) service labour, a concentration of (large) corporate clients, as well as superior urban infrastructure and international connections (cf. Daniels, 1985; Coffey and Polèse, 1989; Coffey, 2000). Both these resources and clients are unevenly distributed in the PRD. As Table 6.3 shows, only the provincial capital Guangzhou and the Special Economic Zone (SEZ) Shenzhen have accumulated a large pool of labour with a relatively higher level of education that can meet the general requirement of advanced business services. Most other cities' labour education level is not only far behind that of these two cities, but also below the national average. On the demand side, the largest companies in the PRD are also highly concentrated in Guangzhou and Shenzhen, reflecting their headquarter functions in the region. In comparison, other cities lack a strong cluster of large corporate clients which can generate adequate demand for higher-order

business services (Table 6.3). Moreover, the region’s major international airports and ports, high-speed railway stations and internet hubs are all located in Guangzhou and Shenzhen.

**Table 6.3** The labour and client conditions for business services in the Pearl River Delta and three Chinese leading cities

City	Percentage of population with higher education (2010)*	Number of companies in the <i>Fortune</i> China 500 list (2013)
Guangzhou	19.6	10
Shenzhen	17.6	27
Zhuhai	18.5	1
Foshan	9.7	2
Huizhou	6.4	0
Dongguan	7.3	0
Zhongshan	8.0	0
Jiangmen	5.6	0
Zhaoqing	4.6	0
Beijing	31.5	77
Shanghai	22.0	42
Hong Kong	25.4	84
China	8.9	500

*Note:* \* Data of mainland China are calculated based on ‘Population with junior college and above education per 100,000 persons’; data of Hong Kong are ‘Population aged 15 and over with post-secondary educational attainment’.

*Sources:* GSB, 2012; NBS, 2011; HKCSD, 2011; *Fortune China*, 2013.

The labour, demand and infrastructure conditions of most lower-tier cities in the PRD are still deeply geared to their (low-end) manufacturing-dominated urban economy, which now become a constraint to the development of their business service sectors. As a result, advanced business services are concentrated in two regional core cities- Guangzhou and Shenzhen. In 2010, these two cities accounted

for about 40 per cent of the gross regional employment and only 36 per cent of that in the secondary sector. However, they provided 56 per cent of the employment in services and 60 to 90 per cent of that in most advanced business service sectors, including ICT, finance, business services, scientific-technical services and air transportation services (calculated based on GSB, 2012; GSB and OPCGP, 2012). All other cities in the region, except another SEZ, Zhuhai, provided much fewer jobs in business services than in manufacturing. Outsource services are even more concentrated. Over 95 per cent of such activities in Guangdong province are located in Guangzhou and Shenzhen (DCGP, 2013).

This unequal pattern stands in stark contrast to the believe held by many second- and third-tier cities in the PRD that advanced business services can provide a remedy to their declining industrial competitiveness. Unlike manufacturing-led development, in which (smaller) cities were able to attract industrial investment once cheap land and tax exemptions were provided, the construction of massive office spaces and the provision of favourable policies may not guarantee the ‘anticipated’ growth of high-order business services in small and medium cities (Yang and Yeh, 2013, p. 177). The development of advanced business services is more difficult to be planned as the tradability of many such services remains at a rather low level, whereas the key conditions required for the production of them tend to concentrate only in a limited number of cities. This does not suggest that any regional policy emphasizing business services will be unsuccessful. However, to be effective, such a policy needs to be tailored according to the characteristics of individual areas (Coffey and Polèse, 1989, p. 22).

#### **6.4 Rethinking strategies for developing business services in the Pearl River Delta**

It is quite clear now that a business service-led development model will not be the best choice for all cities. Arguably, a ‘blanket approach’ (Coffey and Polèse, 1989, p. 24) which covers a comprehensive package of business service sectors is unlikely to generate similar success in every city. Instead, local policy makers need to carefully examine the conditions in their cities and, based on it, focus on a specific type(s) of business services economy (Table 6.1) and formulate more targeted strategies and policy directions. Given the differences in labour supply and

market conditions between cities in the PRD, at least two business service development logics should be distinguished: one for regional core cities and another one for secondary cities.

