Financial centre development in Mainland China: a financial geography perspective

Submitted by Xiaoyang Wang
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In partial fulfilment of the requirements for the degree of
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To Jennifer Robinson and Dariusz Wójcik—for showing me the way forward.

Abstract

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Even in the conditions of the digital economy, financial centers remain crucial in the architecture of globalization, as international financial system has reached levels of complexity that requires the existence of a cross-border network of financial centers. After China's accession to the World Trade Organization, the country has gradually become a superpower in the world economy and is becoming one in the realm of global finance. In this context, Chinese cities are increasingly embedded into global systems of production, capital flows and accumulation. However, the ascent of China has not inspired a sufficient attention of financial geographers or other social scientists to the topic of China's financial centers. The objective of this thesis is to map and account for the recent development of financial centers in Mainland China, with specific focus on Shanghai, through the lens of financial geography.

Given the centrality of money and finance to market economy as well as China's particular history and geography, this thesis provides an interrogation of the wider social, political, institutional, technological and cultural context for financial center development in China, ranging from the geographies of banking and securities industry in Mainland China to Shanghai's IFC dynamics and its strategic development initiatives. In doing so, this work tests and exemplifies the validity of a number of western theoretical approaches to financial and economic geography.

The empirical study of geography of financial centers in Mainland, reveals the characteristics of China's transition economy and the crucial role of different levels of government in producing and shaping the evolution of its financial centers. It also highlights Beijing's critical role in the domestic hierarchical networks in both banking and the securities industry. In addition, the case of Shanghai shows specific characteristics of this international financial center in terms of its history, politics, culture and the developmental model. More specifically, this thesis presents the dynamics of Shanghai as an emerging international financial center formation with Chinese characteristics that goes beyond thinking centred on Anglo-American literature.

In summary, the thesis as a whole may be considered as a bridge between western countries and China in terms of financial geographies focusing on the study of financial center evolution.

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List of abbreviations

ABS	Advanced Business Services
AIIB	Asian Infrastructure Investment Bank
APS	Advanced Producer Services
CBD	Central Business District
CBRC	China Banking Regulatory Commission
CDB	China Development Bank
CFFE	China Financial Futures Exchange
CIRC	China Insurance Regulatory Commission
CSRC	China Securities Regulatory Commission
DCE	Dalian Commodity Exchange
FABS	Financial and Business Services
FDI	Foreign Direct Investment
FTZ	Free Trade Zone
GaWC	Globalization and World Cities
GFCI	Global Financial Centre Index
GFN	Global Financial Network
GPN	Global Production network
IFC	International Financial Centre
IMF	International Monetary Fund
IPO	Initial Public Offering
JSCB	Joint-Stock Commercial Bank
MNC	Multinational Companies
OBOR	One Belt, One Road
ODI	Oversea Direct Investment
PBOC	People's Bank of China
PSBC	Postal Saving Bank of China

SFE	Shanghai Futures Exchange
SDR	Special Drawing Right
SOCB	State-Owned Commercial Bank
SSE	Shanghai Stock Exchange
SZSE	Shenzhen Stock Exchange
WCN	World City Network
WTO	World Trade Organization
ZCE	Zhengzhou Commodity Exchange

Chapter 1 Introduction

1.1 Background

In this thesis, I assess China's financial centers, particularly Shanghai, from the perspective of financial geography. In the age of globalization and digital economy, international financial system and agglomeration economies have reached levels of complexity that requires the existence of a cross-border network of financial centers (Thrift 1989; Sassen 2012a). It is often assumed that, in a 24-hour financial market, there need to be three time-zone-based leading international financial centers (IFCs) for continuous transactions and global professional services, recognized by the term 'global trinity' (Thrift 1989). Undoubtedly, London and New York are leading IFCs in the European and American time zones respectively. Which city will be a crucial hub in the Asia-Pacific region is, however, still an unresolved mystery. The financial landscape worldwide has changed dramatically since the global financial crisis of 2008–2009. The subprime crisis in the USA and the following Eurozone crisis appear to be accelerating the long-term geopolitical and geoeconomic shift from North America and Western Europe to the Asia-Pacific region, fueling expectations about the rise of Asian IFCs. Brexit, as a threat to the City of London and the stagnation of European economy in general, adds to these predictions.[1]

Following China's accession into the World Trade Organization (WTO) and its deepened reform and opening up, unprecedented urban growth has been taking place in this emerging superpower in the context of the 'One Belt, One Road' (OBOR) Initiatives and the Free Trade Zone (FTZ) strategy. The expansion of

[1] https://www.brookings.edu/2016/06/27/brexit-aftermath-the-wests-decline-and-chinas-rise/.

China has fueled demand in the global financial market (Clark 2015). In other words, understanding the geography of Chinese finance is increasingly important for understanding the landscape of world economy in the 21st century. For example, first, the Chinese central government started the process of internationalizing the RMB in 2005, and the RMB is currently the fifth most-used currency globally for international payments (Hall 2017). More recently, in 2016, the RMB officially joined the International Monetary Fund's (IMF's) Special Drawing Right (SDR). Second, China attracted the most foreign direct investment (FDI) worldwide in 2015, which reached 128.5 billion US dollars, excluding financial FDI. Meanwhile, China's outward direct investment (ODI) amounted to 176.4 billion dollars in 2016, while it was only 12.3 billion dollars in 2003. Third, in the context of OBOR, China's rise as a regional and global financial power is also exemplified by the establishment of the Asian Infrastructure Investment Bank (AIIB) and the BRICs Bank.

In this context, Chinese cities are increasingly embedded into global systems of production, capital flows and accumulation (Taylor *et al.* 2014). Simultaneously, China's accelerating influence has been restructuring the geography of global finance. Against this backdrop, in March 2009, the State Council set a goal of turning Shanghai into an influential IFC by 2020, a target with which the municipal government of Shanghai is in enthusiastic agreement (Shanghai Daily 2009). As Elliott (2011: 1) points out:

This objective is, arguably, a desirable one for Shanghai and China as a whole, because breaking into the very exclusive inner circle of such IFC would bring substantial economic gains, increased 'soft' geopolitical power, and a large pool of lucrative jobs. These gains would come not just from the growth of a narrowly

defined financial industry, but also from a wide range of positive spillover effects, not the least of which is the creation of a number of related industries interconnected with finance.

The ascent and ambition of China and Shanghai have not, however, inspired sufficient attention in financial geographical studies regarding China's financial centres and making Shanghai an IFC. This is especially true in that most research focuses on financial centers from developed economies. This topic is thus important and necessary.

Simultaneously, from the academic perspective, we should foreground the geography of money and finance in economic geography (Coe *et al.* 2014; Sokol 2013). A key starting point to emphasize here is that finance should be understood as 'central to the dynamics and trajectory of contemporary capitalism' (Lee *et al.* 2009). Traditionally, however, the geography of finance has been a topic of peripheral interest to orthodox economics. Economic geographers have often ignored the spatialities of finance. Rare studies on financial geography published in the 1970s and 1980s hardly added up to a substantial or coherent body of theoretical or empirical research (Garretsen *et al.* 2009).

During the 1990s, however, the relationship between money and space started to be a central topic with a profoundly spatial phenomenon—financialisation, promoted by a series of books and papers by economists and geographers (for example, Corbridge *et al.* 1994; Laulajainen 1998; Leyshon 1995, 1997, 1998; Leyshon and Thrift 1997; Martin 1999; O'Brien 1992). Since the early 1990s, O'Brien's response to the growing importance of international capital flows has been to argue that the

globalisation and digitalisation of capital has resulted in a homogenisation of financial space, which in turn led towards what he describes as the ‘end of geography’. In this brave new world of global finance, O’Brien argues that money has escaped space. However, it is salutary to note that, even in a highly integrated financial networks, geography cannot be underestimated so recklessly (Leyshon 1995).

Against this background, geographers have argued that location and place remain of crucial importance. The spatial concentration of financial activities has not dramatically lessened in the past 25 years. The IFCs still exist in a quicksilver global economy and are increasingly fulfilling gateway functions for spatial circuits of national and foreign capitals, because IFCs have a particular set of locational determinants, and local characteristics and localised information jointly define the advantages of a given location as a financial centre (Thrift 1994). Tickell (2000) has also shown that particular localities remain critical even in the production and reproduction of global finance, and discusses the impacts of an uneven geography of finance on localities. These centres are linked together by financial networks that ignore national borders, and they function as nodes or portals with highly geographically differentiated effects on regional and urban development. This thesis brings together a number of chapters on the issue of financial centres by focusing on the case of China and Shanghai particularly, ranging from the geographies of banking and securities industry in mainland China to Shanghai’s IFC dynamics and its strategy initiatives.

1.2 Objectives and research questions

This thesis seeks to carry out a novel empirical study on China's financial centres, particularly Shanghai, by building on a combination of existing financial geography approaches. These approaches focus on agglomeration and cluster economies, world and global city concepts, cultural economy, the role of information and knowledge, institutions, financial network, 'geographical' political economy, and financialisaton, all of which will be discussed in detail in chapter 2.

Overall, I attempt to map and account for the recent development of financial centres in mainland China, with a specific focus on Shanghai. Within this broad objective, two key questions guide this project. First, what are the geographies of financial centres in mainland China in terms of their development and their changing nature? Second, to what extent can existing theoretical approaches to financial centres explain the development of China's financial centres and Shanghai?

To achieve the overarching goals, the core chapters of the thesis ask the following specific questions.

In chapter 3, I ask what are the changing geographies of commercial banking in mainland China, what is the hierarchical network of banking centres, and which city is the primary banking centre in China's financial network: Shanghai or Beijing? China's financial system is dominated by the banking industry, but there is a lack of systematic interrogation in the existing literature. Most existing studies consider Shanghai to be the mainland's predominant centre from the perspective of Anglo-American financial capitalism, but Zhao *et al.* (2005) and the latest work by Wójcik and Camilleri (2015) indicate that Beijing plays a critical role in China's financial

landscape and for managing China's economic and financial operations. Chapter 3 tries to answer these questions by investigating the changing geographies of commercial banking.

Chapter 4 attempts to address the following questions: what are the geographies of the securities industry in mainland China? What are the similarities and differences between the hierarchical network of the securities industry at the subsector level in terms of securities, futures and fund management firms? While China's financial system is dominated by the banking sector, the securities industry has been growing rapidly following market economy reform on the mainland. During this process, the securities intermediaries have played a significant role in facilitating the flows of capital and information in financial markets. Previous research, however, has drawn little attention to the geography of securities intermediaries. Chapter 4 thus maps the hierarchical networks of China's financial centres through the lens of the securities intermediaries.

China's financial centres have grown rapidly in the last few decades. In this context, I would like to ask how the recent development of financial centres in mainland China compares to the evolution of financial centres in other parts of the world. Is there any similarity or difference between their developmental dynamics and models? Using this as a starting point, this research uses Shanghai's IFC as a vehicle to answer these questions in chapters 5 and 6.

Existing studies highlight Shanghai as an emerging IFC (Lai 2012b; Taylor *et al.* 2014) and global city (Sassen 2012a). They fail, however, to explain the internal spatial dynamics of Shanghai as an IFC and a global city. In chapter 5, I thus aim to answer these specific questions by examining the clusters of financial and business

services (FABS) within this mega city. What are the clusters of FABS within the city? Why is the spatial distribution of FABS important to its IFC formation? How do the geographies of FABS function Shanghai's IFC and global city dynamics?

Hall (2017)'s empirical study of London's RMB offshore centre has emphasised the critical nature of politics and state intervention in (re)producing and shaping an IFC. With this research, I argue that China's distinguished institutions and politics-economy call for a new geographical understanding of financial centre growth and IFC formation using the case of Shanghai as an example. More specifically, in chapter 6, I ask what is the policy regime of Shanghai's IFC in contrast with other IFCs worldwide? How have its policies and strategic initiatives impacted and shaped Shanghai's IFC development in the past decades? Is there any pathway to upgrade Shanghai's influence in the world economy beyond the orthodox New York–London model?

1.3 Methodological approach and data

One difference between economics and economic geography lies in how they approach the diversity of economic life, because economic geography is a discipline that covers a very diverse range of philosophical approaches to knowledge. As such, economic geographers employ a rich combination of quantitative and qualitative methods. Both can take the form of extensive research design, highlighting patterns in large representative datasets and intensive research designs that primarily focus on a single case study or a small number of case studies (Clifford *et al.* 2010).

Both quantitative and qualitative methods are used in my thesis. Developments in the philosophy of science have led to the conclusion that quantitative and qualitative methods should not have a separate-but-equal status, and should instead interact (Olsen 2004). Yeung (2003) argues for a process-based methodological framework through which we employ complementary methodological practices and triangulation. Triangulation and pluralism both tend to support interdisciplinary research, such as financial geography.

This thesis relies mainly on quantitative methods. I use Excel, Numbers, ArcGis, other software (such as GeoCommons and AJD Geospatial Concepts), and related geography and social science models for data processing and analysis in my empirical study. The basic tools used in this study are Excel and Numbers to summarise large amounts of data through descriptive statistics and explore data through visualisation (Fotheringham *et al.* 2000). Some complex datasets are analysed using models and then visualised by ArcGis and spatial analysis (Martin 1996). The primary methodology here is geovisualisation, associated with GIS and cartographic application. The display of data or results on a map utilises the characteristic of spatial data that makes it special: the data has a spatial location. This thesis covers geographic visualisation from maps to GIS.

Modelling is another methodology for dealing with my data. As Fotheringham (2005) believes, one test of whether we actually understand a spatial process is to develop a mathematical model that represents our understanding and examines the extent to which this model can accurately represent that part of the real geographies in which we are interested. The geographical concentration index is applicable for the measurement of the spatial concentration of the banking industry in a specific period

(Wójcik and MacDonald-Korth 2015). Meanwhile, the interlocking city network model was created by the scholars of Globalisation and World Cities (GaWC)[2] (Taylor 2012) to examine the nodality and connectivity of cities in a network. This model has been the basis of the main securities industry quantitative strand of study at the subsector level, and it is devised and evolved here as a way of describing the domestic city network in contemporary securitisation.

Qualitative methods are also applied as complement methods in this research. The case study format is very helpful for explaining my arguments and examining the validity of orthodox Anglo-American theories in Chinese cases. This provides support for my quantitative analysis (Baxter and Jack 2008; Yin 2003). For example, first, in the chapter on securities discussion, I employ the case of CITIC securities to explore the relations between Beijing, Shanghai and Shenzhen, and to restore the history and reforms of mainland's securities in the new century. Another chapter focusing on Shanghai's financial centre in a global context uses the case of WuXi PharmaTech (a global leading contract R&D services provider serving the pharmaceutical, biotech, and medical device industries) to demonstrate the disadvantages of Shanghai's IFC.

Second, I also use policy documents in the thesis. I collect the authoritative policy documents on Shanghai's IFC released by both central and local governments since the 1990s to summarise the developmental stages of Shanghai's policy regime before I assess their strategic effects. This is not merely aimed at validation, but also at deepening and widening our understanding on Shanghai's IFC dynamics. It is also beneficial for triangulation. The conversational-style interview is a third qualitative method used in my research (Flowerdew and Martin 2005). Economic geography

[2] http://www.lboro.ac.uk/gawc/.

and the geography of finance is often based on in-depth interviews, or ‘close dialogue’, which can play an important role in promoting theoretical innovation in the financial geography in particular (Clark 1998). I carried out approximately 20 interviews in Beijing and Shanghai in 2014 and 2015, and the interviewees represent organisations ranging from the People’s Bank of China, CBRC, CITIC securities, the Shanghai branch office of the CSRC, the Ministry of Commerce, Tianjin Municipal Government, and the National Committee of Development and Reform. No human or personal data has been directly used in my thesis, but these interviews have contributed to my understanding of China’s financial system, especially the regulatory mechanisms and the latest policy orientation at the central government level. Advice from interviewees has also assisted my data hunting and data collection, for example by helping me find data from websites, official annual reports and yearbooks.

Regarding datasets, I use the latest data for my empirical study. First, in chapter 3, the banking data comprises the major components of China’s banking system, covering the five largest commercial banks, twelve joint-stock commercial banks (JSCBs), regional and local commercial banks, and foreign banks. In this regard, this dataset can provide a comprehensive understanding of China’s commercial banking sector, and it is also the first study to discuss the geography of JSCBs. In addition, to analyse the spatial concentration, this chapter employs data on banking assets at the provincial level collected from the China Regional Finance Operation Report 2006–2014, and data on the banking assets of the largest 50 commercial banks from 2006–2014 at the city level. Second, chapter 4 focuses on the securities industry by analysing data on the size and structure of capital market intermediaries, their

ownership, headquarter locations, branch networks, employment, and transactions. Quantitative analysis is complemented with insights drawn from interviews with senior employees from 10 leading securities and fund management firms conducted in Beijing and Shanghai in 2014–2015. This is the first attempt to examine the securities industry from a financial geography perspective. Third, in chapter 5, to explore the internal spatial dynamics of Shanghai's IFC, I do not only use financial sector data, but also data from the distribution of 300 business services firms (including accounting, law, consulting and advertising) to investigate the clusters of FABS within the city. To the best of my knowledge, this is the first study to integrate business services data into empirical research on Shanghai's IFC. Fourth, chapter 6 includes an introduction of Shanghai's strategy initiatives with the systematic, qualitative data covering the past decades. The evaluation of strategic effects of Shanghai's IFC policy regime also considers the impact of the Shanghai FTZ, particularly by integrating the latest quantitative data from the FTZ into my discussion in chapter 6.

1.4 Scope and structure of the thesis

Following the University of Oxford degree guidelines, the thesis is built around the 'book route'. Specifically, it is made up of an introduction (chapter 1), one background chapter that serves the function of a literature review (chapter 2), the main body of the empirical study (chapters 3–6), and a conclusion (chapter 7). In what follows I briefly outline each chapter.

Chapter 2 provides a conceptual and theoretical foundation for the empirical research of the thesis. First, it narrates the co-evolution of economic geography and financial geography in the past few decades, and highlights the increasing importance of the geography of money and finance. Second, it reviews the evolution of conceptual approaches in financial centre research on economic and financial geography and related subjects, providing the thesis with its theoretical basis (chapters 3–6). I identify the research gaps and clarify my motivation in this research after an evaluation of the financial geographies of China.

Chapter 3 discusses the geographies of commercial banking in mainland China. To understand the changing geographies of financial centres, this chapter uses an empirical approach to highlight the changing spatial distribution of banking to the existing collection of empirical descriptions, and by an investigation of its spatial concentration over this period. The empirical analysis is based on branch and subbranch data, employment data, headquarters data, and banking assets data, all of which are available, allowing a systematic geographical analysis of commercial banking. The findings reveal the status of Beijing and Shanghai as primary banking centres, a hierarchical network of domestic banking centres, and a growing spatial concentration in the mainland's banking system.

In chapter 4, I ask how financial geography can contribute to understanding the growth of the securities industry. The main objective of this study is thus to examine the financial geographies of the securities industry at the subsector level. I analyse the current situation of the industry, map the hierarchical networks, and examine competition between China's leading securities centres. I use data on headquarter

locations, branch networks, transactions and employment to study the evolving geography of securities, futures and fund management firms serving capital markets in Mainland China. Results show that Shanghai leads in terms of headquarter locations and connectivity, but falls behind Beijing in terms of employment and transactions, with Shenzhen in the third position. While tax and other advantages attract firms to register headquarters in Shanghai or Shenzhen, many of them conduct core operations out of Beijing. As the growth potential in Chinese capital markets is high, the geography of capital market intermediaries will remain a key factor in shaping relationships between China's financial centres.

Chapter 5 contributes to mapping the geographies of Shanghai's FABS at the local scale. I examine the geographies of clusters from two spatial levels (district level and a narrower cluster level), and investigate the interdependencies and local networks of different sectors in the context of the FTZ. The empirical analysis is based on data regarding the headquarters and representative offices of financial firms, authoritative institutions, and business services firms in Shanghai. It also uses data on local listed companies at the SSE. The findings reveal the uneven geographies of the FABS. First, I investigate the geography of the FABS, and also examine the geography of domestic firms, and foreign and joint-venture firms in the FABS separately. All demonstrate very spiky geographies, but in slightly different ways. Second, I map the spatial distribution of financial services and business services separately and make a comparison. Third, at the narrower cluster level, the results show that Lujiazui dominates the financial services, while Lujiazui, West Nanjing Road and Central Huaihai Road are identified as the top three clusters for business services. Finally,

this study demonstrates the close linkages between the Lujiazui Financial Zone and the other functional zones in the organisation of the FTZ.

Chapter 6 provides a conceptual and theoretical analysis of the IFCs by focusing on the IFCs' main characteristics, categories and policy regimes. It then reviews the policy initiatives driving Shanghai's IFC coming from the central and local governments, and evaluates their strategic effects. Finally, I emphasise the differential pathways by which an emerging IFC can potentially become influential beyond the Anglo-American model. In this study, I try to do this by moving out of the empirical terrain of IFCs from the developed world (like New York and London) and focusing instead on Shanghai. The empirical study reveals Shanghai's IFC construction has achieved great advances motivated by its policy dynamics since 1990. But its global impact is still limited comparing to New York and London. To overcome Shanghai's disadvantages, I propose some potential pathways based on the characteristics of China's political economy. In brief, this chapter is a discourse that focuses on the theoretical basis of IFCs and Shanghai's pathway to becoming an influential IFC with Chinese characteristics, including the role of the government and state interventions in intentionally devising pathways to an IFC formation.

The four chapters from chapter 3 to chapter 6 are not separate, but show a cohesive force. These chapters together help us understand the production and development of China's financial centres since its reform and opening-up. Currently, China's financial system is dominated by the banking industry as a transition economy, while the securities industry demonstrates the ascending trend along with the market economy reform and the process of financialisation over the past 25 years. Chapters 3 and 4 help us understand the geographies of China's financial centres efficiently.

Both chapters reveal Shanghai's leading role in China's financial centres network, especially for organising foreign capital, which functions as a gateway city to redirect inward and outward capital between mainland China and the global finance. Chapters 3 and 4 also reveal the characteristics of China's transition economy and the crucial role of government. At the same time, both central and local governments aim to build Shanghai into a true IFC. As such, in chapter 5, I explore Shanghai's IFC within the city and explain how the internal clusters of FABS contribute to Shanghai's development as an emerging IFC and global city. The three chapters enumerated above show Shanghai's position and status as an emerging IFC and domestic centre, but we need to investigate its policy regime and strategic effects to understand its remarkable growth since 1990 and make a comparison with the leading IFCs. In this way, the advantages and disadvantages of this policy regime are identified, and we can then realise how to upgrade Shanghai's IFC based on China's specific politics-economy.

Chapter 7 summarises this thesis, underlines my critical findings and arguments, highlights contributions for literature, and outlines directions for future research as well as financial geography of China.

Chapter 2 Review of the literature on financial geography, with a focus on financial centres

The main purpose of this chapter is to provide a literature review of financial geography, particularly financial centres. The structure of this chapter is as follows. First, I provide a brief introduction to the changing economic geography after World War II by tracking its crucial theoretical approaches. Section 2.1 also documents the coevolution of the geography of money and finance with economic geography over the past decades. Second, Section 2.2 chronologically narrates the main theoretical approaches to conceptualising financial centres. Third, I review the existing empirical research that is attentive to the financial geographies of China. Fourth, I identify gaps in existing research and propose how the core chapters of the thesis will address them.

2.1 The evolving literature on economic and financial geography

The aim of financial centre study in the framework of economic geography is to demonstrate why space and place are central to a full understanding of finance, financial agglomeration and the financial process. In the era of digital economy, patently, from the evidence worldwide, financial centres still exist, indeed some IFCs are being strengthened rather than decline. Financial centres even differ in degree and form as between different locations and places, producing uneven financial growth and prosperity across space. The role of space and place in the birth and growth of financial centres is not merely as a passive or simple intermediary, a pre-given cartography across which financial forces and developments play out. On the

contrary, space and place are integral to, and constitutive of, financial forces and development. Just as the evolution of financial centres is a historical process, so it is also a geographical process. In this context, research on financial centres has increasingly become a crucial component of geography of money and finance. It has therefore been impacted by the main theoretical approaches from economic geography over the past decades.

Economic geographers tell us how geography conceptualises space itself, and how geographers think economic space is structured. After the 1960s, as Martin (2008) clarifies, the intellectual orientation of economic geography evolved on all three fronts (see Table 2.1, cited from Martin's original summary). The first stage was dominated by a location-theoretic approach followed by the Neo-Marxist approach; since the 1990s onwards, we have witnessed the rise of a fresh strand, the new economic geography, or what Martin and Sunley (2011) call proper economic geography (to distinguish it from the Krugman-style 'New Economic Geography'). All the waves and shifts in the 20th century of economic geography contribute to the palimpsest of the discipline, in which the new does not necessarily supersede or replace the old, but adds a new layer to the collective intellectual project (Clark *et al.* 2017).

Table 2.1 Shifts in the dominant theoretical perspective in economic geography since the late 1960s

	Location-Theoretic Late 1960s to Mid-1970s	Marxist Late 1970s to late 1980s	Post-Marxist Late 1980s onwards
Form of economics drawn upon	Explicitly or implicitly based on German location theory, and on neoclassical economic assumptions of optimising behaviour on part of firms and households, leading to equilibrium spatial economic outcomes	Heavily dependent on Marxian political economy, with an emphasis on the dynamics of capital accumulation, the labour process, and the social relations of production; a focus on the uneven development and spatial divisions of labour	Two main strands: one drawing on institutional. social and cultural economics, the other on neo-Schumpeterian and evolutionary economic theory; a focus on local sociocultural embeddedness of the economy, and on the spatialities of knowledge creation and transfer
Type of theorising	Focus on high level generalisation via models that abstract from spatial particularity, and which emphasise universal laws of spatial distribution and interaction	Based on historical materialist approach to abstraction, involving appeal to systemic 'laws of motion' of the economy, and the constitution of the latter in terms of antagonistic class conflict over the ownership of, and the distribution of the surplus from, production	Mostly partial and contextualised using theoretical concepts and ideas drawn from a range of frameworks, including institutional economics, economic sociology, cultural theory and evolutionary economics
Conceptions of space	Conceived of in absolute (Euclidean) terms	Absolute and relative in nature, not given but constantly produced and reproduced by capitalist relations of production	Absolute, relative and relational, where both spatial proximity and relational proximity (propinquity without proximity) are important; regional spaces are consequentially complex to define and not given or fixed; increasing focus on spatial networks and flows

Source: Martin (2008, p. xiv)

Since the beginning of the 21st century, economic geography has evolved significantly. Seventeen years is a long time for an academic discipline with only a little over a century of history, particularly during a period of momentous change in the world economy (Clark *et al*. 2017). In addition to the application of all schools of economic geography that have developed in the 20th century (mentioned by Martin in Table 2.1), new approaches have developed or become prominent since 2000, one of which is the increasing interest in the geography of finance, especially in the wake of a global financial crisis. As Clark *et al*. (2017) notice, we have witnessed a shift from the geography of finance to a much broader financial geography, a subdiscipline for understanding finance engaging with theoretical applications from political economy, cultural economy, institutional economy, as well as financial sociology, history, anthropology, and economics.

As an increasingly important subdiscipline of economic geography, the study of the geography of money and finance inherently demonstrates the evolutionary approaches in economic geography over the last four decades. Inspired by the categories listed by Martin, I attempt to formulate the evolving stages of financial geography study in accordance with the process of economic geography (see Table 2.2).

Money has been with the world since time immemorial, but not until the last two decades of the 20th century has the geography of finance become an important topic of economic geography. This research terrain opens the problematics of finance up to scrutiny, while suggesting that finance can be investigated in fresh ways through taking place and space seriously (Clark 2015; Martin and Pollard 2017).

The intellectual foundations of financial geography originate from the changing economic geography, which shows a coevolutionary process. Research on the geography of money and finance emerged in the 1980s, when the financial sector became increasingly important during the transformation of developed economies. Since the early 1990s, however, the mode of theorisation and abstraction of financial geography employed by economic geographers has migrated distinctly away from the pursuit of high-level generalisations, whether of a Neo-Classic agglomeration or a Neo-Marxist kind, to place increasing emphasis on the locally contextual, the heterogeneous, the place-specific, the embedded and globally connected, the flowing and the multi-scalar.

Table 2.2 The evolution of the geography of money and finance since the 1980s

	1980s	1990s	2000s on
Stages	Emerging	Growing	Established
Major approaches	Political economy	Geopolitics; Geoeconomics; Political economy; Cultural economy; Financial bodies; Institutions	Cultural economy; Institutions; Networks; Political economy; Financialisation
Selected key references (e.g.)	Harvey (1982, 1989) Strange (1986)	Clark and O'Connor (1997); Corbridge *et al.* (1994); Leyshon (1995; 1997; 1998); Leyshon and Thrift (1997); Martin (1999); Thrift (1994)	Christophers (2014a, 2015, 2016); Christophers *et al.* (2017); Clark (2002; 2005); Clark *et al.* (2017); French *et al.* (2011); Hall (2010, 2011, 2012, 2017); Martin and Pollard (2017); Wójcik (2011; 2013a, 2013b)

Source: Author

More specifically, as illustrated in Table 2.2, the development of financial geography can be generally divided into three stages from the 1980s on.

To start with, unsurprisingly, the dramatic transformation of capitalism after the collapse of Fordism and a series of economic crises stimulated the emergence of a

geography of finance in the 1980s. During 1970s and 1980s, the architecture of global finance changed rapidly, moving from the tightly state-orchestrated system known as the Bretton Woods Agreement that dominated the world financial system after World War II to a new financial organisation, termed as casino capitalism (Leyshon and Tickell 1994; Strange 1986). This new financial architecture started to emerge from the mid-1970s and showed the main characteristics of privatisation, liberalisation, globalisation and financialisation. These progressive characteristics were not separate but reflexive through an integration into the ideology of Neoliberalism (Harvey 2007). For example, the transformation of the UK securities industry, known as the 'Big Bang', from July 1983 to October 1986, radically changed the centuries-old market structure of the City (Roberts 2008). During this period, the geography of finance began as a way to address the 'productionist bias' of economic geography (Aoyama 2010). The period also witnessed the rise of a modern finance that was distinct and autonomous from sectors that produced and traded in commodities, along with the industrial upgrade in developed economies.

In the 1980s, the writing was dominated by a political economy approach. This theoretical tradition emerged as radical geographers contributed to the understanding of the dynamics of financial capital within the urban area. The pioneering contributions of Harvey (1982, 1989) reinforced the dominant role of a political economy perspective on the geographies of finance. Harvey applied Karl Marx's ideas about the circuit of capital and integrated two additional circuits into Marx's primary circuit. Harvey's theory attempted to explain how capitalism works and the inevitability of flows of capital, spatial economic integration and uneven development. Harvey also pointed out the surplus value of primary capital is partly diverted into financial markets. Spatial fix was another concept developed by Harvey,

redirecting capital flows between various spatial scales. From the perspective of international relations, Strange (1986) pointed out that, since the 1970s, the international financial system had become progressively more like a global casino, with professional speculators as players, a fact at the root of all economic problems. Work on the geography of money and finance in the 1980s reflected the transformations of developed economies and global shift.

Research on the geographies of money and finance saw a dramatic growth in the 1990s. As Leyshon (1995) suggested in the context of the historical evolution of writing in this area, the study may have reached the end of the beginning. 'Money and Finance' space is no longer a 'bit part'; it is really a headline act (Pryke 2011). Likewise, money is considered as the most geographic of economic phenomena by Lee (1999). First, in response to a shift in the international monetary system and state-market relations, and a series of financial crises and collapses from the 1980s into the 1990s, a number of geographers began to investigate the geographies of these phenomena that resulted from conceptual dialogue struck with related subjects. For example, in the pioneering *Money, Power and Space,* Corbridge *et al.* (1994) argued that we need to recognise the significance of finance in the reorganising of contemporary capitalism. This area is termed the geopolitical economy of finance and originates in the work of Agnew and Corbridge (1989), while the research progress represents a trend towards 'deterritorialisation' and is concerned with flux, fluidity and flows rather than fixity and permanence (Leyshon 1995, Castells 1996).