The two core cities in the region, Guangzhou and Shenzhen, have the potential to transform into service sector-led economies and develop into business services centres that can cater to the demand across the entire region and even look trans regional (i.e., similar to type B, but at a lower level). They also have a great chance to benefit from the fast-growing global offshore services market, especially in the ITES-BPO sector (see Tholons, 2014). The main challenge for them is the intense competition from other leading cities in China. These two cities are lagging behind Beijing and Shanghai- the two largest business services centres in mainland China (Zhang and Kloosterman, 2014)- and Hong Kong- the adjacent global city- in terms of both labour and market conditions (see Table 6.3), which puts them at a disadvantage in top-level business service sectors. Meanwhile, the relatively higher labour and living costs compared to China's inland cities (e.g. Chengdu, Wuhan and Xian etc.) are also detrimental to their competitiveness in attracting some lower- and medium-order business services (e.g. BPO activities). Whether Guangzhou and Shenzhen can continuously attract a sufficient amount of highly skilled labour through targeted policy design will be crucial for their success in the service sector-led economic transition. This may not be an easy task since the region no longer enjoys a special policy support from the Chinese central government.

As two cities with similar economic development levels and regional status, Guangzhou and Shenzhen also have to deal with the problem of 'division of labour' between each other (and, to some extent, with Hong Kong) in business services economies. It is unlikely that two (or more) advanced business services centres (type B) with similar sector focus can co-develop within a same region. Based on their respective comparative advantages, a more rational choice would be for Shenzhen to concentrate on innovation-related activities, such as finance and high-tech services, and for Guangzhou to focus on services that can be linked to its position as a long-term political, commercial and cultural centre in the region. However, these two cities still show a greater willingness to compete rather than cooperate with each other in enhancing their positions.

For most second- and third-tier cities in the region, the more viable choice is a service sector-supported rather than service sector-led development. This means focusing on those business services that can support (or promote) their current industrial foundations. It will include, above all, ‘regular business services’ (type A) that respond to the common demand from the city’s local economic activities, especially the demand from local manufacturing firms. Most of these services will fulfil a principally supporting function, with little export potential. However, through improving the productivity and reducing the costs of local economic sectors, they can help to increase the competitiveness of the overall economy of the city. In addition, substituting the import of these services by local service providers can also contribute to a city’s employment (cf. Coffey and Polèse, 1989, pp. 23-24).

These non-core cities may also try to promote some specific type(s) of business services that can benefit from their local industrial foundations, and develop a more ‘specialized business services economy’ (type C). Most cities in the PRD have established a variety of industrial sectors, some of which have even formed world-class manufacturing clusters (Enright et al., 2005). They have the potential to take advantage of their production capability and specialist knowledge accumulated in specific industrial sectors, and extend to more value-added parts of the production chain. Dongguan’s recent upgrade from a manufacturing base for animation-derivative products to an emerging cluster of animation design, production and exhibition is a good example of such a development (*Chinanews*, 2013). These services may only take up a niche market in the services economy, but over time they have the potential to become a new source of export. However, the production of these specialized services raises a greater challenge to the knowledge and skill base in lower-tier cities, which are even more disadvantaged (see Table 6.3) in attracting high-level service labour.

In summary, for the PRD, a refined regional ‘division of labour’, with higher-order business services provided mainly by two core cities, and manufacturing and more specialized service activities clustered in lower-level cities, will be a more favourable choice to improve the region’s overall economic competitiveness. All cities need to reposition themselves within this new regional production network

and foster more diverse comparative advantages based on their specific economic foundations.

## **6.5 Conclusion**

This chapter has examined the process and patterns of business service development in the PRD and discussed relevant policy implications. It provides some counterweight to the currently widespread enthusiastic belief among policymakers that business services will be a more promising choice (compared to manufacturing) to achieve socio-economic development in various kinds of cities in China. Although the analysis is centred on a specific case, the lessons learned from it hold value for other regions in China as well. Business services, especially higher-order ones, have strict requirements for the qualities of places and a very selective choice on their locations. The unique features of business services (compared with manufacturing) imply that many cities' policy interventions, which still rely heavily on their experience accumulated in the industrialization period, may have little effect while involving very high cost (Yang and Yeh, 2013). This chapter argues that local policy makers should develop a better understanding of the characteristics of business service activities as well as the strengths and constraints of their individual cities, and formulate more targeted policies to promote the development of specific type(s) of business services that fits their local economic profiles.