The second strand of the 1990s was the analytical focus on the geoeconomics of finance. Since the early 1990s, the response of O'Brien to the growing importance of

international capital flows was to argue that the globalisation and digitalisation of capital resulted in a homogenisation of financial space, which in turn led towards what he described as the ‘end of geography’ (O’Brien 1992). Similarly, Friedman (2005) claimed the world is flat. However, as Leyshon (1995) argued, it is reckless to underestimate the significance of geography in the age of global financial integration. Agnew (1994) argued that national economic geographies remain important, as the global financial system remains a geographical hybrid (Strange 1988). Additionally, Amin and Thrift (1994) recognised that the configuration of monetary and financial systems differ between countries, which brings an opportunity to investigate the geography of capitalism.

A third strand of the 1990s was a range of new approaches to explain the geography of finance and money in parallel with the work undertaken by radical geographers from a political economy perspective. The very beginning of the 1990s was a milestone for contemporary capitalism and the geography of finance. The Washington Consensus demonstrated the establishment of neoliberalism, a political and economic set of ideas to promote a free market and achieve global scope for private finance. Subsequent mega-events, such as the collapse of the former Soviet Union in 1991 and the market economy reform of China since 1992, deepened a more general orientation towards a strongly market-based world economy. In a market economy, flows of money determine the flows of inputs and outputs, and possession of money defines power in the market place (Eatwell and Taylor 2000). Ingham (2004) emphasised that ‘money is a social relation’. In this context, economic geographers are concerned with the social and cultural construction of financial centres, institutional and political bases for financial systems, and economic bodies at work in financial services (Amin and Thrift 1992; Thrift 1994; Clark 1997a,

1997b; Clark and O'Connor 1997; Leyshon and Thrift 1997; Leyshon 1998, McDowell 1997).

The new century witnessed major developments in the geography of finance, and confirmed its status as a critical component of economic geography. In particular, the global financial crisis created an opportunity for financial geography to move onto the centre stage of economic geography (Sokol 2013). The leading scholars of the 1990s still continue to play an important role in these progresses, while a large number of young geographers attempt to inject finance into economic geographies. One might even notice a shift from the geographies of finance to a much broader financial geography infused with an understanding of finance (Clark *et al*. 2017), which demonstrates that it is necessary to move beyond narratives of 'inherent complexity' to better understand the economic, social, political and cultural relations of money and power (Martin and Pollard 2017).

Financial geography has become a vibrant academic terrain characterised by considerable variety in terms of theoretical approach, the most important of which in the 21st century are cultural economy, institutions, and networks (Hall 2010). We should nevertheless notice the vitality of a political economy perspective and the increasing importance of financialisation. Significant research strands have developed as follows. Impacted by the proliferating research of post-structuralism and other philosophical debates, financial geographers argue for a topological understanding of space and point emphatically to the importance of geographical heterogeneity for understanding the changing spatialities and temporalities of capital. Theoretically, in accordance with economic geography more generally, the geography of finance has grown gradually outward-looking and engages with

relevant studies in sociology, anthropology, international development, political science, and (to a lesser extent) economics (Hall 2010). Five of the most prominent approaches for geography of money and finance are cultural economy, institution, network, political economy, and financialisation. None of these approaches is absolutely separate in empirical studies; on the contrary they complement each other.

First, the 'cultural turn' was an interdisciplinary phenomenon involving the dramatic influence of poststructuralist epistemology in the related social science discipline (Thrift 2000). Cultural economy emerged in the 1990s and developed significantly in the 21st century for financial geography. In the progress reports of geography of money and finance, Hall (2010) has carefully documented the links between cultural economy, money and finance, as well as politics and place. Geographers pay close attention to the non-human technologies in (re)producing financial landscape and view money as constituted through different networks of human practice (Clark and Thrift 2005; Hall 2006; Pryke 2011). Inspired by the study from sociologists and anthropologists, Thrift (1994) considered money as a contingent and socialised phenomenon, and highlighted the influence of a wide range of social and cultural factors that contribute to the geography of money and finance. Furthermore, Clark (2005) argued that the creation of local networks can help overcome the dramatic information asymmetries and uncertainties which typify client-provider relations within finance, building on the seminal contribution of Clark and O'Connor (1997) that emphasised the role of information and trust within IFCs in facilitating processes of financial innovation.

Second, institutions that refer to the organisations, laws and regulations,

sociocultural traditions, and rules governing socioeconomic activities have been important to delineate the geography of finance since the 1990s onward. In terms of territorial embeddedness, scholars explore how the international monetary system is (re)shaped through the place-specific institutional space. Clark (2005) depicted a global system of transactions and relations. He compares flows of money to those of mercury. Money tends to flow to the IFCs, to be collected and managed there in that there is an ineluctable lumpiness in the spaces of money. Clark and Wójcik (2007) explored how the international financial system is reproduced through the grounding of global financial flows in place-specific institutional spaces. In terms of laws, Wójcik (2011) attempted to analyse the relation between stock market development and legal family. He reiterated that common-law countries rather than French-law and German-law countries generally have the highest level of shareholder protections. In the latest research, Dixon (2014) analysed the institutions and institutional changes in relation to finance and macro-institutional comparison in economic geography. In contrast with the varieties of capitalism frameworks (see Engelen and Grote (2009)), Dixon drew attention to the functions of finance and institutions, re-evaluated the relationship between institutional functions and institutional form, and concluded that institutional function is not always determined by institutional form: the former is often variable and context-dependent.

Third, as Cohen (1998) believed, the geography of finance requires a clear analytical distinction between location, place, and the networks of relationships. The network perspective is indeed significant to understanding the spatial organisation of money, as the space of money is a complex system of networks of financial flows, transactions and relationships. The literature of financial geography follows the wider development of the so-called ‘relational turn’ and network-based approaches in

human and economic geography (Yeung 2005) to understand the spatially-distributed network of money and power in the financial networks and world cities networks (WCNs) (Taylor 2012, Taylor *et al.* 2014). Coe, Lai and Wójcik (2014) established a framework for understanding financial geographies and their impact on firm behaviour and regional development. This conceptual framework underpins the argument that financial activities form a global economic network that is distinctive in terms of its operation and impact, and specific actors associated with advanced business services (ABS), and territories like world cities or offshore financial centres, are particularly significant in shaping economic practices and regional development. Wójcik (2013a; 2013b) also used this framework to explain the origins of the global financial crisis.

Fourth, in terms of the political economy approach, the first strand is the application of varieties of capitalism to the geography of financial systems (see Engelen and Grote 2009). As Wójcik and MacDonald-Korth (2015) argued, to compare financial systems, we need to combine economic geography with political economy in a framework that takes both space and institutions seriously. Financial geographers examine whether the financial system is spatially centralised or decentralised may assume key importance for the form and pattern of uneven geographical development (Engelen and Grote 2009). For instance, Klagge and Martin (2005), and Wójcik and MacDonald-Korth (2015) develop this argument conceptually and then explore it empirically by making a comparison between the UK and Germany. At the same time, in the last decade, the subprime crisis, the global financial crisis, and the ongoing Euro Zone crisis reinvigorated and influenced research on financial geography, particularly a strand with a geographical political economy perspective that is also called ‘geographical’ political economy (Christophers 2017; Christophers

et al. 2017; Pryke 2017). What financial geographers contribute to the understanding of finance and money is that they interrogate how these territorialised differentiations shape the cause and consequence of a geographical crisis and make financial instability visible in space as well as in time. For example, Christophers (2017) delineated a post-crisis 'geographical' political economy of finance and emphasised the central role of nation states in financial markets.

Fifth, the financialisation is relevant a new conceptual tools to examine the growing power of financial markets and the uneven development across time and space (Engelen 2008; French *et al.* 2011; Hall 2011). Financialisation refers to the increasing importance of financial logics in different aspects of economic, political and social life (Lai 2015). The various and rapidly expanding discussion on financialisation shows a mixture of different approaches—from regulation theory and critical social accountancy to more sociocultural perspectives—that focus on the geographies of territorial fix, the everyday life of finance, financial subjects, and financial consumption, as well as on varieties of financial capitalism (Aalbers 2008, 2011; Christopher 2014b; Clark and Knox-Hayes 2009; Dixon 2014; Engelen 2010; Hall 2011; Lai 2016, 2017a, 2017b). Financial geographers argue that financialisation is an intrinsically spatial phenomena because financialisation is considered a form of producing and then exploiting the flows and circuits of capital. According to Laulajainen (2003), regulations linked with government policies such as monetary policies play a central role in financialisation, and can promote economic growth by promoting financial innovation. The history of contemporary financial capitalism is characterised by progressive and large-scale deregulation of cross-border controls on financial flows. Financial deregulations also, however, lead to financial crisis, and a handful of scholars define financialisation as representing the

search for spatial fix to redirect the financial capital flows inwards or outwards between various spatial scales (Sokol 2013).

The new millennium has witnessed a shift from the geography of finance to a much broader financial geography as a subdiscipline for understanding finance. Substantive research foci range from established concerns (for example IFCs) to some novel research topic. This progress reflects some of the proliferating interest in money and finance, but (more than this) they also articulate some of what is at stake in developing a more sophisticated understanding of the spatialities and geographies of money and finance.

The research of specific financial markets and their global impacts, such as infrastructure investment (Clark 2017a), pension fund capitalism (Clark 2000, 2017b; Clark *et al.* 2012), sovereign fund (Clark *et al.* 2013; Dixon 2017), and investment management and corporate governance (Clark 2008; Clark 2015; Clark and Monk 2014, 2017; Clark *et al.* 2009, 2015), has become more and more important in the new century. These topics explain how these institutional investors impact financial markets growth, national growth, and firm strategies, and these strands of research also highlight the increased geographical importance of global financial markets for corporate governance (Lai 2015).

The concept of sustainable and environmental finance integrates ecological, social and economic concerns into a single developmental model (Clark and Viehs 2014; Knight 2011; Knox-Hayes 2010, 2017). Interest in sustainable finance in geography responds to the climate change agenda and the global financial crisis; it stands for a new way of rethinking financial geography and its role in economy, society and relationships with nature. For example, Clark and Viehs propose a new way: active

ownership for the future of sustainable investing. They believe that investors have to become active owners of corporations to promote better corporate social responsibility practices and environmental social governance standards. They also claim institutional investors should go beyond simple exclusion and inclusion strategies when they plan to invest in a responsible and sustainable way. In terms of environmental finance, based on a wider interest in the operation of markets for the trade of carbon derivatives, Knox-Hayes (2009) explores the significance of institutional proximity in facilitating the growth of carbon markets in the leading IFCs like New York and London. Knight (2011) indicates that geographers have a key role to play in highlighting the local ramifications of carbon markets if and when the world moves towards its ambition for a global carbon market by examining the temporal and spatial geography of European carbon trading.

Some new themes have also emerged in the last decade, for example digital finance, including high-frequency trading and bitcoin (Pilkington 2017; Zook and Grote 2016; Zook 2017), the integration between finance and economic geography (Coe *et al*. 2014, Dixon 2014; Hall 2012; Leyshon and Thrift 2007), and the latest fintech (Bassens *et al*. 2017). Finally, it should be noted that, although most work still focuses on the Anglo-American economies, an ascending interest has been noticed in the emerging or alternative financial markets, for instance BRICs and Islamic finance, particularly in the Asia-Pacific and China (Hall 2017; Karreman and van der Knaap 2009, 2012; Lai 2011, 2012a, 2012b; Lai and Samers 2017; Wang *et al*. 2007; Wójcik and Camilleri 2015; Zhao *et al*. 2004). One of the foci in China is the emerging IFCs such as Shanghai and Beijing. This will be further discussed in Section 2.3.

2.2 Evolving approaches to financial centres

As Pryke (2011) points out, geographies of finance and money are at times quite an intricate and paradoxical interplay between flows and territories. We should reflect on the importance of specific financial territories that are termed financial centres. The growing volumes of financial flows and the increasingly globalising capital markets are shaping and trading in these financial centres, the most important of which are IFCs like New York and London. As such, the relevance of financial territories in a space of flows should be investigated. As a matter of fact, financial centres have long confounded the best efforts of observers to offer a decisive viewpoint on their characteristics. Although the notion of an IFC has a longer historical legacy, it was consolidated as a key concept for geography of money and finance after the 1990s in the context of interdisciplinary attempts to decipher the increasing cross-border transactions following the emerging of global financial integration.

As illustrated in Table 2.3, the extant approaches to financial centres are mainly dominated by the abstraction of western capitalism, especially the Anglo-American economies. Over the past four decades, at least eight strands of research in the financial centre tradition have been worthy of note. Each approach is not absolutely isolated but intertwined. For instance, the information and knowledge approach can be seen as the extension of the cultural economy perspective. Institutional and political economy approaches are closely related, for example when they focus on the varieties of capitalism across different countries.

In the early studies, financial agglomeration was very popular, and most achievements on this topic were contributed by economists to provide purely economic explanations. The well-recognised research of Kindleberger could be conceived as a reflection of the dynamics of the rise and decline of IFCs in the era of pre-globalisation, and he interpreted the growth of IFCs as an outgrowth of their host states' geopolitical and geoeconomic power. The possibility, however, that the formation of IFCs might be conditioned by supranational or global forces was not systematically explored. Along with the transformation of the world economy and the rise of a new international labour division after the 1980s, the world city and global city models were applied extensively in studies of the role of major cities as IFCs, as headquarters concentrations for MNCs, and as agglomerations and clusters for APS. As Sassen endorsed, localities such as New York, London and Tokyo are leading examples of strategic sites in organising a globalising world economy. In her global city thesis, Sassen identified global cities as the concentrations of clusters of APS.

From the late 1980s into the 1990s, the use of IT and modern telecommunication methods rapidly brought the spread of financial activities into the electronic 'space of flows'. On the one hand, we should acknowledge that the virtualisation of money did not claim the end of geography; a handful of financial centres still exist and grow. In this context, geographers provide some substantial and convincing explanations. As they argue, 'money is a social relation' (Pryke 2011) and an intermediary that relies on authority, through which authority and power may be exercised (Ingham 2004). It is therefore useful to provide an outline of the wider social, cultural, technical and institutional context for understanding money's centrality in contemporary capitalism. These factors are important because they help shape the formation and survival of IFCs. In context, the approaches of social and cultural constructivism, information,

and institution conceptualise financial centres as active and dynamic ensembles of networks constituted of individual, institutions, machines, norms, concepts, trust, interpretations, knowledge, and information (Lai 2015).

On the other hand, in the context of rapid processes of globalisation and digitalisation, the past three decades have seen the emergence and establishment of the WCNs and financial centres networks. Financial centres must inevitably engage each other in fulfilling their functions of financial coordination and control, and sustaining their roles within these networks. Based on the work of the GaWC (Taylor 2004), financial geographers have highlighted the value of a network approach. Studies of financial centres explore more complementary forms of relations and alliances alongside the notion of a hierarchical network between world cities.

At the end of this section, I underline the ‘geographical’ political economy and financialisation approaches that are coordinated in the research of IFCs. Christophers (2014b, 2017) delineated a post-crisis new and geographical political economy of money and finance that concerns the politics of governing financial institutions and spatial relations. This approach interrogates and troubles the orthodox ‘market discipline’, highlighting the importance of politics and state interventions. Meanwhile, some scholars integrate the discussion of spatial and territorial fix into a more recent topic termed ‘financialisation’. From this perspective, the development of financial centres, such as Beijing Financial Street, Shanghai Lujiazui Financial Zone and London’s financial district, are the material expressions of the coherent spaces of financialisation and political ideology in search of territorial fix.

Table 2.3 Key conceptual approaches to the study of financial centres

Conceptual approach	Conceptualisation of financial centres and key analytical foci
Agglomerations and clusters	Financial centres as the outcomes of economies of scale; the interplay between centripetal and centrifugal forces; and interactions among providers and customers in a local environment that promotes collaboration and competition
World city and global city	Financial centres as locations of advanced producer services, and strategic sites as command and control centres for the accelerated and intensified globalisation of financial capital and financial innovation
Cultural economy	Cultural economy highlights the influence of a wide range of social and cultural factors like trust, information and dense business network that contribute to the success and survival of IFCs
Information and Knowledge	Financial centres are major sites generating, capturing and interpreting vast amounts of asymmetric information and tacit knowledge relevant to financial markets
Institutions	Institutions like regulatory regimes and legal systems play a key role in financial centre formation processes by organising financial activities and facilitating or obstructing financial capital flows and financial innovation
Networks	Financial centres are viewed as spatially distributed networks of money and power, where the globalisation and localisation processes intermesh in a variety of ways

‘Geographical’ Political Economy	Money is politics. Politics and state intervention can play a critical and positive role in shaping the development and changing nature of IFCs. State uses IFCs as territorial fixes within the international financial system through regulatory changes
Financialisation	Financial centres are strategic locations to redirect inward and outward flows of capital and value in search of spatial and territorial fix for global financial integration

Source: Author

Agglomeration and cluster

The concept of agglomeration has two different meanings. One is related to the phenomenon that people and economic activities generally tend to concentrated in cities, referred to as ‘urbanisation economies’ or Marshall-Arrow-Romer effects. The other is related to the phenomenon that firms from the same or related industries tend to gather at certain places, correspondingly referred to as ‘localisation economies’ or Jacobs effects. Agglomeration economies lead to economies of scale and scope that are considered the major driving force behind the emergence and perpetuation of financial centres, and which can bring significant comparative advantages to the financial industry (Budd 1998). Through the lens of financial agglomeration, financial centres can benefit from both Marshall-Arrow-Romer effects and Jacobs effects.

In the early stage, Kindleberger (1974) emphasised the process of banks that gradually establish their branches in the financial centre. This kind of financial agglomeration creates an evolutionary and time-consuming process; it is the economies of scale that make banks and other financial institutions concentrate in a specific area. Financial centres, like other agglomerations, are also the outcome of both centripetal and centrifugal forces (Grote 2009). These forces shape the changing geographies of finance from global to local (Martin 1999). German economist Reszat (2000) applied location theory to explain how financial centres organise their use of space, and how financial agglomeration and clustering occur. She argues that Krugman's edge city model can be applied to financial centres in a region. Geographers also use this analytical framework to explain the continued importance of a small group of financial centres. Grote (2008) examined the changing geography of foreign banks in Germany from 1949 to 2006 by an application of New Economic Geography models. His empirical result showed that there was an inverted 'U'-shape concentration of foreign banks in Germany during this period.

Meanwhile, 'cluster' in economic geography and related disciplines has been defined in many ways. A strong sustainable cluster is generally defined as the geographic concentration of competing, collaborating and interdependent companies and institutions connected by a system of market and non-market links (Porter 1998). In contrast with agglomeration, the main strength of the cluster approach in the study of financial centres is as follows: first, it does not relate to the financial industry separately, but merely needs the APS firms in a financial cluster to be interdependent in some way (Sassen 2012a). Second, a cluster is defined not just in terms of firms but also in terms of supporting institutions. These kind of institutions

are able to play a critical coordinating and facilitating role in robust clusters. Third, non-market linkages are highlighted (Clark and O'Connor 1997; Storper and Venables 2004). Fourth, the financial cluster encourages us to think of this spatial form as a complicated system of financial structure. It is this very complexity that enriches the components of the financial centres and makes them difficult to replicate (Clark 2002).

World city and global city

'World city' and 'global city' refer to the geographical concentration of multinational companies in selected cities in the context of globalisation. From this perspective, financial centres are locations for APS and strategic sites as command and control centres for the accelerated and intensified globalisation of financial capital and financial innovation.

The world city theory assumes the formation of a worldwide urban hierarchy in and through which the MNCs coordinate their production and expansion activities. The seminal contributions from Friedmann (1986) emphasise the concentration of the command and coordination functions of operations in world cities. Sassen (1991) proposes similar hypotheses, but starts from a more nuanced angle. She focuses on the combination of geographic dispersal of economic activities with simultaneous system integration that gives cities a strategic role in the world economy. In contrast with Friedmann and Wolff (1982), she also highlights two novel functions in her global city model: global cities are post-industrial for APS, and international marketplaces where firms and governments worldwide can buy APS (Sassen 2012).

The global city model is reflected in work on financial geography, illustrated by contributions on the geography of stock market centres (Wójcik 2011). The theory of stock markets formulates a sequence of five propositions equivalent to global city theory, but using stock markets instead of globalisation as a starting point. First, the emergence and development of stock markets involve the institutional and geographical dispersion of corporate ownership. Second, stock market development feeds the growth of the capital market industry. Third, stock market intermediaries benefit from agglomeration economies. Fourth, transactions on primary stock markets require frequent interactions and trust between different actors. Fifth, global presence and expertise are of utmost importance to stock market intermediaries. Wójcik also argued that the theory of stock market centres could be translated into a theory of securities market centres. This key contribution enriches the theoretical framework of IFCs. More recently, Bassens and Van Meeteren (2015) point out, geographically, that beyond the shortlist of IFCs, the wider world city archipelago is still an obligatory nodes and hubs for inserting financial capital into contemporary economies and societies.

Cultural economy

Cultural economy highlights the influence of a wide range of social and cultural factors that contribute to the success and survival of IFCs in the age of a generalised and digital ‘space of flow’. Geographers believe in the social and cultural production of agglomeration, while they argue that economies of scale and agglomeration are themselves dynamic social and cultural practices (Pryke and Lee 1995). This theory involves two key geographic determinants: social and cultural construction,

representing analytical tools to understand the sociocultural contexts of financial geographies.

Amin and Thrift (1992) draw attention to financial centres as “neo-marshallian nodes”. These hubs or nodes embedded within financial networks differentiate from traditional financial markets and hierarchies in that they contribute to organise financial resources through social-economic channels, not pricing setting mechanism or the imposition of power (Powell and Smith-Doerr 1994). Thrift (1994) focused on the importance of culture and embodiment within the monetary networks that make up the modern financial centre (also see Leyshon and Thrift (1997)). Financial geographers’ contribution sought to avoid examining the existing of financial centres through a relatively narrow economic reading, and instead highlighted the influence of a wide range of social and cultural factors that might contribute to the success and survival of IFCs in a quicksilver digital economy.

The term ‘culture’ in financial markets also refers to the intermingling of information, values, expertise and contacts found in the financial district (Pryke 2011). Thus, financial agglomerations are professional centres and it is at this point that the advantage of agglomeration is of great help in cultivating a relationship based on trust (Leyshon 1996). Trust-based relationships are deemed essential for the exchange of knowledge and information within agglomerations (Hall 2010). To some extent, financial actors seek to reduce risk through the generation of trust, which can be forged by striking up interpersonal relationships, a process often achieved through face-to-face contact that afforded as a communication technology (Leyshon 1997; Storper and Venables 2004).

Information and knowledge

This approach emphasises the importance of asymmetric information and incomplete knowledge in maintaining and reproducing IFCs in the era of virtualisation of money. Information and knowledge are critical, because IFCs are the major sites to generate, capture and interpret the vast amounts of financial information and professional knowledge that flow through financial networks. The increasing use of IT promotes information spillovers and exchange. However, asymmetric (unstandardised) information or incomplete (tacit) knowledge cannot be exchanged and transferred electronically. IFCs provide a place to collect and produce this type of information and knowledge.

In the 1990s, a new characteristic of informational tendency focusing on processes of financial subjectification became involved in the interpretation of the financial centre (Hall 2011).[3] By analysing the flows of information and asymmetric information, this tendency summed up the major determinants during the agglomeration process (Thrift 1994; Porteous 1995, 1999; Clark 1997a, 1997b; Clark and O'Connor 1997). For example, in terms of financial elites, economic geographers have developed sophisticated accounts of the ways in which working practices associated with the knowledge- and information-rich nature of financial products are vital in shaping the continued importance of a small number of IFCs (Hall 2011). Clark (2005) summarised geographical understandings of how IFCs facilitate the production of financial markets by allowing financial actors to exploit

[3] As Sarah Hall indicates, subjectification refers to a Foucauldian exploration of the types of behaviours, attitudes and working parties that are deemed appropriate and legitimate within particular financial centres. For example, these types of working practices differ between NYC and London.

agglomeration economies associated with sharing knowledge and information concerning market conditions. Wójcik (2011) demonstrate how the geographical concentration of the securities industry overcomes the information asymmetries that characterise the production of financial products.

Incomplete knowledge also matters in an increasingly speculative and digitised market economy. As Sassen highlighted (2012b), firms have always confronted incomplete knowledge, and this problem becomes especially acute when they go global. The specific advantage of agglomerations against the incomplete knowledge problem includes their diverse networks, information loops, and global talents, which together create a particular kind of knowledge capital considered as urban knowledge capital and a critical component in the economic production function of the global city. In current financial systems, IFCs are strategic production sites for innovation, because they contribute to knowledge-making in a context where incomplete knowledge becomes acute.

Institutions

In terms of territorial embeddedness, institutions create spatial inequality and geographies of finance by enabling or empowering particular sites as financial centres. Institutions like regulatory regimes and legal systems play a key role in financial centre formation processes by organising financial activities and facilitating or obstructing financial capital flows and financial innovation.

Clark's theory on global finance has been developed through the adoption of institutional perspectives that focus on the geographical heterogeneity of these pools of global finance and the differential ways in which they shape financial practice (Clark 2005). Clark's argument also explains why IFCs still exist in the age of electronic 'space of flows'. Meanwhile, Engelen and Grote (2009) employ the theory of comparative political economy that possesses more sensibility for context and specificity and demonstrates a more institutionally-oriented perspective to provide us with more theoretical leverage over the precise patterns of financial centres. They take an institutional perspective to explain the decline of Amsterdam and Frankfurt as European second tier financial centres.

Additionally, some scholars highlight the significance of the law and of legal services in the formation and development of a financial centre (Wójcik 2011). They believe that good financial and legal systems with protection of property rights may be more important than location. Sassen's hypothesis in Global City (1991) highlighted the significance of legal services for the formation and development of a financial centre. La Porta *et al.* (1997, 1998) examine the relevant legal rules and their enforcement in 49 countries, concluding that countries with legal systems based on English common law have the strongest (and French civil law countries the weakest) legal protection of investors, with German and Scandinavian civil law countries in the middle. Kaufman (2001) argues that the increasing growth of the economy, strict accounting systems, transparent information exchange, and powerful legal services are essential for the emergence and competitiveness of a financial centre.

Networks

Networks are socioeconomic structures that connect people, firms and places to one another and enable knowledge, capital and commodities to flow from global to local scale. From this perspective, financial centres are viewed as a spatially distributed network of money and power, where the globalisation and localisation processes intermesh in a variety of ways (Wójcik 2013b). This approach brings with it the critical argument that the study of financial centres needs to examine the role of networks and interdependencies in producing financial geographies.

In the era of space of flows, the great advancements of IT and modern communication methods promote the dispersal of economic and financial activities from local and domestic to a broader global context, and accelerate the processes of globalisation, which in turn leads to the rise of increasingly interconnected WCNs. Based on the pioneering work on WCNs by the GaWC, the literature heavily explores the networking characteristics of financial centres both within and between cities by considering financial centres as nodes or hubs in the GFNs (Taylor *et al.* 2014; Wójcik 2013b; Wójcik and Camilleri 2015). The space of flows is not placeless. These flows in interconnected GFNs and WCNs are constituted by its nodes and hubs. Both nodes and hubs are hierarchically organised according to their relative weight in the network (Castelle 1996).

The IFCs are distinguished from others by the concentration and interaction of foreign financial resources at their disposal. The right mixture and allocation, the concentration of education, talent and skill, along with the unparallelled ability to

conduct financial activities with the professionals, distinguishes the more magnificent from the less powerful financial centres in this region. One starting point to explain the significance of the concentration in the IFC is the financial network, which looks at how a financialising economy organises its use of spatial territory. The interactions of globalisation and localisation consist of two vertical linkages that comprises reflexive, evolutionary and dynamic processes with the engagement of globalisation and localisation. The central role of this financial centre acts as a node or hub that integrates the local financial network into a global domain and localises global finance into the scope of a city-region by the agency of all types of financial entities. This kind of financial network is indispensable necessity of a GPN, because the agglomerations and clusters in financial centres are the precise places for integrating financial services and the APS into real economy (Coe *et al.* 2014).

'Geographical' Political Economy

'Money is politics' (Kirshner 2003) and its politics must always be interrogated (Pryke 2017). In terms of the 'geographical' political economy of money, geographers develop a more comprehensive understanding of the role of politics, government and state intervention in producing and maintaining IFCs (Christophers 2017; Hall 2017). They argue that the state plays a vital role in shaping the development and changing nature of IFCs through the politics of territory.

The role of politics in IFC formation in the related disciplines is not a new topic, but is more or less neglected in the context of the Anglo-American Economy, a political and economic set of ideas that promotes free market. Much of the early work on the

geographies of finance and relevant disciplines was concerned with understanding the implications of the collapse of the Bretton Woods agreement from the 1970s onwards and the impact of the rise of neoliberal capitalism on the role of government in deregulation and capitalist finance (Leyshon *et al.* 1989; Leyshon and Thrift 1997). This early research on financial centres particularly emphasised the potential decline in state power in the age of post-Fordism (Hall 2017). Leyshon *et al.* (1989) analysed the rise of British provincial financial centres in the 1980s because of the deregulation and devolution of financial power from London as the result of London's transformation into a stage for serving global financial markets. Pryke (1991) attempted to capture the social and spatial transition that took place in the City of London in the build-up to the deregulation or reregulation of the City's financial market, the financial reform known as the 'Big Bang'.

More importantly, however, increasing scholarship has demonstrated how the state is vital in purposefully creating the conditions that help financial networks develop and thrive, as well as in the territorial construction of IFCs (especially in the context of global financial crisis and China's rise in global finance). French *et al.* (2009) and Hall (2007) have highlighted the relational nature of regulation as regulatory bodies and governments seek to use regulation strategically for the competition between IFCs, which shows a growing interest in neo-Foucauldian governmentality approaches. Hall (2010) points to the need to develop a more politically and geographically nuanced idea of money and finance and an understanding of the geographical heterogeneity of the international financial system. Based on the seminal understanding of territorial fixes, Christophers (2014b) demonstrates how financialising capitalism seeks to overcome its crisis-prone tendencies through

regulatory and other political interventions. In what follows, Hall (2017) explores the implications of power and politics in the (re)production of IFCs on a bias of revisiting canonical approaches on IFCs. She calls for research in financial geography and cognate subjects to understand finance as a political relation, and highlights that future research needs to better understand the role of the state, particularly the financial authorities.

Financialisation: spatial and territorial fix

Some geographers argue that financialisation could be defined as representing the search for spatial and territorial fix, part of which is the emergence and growing influence of the quaternary circuit of capital (Aslbers 2008; French *et al.* 2011; Christopher 2014b). In this context, financial centres are the strategic locations to redirect inward and outward flows of capital and value in search of spatial and territorial fix for global financial integration.

As early as the 1970s, Neo-Marxism's political economy theory was introduced to understand the flows of value, circuits of capital and social reproduction within and between financial centres (Harvey 1982; Castells 1996; Hudson 2004, 2005). Sokol (2013) underpinned that contemporary capitalist economies should be considered as financialising economies because financialisation is a process that is far from complete and can probably never be fully completed. Financialisation is thus driven by the internal dynamics of capitalism and is an inherently spatial phenomenon, which represents a search for a spatio-temporal fix.

As Harvey argues, states and capitalists strive to overcome the crisis tendencies plaguing the capitalist system by altering capital flows through spatial fixes that redirect capital flows inwards and outwards (Harvey 1982). However, the financialisation of spaces shows a profoundly uneven development. Geographers have examined the spatial fixes used by cities, regions and countries and demonstrated how these kinds of processes lead to the concentration of multinational companies and flows of global finance. Within this new conceptual framework, the spatial and scalar parameters for the expansion of financial centres can no longer be taken for granted, as if they were given features of economic geographies. Instead, the development of major financial centres in major developed economies is viewed as an active moment within the ongoing finalisation of spatial configurations. In a multi-scalar context, domestic financial centres with some first-move advantages have complicated the design, implementation and outcomes of spatial by financial innovation and strategic policies to make these cities more competitive and receptive to capital flows. Consequently, the spatial circuit of global capital contributes to the growth of IFCs as the gateways in search of a spatio-temporal fix. During these processes, IFCs like New York and London have been increasingly integrating into the world economy and flourish as global cities. In recent work, Hall (2017) examines the role of government interventions in considering IFCs as the tools of territorial fixes and illustrates this approach using the case of London's growth as a leading and first offshore RMB centre from 2011 on.