The discussion of service sector development policies in this chapter has mainly concentrated on the strategic level. However, even if a city manages to identify which type(s) of business services economies may be suitable for its local economy, it still has to address a perhaps even tougher question: what measures should (and could) be implemented to actually foster the development of services economies? Developing a pool of highly skilled service labour is much more difficult than attracting low-wage migrant industrial workers. Generating sufficient demand to stimulate the initial creation and subsequent growth of local service firms is also incomparable to seeking external investments and markets for local manufacturing sectors. While local governments in China played a leading role in building the 'workshop of the world' in the past three decades, the options and measures left for them (especially outside core cities) in the new wave of business service sector-led

development is limited. Once again, we may come back to the long-standing question: ‘is it really worthwhile to expend so much effort in attempting to resist the “natural” market trends?’ (Coffey and Polèse, 1989, p. 25)

It should be emphasized that, for most cities, developing a business service sector that fits their local economies will be a long-term effort. It may take decades to restructure a city’s manufacturing-based urban economy and improve its labour quality, knowledge base, institutional arrangement and social-cultural environment to a level that can meet the basic requirement of business service activities. This requires local governors to shift their focus from short-term economic growth, which was more easily to be realized through policy and tax incentives in the manufacturing-based development period, to more sustainable, long-term socio-economic progress. In addition, local governors may also have to adapt to their cities’ new roles in the restructured regional (and national) ‘division of labour’, and adopt a more cooperative rather than competitive development ideology as currently prevalent among Chinese cities. These changes probably will not be easily achieved in China’s current competition-centred political-economic environment (Xu, 2011). However, they will be decisive for any city or region’s future development.

This chapter introduced a typology of business services economies to illustrate the diverse modes of service sector development. For a more comprehensive understanding of its policy implications, further research could look at the social and spatial consequences of various types of business services economies. This includes how different business services economies impact and restructure cities’ dominant labour structure and social stratification and who are the beneficiaries of the growth of particular (high-order, specialized or offshore) service activities. A deeper understanding of the social support systems and planning practices that are needed to underpin urban transitions from a manufacturing to a service sector-led economy or from one type of business services economy to another is also necessary. To answer these questions, more studies drawing on detailed, city- and sector-specific information are needed.

## Notes

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<sup>1</sup> The PRD is composed of nine municipalities (Guangzhou, Shenzhen, Foshan, Zhuhai, Dongguan, Huizhou, Zhongshan, Jiangmen and Zhaoqing) in China's Guangdong province. In 2012, this region accounted for about 84 per cent of GDP and 93 per cent of services production in Guangdong (GSB, 2013).

<sup>2</sup> In 2011, the PRD's services exports (44 billion USD) accounted for only less than 9 percent of its goods exports, and only 6 percent of its services exports involved relatively higher-order business services (GYP, 2012).

<sup>3</sup> Unlike in the classification in Table 6.1, outsource/offshore services are also perceived as 'high value-added', 'high-tech' and 'high-growth' by the local policy makers in the PRD (DCGP, 2013).

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# **From the ‘Workshop of the World’ to an Emerging Global City-Region: Restructuring of the Pearl River Delta in the Advanced Services Economy**

## **Summary**

For a long time, China’s economic growth and urbanization are recognized as a development outcome of its astonishing manufacturing industries. However, this conventional wisdom is increasingly challenged by the rapid growth of services, especially advanced services, in the country in recent years. Although still lagging behind the average of its peers, the service sector in China has demonstrated a great potential of growth over the past one or two decades. Many cities and regions, especially those located along the coastal area, have already started to transform from the traditional ‘workshop of the world’ into the centres for the production of advanced service activities. This emerging advanced services-led economic and urban transition has posed new challenges for both urban researchers and policymakers in China.

What are the development implications of the rise of the advanced services economy for Chinese cities and regions? This dissertation attempts to explore this question using one of the most archetypal manufacturing city-regions in China- the Pearl River Delta (PRD). Through an in-depth case study of the PRD, the dissertation aims to understand how this predominantly manufacturing region is being restructured by advanced service activities under the conditions of contemporary globalization, and how this process is shaped by the region’s special economic, political, institutional and cultural contexts that formed along its unique development history. Five articles, all published in or currently under review with international peer-reviewed journals or books, constitute the key building blocks of the dissertation.