2.3 Financial geographies of China

The emergence of China as an economic and financial power has heavily contributed to shaping the global financial landscape in the past two decades since its accession to the WTO, especially in the context of the global financial crisis and OBOR initiatives. Scholars from geography and related disciplines have thus started to draw attention to the geography and spatiality of money and finance, for example the rise of China's financial centres and the internationalisation of the RMB. In this section, to proceed with my research questions, it is necessary to review past performance in view of the present achievements and failures of the financial geographies of China, focusing on the geography of financial centres. I then attempt to interrogate these existing research from three strands.

First, a number of scholars in mainland China have attempted to provide explanations for the changing geographies of money and finance. One of the most popular topics is the formation of financial centres in China. Li (2003) focuses on the micro-foundation for the formation of a financial centre and discusses the supply and demand factors involved in the formation of an IFC. Similarly, economist Pan (2003) analyses the critical determinant factors of financial institutions' locational decisions and discusses the effects of aggregation and external economies of scale. Huang and Yang (2006) systematically study the function of financial agglomeration theory on the formation of an IFC. They combine the theories and methodologies of financial geography and spatial economics with finance agglomeration theory.

By contrast, economic geographers examine the geographies of China's financial centres from a financial geography perspective. For example, from a network

approach, Pan *et al.* (2016, 2017a) examine the hierarchical network of the mainland's financial centres by the foci of the venture capital firms and APS firms respectively; their research highlights Beijing's leading role in the mainland's financial services networks. They also explain how the dynamics of the mainland's financial centres are embedded in China's institutional and cultural context. Based on the seminal contribution of Wójcik and Camilleri (2015), the latest work of Pan *et al.* (2017b) shows that Chinese financial firms are expanding in a global context and that China's financial centres are increasingly being connected into the WCNs through these financial services firms. They also reveal Hong Kong's strategic position in the integration of Chinese cities into WCNs. More importantly, they underpin the increasing global influence of Chinese financial institutions in the GFNs and Chinese cities in the WCNs.

Beyond the focus on financial centres, some other themes, like the geography of the financial industry and financial exclusion, have also attracted attention. The first strand is research on the geography of the banking industry. The location and spatial distribution of foreign banks has been a critical object of interest since China's accession to the WTO. Wu, Liu and Liu (2007) point out that at the early stage of opening up, foreign banks were only concentrated in first and second tier cities, especially trade-oriented cities and cities where the People's Bank of China (PBOC) was present because of the significance of informational externalities and first-mover advantages, while the subsequent reforms and deregulation in mainland China guided the pace of the spatial expansion of foreign banks. He and Yeung (2011) compare the location choices made by foreign banks and concluded that the effects of agglomeration and economies of scale outweighed the first-mover advantage as a determinant factor for the spatial distribution and locational choice of foreign banks.

The second strand is research on the geography of the securities industry. Most of this work has been conducted by economists. As a result of the financial legacy of China's planned and transition economy, securities companies were spatially distributed in each province in the 1990s. Such a regional distribution pattern brought severe administrative barriers under the protection and involvement of provincial governments, which hindered securities integration at the national level (Wu, Chen and Mao 2004).

Second, scholars from Asia-Pacific region, such as Hong Kong and Singapore, have contributed to the study of China's financial geographies. Comparisons between Shanghai, Hong Kong and Singapore as IFCs is a popular topic. Zhao (2003, 2013), Zhao *et al*. (2004) and Wang *et al.* (2007) bring the information hinterland theory into IFC research from financial geography, and apply it to the evolution of the comparative analysis of Chinese financial centres, Beijing, Shanghai and Hong Kong included. Lai (2011) examine the critical roles of Shanghai, Beijing and Hong Kong as financial centres and emphasise the complicated coexistence of competition and collaboration, and of horizontal and vertical connections, between these three centres in a globalised network. Woo (2016) analyses the different policy subsystem configuration between Singapore, Hong Kong and Shanghai, and the impact of this policy subsystem configuration on policy-making. This book concludes that these three IFCs are characterised by their unique and different political system, models of financial governance and comparative advantages. Yeung (2009) examines the role of state-owned commercial banks (SOCBs) in China's market economy reform and China's banking strategy from a political economy approach. This research is valuable because it explains how the hybrid property of SOCBs shapes the

geography of the banking sector. He also points out that this feature is necessary to avoid the excessive financial exclusion in the Central and Western regions.

Third, there is growing interest in western countries in the study of China's financial geographies. An increasing number of scholars have started to look beyond developed economies, producing knowledge based on a wider field of study and pursuing 'engaged pluralism'. From a financial history perspective, Horesh (2009, 2014) points out that Shanghai has been privileged over any other city in mainland China as a financial centre as it offers a culture of international commerce and cosmopolitanism, as well as historical success. Karreman and Van Der Knaap (2009, 2012) compare Hong Kong with the mainland's financial centres. Their examination indicates that both Hong Kong and Shanghai have relatively distinct hinterlands and reveal a considerable amount of complementarity, and that Hong Kong is still a prominent IFC for China. This argument is also approved by Sassen (2012a) in her global city discussion.

From the network approach, Wójcik and Camilleri (2015) examine the financial geographies between Hong Kong, Beijing and Shanghai through connecting China's financial centres and offshore financial centres. Their analysis highlights Hong Kong's position as an intermediated IFC between global financial markets and mainland China. They also point to the advantages of Beijing over Shanghai as a command and control centre that attracts the APS. This research is innovative in that they discuss China's financial triad within GFNs in contrast with Zhao and Lai's study at the domestic level.

More recently, in the context of OBOR initiative, the process of the RMB's internationalisation is accelerating, and the cross-border capital flows have

proliferated in past years. Topfer (2016) explores the internationalisation of China's capital markets and cross-border capital flows by employing the data of Qualified Foreign Investor Programs and RMB Qualified Foreign Investor Programs. Topfer and Hall (2016) and Hall (2017) show their interest in the internationalisation of the RMB while investigating the role played by London's financial district in this process. Most importantly, Hall points out that politics and state intervention are probably positive and important in the development and changing nature of IFCs. This study inspires me to examine the role of government in Shanghai's IFC formation and to propose a new model beyond the Anglo-American orthodox.

In this thesis, we must acknowledge that the extant empirical research discussed above provides valuable insights to understanding the development of financial centres in China from both a geographic perspective and that of neighbouring disciplines. However, it also leaves us some research gaps to enrich the topic of financial centre study. More specifically, the shortcomings of these existing studies can be easily perceived in many aspects.

First, very few scholars pay close and continuous attention to the geographies of money and finance in China. The geography of money and finance, at first, has been a topic of only marginal or peripheral interest to economists in China. Even geographers tended largely to ignore the spatialities of finance. More recently, admittedly, Pan, Zhao and some other scholars have shown interest in financial centres. However, these studies on selective topics hardly add up to a substantial or coherent body of financial geography research in China. This incredible gap stimulates me to build a concrete bridge between western countries and China in terms of financial geography.

Second, most research carried out by mainland scholars applies the financial agglomeration approach to analyse the financial centres development and other topics by providing us with a narrow economic explanation. Given the centrality of money and finance to the market economy, however, as well as China's complicated transition in the last decades, we need to provide an outline of the wider social, political, technical and cultural context for financial centres growth and the changing geographies of finance.

Third, Lai, Pan and Zhao's research opens a new door to delineate China's financial centres from a geographic perspective. Lai and Pan use the network approach to discuss the dyad, triad, linkages and networks between China's financial centres at the domestic and global level, but they neglect the reflexivity between multi-scalar levels. Zhao's series of papers highlight the importance of asymmetric information, but his work was conducted over ten years ago and shows the limitations of intensive interviews. Pan *et al.* (2016) emphasise that China's financial centres are embedded in the social and institutional context, but they fail to interpret how social, cultural and institutional factors impact China's financial system and shape the financial geographies.

Fourth, China's scholars show their deficiency in terms of diversifying the theoretical approaches in empirical study. The approaches of clusters, global city, institution, 'geographical' political economy and financialisation are seldom employed in the examination of China's financial geographies. In contrast, these approaches have been well developed in the study of China's financial geographies by overseas geographers.

Regarding my thesis topic, therefore, what would a more spatially sophisticated and realistic interpretation of China's financial centres look like? Generally, the motivation for this thesis is to delineate China's financial centres using a mixture of financial geography approaches. To bridge these gaps as much as possible, the remainder of this thesis makes full use of this context to assess and explore the geographies of China's financial centres, particularly Shanghai.

The empirical study is arranged as follows. The first two chapters consider China's geographies of financial centres as a whole. More specifically, chapters 3 and 4 aim to examine the changing geographies of commercial banking, and the geographies of the securities industry in China, by employing the agglomeration, information, institution, network and political economy approaches. In the second half of the empirical study, I focus on Shanghai's financial centre. Chapter 5 examines the clusters of FABS within Shanghai City. This chapter involves the cluster, global city, network, 'geographical' political economy and financialisation approaches. Chapter 6 summarises Shanghai's IFC policy regime, tracks its strategic progress, and identifies its disadvantages from a global outlook. In this chapter, I highlight the agglomeration, cultural economy, and institution approaches, as well as the importance of state intervention.

Chapter 3 The changing geographies of commercial banking in Mainland China

3.1 Introduction

China's financial system was totally controlled by banking sector during the period of planned economy, and it is still dominated by banking currently. The impact of China's commercial banking is also shown on the global financial landscape. More specifically, the global banking industry has become more geographically fragmented since 1993 and the headquarters of the world's 50 biggest banks are no longer concentrated in Japan, USA and Western Europe instead of China.[4] The number of headquarters in Mainland China grew from two to nine over the period of 1993–2013. The Mainland's banking assets in 1993 only accounted for 1% of world banking assets – in contrast to 10.9% in 2013. Both indicators reached the summit of the world league table in 2013. Meanwhile, after China's accession to the WTO, a series of breakthroughs on financial reform and opening up in Mainland China have essentially affected and reshaped the spatial distribution of financial intermediaries, such as the commercial banking sector, which asks for a re-mapping of the financial geographies at the nation-state level.

Banking systems in Mainland have undergone historical processes of restructuring, centralization and concentration, involving reductions in the number of independent banks and a shift towards a more branch-based banking model. This process happened in China as early as the 1990s, and is a still ongoing development.

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[4] http://www.globalbanking.org/globalbanking.taf?section=key-charts&theme=too-big-to-fail&chart=bank-headquarters.

Therefore, in this context, I focus on the changing geographies of the Mainland's commercial banking over the period 2006–2014. The latest data available for empirical research were for the year 2014. The year 2006 was a crucial year for the full opening up of the banking industry, as per China's commitment to the WTO accession. Furthermore, the China Banking Regulatory Commission (CBRC) has officially published the annual reports since the year 2006 – thus, the selection of 2006 as the start year makes the data and information more dependable.

This research will be directed towards understanding the changing geographies of financial centers by carrying out an analysis of the Mainland's banking sector. Against this background, this chapter highlights, empirically, the changing spatial distribution of banking to the existing collection of empirical descriptions by examining the geography of commercial banking as well as by investigating its spatial concentration over this period. The existing literature shows that Beijing is the center of SOC and Shanghai is the center of foreign banks in China (He and Yeung 2011; Wu, Liu and Liu 2007). In the chapter, I ask to what extent is this characterization true in 2014, and thus I extend the well established studies on this changing geography over time. For instance, is domestic banking becoming more concentrated in Beijing, and is foreign banking becoming more concentrated in Shanghai? And where does this leave other Mainland banking centers like Shenzhen and the second tier cities? Is the overall spatial concentration of banking increasing or decreasing at the national scale?

The empirical analysis is based on branch and subbranch data, employment data, headquarters data, and banking assets data, all of which are available, thus allowing a systematic geographical analysis of commercial banking. The findings reveal the

status of Beijing and Shanghai as the primary conglomerations in the Mainland banking system. First, I analyze the data of the 50 largest commercial banks, which together accounts for more than 80% of commercial banking assets. Second, I particularly draw attention to JSCBs. JSCBs are the second most important group in the banking sector but so far no academic papers focus specially on them. The two studies referred to above show that Beijing, Shanghai and Shenzhen were comparably stable for servicing and financing at the national level, while some interprovincial centers, such as Guangzhou, Tianjin, Hangzhou and Nanjing, grew quickly, which contributed to the overall dispersal of the banking sector at city level. Third, in the case of foreign banks, Shanghai reinforced its position as the capital and gateway for foreign banking. Meanwhile, some Central and Western cities attracted more foreign banks, such as Chengdu and Chongqing. By contrast, the coastline cities like Dalian, Qingdao and Xiamen lost their first-mover advantage. Finally, the analysis of the geographical concentration index of banking assets reveals the dramatically decreasing trend at provincial level, while it also declined at city level. On the one hand, the decentralization of banking power from Beijing to provincial level and the establishment of the provincial financial system brought with it the dispersal of banking activities. On the other hand, the process of devolution simultaneously led to the rise of interprovincial and provincial centers over this period, which produced obvious banking agglomerations beyond Beijing and Shanghai, and resulted in a decreasing concentration tendency of banking at city level.

The remainder of this chapter is organized as follows. The next section presents a literature background, providing a summary of the general debate about the current banking system in China and discussing the existing study of the geography of

commercial banking. The research questions and hypothesis are then introduced. Section 3.3 introduces the data and methodology employed in my empirical analysis. Section 3.4 applies these insights to understanding the changing geography of China's banking sector, and presents the empirical results of the 50 largest commercial banks, JSCBs and foreign banks. This is followed by a geographical conceptualization of the hierarchy of banking centers in China. In Section 3.5, I attempt to demonstrate the trend of spatial concentration of banking during the 2006–2014 period, both at provincial and city level. Finally, Section 3.6 summarizes with the main findings.

3.2 Background: Mainland China's banking system, and answered and unanswered questions on the geographies of banking

Before looking in detail at existing studies of the geography of commercial banking and introducing my research questions, it is vital to provide an overview of the changing banking system in Mainland China. The banking system is part of a broader historically-rooted planned economy system and forms a dominant part of financial intermediation in the whole financial system, providing about three-fifths of total credit to the market economy in 2014 (Naughton 2006; PBOC 2015a). The growth of bank assets and the ratio of bank assets to GDP help to explain the major characteristics of China's financial system. Bank assets climbed from 43,950 billion CNY to 172,336 billion CNY from 2006 to 2014, and their growth rate was much faster than that of GDP (CBRC 2015). The ratio of banking assets to GDP increased from 201.9% to 270.9% over the same period, compared to 269.3% in Germany and

89.6% in the USA at the end of 2014. China's financial system has remained dominated by the banking sector, and capital markets, which represent an alternative to banking financing, are relatively underdeveloped – a fact that is due to the poor degree of financial openness and innovation, as well as the legal system (Naughton 2006).

Table 3.1 shows the overall banking system changes over the period 2006–2014, and the current situation. In 2006, there were 19,797 banking institutions in Mainland China, but the number decreased to 4,089 as a result of mergers and acquisitions at the end of 2014. By the end of 2014, the Mainland's banking system consisted of three policy banks, five largest SOCBs[5], 12 JSCBs, 133 city commercial banks, 41 locally incorporated foreign banking institutions, one postal saving bank of China (PSBOC) and so on. In total, the number of people employed in China's banking institutions amounted to 3,673,435.

More specifically, as shown in Table 3.1, China Development Bank (CDB) and two other policy banks are established for taking over lending in support of government policy objectives. Five SOCBs are the direct descendants of the planned economy banking system and they account for more than two-fifths of total assets in Mainland China's banking sector today. The JSCBs present a sharp contrast to the SOCBs. There are 12 JSCBs so far, which were established between 1987 and 2005. Each JSCB is a new entrant and thus is relatively unburdened by baggage from the planned economy era (Naughton 2006). City commercial banks were created from urban credit cooperatives that had been set up to provide lending services to small-

[5] Five SOCBs include the 'Big Four' (ICBC, CCB, ABC and BOC) and Bank of communications.

scale companies. Besides the four categories already described, the remaining players in the Mainland's banking industry, including foreign banks, are quite small.

Table 3.1 Number of legal entities and staff of banking institutions (2006 and 2014)

Institutions	Number of staff		Number of banks	
	2006	2014	2006	2014
Large commercial banks	1,469,436	1,764,617	5	5
Policy banks	56,760	62,520	3	3
JSCBs	118,036	410,816	12	12
City commercial banks	113,999	346,816	113	133
City credit cooperatives	19,004	0	78	0
Rural commercial banks	20,003	373,635	13	665
Rural credit cooperatives	634,659	423,992	19,348	1,596
Rural cooperative banks	37,118	32,614	80	89
Finance companies of corporate groups	3,859	9,095	70	196
Trust companies	5,015	16,683	54	68
Financial leasing companies	-	2,851	6	30
Auto financing companies	-	6,072	5	18
Money brokerage companies	-	605	1	5
Consumer finance companies	-	11,871	-	6
Asset management companies	-	8,399	-	4
Foreign financial institutions	16,724	47,412	14	41
Other institutions	-	245,437	-	1,218
Total	2,732,394	3,763,435	19,797	4,089

Source: Author's based on the data from Almanac of China's finance and banking 2014 and Annual report of CBRC 2006 and 2014.

To advance my research questions and hypothesis, it is necessary to review past performance in view of present achievements and failures, with a particular focus on the geography of banking. The extant studies mainly pay close attention to the top-down reform and opening up of the banking sector, and its substantial, and potential, impacts on spaces. Wu, Liu and Liu (2007) argued that the formation of provincial financial systems, along with deregulation, are ascribed to the combination of exogenous and endogenous banking institutions including the SOCBs, the JSCBs, city commercial banks and foreign banks, and that the provincial financial systems serve different administrative spaces. They also mapped the spatial differences at provincial level and recognized Beijing and Shanghai as being the most mature and the leading banking centers in Mainland China. Other scholars investigated the geography of certain categories of banking institutions. The first strip is empirical research drawing attention to the largest SOCBs. Based on qualitative data, Yeung (2009) indicated that during the reform of the SOCBs, the market-oriented strategy with regard to outlet distribution may have led to underdeveloped areas suffering from financial exclusion, in terms of operational efficiency, and probably resulted in increasing spatial concentration of SOCBs' activities (also see Yeung, He and Liu 2012; He and Liu 2013). Second, the location and spatial distribution of foreign banks has been a critical object of interest since China's accession to the WTO. Wu, Liu and Liu (2007) pointed out that at the early stage of opening up, foreign banks were only concentrated in first and second tier cities, especially trade-oriented cities and cities where the PBOC was present because of the significance of informational externalities and first-mover advantages, while the subsequent reforms and

deregulation in Mainland China guided the pace of the spatial expansion of foreign banks (He and Fu 2008, 2009). Furthermore, He and Yeung (2011) compared the location choices made by foreign banks and concluded that the effects of agglomeration and economies of scale outweighed the first-mover advantage as a determinant factor for spatial distribution and locational choice of foreign banks.

However, the existing literature on the Mainland's banking sector presents three shortcomings, in the context of this chapter. To start with, one of the most visible spatial manifestations of the commercial banking over the past decade in China has been the growing significance and geographical expansion of JSCBs, and provincial and local banks beyond the five SOCBs. However, so far, no empirical study has focused on China's medium-size commercial banks, or on the city commercial banks. Second, most academic studies draw special attention on leading banking centers (Wu, Liu and Liu 2007), while the rise of China's interprovincial and provincial centers has been totally neglected. Existing literature shows that Beijing is the capital of the largest SOCBs and Shanghai is the capital of foreign banking in China. But to what extent is this characterization still true? Whether Beijing is the predominant center for the overall banking sector? What about the other important banking centers, like Shenzhen, Guangzhou and Tianjin? Finally, no study has yet analyzed the changing geography of the banking sector as a whole, in terms of spatial concentration and dispersal, or the impacts of the global financial crisis on Mainland China's banking sector. The study of He *et al*. (2009, 2013) on foreign banks employed data from before 2006. However, the banking reforms after 2006 ushered in a new phase for foreign banking and the global financial crisis also

negatively affected the expansion of foreign banks. Then, I ask how does the geography of foreign banking change after 2006?

These unanswered questions lead me to the hypothesis, which concerns the changing geographies of China's commercial banking. First of all, considering the organization of the banking system and Mainland's political economy, I would expect that Beijing and Shanghai will retain their positions as centers of domestic and foreign banking, respectively. As Wójcik and MacDonald-Korth (2015) have argued, we need to combine economic geography with political economy, in a framework that takes both space and institutions seriously. Beijing is the command and control center of China's political and financial system. Thus, that system has privileged Beijing over any other city as a banking center offering proximity to China's regulatory departments like PBOC and CBRC. And this unrivaled advantage in terms of regulation infrastructure can supply valuable asymmetric information for banking institutions and lead to immense financial agglomerations in Beijing (Grote 2009b, Porteous 1995, 1999; Zhao *et al.* 2004, 2005). Regarding Shanghai, in March 2009, when the developed countries were still battling against the storm of the global financial crisis, China's central government announced an ambitious plan to build Shanghai into a truly international financial center and shipping hub, in line with the country's economic strength and the global position of RMB, by 2020 (Lai 2012a; Heep 2014). Additionally, the first pilot FTZ was also established in Pudong New Area in September 2013, with the aim of extending the opening up and financial innovation during the second round reform on the Mainland. These policy incentives and institutional reforms could increase the attraction for foreign banks in Shanghai (Lai 2012b).

Moreover, the second hypothesis is that the expanding market freedom will bring with it the rise of interprovincial and provincial centers but will undermine the position of local and small centers in the geographies of banking. First, driven by market forces, merger and acquisition activities are often carried out between contiguous city commercial banks in order to enhance their competitiveness with the SOCBs and JSCBs in regional markets, and these banks often relocate their headquarters to some provincial capital.[6] Second, the market-oriented strategies prompt nationwide banks to compete for a lucrative market share in second tier cities, where city commercial banks are extremely powerful, with a high rate of profit. However, it is difficult for the SOCBs and JSCBs to consolidate with high quality city commercial banks quality, because these city commercial banks are supported and protected by provincial or local governments. Thus, the SOCBs and JSCBs tend to extend their business and market share by opening new branches and sub-branches in these cities (Wu, Liu and Liu 2007; Yeung 2009). Third, the CBRC honored the WTO commitments by granting national treatment to foreign banks in 2006. This strategy of opening up actively encourages foreign banks to be locally incorporated and accelerates their processes of setting up branches and sub-branches (CBRC 2007). Beyond strengthening their distribution in first tier cities, foreign banks seek to broaden their business in second tier cities because of the effects of agglomeration (He and Yeung 2011). In brief, the three critical processes of banking activities listed above facilitate the prosperity of interprovincial and provincial banking centers. Parallel, and even faster, growth exists in some second tier cities that function as interprovincial or provincial centers—that is, on a smaller geographic scale than Beijing, Shanghai and Shenzhen, while the local centers have witnessed a

[6] http://www.cbrc.gov.cn/chinese/home/docView/1005.html.

comparative decline over this period. This changing geography is also expected to lead to the formation of a hierarchical network in commercial banking, from the national to the local level.

Finally, I would expect an overall decreasing spatial concentration of banking activities at provincial level, as well as at city level. In the case of provincial change, the starting point of banking power is that there is a high level of control from the SOCBs and regulatory institutions in Beijing (Heep 2014). Thus, along with the processes of decentralization and devolution, this should lead to a dispersal trend at the provincial level after the establishment of the provincial banking system. As a result, the overall spatial concentration of the banking sector declined. Meanwhile, the spatial dispersal of banking power, of which devolution from Beijing to provincial level is one form, and the obvious banking agglomerations produced in interprovincial and provincial centers, contribute to the emergence and growth of centralized banking activities in second tier cities such as Guangzhou, Tianjin, Fuzhou, Nanjing and Hangzhou. This entails a new logic for agglomeration and is a key condition for the changing concentration of banking activities at city level. The starting point is that the Mainland's commercial banking is generally concentrated in Beijing, Shanghai and Shenzhen, where the banking activities have become saturated to a certain degree. Then, devolution, often thought of as a drive for dispersal geographies, actually transforms some second tier cities into interprovincial and provincial centers of spatial concentrations of banking power, beyond national centers. Therefore, I would also expect a decreasing spatial concentration of the banking industry at the city level.

3.3 Data and methodology

The first dataset applied in the research is a list of China's largest commercial banks (Appendix 1), both in 2006 and 2014, including the SOCBs, JSCBs, PSBOC, regional/local banks, and foreign banks. The original data of banks and their assets by the ends of 2006 and 2014 are supplied by the PBOC and Bankscope. I deal with the data based on the headquarters of these banks and show a geographic breakdown of headquarters and assets at city level.

The second dataset employed in this chapter is the branch and sub branch data of the JSCBs in 2006 and 2014. Generally, the non-listed banks do not disclose annual financial reports, so their geographical indicators in 2006 and 2014 are often incomplete or inaccessible. Thus, in the chapter I particularly focus on the eight listed banks, which are the largest banks and possess well established nationwide networks among the 12 JSCBs. The dataset of 2006 includes 3,091 branches and sub-branches in 60 cities, in comparison with 8,647 branches and sub-branches in 66 cities in 2014. This dataset displays multi-tier command and control centers and shows the process of devolution in banking. A straightforward comparison between 2006 and 2014 is carried out by visualizing the datasets.

The third dataset applied here is the employment and assets of foreign banks in 2006, 2010 and 2014 at provincial level, as well as a comparison of the number of foreign banks in Beijing, Shanghai and Shenzhen over the period 2006–2014. The data are collected from the Regional Finance Operation Reports published by the PBOC and the annual reports 2006 and 2014 of the CBRC.

Finally, in the analysis of spatial concentration, in order to calculate the geographical concentration index, this chapter employs the data of banking assets at provincial level that are collected from the China Regional Finance Operation Report 2006–2014 and of banking assets of the largest 50 commercial banks from 2006 to 2014 at city level.

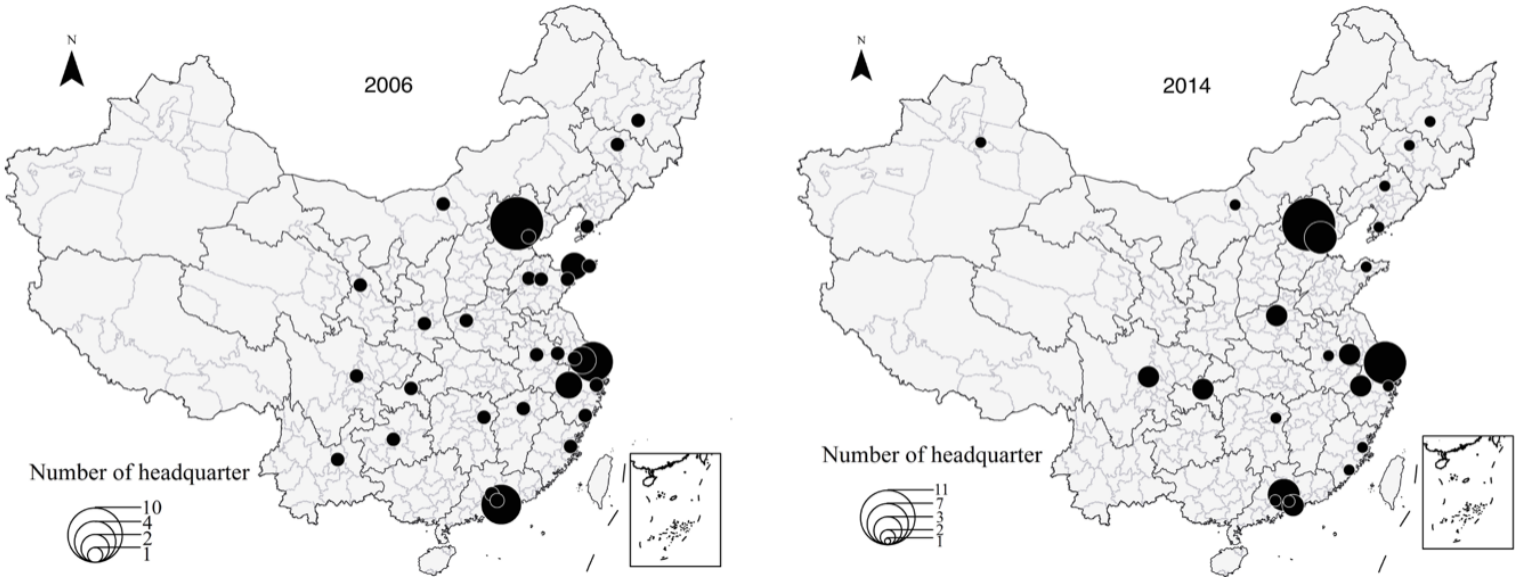
3.4 The changing geography of China's commercial banking

3.4.1 An overview of commercial banking in Mainland China

In this section I firstly focus on the 50 largest commercial banks in Mainland China: as at the end of 2014 they accounted for 74.2% of total banking assets and 84.1% of commercial banking assets, a slight increase from 74% and 82.7%, respectively, in 2006 (CBRC 2015). The geographies of commercial banking can be examined and perceived through the spatial breakdown of headquarters. The SOCBs have always ranked among the top-five in the league table of the 50 largest commercial banks, while the 'Big Four' are located in Beijing and Bank of Communications is based in Shanghai. In 2006, the headquarters of the top 50 were distributed in 32 banking centers, while it narrowed to 24 centers in 2014 (see Figure 3.1). More specifically, by the end of 2014, the number of headquarters in Beijing and Shanghai rose by 10 and four to 11 and seven, respectively, while the number in Shenzhen declined from four to two. Over this period, some city or rural commercial banks were restructured by means of mergers or acquisitions in order to enhance their competitiveness with the SOCBs and JSCBs in the regional markets, and they relocated their headquarters into some second tier cities: for example, the Bank of Jiangsu in

Nanjing and the Bank of Huishang in Heifei. Therefore, some local centers disappeared in the ranking list of 2014.

Figure 3.1 The distribution of the headquarters of the 50 largest commercial banks, including SOCBs

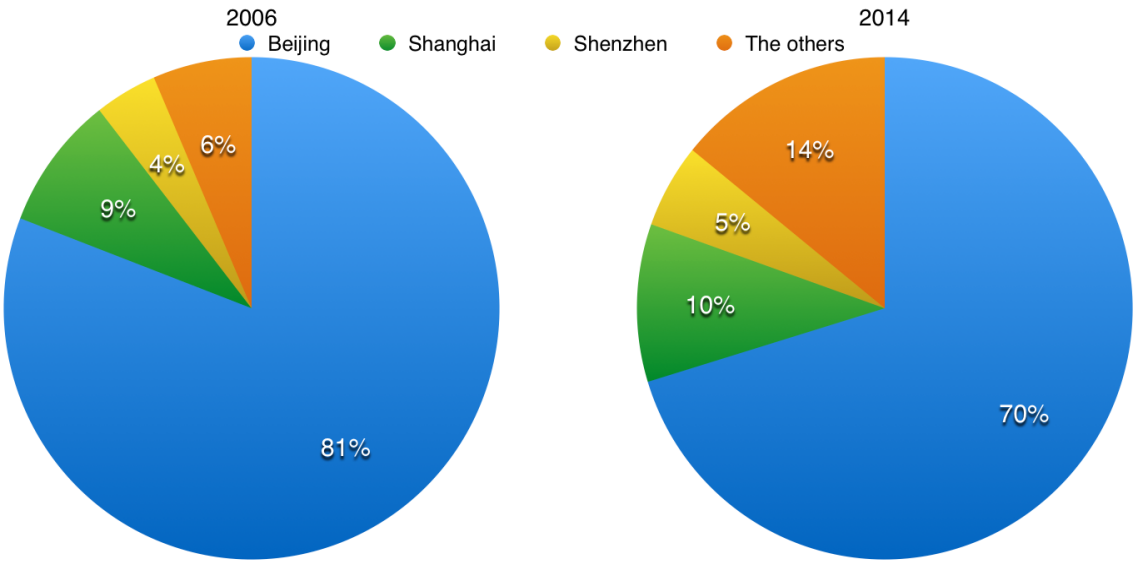


Source: Author's based on the data from the PBOC and Bankscope

Based on the distribution of headquarters in 2006 and 2014, the second analysis is a measure of the ratio of every city or city group's share of total assets benchmarked against national level, which has been applied here to reveal how different banking centers have fared over this period in terms of their share of assets compared to national-level data, and acts as a useful barometer of changing geography. Figure 3.2 considers the impacts of the SOCBs, while Figure 3.3 excludes the data of the SOCBs.