## **Research questions**

This dissertation focuses on three key issues (debates) that revolve around the development implications of advanced services in the urban and regional context: 1) the impacts of advanced services on the spatial transformations of city-regions; 2) the global and local dynamics that contribute to urban transitions in the new economy; and 3) the policy and planning challenges presented by such transitions. Each of these issues is addressed by a specific, corresponding sub research question:

*RQ1: How do advanced services restructure the PRD's urban system and reshape its inter-city connections in the regional, national and global urban networks?*

*RQ2: What are the impacts of the PRD's specific local contexts on its urban transitions in the new economy under the conditions of contemporary globalization?*

*RQ3: To what extent advanced services can provide a viable substitution to manufacturing as the leading sector of economic growth, and what services development strategies could possibly fit different cities in the PRD context?*

## **Theoretical framework and methodology**

This research draws on insights from a number of existing theories, including the literature on Services Geography, Global/World City and City-Region, Path Dependency, City Governance and Management, and Chinese Political Economy. Together, they constitute the theoretical framework of the dissertation.

The dissertation contains an in-depth study into one of China's most archetypical transnational city-regions- the PRD. In methodological terms, it has the features of a single case study. The PRD is selected as the research area because, on the one hand, it is widely recognized a *typical* (low-end manufacturing-based, export-oriented) 'workshop of the world', which is currently experiencing a new trend of industrial upgrading and economic transition led by advanced service activities; and on the other hand, it is a much studied and well-documented region

as such it could service as an *influential* case to inform extensive theoretical debates and to provide useful lessons for other regions that have (or ready to follow) similar economic development experiences.

A variety of data and methods, including both quantitative (network analysis) and qualitative (interview, policy analysis) ones, are employed to answer the research questions. As such, the dissertation bears the features of a mixed methods research.

## **Research results**

### ***The spatial transformations of city-regions in the advanced services economy***

There are two main findings with regard to this issue: Firstly, advanced services are generating a profound spatial restructuring in the PRD in terms of both its internal urban system and its external connections with major national and global cities (Chapter 2 and 3). Internally, unlike the PRD's (low-end) manufacturing-based, decentralized patterns of industrialization and urbanization in the 1980s and 1990s, advanced services are leading to a new uneven development with a strong bias towards the two core cities- Guangzhou and Shenzhen- in the region. The more complex service functions are, the higher the degree of concentration they tend to display. Externally, the dominance of Hong Kong in linking the PRD with the global economy in the 'front shop- back factory' era is now challenged by other leading global cities, primarily London and New York, which reflects the development of domestic producer service sectors in the PRD, especially in Guangzhou and Shenzhen. These new patterns of advanced services-led spatial development are rather different from the conventional understanding of the 'workshop of the world'.

Secondly, the formation of advanced services-based urban networks at different geographical scales is partly determined by the origins of firms (Chapter 4). While cities in the PRD are connected with each other and with other Chinese cities primarily through local and national advanced producer services (APS) firms' business networks, the region's linkages with overseas service centres are, up till now, shaped predominantly by those major international APS firms from the advanced economic world. Moreover, different types of firms have created quite

diverse service geographies both within the PRD, in China and at the global scale. The patterns of this nested city-service network reflect a simultaneous, rather than sequential, development of both regional, national and international service operators in the PRD.

### ***The global and local dynamics of urban transitions in the new economy***

The results of this research support the idea that economic and spatial transformations of cities and city-regions are affected jointly by both global and local factors. On the one hand, the development of the PRD has been constantly shaped and reshaped by the political-economic changes at supraregional scales, including, above all, the continuing global capitalist restructuring and the transformation of the state (Chapter 2). The transfer of different types of economic activities (beginning with low-end manufacturing, later shifting to relatively capital- and technology-intensive industries, then to more knowledge-intensive advanced services) from developed countries/regions to the PRD at various stages has provided an important impetus for the continuous restructuring of the urban economies and spaces in the region, especially in its two leading cities, after 1978 (Chapter 5). In this sense, the ceaseless restructuring of the global economic system, as emphasized in the world city theory, is also fundamental in understanding contemporary urban transformations in the Chinese context.