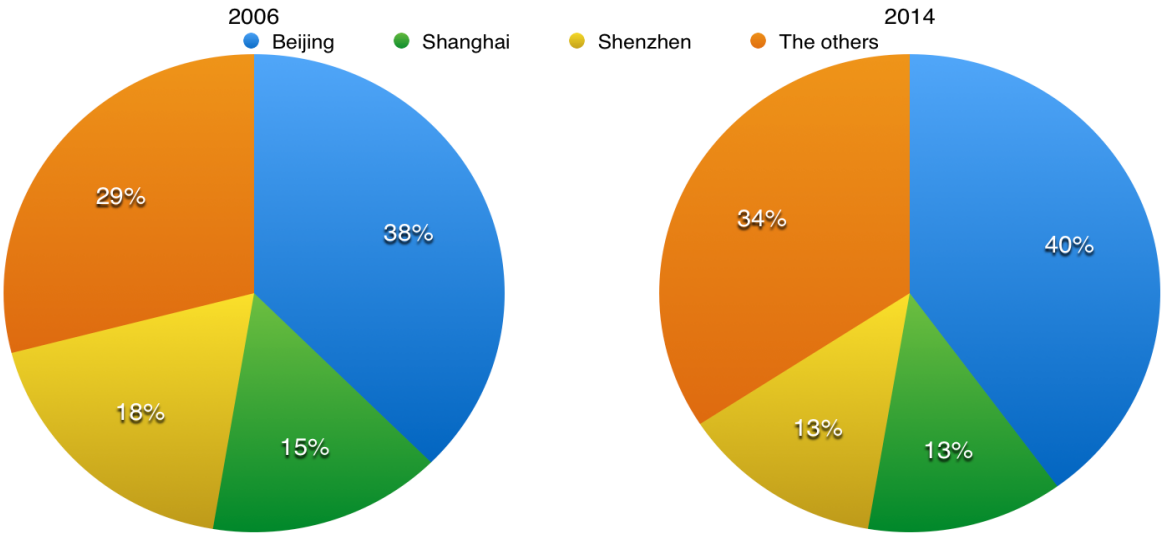
Figure 3.2 demonstrates Beijing's status as an eminent center in the banking system. However, as Yeung (2009) has argued, the state still plays a crucial role in the regulation and operation of the SOCBs, which are the direct descendants of the planned economy bank system, and they account for more than two-fifths of total assets of Mainland China's banking today. Therefore, the comparison in Figure 3.3 attempts to show another geographies of banking in order to explore whether Beijing is still the dominant center (excluding the factors of the SOCBs). The percentages in the pie charts refer to the ratio of different attributed groups based on the breakdown of headquarters, which shows that Beijing gained a 2% growth between 2006 and 2014. In contrast, Shanghai and Shenzhen experienced a decrease. The total assets of the cities that are not leading national centers increased by 29% to 34%.

Figure 3.2 A geographical breakdown of the assets of the top 50 banks, including SOCBs



Source: Author's based on original data from PBOC and Bankscope

Figure 3.3 A geographical breakdown of the assets of the top 50 banks, excluding SOCBs



Source: Author's based on original data from PBOC and Bankscope

As shown in the charts above, the results suggest that Beijing continued to be the predominant center in the commercial banking sector, even if Figure 3.3 does not consider the impacts of SOCBs. This can be interpreted in the following way: first, the 'Big Four' still accounted for nearly 40% of the total banking assets in 2014. Second, along with the banking reform, PSBOC was established in Beijing in 2007.[7] The total assets of PSBOC is approximately equal to Bank of Communications. Third, the expansion of the JSCBs nationwide reinforced Beijing's status as a leading banking center since four of the eight listed JSCBs are based in Beijing.

[7] In 2007, the CBRC approved the expansion of PSBC's business scope by allowing the bank to engage in all business lines specified in the Law of the People's Republic of China on Commercial Banks.

3.4.2 The changing geography of JSCBs

I choose JSCBs as my research subject for two reasons: firstly, 12 JSCBs accounted for some 18.2% of the total assets of the commercial banking sector in 2014, which represented the second most important component in the banking sector; secondly, this category of banks holds a nationwide license and are permitted to operate their business across the whole country, which differentiates them from ordinary regional and local banks. The details of the JSCBs are summarized in Table 3.2. As the table makes clear all headquarters are located in the Eastern provinces, suggesting the effect of the first round of reform and opening up. The table also highlights the leading role of China Merchants Bank, which is based in Shenzhen.

Table 3.2 A full list and overview of China's JSCBs

Bank	Headquarters	IPO Year	Listed Location	Total Assets	Employment
Bohai	Tianjin	unlisted	—	667	6,586
China Guangfa	Guangzhou	unlisted	—	1,648	31,527
Citic	Beijing	2007	SSE;HKSE	4,139	50,735
Everbright	Beijing	2010	SSE;HKSE	2,737	39,105
Evergrowing	Yantai	unlisted	—	849	7,469
Huaxia	Beijing	2003	SSE	1,852	27,835
Industrial	Fuzhou	2007	SSE	4,406	50,214
Merchants	Shenzhen	2002	SSE;HKSE	4,732	75,109
Minsheng	Beijing	2000	SSE; HKSE	4,015	59,659
Ping An	Shenzhen	1991	SZSE	2,187	25,110

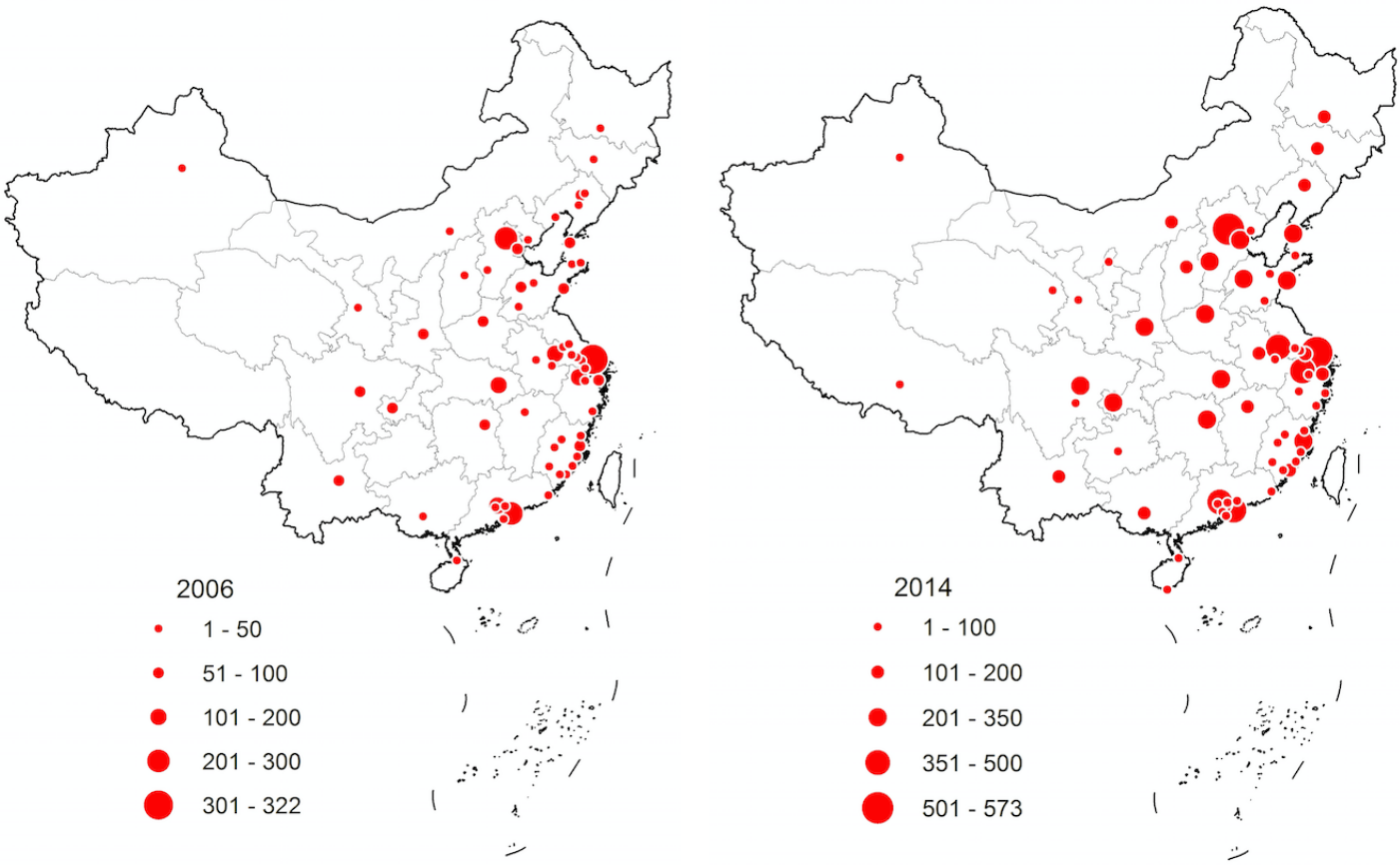
Pudong	Shanghai	1999	SSE	4,196	42,532
Zheshang	Hangzhou	unlisted	—	670	6,495

Source: Author's based on the data from Almanac of China's finance and banking 2014, and the annual reports 2014 of JSCBs

Note: The total assets and employment are the figures as at the end of 2014; unit: billion RMB

Figure 3.4 below charts the changing geography of the JSCBs during 2006 through to 2014. First, it underlines the continued pre-eminence of leading centers and the relative stability of the banking hierarchy. The number of branches and sub-branches in Beijing climbed to 519 and surpassed Shenzhen, closely following Shanghai's 573. In total, the number of three leading centers accounted for approximately 28% of the branches and sub-branches, while the share fell to 18% in 2014. Second, some second tier cities grew more than leading centers and, therefore, they underpinned their positions that serve as interprovincial and provincial nodes. For example, the number of total branches and sub-branches controlled by Guangzhou and Nanjing, respectively, increased from 166 to 453 and from 150 to 470, respectively, over this period. Third, a significant trend of the changing geography is that the JSCBs expanded their business activities from the Eastern coastline region to the broad range of the mid-Western region. This period saw the emergence and increase of Central and Western banking centers, such as Chongqing, Chengdu, Xian and Changsha. However, some Eastern cities grew slowly, especially the old industrial cities and export-oriented cities such as Tangshan, Zibo, Anshan and Ningbo.

Figure 3.4 The distribution of JSCBs' branches and sub-branches (1 unit)



Source: Author

These findings can be explained in three ways. First, Beijing is the financial regulatory center, while Shanghai and Shenzhen are officially recognized as the national financial centers. The immense concentrations of economic power require a corresponding banking system to provide financial services in the leading centers (Sassen 2012a). Second, the ascending significance of interprovincial and provincial centers is attributed to the shift in the organizational structure that shows the devolution and decentralization from headquarters to first-level branches and the establishment of provincial financial systems (Wu, Liu and Liu 2007). In the

beginning, the branches and sub-branches are directly and separately controlled by the headquarters. However, alongside the expansion and devolution of JSCBs, as the conglomerations of first-level branches, interprovincial and provincial centers, instead of headquarters, directly control the second-level branches and sub-branches. This process upgraded the position of interprovincial and provincial centers in the banking network. Third, in the 21st century, the Great Western Development Strategy and the Rise of the Central Region Plan proposed by the State Council has promoted the growth of the Central-Western region, especially the provincial capitals and Chongqing, by direct investments and industrial transfer. In contrast, some Eastern cities have grown slowly because of industrial transformation and the loss of first-mover advantage.

3.4.3 The changing geography of foreign banks

The year 2006 was a crucial year for the full opening up of the banking industry, as per China's commitment to the WTO accession. Based on these principles, the CBRC honored the WTO commitments by granting national treatment to foreign banks in the Chinese market (CBRC 2007). Table 3.3 shows the growing trend of foreign banks after 2006. Although they steadily increased, both in employment and total assets, their assets share in the whole banking system suggested a descending importance. By the end of 2014, banks from over 50 countries and regions established 41 locally incorporated entities, 97 foreign bank branches and 182 representative offices in China. Foreign banks have a presence in 69 cities in 27 provinces (CBRC 2015).

Table 3.3 Foreign banks in China (2006–2014); unit: RMB billion (assets)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Staff	16,72	31,343	27,812	32,502	36,017	42,269	44,560	45,424	47,412
Numbe	14	29	32	37	40	40	42	42	41
Assets	917.9	1,252.5	1,344.8	1,349.2	1,742.	2,153.5	2,380.	2,562.8	2,792.
%	2.11	2.38	2.16	1.71	1.85	1.93	1.82	1.73	1.62

Source: Author's based on the data from CBRC Annual Reports 2006 and 2014

Note: the % refers to the total assets of foreign bank accounts as a share of the whole banking system

Table 3.4 sets out the leading cities and provinces of foreign banks between 2006, 2010 and 2014. Firstly, Shanghai is the preeminent center for foreign banking and enlarged its advantage compared to the other cities. The total assets of foreign banks in Shanghai surpassed 1.3 trillion RMB by the end of 2014. Although the shares of Shanghai's employment and assets at national level slightly decreased over this period, they still accounted for more than 40% in 2014. The number of foreign banks steadily increased from 100 in 2006 to 219 in 2014 (PBOC 2007, 2015b). Secondly, Beijing and Shenzhen are the second and third most important centers for foreign banking, but they are lagging far behind Shanghai. The expansion of foreign banks in Beijing and Shenzhen stagnated after the financial crisis and their number was approximately half of that of Shanghai as at the end of 2014 (PBOC 2015b). Thirdly, while the business of foreign banks is mainly concentrated within the first tier and second tier cities, most foreign banks have not opened branches in the

Central-Western region. For example, no foreign banks opened business in Gansu, Qinghai, Ningxia and Tibet by the end of 2014 (PBOC 2015b). However, a fresh phenomenon was that foreign banks opened more branches in Chongqing and Chengdu that are recognized as the ‘new first-tier’ cities, while the coastline cities, such as Dalian, Xiamen and Qingdao, moved sluggishly after 2006. This trend could be detected by the comparatively slower growth of Liaoning, Fujian and Shandong, in contrast with the rise of Chongqing and Sichuan.

Table 3.4 Foreign banks in selected cities and provinces between 2006, 2010 and 2011

	2006		2010		2014	
	Employment	Assets	Employment	Assets	Employment	Assets
Beijing	2,105	106.2	6,491	242.5	8,230	319.8
Tianjin	510	28.2	1,632	64.4	1,609	84.9
Liaoning	—	21.2	1,157	35.2	1,479	57.0
Shanghai	—	509.4	15,618	865.7	20,341	1,321.5
Jiangsu	338	12.2	1,188	38.8	2,511	103.9
Zhejiang	210	4.7	827	24.9	1,130	44.2
Fujian	619	34.9	1,155	66.7	947	41.4
Shandong	296	14.6	707	24.9	1,124	45.5
Guangdong	—	169.1	7,699	345.0	9,892	546.3
Shenzhen	—	112.9	4,714	199.5	5,547	353.6
Chongqing	133	2.2	528	10.6	821	21.7
Sichuan	239	2.5	775	22.6	1,055	32.1

Mainland	16,724	927.9	36,017	1,742.3	47,412	2,792.1
Shanghai's	—	54.9%	43.4%	49.7%	42.9%	47.3%

Source: Author's based on the data from the Regional Finance Report of the PBOC; unit of assets: RMB billion

Note: The number of foreign banks does not include representative offices; the data for Guangdong province include Shenzhen.

The opening up of the banking sector after 2006 has had a substantial effect on the geography of foreign banks in Mainland China. First, after the implementation of the local incorporation policy, some foreign banks chose to convert their branches into local subsidiaries (CBRC 2007). In 2014, Shanghai was the capital, with 22 headquarters of wholly foreign-owned banks, in comparison with Beijing's nine headquarters (CBRC 2015). This process elevated Shanghai's position in foreign banking. Second, Beijing used to be the primary destination for foreign banks before 2007, but this included a number of representative offices without substantial transaction operations (Lai 2012a; He and Liu 2013). However, because of the negative effects of the global financial crisis, the branches and representative offices of foreign parent banks were gradually closed, in order to reduce operational costs (CBRC 2010). Third, alongside the progress and extension of reform and opening up in the broader Central-Western region, foreign banks primarily expanded their business activities in critical interprovincial and provincial centers, like Chengdu and Chongqing. By contrast, the trade-oriented and coastal open cities, such as Dalian and Qingdao, which benefited from the early stage of reform and opening up increasingly lost their first-mover advantage in the foreign banking landscape (He

and Yeung 2011).

3.4.4 The hierarchy of banking centers in Mainland China

In accordance with the analysis above, the development of the banking sector over the period of 2006–2014 demonstrate a new geography of banking centers, which is reflected in three aspects: first, centralized control and command over a geographically dispersed array of banking operations comes about as the most critical part of the hierarchy. The leading centers—Beijing, Shanghai and Shenzhen—for servicing and financing at the national level accumulate a capacity for widespread political-economic control by serving as concentrated headquarters in the organization of the Mainland's financial sector, and as strategic sites for the expansion of commercial banks. Some second tier cities that serve as interprovincial and provincial nodes exhibit similar, growth but with lower scales of banking agglomeration and narrower scopes of banking hinterland. Second, deregulation and devolution, as well as the spatial expansion of the SOCB, JSCBs and foreign banks, contribute to the growth of centralized functions and operations at provincial level. These processes are generally considered as the drives of the dispersal geographies. However, they primarily bring with them dramatic banking agglomeration in some second tier cities and the establishment of provincial capital-centric systems. The restructuring of city commercial banks at provincial level also underpins this new geography. Finally, the expansion and restructuring of banking in China has contributed to a new banking geography of centrality and marginality. The leading centers, and interprovincial and provincial centers, have become strategic sites of paramount and secondary level concentrations of banking power, while once

critical local centers, including port cities and export-oriented cities, such as Qingdao and Suzhou, suffer comparative declines in the banking landscape.

The economic benefits accrued from the changing geography of commercial banking in Mainland China have been highly geographically uneven over the period 2006–2014, which has resulted in the formation of a hierarchy of banking centers. Based on the analysis of commercial banking in this section, I attempt to depict the hierarchy in Table 3.5. As an authoritarian state, the hierarchy of banking centers in Mainland China is inseparable from political factors. Evolving from a coordinated economy, the initial framework of this hierarchy is ascribed to the administrative level. The political status matters in the competitiveness of banking centers because a higher administrative grade tends to provide more asymmetric information than a lower one, which matters for the scale of financial agglomeration and scope of financial hinterland (Zhao 2004, 2005). However, this is not the only determinant factor in this hierarchy. According to Table 3.5, it is easily perceived that some banking centers do not strictly match their administrative levels. For example, Shenzhen is a sub-provincial city but a banking center with national impact and Fuzhou is a provincial capital with interprovincial banking power. By contrast, Chongqing is a municipality directly under the central government but only an ordinary center for provincial services. Therefore, certain unique endogenous and exogenous variables of cities should be taken into full consideration in an analysis of the reorganization of the banking hierarchy.

As Wójcik (2013b) has argued, financial centers are considered as a spatially distributed network of money and power. The formation of hierarchy in banking

centers is essentially ascribed to the distribution and combination of financial power (Allen 1997, 2003; Peet 2007). Therefore, what kinds of power matters in the formation of the hierarchy of banking centers, and why? In general, explanations of why banking agglomerations form in particular cities and understanding of the drivers that generate the hierarchy of banking centers in Mainland China focus on three spatial types of geographical power: economic, cultural and institutional.

Table 3.5 The hierarchy of banking centers in China

	City	Total banking asserts	Number of headquarters	Administrative status	Foreign banks
1	Beijing	89668.8	11	A	87
2	Shanghai	12970.2	7	A	153
3	Shenzhen	6918.3	2	B	79
4	Fuzhou	4406.4	1	C	3
5	Guangzhou	2445.5	3	B	69
6	Nanjing	1611.5	2	B	14
7	Tianjin	1372.0	3	A	50
8	Hangzhou	1088.5	2	B	25
9	Chengdu	934.4	2	B	28
10	Chongqing	893.4	2	A	29
11	Yantai	848.6	1	D	4
12	Ningbo	554.1	1	B	12
13	Shenyang	503.4	1	B	17
14	Hefei	482.8	1	C	5

15	Zhengzhou	411.4	2	C	4
16	Harbin	343.6	1	B	7
17	Baotou	312.8	1	D	0
18	Changchun	283.8	1	B	1
19	Urumqi	278.3	1	C	2
20	Xiamen	278.3	1	B	24
22	Dalian	260.6	1	B	27
22	Dongguan	255.8	1	D	10
23	Changsha	212.2	1	C	5
24	Foshan	206.9	1	D	12

Source: Author

Note: The total banking assets and number of headquarters are based on the geographical breakdown of the top 50 largest commercial banks at city level in 2014; unit of assets: billion RMB; administrative level: A municipality directly under the central government, B sub-provincial city, C provincial capital, D prefecture-level city; foreign banks refers to the number of branches and sub-branches of locally incorporated institutions at the end of 2014. Data source: the official websites of foreign banks.

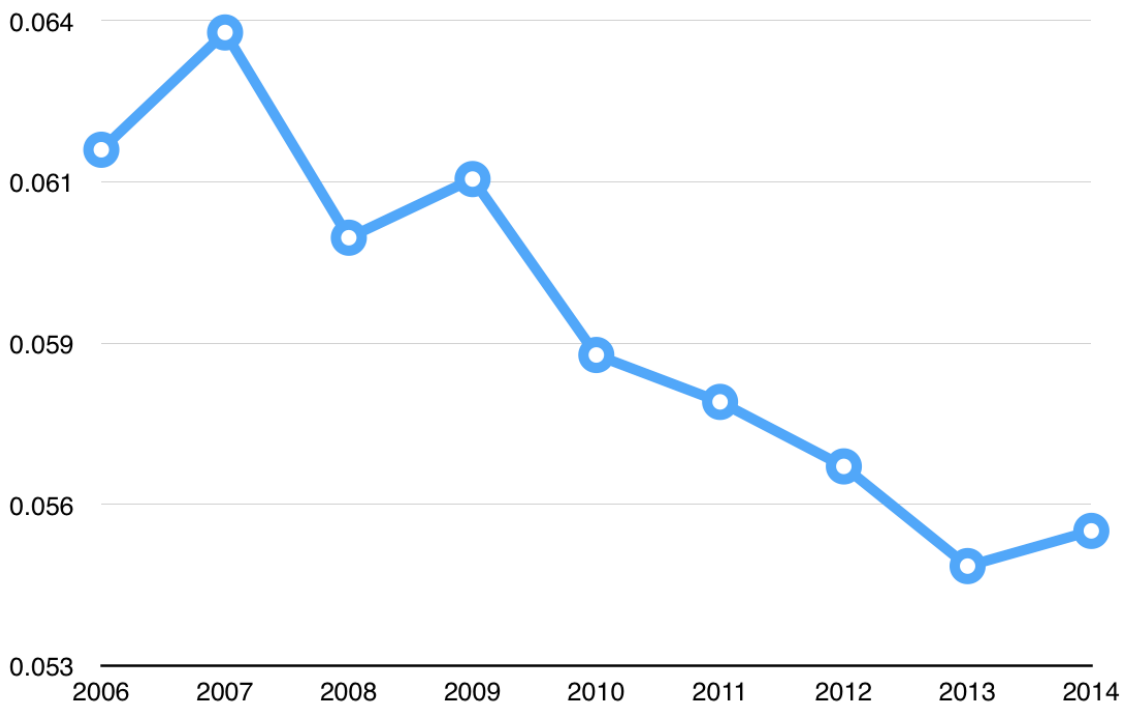
First, one important reason why commercial banking activities tend to be located in national centers is the superior adsorption of economic power in relation to the banking sector, while the interprovincial and provincial centers have a secondary level of economic power (Wu, Liu and Liu 2007). Economic power in Mainland China suggests the concentration of headquarters of firms, financial regulatory institutions (headquarters and branches of the PBOC, CBRC, CSRC) and financial markets

(Shanghai Stock Exchange and Shenzhen Stock Exchange). Second, banking agglomeration is related to cultural power. Shanghai has been privileged over any other city in Mainland China as a financial center for foreign banks as it offers a culture of international commerce and cosmopolitan, and historical success (Horesh 2009, 2014). Financial actors and regulatory officials often draw upon Shanghai's historical success as an international financial center to account for its contemporary cosmopolitanism and receptiveness to foreign investments (Lai 2012b). In addition, the cultural factor matters as a historical context, such as Zhejiang's commerce culture. The innovative atmosphere of internet finance in Hangzhou is not unrelated to the business culture here: the largest commercial bank here is named ZheShang ('Zhejiang businessmen') Bank. Third, transferring from a planned economy, institutional power in Mainland China refers to the priority for progressively institutional reform across space and over time (Zhao and Zhang 2007). The establishment of a special economic zone in Shenzhen in the 1980s, and the Shanghai Pudong New Area in the 1990s are practices of institutional power, which bring with them a wide range of amenities or incentives for the agglomeration of banking activities. This is the critical reason why Shenzhen could become a leading center in a short span of 35 years. Similarly, the establishment of an Industrial Bank in Fuzhou during the early stage of reform and opening up contributed to the growth of Fuzhou as an important interprovincial center. In contrast, notwithstanding Chongqing is a municipality directly under the central government, it only confirmed its current administrative status in 1997. Meanwhile, as an inland city, it started to participate in the wave of reform and opening up just after the implementation of the China Western Development Strategy in the new century.

3.5 The geography of commercial banking: spatial concentration or dispersal?

First, the findings on the growing concentration of the banking sector at provincial level in China can be corroborated by analyzing the geographical concentration index. In Figure 3.5, the overall spatial concentration of banking employment has evidently decreased from 2006 through to 2014. The concentration slightly grew, reaching the peak of 0.064 in 2007. Then it declined dramatically after 2009 and reached a low of 0.0547 in 2013.

Figure 3.5 Geographical concentration of banking assets at provincial level



Source: Author

Note: The geographical concentration index of banking assets is calculated as:

$$HHI_i = \sum_{c=1}^{n} S_c^2$$

Where Sc is the share of banking assets in city c. The value of the HHI increases, with the degree of concentration reaching its upper bound of 1 when all the assets are concentrated in one city. HHI takes the lowest value 1/N, where N is the number of cities in every year's top 50 list, when assets are evenly distributed across Mainland. As an absolute measure, this indicator displays a weighting towards large cities.

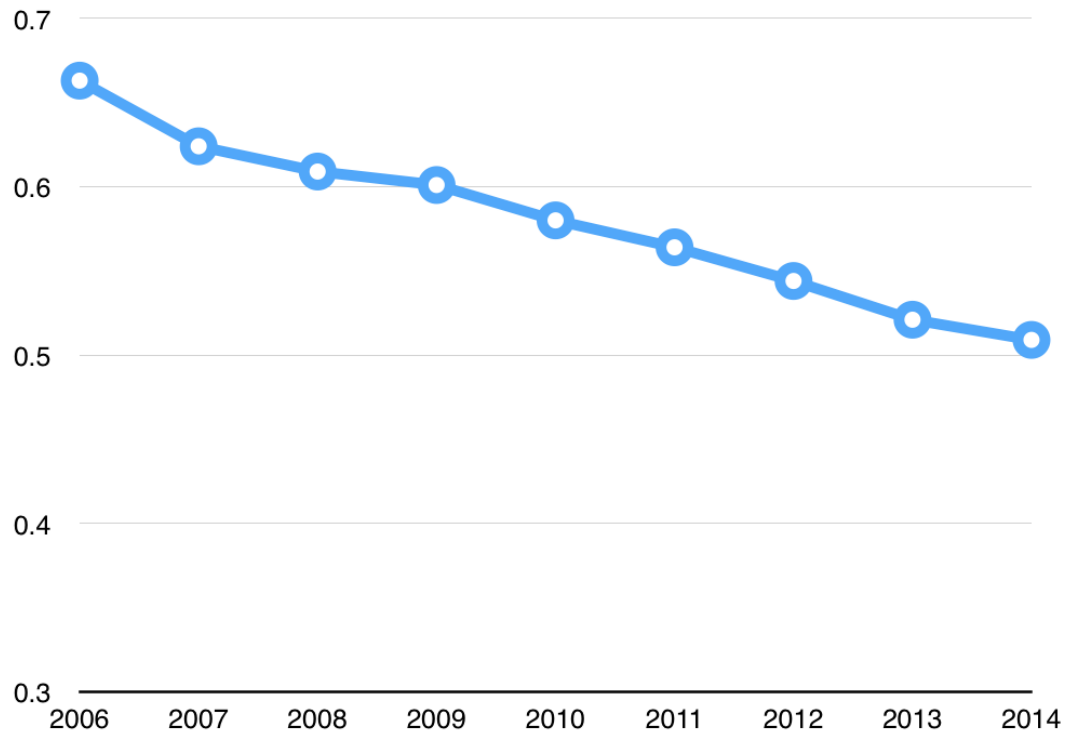
In China, the starting point of banking geography is that there is a high level of control from the SOCBs and regulatory institutions in Beijing. Therefore, a decreasing concentration of banking is found because of the top-down deregulation and establishment of a provincial banking system (He and Liu 2013; Wu, Liu and Liu 2007). Additionally, the policy initiatives, such as the China Western Development and the Rise of Central China Plan in the new century simultaneously advanced this trend. These factors explain the overall tendency of spatial concentration shown in Figure 3.5.

It should be noticed that the year 2006 was a crucial year for the full opening up of the banking industry, as per China's commitment at the WTO accession. Based on these principles, the CBRC honored the WTO commitments by granting national treatment to foreign banks in the Chinese market (CBRC 2007). The share of foreign banks in banking assets gained a rapid growth in 2007, especially in Shanghai, Beijing and Guangdong (CBRC 2008). This led to a slight increase in spatial concentration in 2007. In addition, the financial crisis of 2008–09 disturbed the curve but did not change the overall trend.

Second, I examine the trend of geographical concentration at city level by reference to the data of the top 50 banks' total assets, based on the spatial breakdown of the headquarters. Figure 3.6 shows that the concentration at city level evidently fell from 0.663 to 0.509 over this period. This result coincides with the findings discussed in Section 4, in that the rise of interprovincial and provincial centers brings with it a geographical dispersal of commercial banking activities at city level over the period 2006–2014, such as in Fuzhou, Guangzhou, Nanjing, Tianjin and Hangzhou. The total assets of these five banking centers increased 792% over this period, while the total of Beijing, Shanghai and Shenzhen only grew by 259%.

The descending concentration of commercial banking at city level can be ascribed to the devolution of banking power as well as the spatial expansion of all kinds of banks, which contributes to the growth of centralized functions and operations at provincial level. These processes are generally considered as the drive and trigger of the dispersal geographies because they reproduce a secondary level of banking agglomerations beyond national leading centers. To summarize, as I argue in Section 4, the interprovincial and provincial centers flourish on a large scale in the whole country, and this phenomenon implies that the devolution of the Chinese economy through the banking sector made great progress and extended the banking reforms in the second tier cities beyond Beijing, Shanghai and Shenzhen, where the banking market was saturated state to a certain degree, which also brought with it a dispersal geography of commercial banking at the city level.

Figure 3.6 Geographical concentration of banking assets at city level



Source: Author

Note: The geographical concentration index of banking assets is based on the same model as that used for Figure 3.5.

3.6 Summary

The first objective of the study was to examine the changing geography of commercial banking between 2006-2014 in Mainland China. The second aim was to outline the hierarchy of China's multi-tier banking centers. This strategy was used to shed light on the devolution of the Chinese economy through the banking sector, in a context in which the role of distribution of banking power has been understudied and

rarely combined with an analysis of the changing banking in Mainland China. The third aim was to investigate the geographical concentration of the banking sector over the period 2006–2014.

The primary finding of this chapter is that Beijing is the predominant center of command and control in the banking system, regardless of Shanghai's status as the capital of foreign banks, because the business capabilities of foreign banks in Mainland China are currently insignificant and quite limited. In addition, along with the top-down process of diffusion and decentralization of banking activities, the interprovincial and provincial banking centers experienced a dramatic growth over this period, while the status of leading centers—Beijing, Shanghai and Shenzhen—was relatively stable. Thirdly, the direct impacts of the global financial crisis on China's banking sector were quite limited, because China's financial system is isolated from the global financial integration and the share of foreign banks in Mainland's financial system is minimal. Generally, a new hierarchy of banking centers was established and the spatial concentration of the banking sector decreased at provincial level because of devolution processes, while the concentration at city level also demonstrated a descending tendency due to the rise of a group of interprovincial and provincial centers.

The application of geography of power in Mainland China's banking hierarchy could be considered as complementary to the existing studies. The spatial-temporal production of power is a major force in the formation of the banking hierarchy in Mainland China. Cities in China and beyond compete fiercely to host power for chasing resource and the impact of this process on uneven development between and within cities should be of most interest to future research in Chinese economic

geographies. Overall, the ambition of this chapter is to depict the map of banking geography, place the power combinations on the map across time and space, and analyze the latter in a dynamic framework that accounts for the forces of the hierarchy of commercial banking.

Finally, I must emphasize, along with the sweeping reforms on financial system since the 1990s afterward, capital markets, as the outcome of market economy, have played an increasingly important role in contemporary China's financial landscape beyond the banking industry. Therefore, in the same vein, chapter 4 will explore the geographies of securities industry by an interrogation on the securities intermediaries, including securities firms, futures firms and fund management firms after the delineation of banking sector. The securities intermediaries are critical in connecting the capital markets and the large number of domestic investors. The next chapter will show us the geography of securities centers by an investigation of these intermediaries.

Appendix 3.1 The largest 50 commercial banks in 2006 and 2014 (The unit of asset: 100million RMB)

	2006		
	Bank	Headquarter	Asset
1	ICBC	Beijing	75091.18
2	CCB	Beijing	54485.11
3	ABC	Beijing	53439.43
4	BOC	Beijing	53252.73
5	Bank of Communication	Shanghai	17194.83
6	Merchant Bank	Shenzhen	9341.02
7	Citic Bank	Beijing	7068.59
8	Minsheng Bank	Beijing	7004.49
9	Shanghai Pudong Development Bank	Shanghai	6893.44
10	Industrial Bank	Fuzhou	6177.04
11	Everbright Bank	Beijing	5932.34
12	Huaxia Bank	Beijing	4450.53
13	Guangfa Bank	Guangzhou	3739.08
14	Bank of Beijing	Beijing	2729.69
15	Bank of Shanghai	Shanghai	2700.43
16	Shenzhen Development Banki	Shenzhen	2605.76
17	Beijing Rural and Commercial Bank	Beijing	1547.41
18	Shanghai Rural Commercial Bank	Shanghai	1361.49
19	Shenzhen Ping An Bank	Shenzhen	817.25
20	Tianjin Commercial Bank	Tianjin	811.64
21	Huishang Bank	Hefei	703.62
22	Dalian Commercial Bank	Dalian	610.74
23	Nanjing Commercial Bank	Nanjing	579.23
24	Hangzhou Commercial Bank	Hangzhou	568.46
25	Evergrowing Bank	Yantai	566.72

26	Ningbo Commercial Bank	Ningbo	565.46
27	Shenzhen Rural Commercial Bank	Shenzhen	527.39
28	Dongguan Commercial Bank	Dongguan	503.79
29	Harbin Commercial Bank	Harbin	437.05
30	Baotou Commercial Bank	Baotou	389.88
31	Xian Commercial Bank	Xian	383.42
32	Chengdu Commercial Bank	Chengdu	374.50
33	Zheshang Bank	Hangzhou	366.13
34	Changsha Commercial Bank	Changsha	340.92
35	Chongqing Commercial Bank	Chongqing	326.06
36	Jinan Commercial Bank	Jinan	324.09
37	Guiyang Commercial Bank	Guiyang	302.67
38	Kunming Commercial Bank	Kunming	294.94
39	Lanzhou Commercial Bank	Lanzhou	267.52
40	Jiangyin Rural Commercial Bank	Wuxi	254.16
41	Changshu Commercial Bank	Suzhou	244.26
42	Qingdao Commercial Bank	Qingdao	237.01
43	Nanchang Commercial Bank	Nanchang	233.57
44	Yantai Commercial Bank	Yantai	222.37
45	Wenzhou Commercial Bank	Wenzhou	222.32
46	Changchun Commercial Bank	Changchun	217.83
47	Wujiang Rural Commercial Bank	Suzhou	202.80
48	Luoyang Commercial Bank	Luoyang	202.19
49	Zibo Commercial Bank	Zibo	187.62
50	Weihai Commercial Bank	Weihai	175.54

	2014		
	Bank	Headquarter	Asset
1	ICBC	Beijing	206099.53
2	CCB	Beijing	167441.30

3	ABC	Beijing	159741.52
4	BOC	Beijing	152513.82
5	China Postal Saving	Beijing	63000
6	Bank of Commmunication	Shanghai	62682.99
7	Merchant Bank	Shenzhen	47318.29
8	Industrial Bank	Fuzhou	44063.99
9	Pudong Development	Shanghai	41959.24
10	Citic Bank	Beijing	41388.15
11	Minsheng Bank	Beijing	40151.36
12	Everbright Bank	Beijing	27370.10
13	Ping An Bank	Shenzhen	21864.59
14	Huaxia Bank	Beijing	18516.28
15	Guangfa Bank	Guangzhou	16480.56
16	Bank of Beijing	Beijing	15244.37
17	Bank of Shanghai	Shanghai	11874.52
18	Bank of Jiangsu	Nanjing	10383.09
19	Evergrowing Bank	Yantai	8485.55
20	Zheshang Bank	Hangzhou	6699.57
21	Bohai Bank	Guangzhou	6671.48
22	Chengdu Rural Commercial Bank	Chengdu	6341.40
23	Chongqing Commercial Bank	Chongqing	6188.89
24	Bank of Nanjing	Nanjing	5731.50
25	Bank of Ningbo	Ningbo	5541.13
26	Beijing Rural Commercial Bank	Beijing	5222.00
27	Shengjing Bank	Shenyang	5033.71
28	Huishang Bank	Hefei	4827.64
29	Bank of Tianjin	Tianjin	4788.59
30	Guangzhou Rural Commercial Bank	Guangzhou	4666.08
31	Shanghai Rural Commercial Bank	Shanghai	4666.01
32	HSBC(Shanghai)	Shanghai	4257.64
33	Bank of Hangzhou	Hangzhou	4185.41
34	Xiamen International Bank	Xiamen	3489.41
35	Bank of Harbin	Harbin	3436.42

36	Bank of Guangzhou	Guangzhou	3308.80
37	Baoshang Bank	Baotou	3128.65
38	Chengdu Bank	Chengdu	3002.30
39	Bank of Jilin	Changchun	2837.83
40	Kunlun Bank	Urmqi	2782.99
41	Bank of Chongqing	Chongqing	2745.31
42	Bank of Dalian	Dalian	2606.31
43	Dongguan Rural Commercial Bank	Dongguan	2558.00
44	Tianjin Rural Commercial Bank	Tianjin	2259.52
45	Bank of East Asia (China)	Shanghai	3168.63
46	Bank of Changsha	Changsha	2121.78
47	Standard Chartered (China)	Shanghai	2093.29
48	Zhongyuan Bank	Zhengzhou	2070.69
49	Shunde Rural Commercial Bank	Foshan	2069.00
50	Bank of Zhengzhou	Zhengzhou	2042.89

Chapter 4 The geography of the securities industry in Mainland China

4.1 Introduction

The securities industry is recognized as the engine of financialization in contemporary financial economy (Wójcik 2012). In China, the media often portray the securities industry as an alternative to the banking industry. However, along with the marketization, liberalization and privatization of the Mainland's transition economy, the last two decades have witnessed substantial growth, innovation and transformation in China's capital markets (CSRC 2008). These markets have become an indispensable component of China's financial system. Structural trends include steady and deliberate regulatory changes, product and service innovation, evolution of customer behavior, and shifts in competitive behavior related to the increased maturity of the equity market in most Chinese provinces (McKinsey 2012). One direct consequence of the development of capital markets is the growing demand for intermediaries, who can connect an increasing number of investors, from an increasing number of places, to make secondary markets work, and collaborate with issuers in primary markets. Financial intermediary here refers to securities institutions that include securities, futures and fund management firms, as well as stock exchanges.

Analyzing economic and financial activities without consideration of their spatial distribution generally deprives research of its geographical focus, and makes it hardly distinguishable from economics and finance. Additionally, there have been studies of the stock exchanges and issuers in Chinese capital markets from a

geographical perspective (Karreman and Knaap 2009, 2012), but not of capital market intermediaries, such as securities institutions. The exploration and explanation of the spatial organization of the securities industry in China is almost a completely unexplored field of research.

In this chapter, I inquire into what financial geography can contribute to understanding the growth of the securities industry. Thus, the main objective of this study is to examine the financial geographies of the securities industry at subsector level. I analyze the current situation of the industry, map the hierarchical networks and examine the competition between China's leading securities centers. As Schlichting (2008) has argued, China's financial system is considered to be the 'institutional legacy of the command and planned economy, the structures of China's political system and the path dependencies created by decisions made in the early stage of reform and opening up (Heep 2014)'. This has directly impacted on the hierarchy and the production of financial geographies in terms of the banking industry. It is therefore significant to ask to what extent these characteristics have affected the changing geography of the securities industry. How has the latter evolved, in terms of hierarchy, and the distribution of headquarters and branch networks? Do the changing geographies of subsectors within the securities industry show similar patterns?

The empirical analysis is based on the data of securities, futures and fund management firms, including the changing numbers of institutions, crucial financial indicators, headquarters, and branch networks, all of which are available and allow a systematic geographical analysis of securities intermediaries. The summarized

results are as follows: first, we witness the differentiated growth trajectory of the securities industry in each subsector. The number of securities firms generally experienced fluctuating growth. The number of futures firms dramatically fell, while fund management firms showed an opposite trend. Secondly, the analysis of headquarters and branch data outlines the hierarchical networks of each sector and highlights the leading roles of Shanghai, Beijing and Shenzhen in China's securities industry. Meanwhile, some cities are specialized in a single subsector: for instance, Nanjing and Guangzhou in securities firms; Hangzhou, Dalian and Zhengzhou in the futures industry; and Tianjin in fund management markets. The examination of changing headquarters data also reveals an increasing spatial concentration of the securities and futures firms, but not of the fund management firms. Thirdly, the investigation of competition between China's leading securities centers indicates that Beijing's advantages reflects its regulatory and the headquarter economy of national champions (Wójcik and Camilleri 2015). Shenzhen attracts firms based on its first-mover advantage and policy incentives, while Shanghai's dominant role can be attributed to its status in the markets and national strategies.

The remainder of this chapter is organized as follows. The next section presents a literature background, providing a general discussion of the current state of the securities industry in China and discussing the existing studies of the geography of securities by subsectors. The research gap is made clear, and the research questions, which are derived from the existing literature, are posed. Section 4.3 applies these insights to understanding the evolution, size and structure of the securities industry. Section 4.4 discusses the distribution of headquarters by subsectors and underlines the critical role of Beijing, Shanghai and Shenzhen in the

securities industry. In Section 4.5, I examine the networks of branch of subsectors and map the hierarchies of the securities industry, as well as providing a discussion of these matters. Section 4.6 focuses on the competition between China's leading financial centers and reviews the growth of the Mainland's capital market through the lens of CITIC Securities. Finally, Section 4.7 concludes with the main findings and some recommendations for further research, as well as policy implications.

4.2 Geography of the securities industry

The securities industry is a significant component in contemporary financial economies. The securities industry deals with the production, distribution, and exchange of securities, including bonds, equities, asset-backed securities, and derivatives. During the age of neoliberalism, conventional securities like equities and bonds have grown in significance, and derivatives markets have developed and expanded, with securitization extending also to loans – hitherto considered an exclusive business of the credit sector (Wójcik 2012). It has been argued that the securities industry has been the engine of financialization and therefore it would be more precise to say that the neoliberal economy has been securitized rather than financialized during the past three decades. As Susan Strange has argued in *Casino Capitalism* (1986) and *Mad Money* (1998), the decline in the role of banks in intermediation was simultaneously accompanied by the process of securitization (Dodd 2014). Securitization increasingly takes place in highly concentrated command and control centers that function as global cities for financial services and the related professional services (Aalbers 2009), particularly in the USA and UK. For

instance, Manhattan has become the center of the securities industry, with banking and insurance often moving to other, cheaper and less prestigious locations. Meanwhile, global banks and financial services companies that are based in the City of London and Canary Wharf have dominated the European securitization processes (Aalbers 2009). The booming securities industry has contributed significantly to growing income inequality between financial and other jobs, even including jobs in the other professional business services, knowledge-driven and creative industries, across space and time.

Why is geography important to understanding the growth of the securities industry? The advancement of the securities industry involves two critical geographical attributes: expansion and agglomeration. First, spatial expansion is in the DNA of capital markets. The development of capital markets thus feeds the growth of the securities industry. A multi-scalar presence and expertise are of utmost significance to the securities industry. The networked nature of the securities industry reflects the fact that a capital market is a network. Given the strong network externalities and scale economies in these networks, they evolve towards a global scope. These processes give rise to the securities centers and their multi-scalar networks. Second, the securities industry benefits from co-location and agglomeration economies. Proximity within the securities industry, not only in terms of human relations but also in terms of IT services, brings with the trend of co-locating computers generating orders with the matching engine of the trading venue (Wójcik 2011). The benefits of co-location are also of an indirect nature, related to the sharing, match and learning dynamics of urban agglomeration economies (Duranton and Puga 2004).

Furthermore, the most fundamental aspect of proximity is face-to-face contact (Storper and Venables 2004; Grote 2009).

Before we review the existing literature on the geography of the Chinese securities industry, it is necessary to provide an introduction to its historical development and current situation after the reform and opening up on the Mainland. The regeneration of China's capital markets started in the 1980s, when firms searched for new pathways to raise funds and came up with the idea of issuing shares to the public (CSRC 2008; Heep 2014). The structure of China's securities industry broadly consists of stock and future exchanges, and securities institutions. In 1990, the Chinese government began to allow certain large cities to establish stock exchanges. Consequently, the Shanghai and Shenzhen Stock Exchanges were established, in December 1990. By the end of 2014, the total number of companies listed on the SSE and Shenzhen Stock Exchange (SZSE) stood at 2,613. The total market capitalization on the two stock exchanges amounted to RMB 37.25 trillion, ranking second globally, following the stock exchanges in the USA (CSRC 2015). After a series of reforms, there are currently four futures exchanges in China: the Zhengzhou Commodity Exchange (ZCE), the Dalian Commodity Exchange (DCE), the Shanghai Futures Exchange (SFE), and the China Financial Futures Exchange (CFFE).

The development of the primary and secondary markets led to the creation and expansion of securities intermediaries. Securities and futures firms facilitate transaction services between a buyer and a seller in the secondary market-related stock and futures investment. Additionally, securities firms can also provide services

like initial public offerings (IPOs), advice on mergers and acquisitions, and financial management in the primary market. Fund management firms are institutions that invest their clients' pooled funds into securities that match declared financial objectives. In September 1987, Shenzhen Special Zone Securities Firm that was the first professional securities firm in Mainland, was established in South China. The number of intermediaries has grown in the wake of the creation and expansion of the national securities markets. The year 1992 witnessed the incorporation of three national securities firms, namely: Huaxia, China Southern and Guotai. In subsequent years, a number of securities firms were established, with capital mainly from banks, local governments and central government agencies. By 1993, there were more than 300 futures brokerage companies in China. Some futures brokerage firms were poorly managed, while others engaged in speculative futures trading with state-owned capital. After 1993, China began to clean up the futures markets and the number of futures firms decreased dramatically. By the end of 1998, six new fund management companies were approved to set up closed-end securities investment funds. This represented the origin of the Chinese fund management industry.

During the period of China's transitional economy in the 1990s, the capital markets grew rapidly. However, some deep-rooted problems and structural issues (which included incomplete corporate ownership restructuring for listed companies, unsound corporate governance, poorly managed securities institutions, lack of institutional investors and many more) still existed, and limited the operations of the markets and restricted its expansion. This gave rise to the need for further reforms after 2000. In 2004, the State Council released its *Opinions of the State Council on Promoting the Reform, Opening and Steady Growth of Capital Markets*, which highlighted the

supervision of the intermediaries. Meanwhile, the CSRC implemented a series of reforms, including the restructuring of securities firms and the liberalization of the investment fund management industry. These policies and reforms reshaped the financial geographies of the securities industry in the 2000s. Thereafter, the spatial restructuring of the securities institutions was more driven by market forces than government intervention.

Currently, the 2008–2020 development strategies in respect of China's capital markets refer to maintaining a fine balance between the government and the markets; strengthening the legal and regulatory framework; building fair, transparent and efficient markets; steady development of the futures and financial derivatives markets; encouraging competition to foster a more globally competitive financial service industry in China; as well as opening up the capital markets gradually and building them up so that they will be globally competitive. These strategies show that China's securities industry is still driven by a mix of government direction and organic market forces, which makes it different from free market economies like the UK and USA. The characteristics of these strategies that involve market liberalization, standardization of rules and regulations, and globalization have impacted the distribution of the securities industry.

In this research I mainly explore the geographies of securities institutions: securities， futures and fund management firms that shape financial geographies as spatial actors. In general, the existing literature on the geography of the Chinese securities industry is underdeveloped. Most of this work has been conducted by economists. As a result of the financial legacy of China's planned and transition

economy, securities companies were spatially distributed in each province in the 1990s. Such a regional distribution pattern brought with it severe administrative barriers, under the protection and involvement of provincial governments, which hindered securities integration at the national level (Wu, Chen and Mao 2004). This historical context greatly affected the initial development and geographies of securities firms. The latest study of Zhao *et al.* (2015) analyzed the city network of securities firms as part of their analysis of the producer services sector, and they showed a hierarchical network by applying the methods of the GaWC. At the same time, futures firms have a more complicated history than securities firms and their processes have evolved more. Some of the futures firms with larger scale and better operations merged and acquired companies that were smaller scale or in loss state since the mid-1990s (Wang and Liu 2014). Therefore, the number of futures companies declined dramatically. This led to a reorganization of the spatial structure of futures firms at the national level. Differentiating between securities and futures firms, the fund management industry started to emerge and flourish after the establishment of the Chinese market economy in the late 1990s, which shows a higher spatial concentration than the securities and futures but a gradual dispersal trend in the 2010s (Chen 2015). More specifically, the existing analysis conducted by financial newspapers and magazines primarily focus on the status and changing geography between China's leading centers. Currently, fund management companies are mainly concentrated in Beijing, Shanghai and Shenzhen. This development of the fund industry represents and reflects the fund management industry on the Mainland in the past two decades (Deng 2010; Chen 2015).

After carrying out a literature review of existing studies, a research gap is easily perceived. First, there is much discussion of the geography of Chinese capital markets (Karreman and Knaap 2009, 2012), but scholars from the field of economic and financial geography draw little attention to securities institutions, which are the center of power in the financial sector in the USA, and are decisive as regards the position of London and New York as the leading global financial centers of the world. Wang and Liu (2014) explained why the number of future firms decreased after the mid-1990s. However, they did not explore the geography of futures firms. Second, there are almost no studies of the second tier cities. Zhao, Lao and Chan (2013) examined the strengths and competitiveness of Hong Kong, Beijing, Shanghai and Shenzhen through a wide range of market assessments in stock, bond, funds markets, futures and derivatives, as well as the foreign exchange market. But what about the geographies of other cities on the Mainland? Third, no study focuses on the evolutionary development of China's securities institutions along with China's marketization. Wu, Chen and Mao (2004) introduced the landscape of securities firms in the 1990s, but how did the geographies of securities institutions change in the new century? Finally, the futures and fund management industries have rapidly become critical financial contributors. However, no academic study analyzes the rise of futures and fund management firms from the perspective of the geographical discipline, with the exception of Lai's paper (Lai 2006). For example, the work of Deng (2010) and Chen (2015) on the fund management industry belongs to media reports and lacks rigorous analysis.

These research gaps give rise to the research questions in this study. Firstly, the development of Chinese capital markets is a hybrid property of a functioning market economy and government intervention. Thus, it can be asked to what extent these

main characteristics have affected the growth of the securities industry at the subsector level? Secondly, beyond the discussion of Beijing, Shanghai and Shenzhen, what is visible in the financial geographies of the securities industry in terms of hierarchy, and distribution of headquarters and branch networks on the Mainland? Thirdly, did the changing geographies of subsectors show similar patterns after the establishment of the Mainland's market economy in the late1990s? Finally, which factors influence the spatial organization of China's securities industry, especially the competition between leading securities centers?

To address these questions, this chapter proceeds in three stages. To begin with, it compares the key indicators between 2007 and 2014, analyzes the changing numbers of each subsector in the past two decades and discusses the openness of China's capital markets, as shown by the introduction of joint ventures with foreign securities firms and representative offices of oversea exchanges, all of which highlights the rise of the Mainland's securities industry. This helps us to understand the evolution of the securities industry after the 1990s that fundamentally shaped the geographies of the securities industry. Next, the headquarters and branch networks are examined and the differentiated hierarchical networks of each sector are visualized, mapped and interpreted. This part of the chapter also reveals the changing geographical concentration of each subsector by reference to headquarters data. Finally, it investigates the competition between Beijing, Shanghai and Shenzhen, and describes the main factors that contributed to the landscape of the securities industry and its transformation.

4.3 The rise of the securities industry

This section investigates the growth of the securities industry at the subsector level. First, in this analysis, data have been used for all years between 2007 and 2014 because the CSRC published official annual reports after 2007 and the 2014 data are the most recent data that we could obtain. As shown in Table 4.1, by the end of 2014 there were 121 securities firms, with total assets of RMB 4.09 trillion and operating revenue of RMB 260.3 billion; 95 fund management companies, with assets under management RMB 6.68 trillion; and 153 futures firms, with total operating revenue of RMB 19.02 billion (CSRC 2015).

Table 4.1 The growth of securities, futures and fund management firms between 2007 and 2014

	Number		**Total asset**		**Revenue or Total value**	
Year	2007	2014	2007	2014	2007	2014
Securities	106	121	1.73 trillion	4.09 trillion	284.7 billion	260.3 billion
Futures	177	153	50.23 billion	72.88 billion	–	19.02 billion
Fund management	59	95	–	102.07 billon	3.28 trillion	6.68 trillion

Note on the financial variables: revenue is set for securities and futures firms, and total value means the total assets under management by fund management firms.

Source: Author's based on the data from CSRC annual reports 2007 and 2014

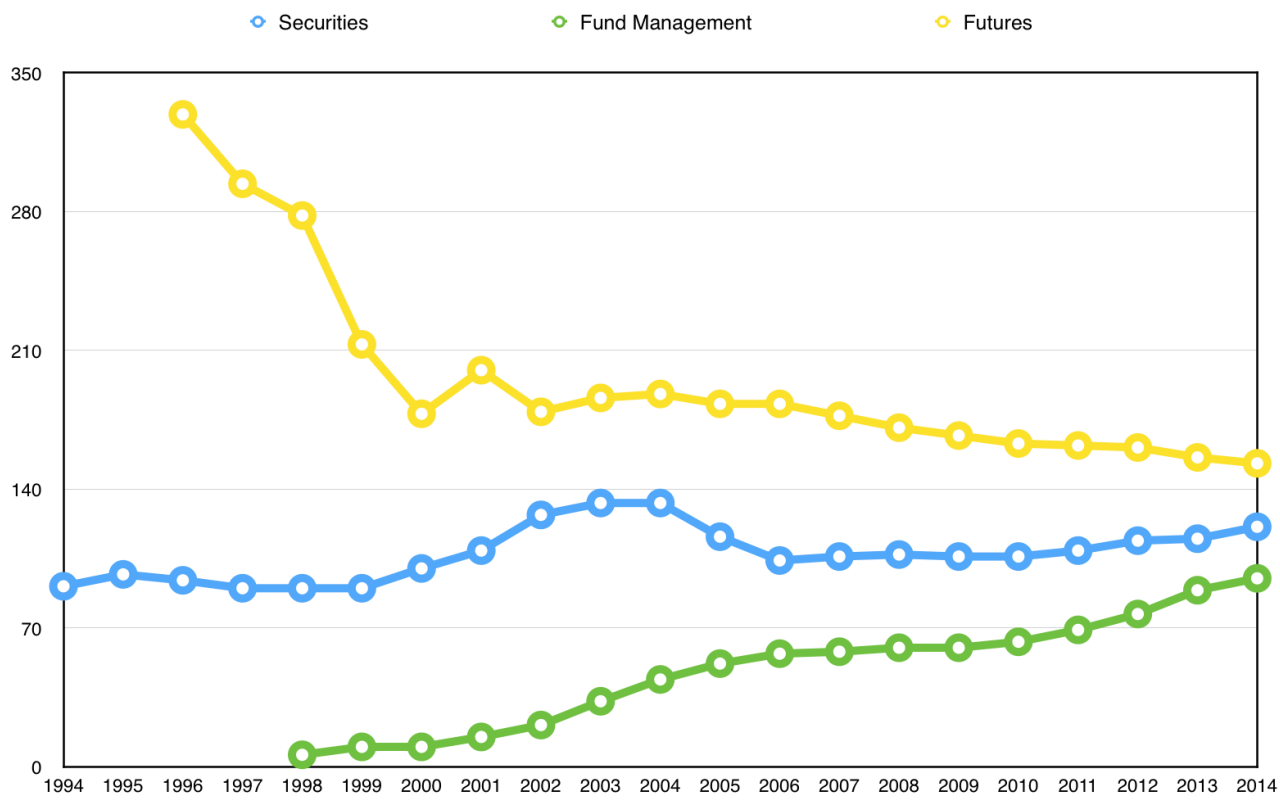
Second, if we pay special attention to the changing numbers of the securities industry, the subsectors demonstrate very different evolutionary trends in the past two decades (see Figure 4.1). A sequence of basic analytical steps reveals a major

change in the position of the securities industry. Generally, the number of securities firms increased by one-third from 1994 to 2014 (blue curve). In the early stage of China's marketization, the number of securities firms grew from 91 to 133, but it declined quickly from 2004 to 2006 because of bankruptcy, and mergers and acquisitions, while the number slightly increased after some assets management firms were established from 2011 onwards, and reached 121 in 2014. The year 2004 was a watershed for securities firms. Many securities firms quickly expanded their business without building up reasonable business models, proper corporate governance and internal control measures in the initial development of China's capital markets. By early 2004, the whole industry was on the edge of bankruptcy, with years of risky and sometimes illegal investments and a lack of proper supervision and enforcement. In response to the crisis, the CSRC launched a comprehensive restructuring program to turn around ailing securities firms and implemented three critical strategies, including the liquidation and restructuring of failed companies, stricter supervision and industry capacity building; it also initiated the comprehensive restructuring of securities firms (CSRC 2008).

Meanwhile, the tendencies of futures and fund management firms depicted sharp opposites on the changing numbers of firms after the 1990s. The number of futures firms fell from 329 to 150, a decrease of more than 50%, while the number of fund management firms rose dramatically, from six to 95, after 1998. Differentiating from the stock market, one main characteristic of China's futures market is that the development of futures firms took place before the reorganization of futures exchanges. There was more than 300 futures firms in the mid-1990s. However, after the first round of reform and regulation in 1993, the annual trading volume of the futures market shrank for several consecutive years, which gave rise to the great

failure of futures exchanges and futures companies. Over 100 futures firms went bankrupt between 1993 and 1995. In August 1998, the State Council issued a notice signaling its intention ‘to further rectify and regulate the futures market’, which opened the second round of adjustment of the industry’s structure system. The 14 existing futures exchanges were reduced by 11 and only the DCE, ZCE and SFE have been preserved. After 2000, the futures market gradually became mature and the number of futures firms slightly decreased because of mergers and acquisitions. In contrast, the fund management industry was established after the initial establishment of China’s market economy in 1997, thus. The process of its growth is much less complicated than that of securities and futures firms. To summarize, the changing number of fund management firms reflected real market forces. The CSRC began to launch reforms to promote the development of China’s fund management industry in 1998, after cleaning up the ‘old funds’. Starting from 2000, the CSRC put forward a strategy to aggressively develop institutional investors. In 2002, gradual liberalization of the funds approval system was initiated by the CSRC (CSRC 2008). After 2002, the number of fund management firms demonstrated a rapid rise. In 2014 they numbered 95.

Figure 4.1 The changing number of securities, futures and fund management firms



Source: Author's based on the data from China Securities and Futures Statistical Yearbook 1996–2014

Third, we should stress that China gradually opened its domestic capital markets to global finance after China participated in the WTO in 2002. China had fulfilled the commitments it made at the time of its accession to the WTO to open up the securities market. The opening up of China's securities market accelerated the internationalization of the capital markets and related market reforms (CSRC 2008). China issued the Rules for the Establishment of Securities Firms with Foreign Investment and the Rules on the Establishment of Sino–Foreign Joint Venture Fund Management Companies in 2002. By the end of 2014, China had 11 Sino–foreign securities firms (see Table 4.2) and 10 representative offices of oversea exchanges (see Table 4.3), most of which are conglomerated in Beijing and Shanghai. This

analysis concludes that Beijing and Shanghai are crucial gateway cities for the Mainland's capital markets (CSRC 2015).