On the other hand, however, such economic and spatial transitions of the PRD are also deeply embedded in its specific regional and urban contexts, and are regulated by its local leading actors. For instance, the complex service geographies and inter-city networks created by different types of APS firms both within and outside the PRD not only reflect firms' different development histories, client orientations in specific markets and home regions' economic conditions, but also are significantly affected by China's unique regulatory environment and complex state-market relations, as well as the PRD's special geographical and socio-cultural conditions (Chapter 3 and 4). Specific to individual cities, the divergence of Guangzhou and Shenzhen in the advanced services economy is largely resulted from their different economic structures and local assets that formed along distinct development paths, and the different strategic measures adopted by two cities' local political authorities (Chapter 5). These unique local 'filters' provide a powerful

counterweight to the general trends that are played out at higher scales, and, therefore, may lead to varied patterns of urban and regional development in an even highly globalized world.

***Challenges to urban policy and planning with the rise of the advanced services economy***

In contrast to the currently widespread enthusiastic belief among policymakers that advanced services will be a more promising choice (than manufacturing) to achieve socio-economic development in various kinds of cities in China, the findings from this research (Chapter 3 and 6) reveal that these activities have more strict requirements for the qualities of places and very selective choices on their locations. The unique (and also diverse) features of advanced services imply that many cities' service development strategies and programmes, which still rely heavily on their experience accumulated in the former industrialization period, may have little effect while involving very high cost. Therefore, local policy makers should develop a better understanding of the characteristics of business service activities as well as the strengths and constraints of their individual cities, and formulate more targeted policies to promote the development of specific type(s) of business services that fits their local economic profiles. In addition to that, a long-term understanding of socio-economic progress and a more cooperative development ideology will also be crucial for urban and regional success in the service age (Chapter 5).

# **From the ‘Workshop of the World’ to an Emerging Global City-Region: Restructuring of the Pearl River Delta in the Advanced Services Economy**

## **Samenvatting**

Lange tijd werd de economische groei en de snelle verstedelijking van China vooral gezien als het gevolg van de ongeëvenaarde expansie van de maakindustrie. Dit wijdverbreide beeld heeft de laatste jaren echter in toenemende mate bijstelling nodig door de sterke groei van de dienstensector en dan met name de meer geavanceerde producentendiensten. Hoewel de diensteneconomie van China nog steeds relatief klein is (gemeten naar GDP per capita), laten de laatste twee decennia een evidente inhaalslag zien. Veel steden en regio's, voornamelijk in de kustgebieden, hebben reeds een transformatie ingezet van een door de industrie gedomineerde economie naar een meer gediversifieerde bedrijvigheid met een grotere rol voor (geavanceerde) producentendiensten. De opkomst van een meer op diensten georiënteerde economie en de daarmee verbonden urbane transitie stelt zowel onderzoekers als beleidsmakers in China voor nieuwe uitdagingen.

De vraag wat de implicaties zijn van de opkomst van een geavanceerde diensteneconomie voor de ontwikkeling van de Chinese steden en regio's staat centraal in deze dissertatie. Om inzicht te verkrijgen in deze vraag is deze transitie onderzocht voor van een van de meest uitgesproken stedelijke industrieregio's van China: de Pearl River Delta (PRD). Aan de hand van een uitgebreide case studie van de PRD is getracht inzicht te krijgen in hoe deze transformatie plaatsvindt in de “workshop of the world” tegen de achtergrond van mondiale economische ontwikkelingen. In het bijzonder is gekeken naar hoe dit proces beïnvloedt wordt door de economische, politieke, institutionele en culturele context in de PRD die zich in de loop van een langdurig historisch proces heeft gevormd.

## **Onderzoeksvragen**

Deze dissertatie bestaat uit vijf artikelen/hoofdstukken die deels reeds zijn

gepubliceerd of die nog worden beoordeeld voor publicatie in internationale peer-reviewed tijdschriften of boeken. In deze hoofdstukken wordt gefocust op drie belangrijke vraagstukken die betrekking hebben op de rol van de geavanceerde diensten voor de urbane en regionale ontwikkeling. Het eerste vraagstuk behelst de impact van de opkomst van geavanceerde diensten op de ruimtelijke transformatie van de stedelijke regio's. Het tweede vraagstuk heeft betrekking op de relatie tussen de mondiale economische dynamiek en de lokale, urbane transformatieprocessen in de PRD. Voor wat betreft het derde vraagstuk staan de uitdagingen waarmee de beleidsmakers en meer in het bijzonder planners worden geconfronteerd centraal. Deze vraagstukken zijn vertaald in drie onderzoeksvragen:

- 1) Welke veranderingen doen zich voor in de stedelijke netwerken van de PRD op regionale, nationale en mondiale schaal als gevolg van de opkomst van geavanceerde producentendiensten?*
- 2) Op welke wijzen worden veranderingsprocessen op hogere, nationale en mondiale, schaalniveaus gefilterd en gevormd door de specifieke lokale context van de PRD?*
- 3) In hoeverre kunnen geavanceerde producentendiensten de nieuwe motor van de regionale en stedelijke economieën in de PRD worden en welke ontwikkelingsstrategieën zouden mogelijk geschikt zijn voor de afzonderlijke steden in de PRD?*

### **Theoretisch raamwerk en methodologie**

Voor de theoretische basis van dit onderzoek is gebruik gemaakt van inzichten uit verschillende velden, t.w. literatuur met betrekking tot Global/World City netwerken, padafhankelijkheid, stedelijk beleid en management, alsmede literatuur ten aanzien van de politieke-economie van China.

Gekozen is voor een single case studie met de PRD als object van studie. De keuze voor de PRD is gebaseerd op twee argumenten. Ten eerste wordt de PRD algemeen gezien als de 'workshop of the world': een typische industriële regio die begon met laagwaardige nijverheid gericht op export en waar vervolgens een proces van

upgrading van die nijverheid in combinatie met een groei van geavanceerde producentendiensten heeft plaatsgevonden. De tweede reden is meer pragmatisch: de regio is al frequent onderwerp van onderzoek geweest en tevens statistisch goed gedocumenteerd. Aldus kan de PRD functioneren als een typische casus van de transitie naar een meer op diensten gerichte regionale en stedelijke economie in China. Zo kan een bijdrage worden geleverd zowel aan meer theoretische debatten met betrekking tot dit transitieproces als aan meer op beleid gerichte discussies ten aanzien van de PRD en van andere regio's die een soortgelijke economische ontwikkeling (zullen) doormaken. Om de onderzoeksvragen te kunnen beantwoorden is zowel gebruik gemaakt van kwantitatieve (netwerk analyse) als kwalitatieve (interview, beleidsanalyse) data en methoden.

## **Resultaten**

### ***De transformaties van de stedelijke netwerken in de PRD***

De bevindingen ten aanzien van de veranderingen in de stedelijke netwerken zijn tweeledig. Ten eerste zien we dat de groei van geavanceerde producentendiensten een fundamentele herstructurering van het interne stedelijke netwerk binnen de PRD, maar ook van de externe stedelijke netwerken met belangrijke steden binnen en buiten China teweeg heeft gebracht (hoofdstuk 2 en 3). Voor wat betreft het interne stedelijke netwerk heeft de opkomst van de dienstensector geleid tot een aanzienlijke versterking van de positie van de twee voornaamste steden in de regio, Guangzhou en Shenzhen, ten opzichte van de meer gedecentraliseerde en gelijkwaardige verdeling uit de tijd dat de laagwaardige nijverheid nog dominant was. Geavanceerde producentendiensten zijn meer dan veel industriële activiteiten afhankelijk van ruimtelijke concentratie en de daarmee verbonden agglomeratievoordelen en dientengevolge wordt de positie van de beide grote kernsteden Guangzhou en Shenzhen versterkt. Voor wat betreft de externe stedelijke netwerken zien we dat Guangzhou en Shenzhen zelf in toenemende mate direct verbonden raken met andere global cities als New York en Londen. De cruciale rol die Hong Kong speelde als schakel tussen de mondiale economie en de PRD in het 'front shop-back factory' tijdperk is door de opkomst van eigen geavanceerde producentendiensten in de PRD, voornamelijk gevestigd in Guangzhou en Shenzhen, ondermijnd. De 'workshop in the world' is aldus in

toenemende mate ook in staat om zelf directe relaties met het netwerk van global cities te onderhouden.