Table 4.2 External connections: Joint ventures with foreign securities firms on the Mainland

Firms	Headquarters	Shareholding ratio
China International Capital Corporation	Beijing	49%
Goldman Sachs Gao Hua Securities	Beijing	33.3%
UBS Securities	Beijing	24.99%
Credit Suisse Founder Securities	Beijing	33.3%
JP Morgan First Capital Securities	Beijing	33.3%
Zhongde Securities (Deutsche Bank)	Beijing	33.3%
Morgan Stanley Huaxin Securities	Shanghai	33.3%
Citi Orient Securities	Shanghai	33.3%
Bank of China International	Shanghai	37.14%
Everbright Securities	Shanghai	33.3%
Hua Ying Securities (RBS)	Wuxi	33.3%

Source: Author's based on the data from 2015 annual report of the CSRC

Table 4.3 List of overseas exchanges with representative offices

Exchange	Jurisdiction	Location on the Mainland
HK Exchanges & Clearing	Hong Kong SAR	Beijing
New York Stock Exchange	USA	Beijing
Nasdaq Stock Market	USA	Beijing

Exchange	Jurisdiction	Location on the Mainland
Tokyo Stock Exchange	Japan	Beijing
Korea Exchange	South Korea	Beijing
Singapore Exchange	Singapore	Beijing
London Stock Exchange	UK	Beijing
Deutsche Boerse	Germany	Beijing
Toronto Stock Exchange	Canada	Beijing
BM&FBOVESPA (Brazil)	Brazil	Shanghai

Source: Author's based on the data from 2015 annual report of the CSRC

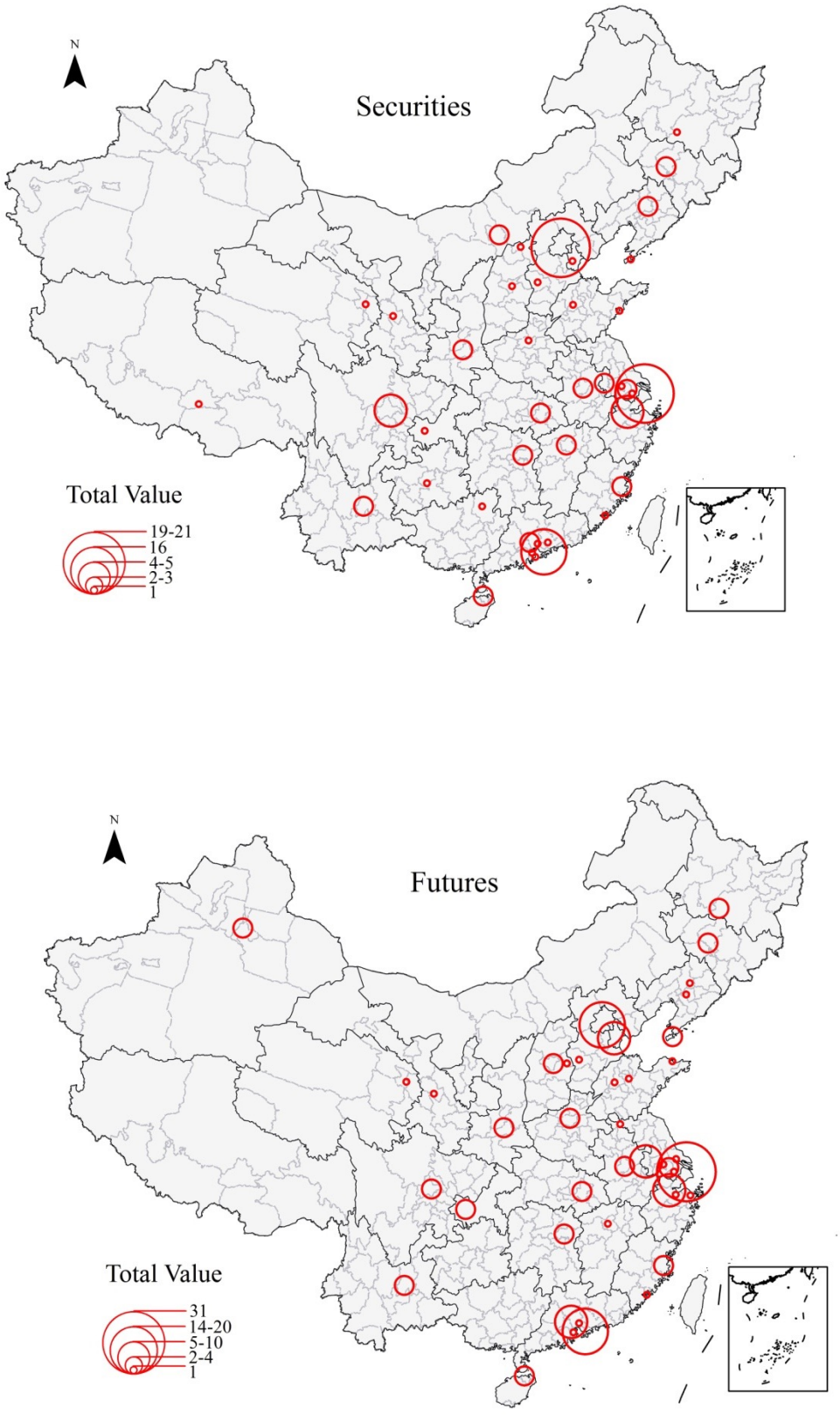
4.4 The geographical distribution and concentration of headquarters locations

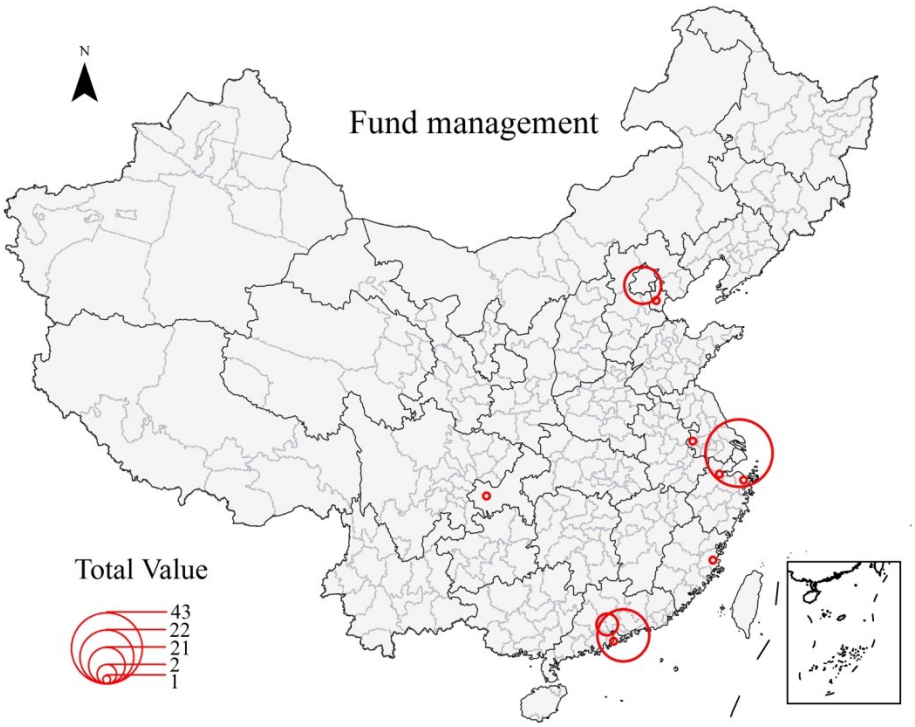
The section firstly discusses the geographical breakdown of headquarters at subsector level. It is very popular in the general literature, and in some more scholarly accounts, to use the concentration of major headquarters as an indication of a city's status as a financial center at multi-scalar level.

Figure 4.2 shows the distribution of the headquarters of securities, futures and fund management firms by the end of 2014, at city level. A number of variables determine which corporate headquarters become concentrated in major domestic securities centers. First, the development of securities and futures firms took place within the institutional legacy of the command and planned economy, and the path dependencies created by decisions made in the early reform years of China's capital

markets (CSRC 2008). Therefore, it can be noticed that each provincial capital possessed at least one securities and futures headquarters in 2014. The securities and futures firms show a more dispersed pattern than fund management firms, while the total share of Shanghai, Beijing and Shenzhen was less than 50% of securities and futures firms, but more than 90% of fund management firms by the end of 2014. As Wu, Chen and Mao (2004) have argued, the spatial organization of securities firms was due to China's planned and transition economy, and securities companies spatially distributed in each province in the 1990s. In contrast, the fund industry emerged and grew after the establishment of China's market economy in the late 1990s. Therefore, fund management firms were mainly concentrated in Shenzhen, Shanghai and Beijing, and the spatial expansion was controlled more by market forces than by governments (Deng 2010, Chen 2015). Second, profound deregulation and accelerating marketization in the past 15 years has encouraged firm consolidation and market expansion. In response, the larger and more newly established companies have chosen to locate their headquarters in nationally leading securities centers. For instance, Shanghai, Beijing and Shenzhen are far ahead of any other city in each subsector. Third, the nature of the domestic urban system in China is a critical factor in the geographical distribution of corporate headquarters (Sassen 2012). Sharp urban primacy tends to entail a disproportionate concentration of headquarters in the first tier cities, no matter which subsector is being investigated. The geography of headquarters distribution mirrors the existing urban hierarchy in contemporary China.

Figure 4.2 Distribution of headquarters of securities, futures and fund management firms





Source: Author's based on the data from Headquarters data of securities firms, available at: http://jg.sac.net.cn/pages/publicity/securities-list.html； headquarters data of futures firms, available at: http://www.cfachina.org/cfainfo/organbaseinfoServlet; headquarters data of fund management firms was collected from the 2014 China Securities Investment Fund Fact Book

Second, I explore and examine the geographical distribution of the securities industry by analyzing critical financial indicators at the city level. The data of total assets and revenues of securities firms, total transaction fee revenues of futures firms and total value under management of fund management firms are employed to support my analysis. The data for these indicators are, respectively, taken from the official annual reports by the Securities Association of China, the China Futures Association, and the Asset Management Association of China. The city data are

based on the geographical breakdown of headquarters of subsectors at city level. As shown in Table 4.4, Shanghai, Shenzhen and Beijing play the leading roles in domestic securities geographies, in a way that is quite similar to the multipolar banking hierarchy (Zhao *et al.* 2015). However, Shanghai is the unrivaled domestic securities center, which makes it more comparable with Beijing in terms of the geography of domestic banking. In addition, subsectors thrive on the specialized differences of some second tier financial centers and it is this factor that gives these cities their particular advantage in China's securities landscape. For instance, Guangzhou and Nanjing are important securities centers because the large securities firms Guangfa Securities and Huatai Securities are located in Guangzhou and Nanjing, respectively, which reflects the power of the Guangdong and Jiangsu provincial governments. Meanwhile, Hangzhou is the capital of China's private economy and, with a risk-taking culture that is famous across China, it is prone to investing in futures markets in the quest for high revenues. In terms of the fund industry, Tianjin is a rising star, in that the largest fund management firm—Tianhong, established in 2004—is based in Tianjin.

Table 4.4 The top 10 securities centers at subsector level

	Securities firms				Futures firms		Fund management firms	
	Total assets		Total revenue		Transaction fee		Total value	
1	Shanghai	915,769	Shanghai	51,153	Shanghai	2,366.3	Shanghai	1,557
2	Shenzhen	911,882	Shenzhen	50,413	Beijing	1,686.5	Shenzhen	1,004.
3	Beijing	580,719	Beijing	44,169	Hangzhou	1,342.9	Beijing	976.9
4	Guangzhou	259,448	Guangzho	13,532	Shenzhen	1,089.8	Tianjin	589.8

5	Nanjing	222,150	Nanjing	11,009	Guangzho	534.7	Guangzhou	228.3
6	Changsha	118,285	Changsha	7,138	Nanjing	314.5	Zhuhai	133.5
7	Hangzhou	103,119	Hangzhou	6,667	Hefei	252.5	Chongqing	19.7
8	Fuzhou	83,491	Chengdu	6,657	Wuhan	246	Fuzhou	14.4
9	Wuhan	78,206	Fuzhou	5,968	Xiamen	203.6	Nanning	11.6
10	Jinan	77,390	Jinan	5,134	Zhengzhou	184	Hangzhou	0.5

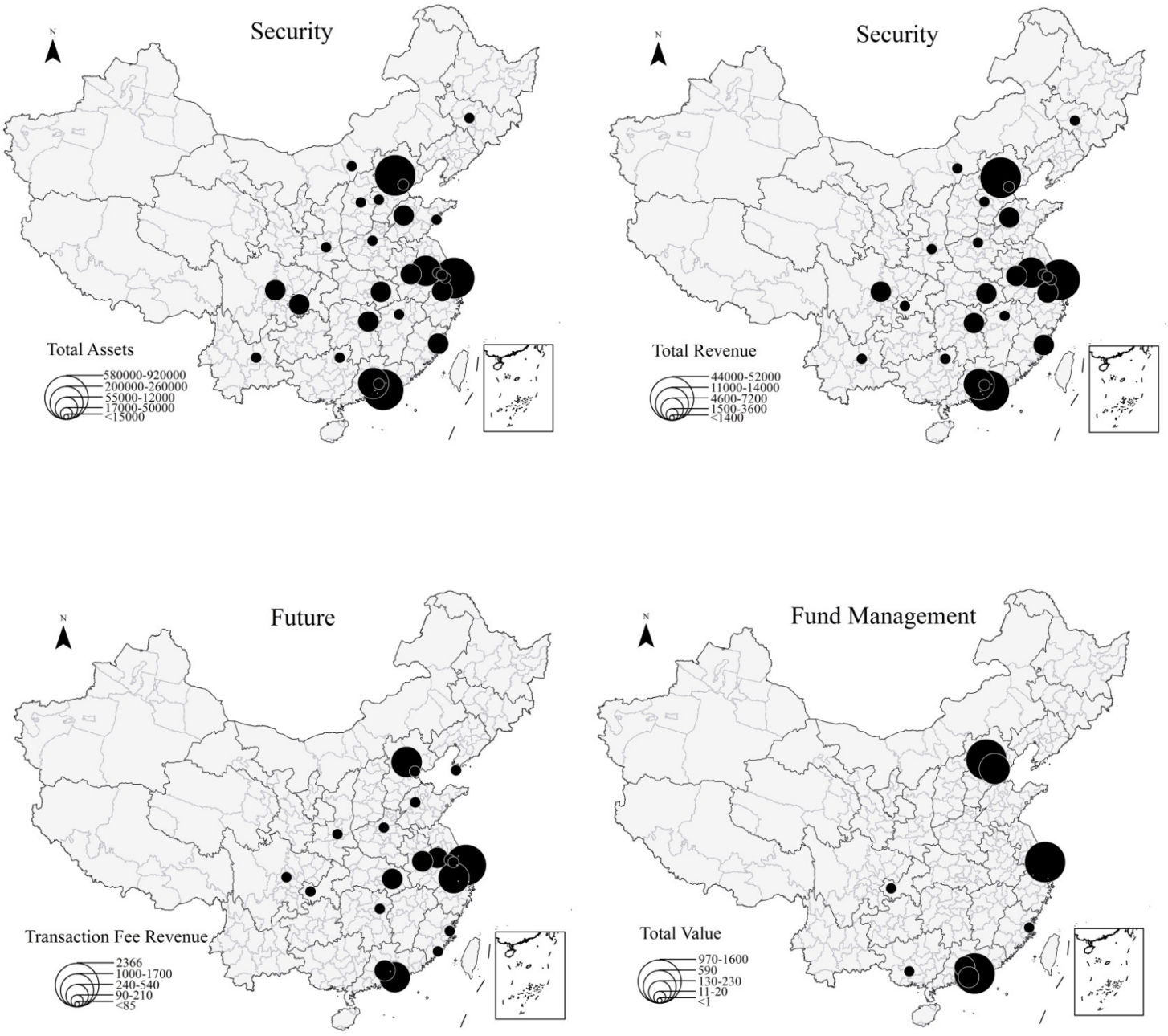
Source: Author

Note: The units of security total assets, security total revenue and futures total revenue are RMB million and the unit of total value of fund management is RMB billion.

In the next step in my analysis I visualize the geographies of securities industry by Arcgis. As is demonstrated in Figure 4.3, it is immediately clear that each subsector is extremely concentrated in the mega-regions of coastal Eastern China – especially the fund industry – and growth inequality between Eastern, and Central and Western China is dramatic. More specifically, taking into account that securities services are highly associated with the scale of the real economy, we see an unsurprisingly dominant position of Beijing-Tianjin, the Yangtze River Delta and the Pearl River Delta. Additionally, some Central and Western cities, such as Hefei, Chengdu, Chongqing, Changsha and Wuhan, are significant service centers in the command functional system of securities firms and futures firms. The securities and futures firms show a more dispersed geography than firms in the fund management industry. The similar geographies of securities and futures firms can be explained by reference to ‘the institutional legacy of the command and planned economy, and the path dependencies created by decisions made in the early reform years of China’s

capital markets' (CSRC 2008). In contrast, the emergence and the vitality of the fund industry depends more on the market economy and these firms primarily open business in the developed mega-regions of Eastern China. The production of these geographies of subsectors is based on the distribution of corporate headquarters. This issue is examined in the next section.

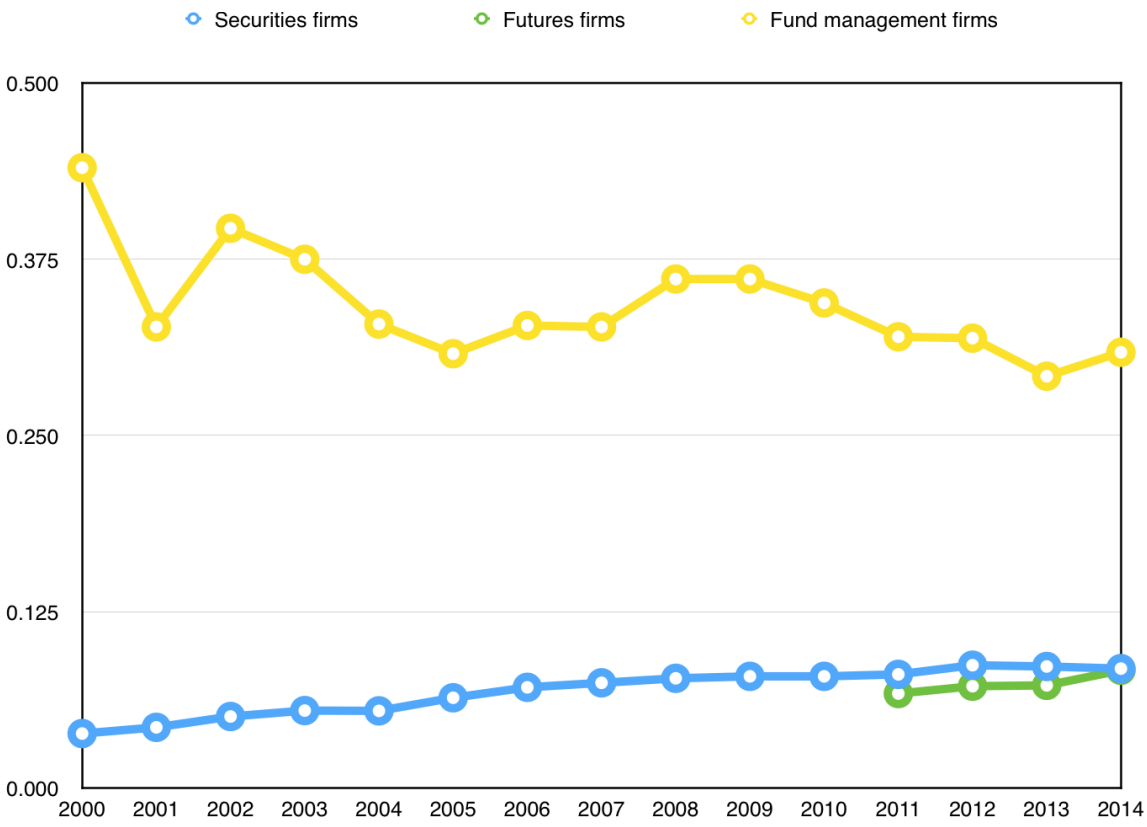
Figure 4.3 The geographies of the securities industry at subsector level in 2014



Source: Author's based on the data from the industry data of securities firms, available at: http://www.sac.net.cn/hysj/zqgsjysj/; the industry data of futures firms, available at: http://www.cfachina.org/cfainfo/organbaseinfoServlet; the data of fund management firms were collected from the 2014 China Securities Investment Fund Fact Book.

Third, I examine the changing geographical concentration between 2000 and 2014 by reference to the Herfindahl-Hirschman Index (see Figure 4.4). Headquarters concentration is linked to specific economic stage. The data of futures firms are only available from 2011, but their curve shows a similar trend to that of securities firms. Their indices increased gradually during this period. The securities rose from 0.0384 to 0.0845, while the futures increased from 0.0668 to 0.0833 between 2011 and 2014. This change seems to be linked to the combination of the increasing marketization and the ongoing process of deregulation of capital markets. As firms need easy access to market information, they tend to locate in national leading centers. Shanghai and Shenzhen are capital market centers, where the SSE and SZSE are located, and they provide the latest information for market trends. Beijing is the regulatory center and it attracts institutions since it is the primary source of non-standardized policy information (Wang, Zhao and Wang 2007). Meanwhile, though the concentration of fund management firms was always much higher than that of securities and futures firms, a declining tendency has been evident since 2000. In the late 1990s, most fund management firms were concentrated in Shenzhen, Shanghai and Beijing. The market expansion after 2000 gave rise to the emergence of some second tier financial centers, along with the increasing extension of marketization. Overall, the concentration index descended from 0.44 to 0.309 over the whole period.

Figure 4.4 Comparison of geographical concentration of securities, futures and fund management firms



Source: Author

Note: The changing geographical concentration index of headquarters is calculated as:

$$HHI = \sum_{i=1}^{n} s_i^2$$

Where Si is the share of headquarters in city i. The value of the HHI increases, with the degree of concentration reaching its upper bound of 1 when all the headquarters are concentrated in one city. HHI takes the lowest value 1/N, where N is the number of cities in

every year's headquarters list, when headquarters are evenly distributed across the Mainland. As an absolute measure, this indicator displays a weighting towards large cities.

4.5 The branch networks of the securities industry: connectivity analysis

There is a growing multidisciplinary body of research focusing on city networks as relevant objects of study. This research has found evidence for strong economic and financial integration binding cities across provincial borders on the Mainland (Zhao *et al.* 2015). Today, this has emerged as a major issue of interest in the field of financial geography.

In this section I employ the GaWC's interlocking city network model to map China's city network in terms of the securities industry at subsector level, and to measure the connectivity of key nodes embedded within the networks. Derudder *et al*. (2012) and Taylor *et al.* (2012, 2014) have developed a methodology and several data sets that allow them to measure intercity networks. In this analysis, I apply their model but make an improvement with respect to the input of data. They measure a city's importance as a location for a firm and score the city on a scale of 0 to 5. My empirical research uses the actual number of branches in each city, rather than the city's score. To analyze the intercity connectivity, I use data on the branches of securities, futures and fund management firms across the whole Mainland. By the end of 2014, 121 securities firms had 778 branches across 123 cities, while 1571 branches across 174 cities and 163 branches across 20 cities were opened by 153 futures firms and 95 fund management firms, respectively. The branch data are, respectively, taken from the official websites of the Securities Association of China, the China Futures Association, and the Asset Management Association of China.

The branch networks represent the aggregation of space of flows within each single company. With the help of Peter Taylor's model, I specify the processes of city network formation emerging out of the spatial expansion of securities, futures and fund management firms. Its operationalization requires an n*m matrix V, summarizing the geographical distribution of m firms across n cities in their respective networks. The values in the matrix cells are determined by the number of branches in each city and I assume that they indicate the status and importance of each city in a firm's network. Thus, in this model, the intercity connectivity between cities a and b generated by intra-firm flows within firm j is shown by:

$$r_{abj} = v_{aj} \times v_{bj}$$

where Vaj and Vbj represent the number of branches of firm j in cities a and b, and rabj indicates the grade of connection between cities a and b generated by firm j.

The intercity connectivity between two cities a and b is then calculated by the aggregation of intra-firm connections rabj across all firms:

$$r_{ab} = \sum_{j=1}^{m} r_{abj}$$

Finally, the total network connectivity (TNC) of city a is generated by aggregating the city's connections to all other cities.

$$TNC_a = \sum_{i=1}^{n} r_{ai} \ (a \neq i)$$

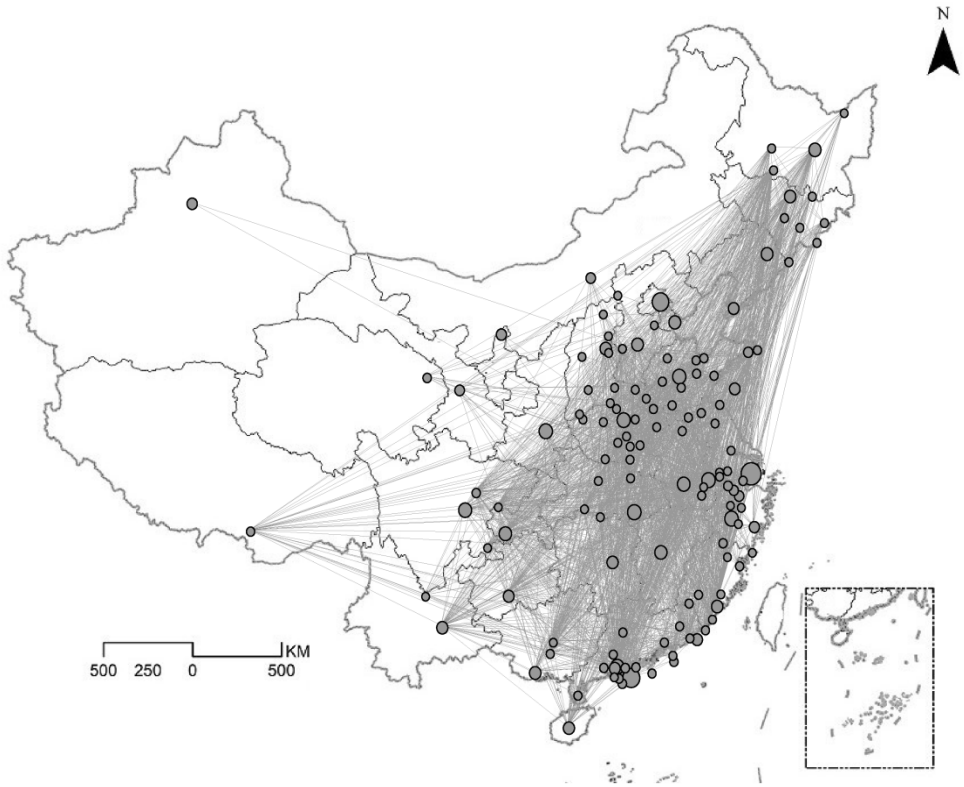
For ease of interpretation, securities connectivities are presented as percentages of the most connected city within the network. Clearly, these connectivities are a measure of how they fit in domestic securities networks of securities, futures and fund management firms.

To start with, securities firms serve as the primary geographical focus for this analysis, where a relatively high reliance on stock markets renders them somewhat representative of the whole securities industry. Figure 4.5 points to the complexity of the domestic city network based on the branch links of the 121 securities firms, which signals potential capital, information and professionals flows within cities. The Figure 4.5 shows all intercity linkages and a city's size in the graph represents its overall connectivity. The lines represent the magnitude of their links. More specifically, it is immediately visible that some important nodes are extremely concentrated in the Yangtze River Delta and Pearl River Delta. As Sassen (2012) has argued, major shifts in the scale, spaces and content of economic activity which, refers to securities expansion here, engender novel spatial formats. Among the most prominent of these is the mega-region (Harrison and Hoyler 2015). The formation of a securities network has contributed to the rise of mega-regions in the Yangtze River Delta and Pearl River Delta.

Table 4.5 shows the connectivity results for the top 10 cities, and offers some immediate insights – namely that Shanghai is the preeminent city and largest node, with the highest level of connectivity, followed by Shenzhen and Beijing. Five cities are located in the Yangtze River Delta and Pearl River Delta, which underlines my argument above. Additionally, the analysis suggests that some second tier cities also play strong roles as well, particularly those with strong regional functions, such as

Hangzhou, Nanjing, Wuhan, Xi'an and Zhengzhou. Generally, these are provincial capitals and critical hubs for the geographical expansion of securities firms in specific regions. Meanwhile, if we focus on the city-dyads, eight of the 10 largest individual intercity positions are all claims on Shanghai, which highlights Shanghai's status as a dominant securities center.

Figure 4.5 Visualizing the branch networks of securities firms



Source: Author

Table 4.5 Top 10 nodes and city-dyads in securities firms' branch networks

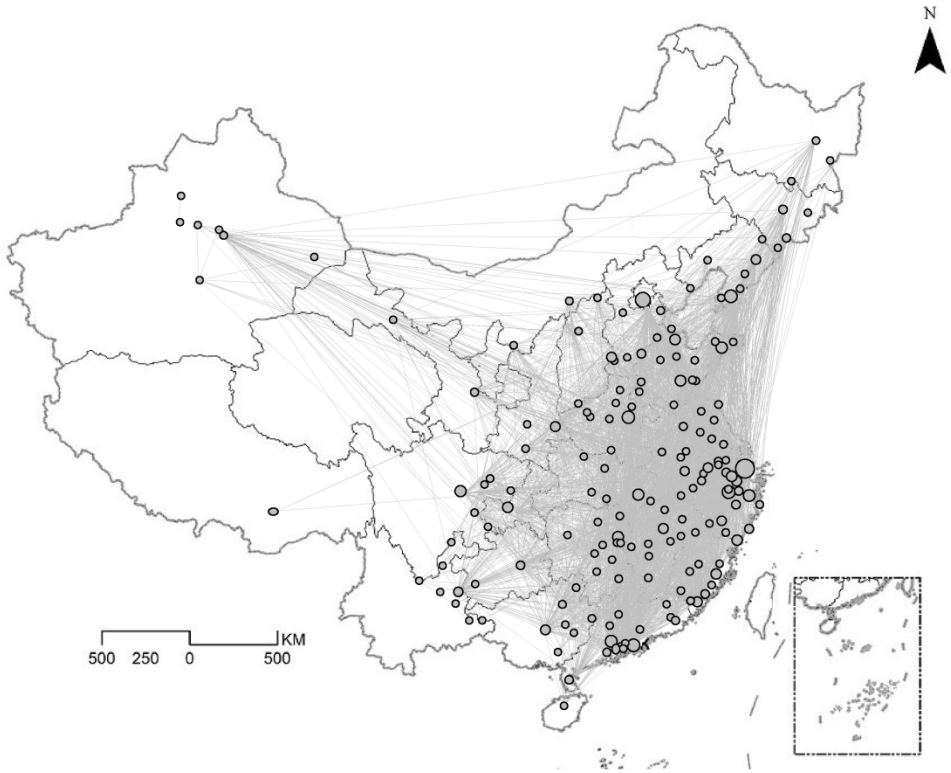
Rank	Node	Connectivity	Relative	City-dyads	Connectivity	Relative
1	Shanghai	1067	1.00	Beijing-Shanghai	85	1.00
2	Shenzhen	867	0.81	Shanghai-Shenzhen	78	0.92
3	Beijing	794	0.74	Beijing-Shenzhen	58	0.68
4	Nanjing	478	0.45	Shanghai-Wuhan	40	0.47
5	Wuhan	475	0.45	Shanghai-Chengdu	39	0.46
6	Xi'an	472	0.44	Shanghai-Zhengzhou	36	0.42
7	Hangzhou	470	0.44	Shanghai-Guangzhou	35	0.41
8	Guangzhou	457	0.43	Shanghai-Jinan	32	0.38
9	Jinan	457	0.43	Shenzhen-Hangzhou	32	0.38
10	Zhengzhou	444	0.42	Shanghai-Xi'an	32	0.38

Source: Author

Secondly, while futures firms are a different subsector from securities firms，I argue that, analytically, we can identify similar dynamics at work in both. Two such dynamics stand out. Making a comparison between Figures 4.5 and 4.6, the first similarity is the hierarchy and network. Shanghai is also the top city in the futures firms' pyramid. Nine of the 10 largest city-dyads are all claim on Shanghai, which indicates that Shanghai is undoubtedly the center of the futures firms' network (see Table 4.6). The other dynamic that the futures firms' network shares with that of securities firms is the interaction between geographical dispersal across the whole country and spatial concentration in national leading centers and some second tier cities that function as gateways and hubs. In this case, network and nodes are

operating, respectively, within a domestic territory and within a city space that incorporates over 100 Mainland's cities.

Figure 4.6 Visualizing the branch networks of futures firms



Source: Author

Table 4.6 Top 10 nodes and city-dyads in futures firms' branch networks

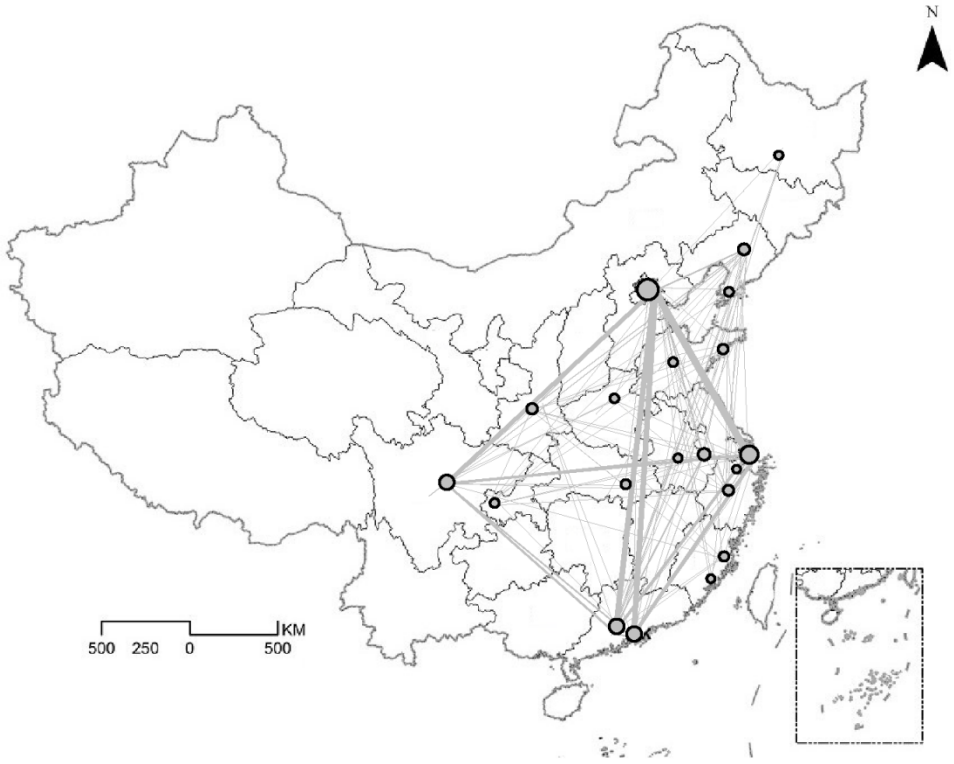
Rank	Node	Connectivity	Relative	City-dyads	Connectivity	Relative
1	Shanghai	2474	1.00	Beijing-Shanghai	172	1.00
2	Beijing	1708	0.69	Shanghai-Zhengzhou	115	0.67
3	Hangzhou	1266	0.51	Shanghai-Hangzhou	115	0.67
4	Shenzhen	1147	0.46	Shanghai-Shenzhen	115	0.67
5	Dalian	1064	0.43	Shanghai-Dalian	104	0.60
6	Zhengzhou	1035	0.42	Shanghai-Guangzhou	87	0.51

7	Guangzhou	967	0.39	Shanghai-Wuhan	81	0.47
8	Ningbo	848	0.34	Beijing-Shenzhen	79	0.46
9	Chengdu	782	0.32	Beijing-Dalian	77	0.45
10	Wuhan	777	0.31	Beijing-Hangzhou	77	0.45

Source: Author

Thirdly, turning to fund management firms, a great degree of differentiation is revealed in Figure 4.7 and Table 4.7, which helps further explain the evolution of China's securities industry. In contrast to highly nationalized securities and futures firms' networks, the fund management network is a comparably very simple one. As Figure 4.7 demonstrates, only 20 cities host fund management branch offices, while Beijing emerges as the most influential center, ranking highest in connectivity measures, and hosting six of the 10 largest city-dyads.

Figure 4.7 Visualizing the branch network of fund management firms



Source: Author

Table 4.7 Top 10 nodes and city-dyads in fund management firms' branch networks

Rank	Node	Connectivity	Relative	City-dyads	Connectivity	Relative
1	Beijing	174	1.00	Beijing-Shanghai	54	1.00
2	Shanghai	157	0.90	Beijing-Shenzhen	43	0.80
3	Shenzhen	129	0.74	Shanghai-Shenzhen	33	0.61
4	Guangzhou	83	0.48	Beijing-Guangzhou	23	0.43
5	Chengdu	69	0.40	Shanghai-Guangzhou	20	0.37
6	Nanjing	38	0.22	Beijing-Chengdu	16	0.30
7	Shenyang	31	0.18	Shanghai-Chengdu	14	0.26
8	Xi'an	26	0.15	Chengdu-Shenzhen	11	0.20
9	Fuzhou	26	0.15	Guangzhou-Shenzhen	11	0.20
10	Hangzhou	23	0.13	Chengdu-Guangzhou	10	0.19

Source: Author

To summarize the findings thus far, of the three subsector networks, securities and futures firms have similar geographies, while nodes within the fund management network are the least well connected. Furthermore, the city-dyad Beijing-Shanghai is always the most connected vector in each subsector, and all other important city-dyads are related to Beijing or Shanghai. This phenomenon implies that power is most consolidated amongst a few key cities, such as the first tier cities and cities with a stock or futures exchange, while lesser nodes are less connected to each other –

supporting the notion that the financial world is mediated from a handful of top centers (Wójcik 2013).

In conclusion, based on the theoretical, literature and empirical analysis discussed above, the findings are threefold. To start with, China's capital market evolved from the transition economy and this brings with it the legacy of the planned system (CSRC 2008). In the early stage of industry development, securities and futures firms were initially set up by provincial and local governments. Therefore, the securities and futures firms that started their business in the early and mid-1990s mirrored the process of China's marketization. When China's policy-makers embarked on a path of economic reform, they chose not to break sharply with the structures of the planned economy, but to take a gradual approach to reform (Heep 2014). The governments then protected their local securities and futures firms from bankruptcy during this stage, since they were still the major owners of securities and futures firms. This kind of ownership and governance impacted the geographies of securities and futures firms. In the initial development, the number of securities and futures firms were very high but along with the proposal of China's market economy after 1998 their numbers declined because of the involvement of market forces, such as in mergers and acquisitions. In contrast, the fund management firms emerged after the establishment of the market economy and their number increased gradually alongside the reform of the CSRC and the growth of China's capital market.

Second, as Wójcik (2011, 2012) has argued, a securities industry is one form of dramatic agglomeration economies, and thus some critical securities centers have arisen in the past 25 years. Shanghai is the most important node within the networks because it is the center of capital markets, being where the SSE, SFE and CFFE are

located. Similarly, Shenzhen is a big hub on the map of securities firms, while Zhengzhou and Dalian are key locations on the map of futures firms. Beijing also plays a crucial role due to its advantages in terms of regulatory affairs, national champions and the talent pool (Wójcik 2015). The expansion of securities, futures and fund management firms brings with it the formation of differentiated hierarchical networks but show distinguished features respectively. The securities and futures firms demonstrate more complicated networks than fund management firms because the former originated from the planned economy.

The final finding is related to the first and second findings. The evolutionary history of securities and futures firms, and the rise of critical nodes within their networks, has led to the increasing geographical concentration at city level in these two subsectors. By contrast, the fund management firms were initially concentrated in Shenzhen and spread to Shanghai and Beijing after 2000. Some second tier cities have also become more important in the last decade (Deng 2010; Chen 2015). Therefore, the fund management industry is experiencing decreasing spatial concentration.

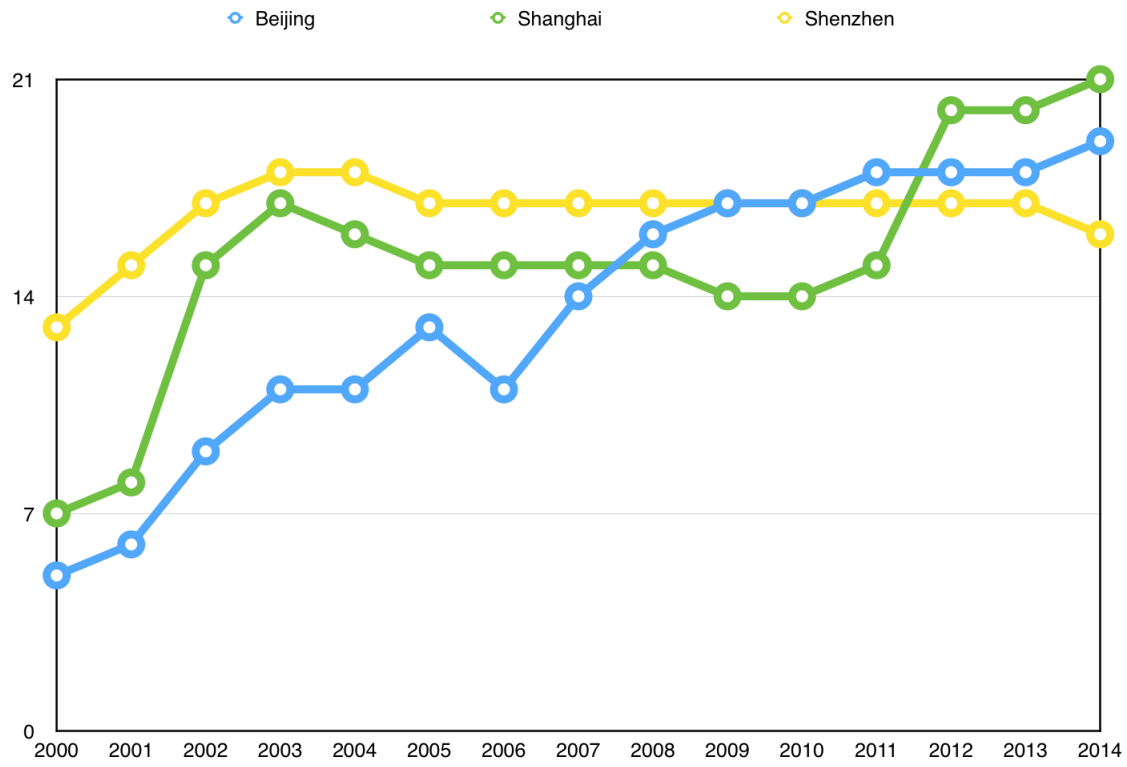
4.6 The competition between leading securities centers and the case of CITIC Securities

The processes of securitization on the Mainland bring with the formation of the Mainland's national trinity in the securities industry, which is comparable to the New York–London axis in the global financial network. Compared to the geography of the banking industry, the results shown in Section 4.5 and 4.6 confirm that Shanghai is the predominant center in the securities industry but Beijing is growing very fast in

each subsector. In this section, I attempt to analyze the competition between China's leading securities centers. Taking the changing number of headquarters of securities firms as an example, Figure 4.3 shows Beijing's rapid development in the stock market, which, together with the analysis of Deng (2010) and Chen (2015), highlights Beijing's ascending status in the Chinese securities industry. In 2000, Beijing had five companies, when Shenzhen and Shanghai had 13 and 7, respectively. 2001 and 2002 saw 34 new firms established, including four in Beijing, compared with four in Shenzhen and eight in Shanghai. At the end of 2001, Shenzhen was at the peak of its dominance over the securities industry, hosting the headquarters of 15 out of 64 firms. Beijing started to catch up with Shenzhen and Shanghai in 2003. Out of 26 new firms created between 2003 and 2011, 13 were created in Beijing. At this pace, Beijing surpassed Shanghai in 2008, and Shenzhen in 2011, becoming the headquarters location of the majority of securities firms. After 2012, some new asset management firms were established in Shanghai, which is considered as a new component of securities firms. As a result, for the first time Shanghai ranked the top in terms of number of headquarters hosted.

Beijing's success can primarily be ascribed to its proximity to regulatory departments, such as the PBOC and CSRC, supplying services for the national champion firms and Fortune Global 500 that are largely derivative of the planned economy and politics. Additionally, Beijing is also the domestic innovation and R&D center, being where a large number of competitive high-technology start-up firms are based and are carrying out stimulating innovation activities. Its development is also due to the interdependence between banking services, securities services and related professional services.

Figure 4.8 Changing number of headquarters of securities firms in leading securities centers



Source: Author's based on the data from China Securities and Futures Statistical Yearbook 2001–2014 and 2014 annual report of the CSRC

In the next step in my analysis I track Beijing's growth in the past 15 years through the lens of China's largest securities firm—CITIC Securities. This analysis is based on the information from CITIC's official website and an interview with a vice president from the Investment Banking Committee of CITIC Securities, which took on 11 October 2014. Currently, CITIC Securities is the largest securities company in Mainland China. In accordance with the data from the Securities Association of China, in 2015, CITIC Securities ranked No.1 among Chinese companies for both total assets and total revenues. Originally established in Beijing in 1995, it later moved to Shenzhen, attracted by cheaper land, and lower corporate income tax

because of Shenzhen's policies at the early stage of reform and opening up, as a special economic zone. It then moved back to Beijing, and then back again to Shenzhen.[8] There is generally a lot of competition from Shenzhen to attract headquarters of companies. At present, although the company is headquartered in Shenzhen, 70% of headquarters employment is in Beijing, 20% in Shenzhen, and 10% in Shanghai. There are some 2,000 people employed at the headquarters in Beijing, out of a total of approximately 10,000 employed across the whole of CITIC.

CITIC was subject to an IPO on the SSE in 2003 and on the Hong Kong Stock Exchange in 2012, before IPOs in China were suspended due to stagnant prices. CITIC is the first Chinese securities company with both A and H shares. CITIC recently took over 100% ownership of CLSA, a leading Hong Kong based securities company with a global network. Thus, they now consider themselves the biggest in the domestic market (having about 10% of the brokerage services market in Mainland China), and the most internationally connected Chinese securities firm – considered as the Goldman Sachs of China.

The success of CITIC Securities offers a miniature of Beijing's growth in the past 15 years. The securities industry has become ripe for consolidation by virtue of market forces. The number of firms exceeded capacity before 2004, as has been discussed in Section 4.3 (CSRC 2008). The main barrier is local and provincial government ownership of securities firms, because local governments try to keep these firms, and relationships with local governments are necessary to do business anyway – a legacy and path dependency of the command economy. However, the overall

[8] http://www.cs.ecitic.com/en/Corporate-information_Milestones.htm.

efficiency of the whole industry was quite low and a lot of firms faced bankruptcy (Wang and Cheng 2009). In 2005–2006, securities firms were struggling and were very cheap. The consolidation that ensued was orchestrated by the government, which may be one reason for the increasing concentration in Beijing. Companies with government backing had a better chance of surviving during this 'war'. Beijing has a special advantage in regard to attracting firms:

> As the vice president of CITIC Securities explained, Shanghai is the capital of the Chinese securities industry, as the central government aims to build Shanghai into a truly international financial center after the global financial crisis. However, some firms tend to conglomerate in Beijing rather than Shanghai. The vice president explained that Beijing is better in the provision of asymmetric information and labor market quality than Shanghai. Shanghai-based firms possess the advantage of regional and local business, which is ascribed to the prosperity of the Pearl River Delta, which grows much faster than Northern China. (vice president of investment banking committee, CITIC securities, 11 October 2014)

Connections to the PBOC, CSRC and the central government are crucial for business expansion in the securities industry. The government tends to choose advisers on capital market transactions for firms controlled by the government. The CSRC make the decision as to whether to approve a transaction or not, and they reject the majority of applications for IPOs. Before the application of the registration system, this gave Beijing an advantage that Shanghai did not possess. Another strength of Beijing is its headquarters economy. For example, CITIC's biggest IPO was that of the China Railway Construction Company, which is a Global Fortune 500 and state-owned enterprise based in the capital city.

4.7 Summary

The main objective of this chapter was to explore the geographies of the securities industry in Mainland China after the marketization reforms in the 1990s. We compared the key indicators between 2007 and 2014, analyzed the changing numbers of each subsector in the past two decades and discussed the openness of China's capital markets. The analysis and discussion highlighted the rise of the Mainland's securities industry in the contemporary financialized economy. The changing number of firms in each subsector also reflected the progress of the Mainland's transition economy. The legacy of the planned economy and the initial reform policies dominated by central government contributed to the landscape of the securities industry and thus confirmed the leading roles of Shanghai, Beijing and Shenzhen in the spatial configuration, while the restructuring of the geographies of each subsector was probably driven by market forces after China's accession to the WTO. Meanwhile, the distribution of joint ventures with foreign securities firms and representative offices of foreign exchanges that congregated in Beijing and Shanghai mirrored these cities' central positions in the securities industry. Moreover, the headquarters locations and branch networks were examined and the differentiated hierarchical networks of each sector were visualized, mapped and interpreted. This analysis showed the changing geographical concentration of each subsector by headquarters data. With the application of three connectivity measures to the headquarters and three distinct industry subnetworks, this segment specifically shed new light on the actually existing processes by which securitization connects cities around the Mainland.

The empirical evidence of this part of the chapter strengthens my argument that Shanghai, Beijing and Shenzhen are critical securities nodes for financial circuits within the subnetworks and they also reveal that three distinct hierarchical networks emerged and formed in the past 25 years. The empirical study showed that the connectivities of the subnetworks are highly influential in situating cities within the domestic system. This chapter was unable to attribute the different indicators, like total assets and revenues, to the exploration of changing spatial concentrations of each subsector (if that is indeed possible in the future); however, it is clear that the trends of subsectors are shown by headquarters distribution. To sum up, the establishment of the organizational hierarchies of the securities industry is a hybrid, which is driven by regional organization and the path dependence of planned economy, and the dynamics of command and control, such as the spatial expansion of securities centers .

Finally, I investigated the competition between Beijing, Shanghai and Shenzhen, and described the main factors that contributed to the landscape of the securities industry and its transformation. We should recognize that the production of financial geographies on the Mainland has been driven by a complex interplay of policy directions and organic market development, which is in contrast to that of more advanced markets (CSRC 2008). These key drivers characterizes the competition and changes between Shanghai, Beijing and Shenzhen, and the discussion of CITIC Securities points to a classic case. This analysis provides a complementary understanding of urban positionality and highlights the importance of face-to-face contact in the securities industry, which differentiates it from traditional banking.

In conclusion, the geographies of the securities industry in Mainland China are the result of a mix between its path-dependent history and institutional change (Martin and Sunley 2006), political economy (Leyshon 1995; Heep 2014), and sectoral differentiation (Wall and Van der Knaap 2011). On the one hand, like the New York–London axis in global financial markets (Wójcik 2013b), Shanghai, Beijing and Shenzhen contribute to a national trinity for China's securities industry. The growth of Shanghai and Shenzhen depends on market forces, which therefore suggests the need for the further reform and openness of the capital markets. For example, the proposal of a more transparent registration system is significant to underline Shanghai and Shenzhen roles in the networks of the securities industry. Regarding Beijing, the establishment of the National Equities Exchange and Quotations in 2012, which is more like a real NASDAQ board in Mainland China, may well strengthen the role of Beijing in China's securities landscape (Pan, Zhao and Wójcik 2016). On the other hand, diverse historical and institutional advantages explain why a handful of second tier cities, such as Nanjing, Hangzhou and Tianjin, play important roles in some subnetworks but not in others. This suggests the need for a spatial embeddedness development strategy for specific city.

Both chapter 3 and chapter 4 emphasize Shanghai's position as a leading financial center in Mainland, especially for attracting and receiving foreign capital. They also show that politics and state interventions play the critical roles in shaping the developments of financial centers in China. Furthermore, in the latest strategic planning, such as the Yangtze River Delta Mega-region planning, the 13th Five-Year plan of Shanghai and Shanghai 2040, both the central and local governments aim to upgrade Shanghai's status as an influential IFC in a world economy by 2020. As

such, in chapter 5 and chapter 6, I attempt to understand the development of China's financial centers through a crucial case of Shanghai's IFC.

Chapter 5 Examining the clusters of financial and business services within Shanghai city

5.1 Introduction

One of the key characteristics of contemporary IFCs is the interdependency between the financial sector and the related professional services. In this chapter, I focus attention on the clusters of FABS which encompass a very board range of economic activities that were first clearly identified as APS by Sassen (1991) in her global city thesis, or recognized as ABS by Dicken (2011) and Wójcik (2013a). The strengths of cluster approach are articulated as follows. Firstly, it does not relate to the financial industry separately, while it emphasizes the interplay between financial and business services like consulting, accounting and legal services in some way (Sassen 2012a). Second, a cluster is defined not just in terms of firms but also in terms of supporting institutions. These kinds of institutions are able to play a critical coordinating and facilitating role in robust clusters. For example, the financial regulatory authorities and financial intermediation, such as the second headquarter of PBOC, the branch of CBRC, CIRC, and CSRC, and SSE, contribute to the rapid growth of financial agglomerations and clusters in Lujiazui, Shanghai Pudong New Area. Third, non-market linkages are highlighted. Cooperation, borne out of a common culture and trust, is known to be particularly important with respect to knowledge spill overs and financial innovation (Clark and O'Connor 1997; Storper and Venables 2004). Finally, the geographies of FABS encourage us to think about this spatial form as a complicated system and micro foundation of the IFC and global city dynamics. It is

this very complexity that enriches the components of the IFC in the era of global and digital capitalism and that makes them difficult to replicable (Clark 2002).

In the case of Shanghai, FABS are considered as crucial drivers for its formation as an IFC and global city (Shanghai 2040)[9]. Recent empirical studies have shown Shanghai's dynamics as an IFC and global city from a comparative perspective (Lai 2011, 2012a, 2012b; Woo 2015, 2016a; Taylor *et al.* 2014). However, they fail in explaining how the internal spatial distribution of FABS impacts on Shanghai's dynamism at the local scale. In addition, as a contemporary global city, the modern manufacturing sector remains an important generative force in Shanghai's local economy, especially when seen as incorporating the production of information, industry-linked FABS, and the emerging New Economy, such as the high technology industry, the platform economy, and so on.

This study contributes to mapping the geographies of Shanghai's FABS at the local scale in a perspective of clusters. I examine the geographies of clusters at two spatial levels: the district level and an intensive cluster level (functional zone). More importantly, I try to answer questions which are central to this chapter: who is constructing the FABS clusters? How are they constructing the FABS clusters? And why are they constructing the FABS clusters? It also examines the interdependencies and local networks of different sectors in the context of Shanghai Pilot FTZ through integrating finance into the GPNs.

The empirical analysis is based on the data of headquarters, regional headquarters and representative offices of financial firms and authoritative institutions, and business services firms in Shanghai. It also involves the data of local listed

[9] http://www.supdri.com/2040/

companies at the SSE. All of these data are available, thus allowing an intelligible and innovative geographical analysis of the clusters of FABS in Shanghai. The findings reveal the uneven geographies of FABS within Shanghai city and close linkages between finance and real economy in the FTZ. First, I investigate the geography of FABS, and also examine the geography of domestic firms, and foreign and joint-venture firms in FABS separately. These geographies are quite similar but slightly different from one another. Second, I map the spatial distribution of financial services and business services separately and then make a comparison. While the geography of finance services is generally mono-centric, the spatial pattern of business services demonstrates a poly-centric landscape. Third, at the intensive cluster level, Lujiazui dominates the financial services, while Lujiazui, West Nanjing Road and Central Huaihai Road are identified as the top three clusters for business services. Finally, the Lujiazui Financial Zone as a financing platform contributes to the formation of a cohesive FTZ and drives the process of financialization in Shanghai.

The structure of this chapter is arranged as follows. Section 5.2 reviews the concepts and theories in order to underpin the importance and geography of FABS within a city, which is followed by an analysis of the existing study on the geography of financial services within a city. Section 5.3 introduces the data and methods employed in the empirical study. In Section 5.4, I map the geographies of FABS from two levels of the clusters respectively. It also draws attention to the FTZ and discusses the local interactions between different functional zones. Finally, in Section 5.5, I summarize the main findings.

5.2 The FABS: importance, centrality and geographies within a city

5.2.1 The FABS: critical role for IFCs, global cities and world economy

A range of theoretical approaches have been used to investigate the importance of FABS or similar articulations, such as producer services, APS or ABS. As Wójcik (2013a) argued, ABS, as a complex, hold considerable power, which they exercise in a large measure by operating legal, accounting and financial vehicles. Dicken (2011) also emphasized that ABS are central to the operation of the economy. Not only are they the lubricants to all production circuits but they also have become increasingly dominant in GPNs in particular.

In 1990s, Beyers (1992) highlighted that it is becoming increasingly clear that researchers must account more directly for the role of services in the processes of industrial restructuring in progress reports on producer services. As Wood (1991) argued:

The possibility that the role of service functions may be fundamental in capitalist change has been neglected. There is nevertheless growing, if disjointed, recognition that such change implicates services in important ways, whether through financial circulation, innovative producer services, the changing role of the state, or even the style and organization of consumption.

In this chapter I draw special attention to FABS, including both financial instruments and specialized services that were first clearly articulated as APS in the global city model (Sassen 1991), while APS are very important for understanding contemporary cities in globalization and financialization. Sassen (2012a) contended that global cities are strategic sites for the management of the global economy and the

production of APS and financial operations. The added complexity and uncertainties involved in running global financial markets and the need for highly specialized knowledge about the consulting, accounting, law, advertising, business cultures has meant that a growing interdependencies between headquarter functions and APS. In contrast with Friedmann and Wolff's (1982) world cities, Sassen added two additional functions to the global city model: global cities are post-industrial sites for APS and are transnational marketplaces where global actors—firms, governments, non-government entities and individuals—can buy or sell APS.

Sassen further pointed out that

> *those APS firms engaged in the most complex and globalized markets are subject to agglomeration economies. The complexity of the APS they need to produce, the uncertainty of the markets they are involved with either directly or through the headquarters for which they are producing the services, and the growing importance of speed in all these transactions, is a mix of conditions that constitutes a new agglomeration dynamic. The mix of firms, talents, and expertise from a broad range of specialized fields makes a certain type of urban environment function as an information center. Being in a city becomes synonymous with being in an extremely intense and dense information loop.* (Sassen 2005)

More importantly, in the framework of global cities, centrality remains a key feature of the contemporary world economy at the local scale. However, there is no longer a simple, straightforward relation between centrality and such geographical entities as central business district (CBD). Due to the development of IT and advanced information infrastructure, the spatial correlates of the center can assume several geographic forms, ranging from the traditional CBD to a new global grid of cities (Sassen 2005): a case that is well illustrated by recent development in cities as diverse as London and Paris.

5.2.2 Centrality and clusters of FABS within cities

Since the early 1990s, O'Brien's response to the growing importance of international capital flows was to argue that the globalization of capital and the rapid development of IT technology were resulting in a homogenization of financial space, which in turn was leading toward what he described as the 'end of geography' (O'Brien 1992). At first sight, IT developments would appear to release business services, especially financial services, from geographical constraints. However, the contemporary financial landscape shows a highly uneven distribution, not only across different cities but also within cities. Indeed, we find that, at global, national and local scales, FABS continue to be extremely strongly concentrated geographically (Dicken 2011).

Spatial economists Gordon and McCann (2000) distinguished three ideal-typical models: the pure agglomeration model, the industrial-complex model and the social-network model. They used the case of London's city-region to explore the relation between concentration and different forms of linkage. Duranton and Puga (2004) reviewed some of the micro foundations underlying localized-scale externalities, covered the detailed theoretical research and then distinguished it as three mechanisms—sharing, matching and learning. The localized nature of relationships between skilled labor, customers and suppliers is a critical factor which helps firms achieve innovative solutions (Taylor *et al.* 2003). This kind of theoretical approach can explain why cities differ in terms of financial agglomerations, however it cannot tell us why the geography of FABS is so spiky within a city (for instance, clusters such as the West End in London and MidTown in New York City) because economists have more or less neglected the importance and role of space and place in producing geography.

Meanwhile, economic geographers provide the possible approaches to explain the uneven development of FABS, especially financial services, not only at the city level but also within a city through the perspective of the heterogeneity of space, place and location, such as cultural economy, information and knowledge, institutions, networks, and most recently, 'geographical' political economy and financialization, which is a recent growth of geographical treatments of money and finance after 1990s. These attributes are interlocking processes and I have carefully investigated in chapter 2.

5.2.3 Geographies of FABS within a city

Financial services have attracted the most attention, mainly because of their historic role in managing the world economy, and supporting international trade and arbitrage. However the many non-financial forms of professional business services are less attractive. In the very beginning of the 21st century, Cook *et al.* (2007) and Taylor *et al.* (2003) reported a one-year study which investigated the clusterings of FABS activities in London. This examination of the geography of London's FABS demonstrated a distinctive east–west concentration, and they identified four separate clusters: a very cohesive City of London cluster, a less cohesive West End cluster, an incipient general cluster north of the City of London, and the law cluster that straddles the City of London and the West End. In particular, Roberts (2008) introduced the City as London's global financial center in terms of geography, history, financial markets, banking, insurance, professional services, maritime finance, regulation, and global competitiveness, as well as the City's weaknesses and

challenges. In contrast with Cook *et al.* (2007) and Taylor *et al*. (2003), he told us why the City has been able to flourish for over three centuries.

Similarly, Wood and Wójcik (2010) pointed out that business services are more diffuse than financial services within central London, geographically. Local clusters are evident only in disparate areas, such as the legal quarter west of the City, around Holborn; and media and advertising in Soho–Fitzrovia. Furthermore, they identified two significant trends during 2000–2006. The City of London and the West End lost a lot of financial jobs but gained in professional business services. These losses, however, were largely balanced by the emergence of Canary Wharf. Their study confirmed that the central London economy depends as much on professional business services in the West End as on financial activities in the City and Canary Wharf. In Roberts' book, he narrates the emergence of Canary Wharf as the second most dominant financial center in central London since 1980s. Since the mid-1990s a procession of leading banks and investment banks have relocated their London operations to shiny new buildings at Canary Wharf. These financial institutions include Credit Suisse, Morgan Stanley, Citigroup, HSBC, Barclays Capital and corporate lawyers Clifford Chance. In addition to being a home for major international banks and firms in the financial services sector, Canary Wharf is an important base for professional services firms as well as advertising firms and media organizations. Fitch Ratings, Infosys, KPMG, Moody's, State Street, and Thomson Reuters are also based in Canary Wharf. By the end of 2007, Canary Wharf comprised 24 office buildings with a working population of 80,000 people. In 2014, the total employment of this CBD reached 105,000.

In the case of New York, Gong and Keenan (2012) examined the impact of terrorism on the changing geography of financial services in the New York metropolitan area after 9/11 and how it interacted with agglomeration economies, technological changes, and globalization to shape the geography of financial services within and around the Manhattan. They summarized that prestige, public transportation, and proximity to clients and other financial services, as well as terrorism, are important determinants for location strategy. The innovation of this research is that it provides information about the location of financial services at the establishment level, with much more detail than the county level. The result shows that according to the 79 establishments surveyed, 54 kept stable, 15 relocated permanently, and 10 migrated after 9/11 but later returned to their pre-9/11 locations. All of those establishments that moved but returned are located in Downtown, especially around the World Trade Center site. Two trends of relocation are worth noting. One is the relocation from Downtown to eastern Midtown, which was much anticipated after 9/11. Another trend is the relocation from Midtown out of Manhattan. Four small establishments moved all or a majority of their businesses to New Jersey, Connecticut, South Carolina, and Texas respectively.

Lastly, take Morgan Stanley as an example, in New York city, Morgan Stanley's global headquarters moved from Wall Street to Broadway, Midtown in 1995. But, currently, Morgan Stanley is considering moving into a new skyscraper at the Hudson Yards development on Manhattan's far west side, potentially sharing a building with BlackRock Inc. Hudson Yards has also attracted financial firms KKR & Co. and Point72 Asset Management, as well as companies including Time Warner

Inc., Boston Consulting Group and L'Oreal USA.[10] Morgan Stanley has also moved other offices away from core business areas to newly developed business areas in the other leading IFCs. In 1977, Morgan Stanley opened its European headquarters in the City of London. It then moved to the 20 Bank Street building, Canary Wharf, after its completion in 2003. With a presence in Hong Kong since 1987, the Central serves as Morgan Stanley's Asia Pacific (ex-Japan) headquarters, as well as the gateway for raising capital in China. In 2009, Morgan Stanley relocated its office from the Central to the International Commercial Center, Kowloon.

5.2.4 Geographies of FABS in China and Shanghai

In China, Pan *et al.* (2015) investigated the locational patterns of headquarters of publicly listed firms located in Beijing and concluded that these patterns are shaped by both market and state forces. However, very few scholars draw special attention to the geography of FABS – even the distribution of financial services at the city level. Horesh (2009) documented that the Bund used to be the preeminent financial center in Shanghai, with a high degree of banking agglomeration. By the end of 1937, a total of 54 headquarters of banks and 128 branches were located here, making it the leading location in China in this regard. Meanwhile, the Central Bank of China, Bank of China, Bank of Transportation and Bank of China Farmers were based in Shanghai, while they had 491 branches nationwide.