Een tweede bevinding betreft de relatie tussen de vorming van stedelijke netwerken op verschillende schaalniveaus en de herkomst van de bedrijven in de producentendiensten (hoofdstuk 4). Terwijl steden in de PRD onderling, en met andere Chinese steden, voornamelijk met elkaar verbonden zijn via netwerken van lokale en nationale bedrijven, worden de netwerken van de regio met overzeese stedelijke dienstencentra gedomineerd door belangrijke multinationale bedrijven. Vooralsnog lijkt hier meer sprake te zijn van een gelijktijdige geneste ontwikkeling dan van opeenvolgende fasen.

### ***De mondiale en lokale dynamiek van urbane transitie in de nieuwe economie***

Dit onderzoek heeft eveneens laten zien dat de transformatieprocessen van steden en stedelijke regio's zowel door mondiale als lokale factoren worden beïnvloed. De ontwikkeling van de PRD wordt constant beïnvloed door een samenspel van politieke – primair op nationaal niveau - en economische veranderingen - en dan met name de continue kapitalistische dynamiek op mondiaal niveau (hoofdstuk 2). De verplaatsing van economische activiteiten van ontwikkelde economieën naar de PRD - aanvankelijk laagwaardige industriële activiteiten en vervolgens relatief kapitaalintensieve en technologie-intensieve industriële activiteiten en daaraan gekoppeld de groei van geavanceerde producentendiensten - heeft een belangrijke impuls gegeven aan de voortdurende herstructurering van de PRD in het algemeen en in het bijzonder van de twee belangrijkste steden Guangzhou en Shenzhen na 1978 (hoofdstuk 5).

Maar deze meer exogene ontwikkelingen op hogere schaalniveaus worden ook sterk gefilterd en beïnvloed door zowel de specifieke nationale, als de regionale en stedelijke contexten (inclusief lokale actoren). De concrete vorm en structuur van de complexe stedelijke netwerken van de geavanceerde producentendiensten in de PRD zijn dan ook deels terug te voeren op de institutionele omgeving en complexe staat-markt relaties op nationaal niveau. de samenstelling van de PRD economie op regionaal niveau en de uiteenlopende historische ontwikkelingspaden op het niveau van de individuele steden (hoofdstuk 3 en 4). De opvallende divergentie tussen de

samenstelling van de geavanceerde producentendiensten in enerzijds de eeuwenoude stad Guangzhou en anderzijds new-town Shenzhen kan grotendeels worden teruggevoerd op de zeer verschillende ontwikkelingspaden van beide steden en op de wijze waarop nationale en lokale politieke actoren getracht hebben deze paden vorm te geven (hoofdstuk 5). Deze unieke lokale ‘filters’ bieden een krachtig tegenwicht aan de meer algemene trends die zich afspelen op hogere schaalniveaus en dragen nog steeds bij aan significante verschillen in patronen van stedelijke en regionale ontwikkeling in een mondiale economie.

### ***Uitdagingen voor stedelijk beleid en planning***

In de ogen van veel beleidsmakers in China bieden geavanceerde producentendiensten meer perspectief dan de maakindustrie om een meer gelijke sociaaleconomische ontwikkeling in Chinese steden te realiseren. In deze dissertatie (hoofdstuk 3 en 6) wordt echter de stelling betrokken dat zulke activiteiten strenge eisen stellen aan de kwaliteit van de plaats en zeer selectief zijn ten aanzien van locaties. Ontwikkelingsstrategieën die nog steeds sterk steunen op de ervaringen uit de eerste fase van industrialisering miskennen het specifieke karakter van de geavanceerde producentendiensten. Dergelijk beleid zal naar verwachting hoge kosten met zich meebrengen maar weinig effect sorteren. Beter kunnen lokale beleidsmakers eerst inzicht verkrijgen in de karakteristieken en eisen ten aanzien van locatie van geavanceerde producentendiensten alsmede in het profiel van de individuele steden. Vervolgens kan op basis daarvan een beleid worden geformuleerd dat meer gericht is op het stimuleren van de ontwikkeling van specifieke type(n) producentendiensten die aansluiten bij die lokale economische profielen. Inzicht in de sociaaleconomische ontwikkelingen op de lange termijn in combinatie met een meer op samenwerking gerichte ontwikkelingsideologie is cruciaal voor stedelijk en regionaal succes in de diensteneconomie (hoofdstuk 5).