In general, however, the existing literature on Shanghai's FABS study present several shortcomings. First, most research has discussed Shanghai's financial services as a whole, and has neglected the uneven development and clusterings of

[10] Source: https://www.bloomberg.com/news/articles/2017-02-10/morgan-stanley-said-to-consider-moving-to-new-hudson-yards-tower

financial services within the city. Lai's (2012b) analysis focused on the rise of Lujiazui as an emerging IFC, but her research was mainly based on interviews and lacked quantitative data. Second, the importance of business services has been neglected. Roberts (2008) and Pan *et al.*'s studies inspired me to carry out an empirical study to examine Shanghai's FABS at the local level. Third, no study draws attention to the linkages between financial services and the New Economy, such as the information industry, high technology, advanced manufacturing and so on, which are critical drivers for integration between GFNs and GPNs.

As GFNs that sustain capital and information flows expand and infiltrate more and more places, a growing number of nodes and hubs in Shanghai play increasingly important roles in linking their local resources to the multi-scalar level of GFNs, forming what Sassen refers to as a global city and as 'geographies of centrality' (Sassen 2012a). From an empirical standpoint, in this chapter I seek to build on these studies by answering three basic questions. First of all, what are the geographies of centrality in terms of FABS within Shanghai? Second, what is the primary node in the rise of a networked space for the financial sector and is there any migration within the city from a historical perspective? Third, because of the distinct characteristics, the geographies of financial services and the business services probably demonstrate different landscapes. Thus, why is the spatial distribution of business services differentiated from the financial sector?

To address these unanswered questions, this chapter proceeds in three stages. First, I introduce the data and methods in Section 5.3. Second, Section 5.4 examines and maps the basic geographies of FABS within Shanghai's city level, and make a comparison between the financial sector and business services both at district level

and an intensive cluster level in Section 5.4.1 and 5.4.2. In Section 5.4.3, I also discuss the structure of the FTZ and its role in Shanghai's IFC and global city formation. Finally, Section 5.5 concludes this chapter.

5.3 Data and methodology

In this study, I consider Shanghai city as the local scale for my geographical discussion. Shanghai city is one of four directly-controlled municipalities in China with a population of more than 24 million in 2016.[11] Shanghai is administratively equal to a province and is divided into 16 county-level districts (see Figure 5.1). Pudong New Area is a very special district in Shanghai, which comprises both urban and suburban areas. Puxi, the older part of Shanghai's urban area on the west bank of the Huangpu River, is divided into seven districts. These seven districts are collectively referred to as Shanghai proper or the core city, which comprises Huangpu, Xuhui, Changning, Jing'an, Putuo, Hongkou, and Yangpu. The suburban area includes eight districts: Baoshan, Minhang, Songjiang, Jiading, Jinshan, Fengxian, Qingpu and Chongming.

[11] http://www.shanghai.gov.cn/shanghai/node27118/index.html.

Figure 5.1 Administrative divisions of Shanghai



Source: Official website of Shanghai Municipal Government

As Taylor *et al.* (2004) have clarified, the degree of clustering of firms in a sector is positively related to the number of firms in the cluster. There are strong functional and locational linkages between corporate headquarters and producer services at both the inter-metropolitan and intra-metropolitan levels (Sassen 2012a; Gong and Keenan 2012). It is a very common notion that the number of headquarters is what specifies a cluster of FABS for global city dynamics (Sassen 2012a; Taylor 2012). However, such a statistical ordering only tells part of the story: to fully understand the

nature of the clustering of Shanghai's financial services and business services requires an investigation of their specific different geographies.

This study requires the presence of offices of major FABS firms and institutions across Shanghai. In practice, this implies a data collection strategy in which I need to select firms and confirm the addresses of firms. In order to map the uneven development and different geographies of FABS in Shanghai, I employ two datasets. The first covers financial services firms, financial authorities and financial services intermediaries. The second covers business services firms. My initial pools of data contained more than 650 firms. Data on the financial sector are collected from the Shanghai Finance Year Book 2015 and 2016, and the dataset of the GaWC for world cities network analysis, which includes 75 financial firms and 100 business services firms, while the data on the business services firms are gathered from the Shanghai Bar Association for law firms, the Chinese Institute of Certified Public Accountants for accounting firms, and the major recruitment websites for consulting and advertising firms, such as Zhilian, 58Tongcheng and 51job, based on the scale of these firms (for instance, the total employment), as well as a combination of the business services firms in the GaWC dataset.

However, some firms listed in the GaWC dataset do not have subsidiaries in Shanghai, and some consulting and advertising firms are too small – for example, having less than 10 employees – which cannot reflect the importance of a firm's establishment. Therefore, I remove micro-enterprise from the dataset and then the number of each sub-sector of business services firms is unequal in my dataset. The end product of this collection reduces my data base to a detailing the addresses of 614 institutions and firms: the first part includes 307 financial companies engaged in

banking, insurance, securities dealing, fund management, derivatives, foreign exchange and bullion markets, and seven financial regulatory institutions. The second includes 300 business services firms including 72 legal services, 77 accounting, 81 consulting and 70 advertising services, both of which together constitute the clusterings of FABS in Shanghai. This group of firms is a mixture of most globalized business services firms with a presence in Shanghai, as well as major domestic and local business services firms, which allows us to consider both globalization and localization agents.

The initial task of Section 5.4 is to provide a very basic geography of FABS within Shanghai. The locations of financial firms and institutions, and the business services firms, have been investigated. In essence, for FABS there are two levels of abstraction in the construction of the clusters:

- The level of district (county level)—maps are constructed of the distribution of all firms and institutions in each administrative district to provide a preliminary geography of clustering and dispersion of financial industry and business services separately in Section 5.4.1. I also examine the geography of foreign firms and joint-ventures in order to check whether it is similar with the patterns of overall FABS.

- The level of an intensive cluster—defined as a financial or business functional zone with more than 25 firms. The local official documents and planning recognize some critical zones for FABS. Maps of these clusters for the financial services and business services sectors are shown in Section 5.4.2.

In Section 5.4.3, I employ the data of 66 firms listed on the SSE, which are based on different functional zones in the FTZ. This analysis helps us to understand the intra-linkages within the FTZ.

5.4 Mapping the clusters of FABS in Shanghai

This section aims to contribute to this endeavor by examining the geographies of FABS within Shanghai. More specifically, it tries to explore the locational structure and dynamics of Shanghai's financial center and global city in the context of the FTZ.

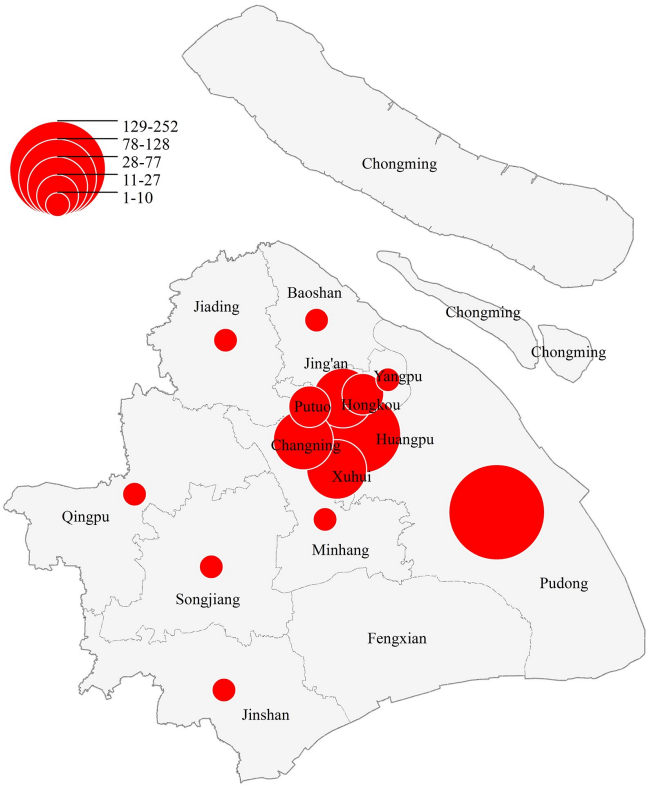
5.4.1 Examining the basic geographies of FABS and financial regulatory institutions at the district level

To start with, generally the spatial landscape of FABS and financial regulatory institutions engaged in 614 firms is visualized in Figure 5.2. More than 95% of the investigated objects are located within the city center. This organizational pattern exhibits a very spiky geography, and uneven spatial development, socio-spatial polarization and territorial inequality remain pervasive and endemic features of modern financialization of the economy. The analysis of Shanghai reveals two forms of concentration and dispersal. The first, the main focus, is the disproportionate concentration of FABS in Pudong New Area since 1990s, when there was the option of locating in Puxi. Second, no establishment of any firm is shown in Chongming and Fengxian districts, which is partly ascribed to their poor transportation links and their poor location.

The formation of spiky geographies of FABS can be partly ascribed to the policy initiatives and authoritative planning. It is not only the national strategy that has a special focus on the financial industry, but also, the municipal and district

governments highlight the importance of FABS for the local economy. The policy support for Pudong and the FTZ, as well as the planning of the Yangtze River Delta Mega-region Planning by the State Council, promote the growth of FABS in Shanghai. The 13th Five-Year Plan of the Shanghai municipal government, Shanghai 2040, and the special planning of Pudong, Huangpu and Jing'an at the local scale all attract the establishment of FABS, especially for foreign capital.

Figure 5.2 The geography of FABS and financial regulatory institutions at the district level



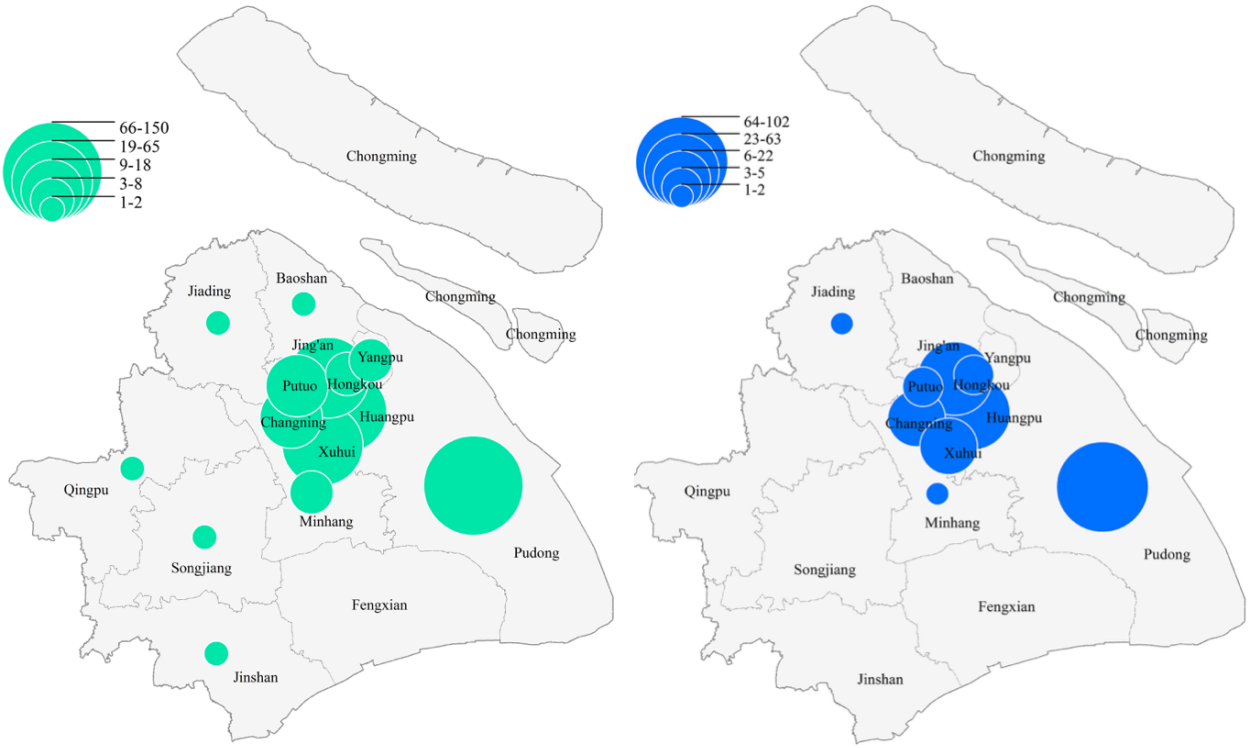
Source: Author

Secondly, I examine the geography of domestic institutions, and foreign and joint-venture firms respectively. The aggregate of the latter group accounts for approximately 40% of the total number engaged in FABS. Figure 5.3 demonstrates

that some domestic firms are based in suburban areas, while companies engaged in foreign capital tend to be located within the city center. For instance, Pudong New Area is the primary center for foreign institutions, especially Lujiazui, where 101 of 102 foreign and joint-ventures firms in Pudong are located, followed by Huangpu and Jing'an in terms of the geography of foreign capital.

Since 1990 onward, Shanghai provides a vibrant and cosmopolitan environment for foreign firms and international capital. This is ascribed to two key geographic determinants: social and cultural construction (Thrift 1994). Horesh (2014) and Karen (2012b) drew upon Shanghai's historical success as an IFC in the early-twentieth century to account for its contemporary cosmopolitanism and receptiveness to foreign investment, ideas and practices. Foreign firms show a greater preference for city center compared to domestic firms, because they are global actors and some places in the city center that are activated by both market forces or policy regimes possess competitiveness in international markets with very specialized and professional capabilities. Meanwhile, domestic firms depend more on local customers and suppliers, which has an impact on the locations of these firms. In contrast with foreign capitals, the clusters of domestic firms are precisely the result of a mix of specific, differentiated and localized relations.

Figure 5.3 The geography of domestic institutions (green), and foreign and joint-ventures firms (blue)



Source: Author

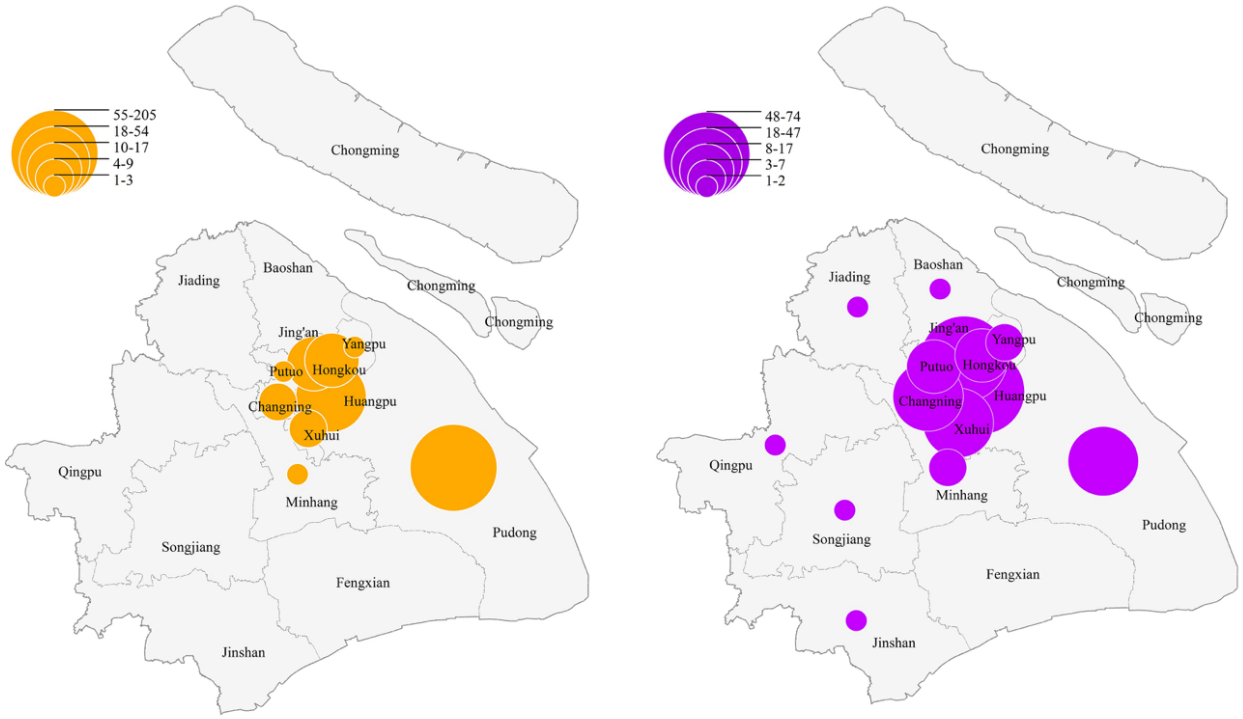
Thirdly, in order to make a comparison between financial sector and business services, I visualize their geographies separately, as depicted in Figure 5.4. The financial sector has exhibited a strong tendency to cluster in select locations and, as such, a large proportion of financial activities are concentrated within a relatively small group of financial centers, chief among which is Pudong New Area, with two-thirds of total financial institutions and firms, especially in the emerging IFC—Lujiazui Financial Zone, which will be discussed in Section 5.4.2. In the Puxi area, Huangpu is the largest financial cluster. The financial industry in Huangpu created 17% of Shanghai's financial GDP and produced more than one-third of local GDP in 2015. The other districts in Puxi are far behind Huangpu and the aggregate of their firms'

figures is approximately equal to Huangpu. Additionally, it should be noticed that only three firms are registered in the suburban districts. Meanwhile, the distribution of business services outlines a different geography from that of the financial sector. The analysis of the location of business services demonstrates a distinctive Puxi-Pudong concentration, which shows a relatively low degree of primacy in contrast with financial industry. In brief, the geography of business services shows a more dispersed characteristic than that of the financial sector. More specifically, Huangpu is the primary business center, followed by Jing'an, while Pudong only ranks third. However, the primacy of Huangpu in business services is much lower than Pudong's in financial industry, since the number of the business services firms in Huangpu accounts for just 25% of the total number. In contrast with the three financial services establishments, 14 business services firms are located in the suburban districts.

Huangpu is the second most important financial center and the primary business cluster in Shanghai, which can be partly attributed to the merger between Huangpu district and Luwan district in 2011.[12] Jing'an has the second largest concentration of business services. According to the official statistics of the local government, the tax revenue contributed by office buildings accounted for 62% of total tax revenue in this district, and the number of office buildings whose annual tax revenue exceeds CNY 100 million was 63 by the end of 2016. The expansion of business services also brings with the establishment of multinational firms. To date, there are 67 regional headquarters of multinational firms in Jing'an.

[12] Luwan district was a district in central Shanghai until its merger with Huangpu District, Shanghai, in June 2011.

Figure 5.4 Comparison between the geographies of the financial sector (orange) and business services (purple)



Source: Author

To summarize, the degree of agglomeration in the financial industry is much higher than that for business services. The geographical structures of the financial sector and business services are different from each other. While Pudong dominates the financial industry, the geography of business services demonstrates a three-pillar pattern: Huangpu, Jiang'an and Pudong. For the financial industry, institutions create unequal distributions of financial opportunities and flows within and between cities (Clark 2005). In China and Shanghai, the growth in the importance of Pudong can mainly be understood as an outcome of a policy of competitive deregulation of the financial sector by PBOC, CSRC and CBRC since the establishment of Pudong New Area, especially after China's participation in the WTO and the proposal of the first

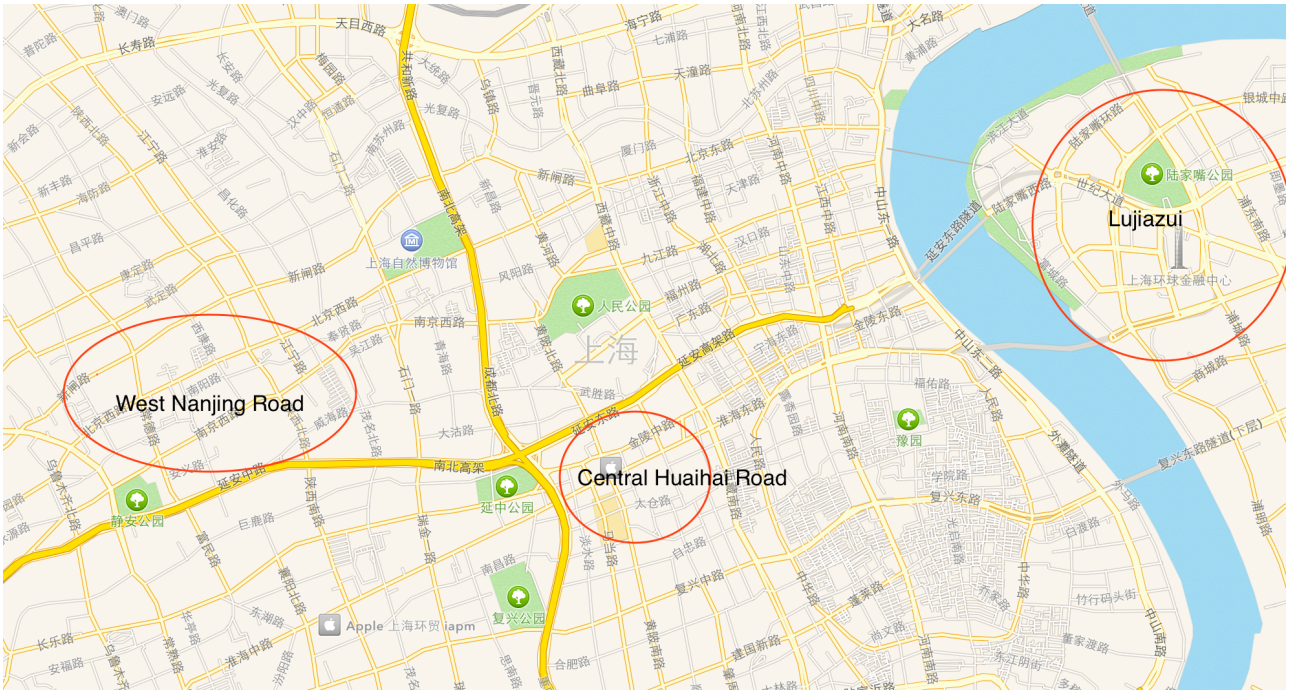
FTZ in Pudong. The financial regulatory reform is heavily biased toward Pudong, and the latest progress has seen financial experiments and innovations such as the convertibility and internationalization of RMB conducted within FTZ. This kind of institutional advantage contributes to the formation and consolidation of Pudong as the preeminent financial cluster. In contrast with the financial sector, the geography of business services does not show a unipolar trend, in that the formation of business services clusters is mainly driven by market forces, while the geography of financial services is dramatically produced through a range of political discourses and programs.

5.4.2 The intensive clusters: Lujiazui, West Nanjing Road and Central Huaihai Road

Inspired by Taylor *et al.* (2003), and Hong and Keenan's (2010) research on London and New York, this study further provides information about the location of FABS at the functional zones level, which is the intensive cluster than the district/county scale. The existing city strategic reports and planning, such as Shanghai headquarters economy development and commercial layout 2015, and Shanghai 2040, underline the belt of Lujiazui—the Bund—Yan'an Road—Shanghai Hongqiao Commercial Zone as the crucial spatial platform for FABS. In this section, I focus in particular on the clusters embedded in this belt.

Based on my dataset of 307 financial firms and seven financial regulatory institutions, Lujiazui Financial Zone is the only financial cluster at this level. Likewise, I identify three clusters for business services: namely Lujiazui, West Nanjing Road and Central Huaihai Road (see Figure 5.5).

Figure 5.5 The location of Lujiazui, West Nanjing Road and Central Huaihai Road



Source: Google Map

Regarding the geography of the financial sector, there is one distinctive sub-concentration that is the Lujiazui. After the central government made Pudong's development a priority in the 1990s, Liujiazui has gradually established itself as an emerging IFC. More recently, Liujiazui has become the critical component of the FTZ to carry out the financial reform and innovation since the FTZ's expansion in December 2014. In my analysis, while 205 financial firms and institutions are located in Pudong New Area, 200 of them are concentrated within Lujiazui Financial Zone.

First, Lujiazui has built a large, diverse system of capital markets and regulatory entities. It hosts China's most important capital market institutions and Shanghai's local regulatory authorities (see Table 5.1 and Table 5.2), including the second headquarters of PBOC, the national foreign exchange trading center, the national bond trading center, the country's largest stock exchange, and so on.

Table 5.1 Major national capital markets in Shanghai

Capital Markets Institutions	Year established	Location
SSE	1990	Lujiazui
National FX Trading Exchange	1994	Zhangjiang
Shanghai United Assets and Equity Exchange	1994	Putuo
Shanghai Futures Exchange	1999	Lujiazui
Shanghai Gold Exchange	2002	Huangpu
China UnionPay	2002	Lujiazui
China Financial Futures Exchange	2006	Lujiazui
Shanghai Clearing House	2009	Huangpu
Shanghai Insurance Exchange	2016	Lujiazui
Shanghai Commercial Paper Exchange	2016	Huangpu

Source: Author's based on the data from Shanghai Finance Yearbook 2016

Table 5.2 The distribution of Shanghai's financial regulatory authorities

Regulatory Authorities	Location
The Second Headquarters of PBOC	Lujiazui
CBRC (Shanghai)	Lujiazui
CSRC (Shanghai)	Lujiazui
CIRC (Shanghai)	Lujiazui
State Administration of Foreign Exchange (Shanghai)	Lujiazui
China Trust Registration Co., Ltd	Lujiazui

Shanghai Finance Office	Huangpu

Source: Author's based on the data from Shanghai Finance Yearbook 2016

In addition, Lujiazui is home to the headquarters, branches and representative offices of over 100 foreign firms, which contributes to its high degree of internationalization. In Table 5.3, we can see the dramatic density of foreign financial companies in Lujiazui, which had been vacant before 1990. The case of Lujiazui is interesting because all of the hard and soft infrastructure in the CBD has been built since the 1990s, the age when finance was beginning to boom after the adoption of neoliberal practices in the Anglo-America world and the establishment of China's institutional transition from a planned economy to a market economy.

Table 5.3 The geographical centrality of foreign financial institutions in Shanghai (2014)

	Shanghai	Lujiazui	% of total
Locally incorporated institutions	22	19	86%
Foreign bank branches	58	44	76%
Foreign bank representative offices	80	38	47%
Non-banking institutions representative offices	11	6	55%

Source: Author's based on the data from Shanghai Finance Yearbook 2015

Note: '% of total' means the percentage of Lujiazui out of the Shanghai total

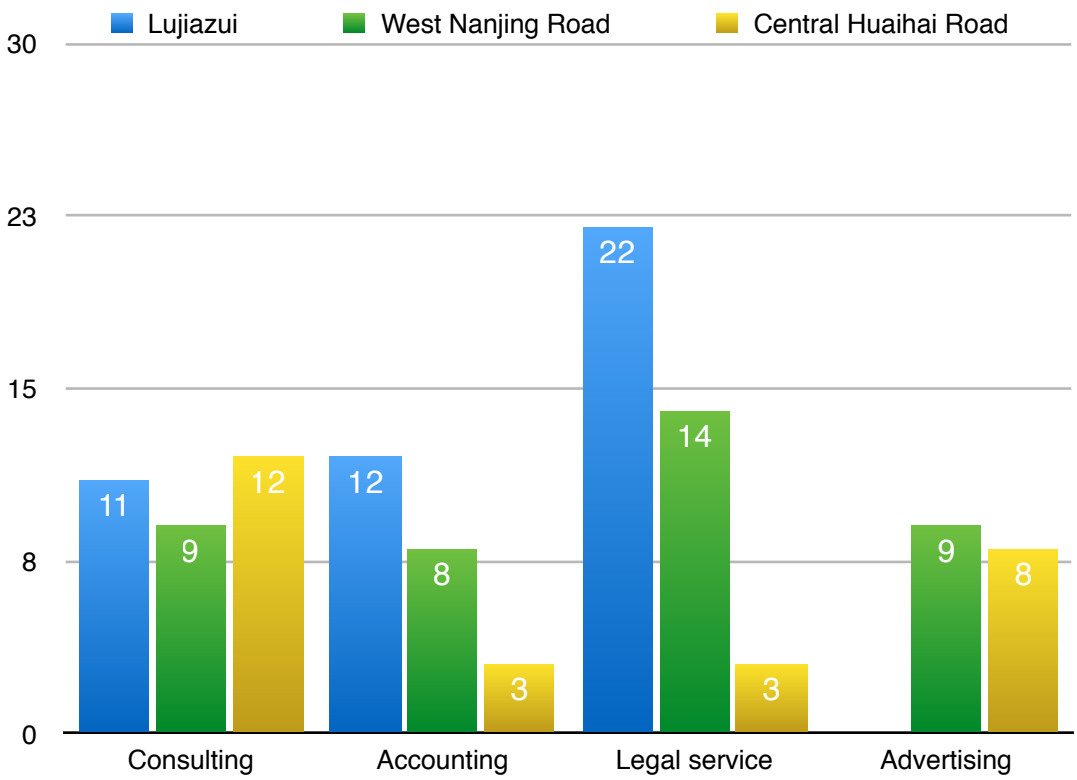
Lujiazui is the only remarkable and predominant financial cluster and it is used as a territorial fix for financial and monetary authorities in both China and Shanghai in its development as the first and leading IFC in Mainland China. In terms of the financial sector, incomplete knowledge and asymmetric information matter in an increasingly speculative and digitized market economy. IFCs, and especially the great diversity and complexity in global cities, are the sites of information-rich milieux that provide a complicated mixture of elements—the social infrastructure for global connectivity (Sassen 2012b). Within Shanghai, the urban knowledge capital and asymmetric information of embeddedness reflects the notion that financial activities and global city dynamism are inseparable from China's current economical and political system. In the context of China's political-economic relations, the financial industry, especially securities and fund management services, as well as foreign firms, demand greater production of urban knowledge capital and interpretation of asymmetric information, which depends greatly on the collection, interpretation and diffusion of financial information and the function of the global city.

Additionally, as Allen (2010) argued, GFNs have little choice other than to go through the CBD for certain types of transactions. Pudong is the primary financial center in Shanghai and Lujiazui is distinguished from others, by the concentration and interaction of foreign financial resources at their disposal. Shanghai is a critical node in GFNs, while the city is a network of networks at a local level. One starting point in order to explain the significance of the concentration in Lujiazui is the financial network which looks at how a financializing economy organizes its use of spaces and places. The interactions of globalization and localization consist of two vertical linkages that comprise reflexive, evolutionary and dynamic processes with the engagement of globalization and localization. The central role of Lujiazui acts as a

node or hub that integrates the local financial network into the global domain and localizes global finance into the scope of Shanghai by the intermediation of multinational firms.

In the remainder of this subsection I focus my attention on the three clusters for business services—Lujiazui, West Nanjing Road and Central Huai Road (see Figure 5.5). As demonstrated in Figure 5.6, the geography of business services consists of three distinct clusters of varying importance. These three clusters account for nearly 40% of the total business services firms. The two main zones are Lujiazui and West Nanjing Road in Jing'an. Lujiazui features a cluster of firms in consulting, accounting and legal services. This is a cohesive cluster zone of both financial firms and business services first, compact buy with the absent of advertising and media services. In this sense, we can clearly become aware of the close relations between financial and business services, especially accounting, such as Baker Tilly International, Crowe Horwath International, Ernst & Young and global prestigious law firms: for instance, Allen & Overy International, Baker & McKenzie International, DLA Piper International, Kirkland & Ellis National, Latham & Watkins National, Linklaters International, McDermott Will & Emery National.

Figure 5.6 The top three clusters of APS firms



Source: Author

The second zone is West Nanjing Road in Jing'an, featuring a cluster of firms in consulting, accounting, legal services, and advertising/media. This is a larger but less cohesive cluster, including all services that I am examining in this study. Within this cluster, the multinational firms tend to concentrate in the Grade A office buildings – for example, the Jing'an Kerry, the Hang Lung Plaza and the Shanghai Center – while the domestic firms exhibit no great preference. The tax revenue created by this cluster zone increased from CNY 11.7 billion to CNY 22.1 billion during the period 2011–2015. And 22 regional headquarters of multinational firms, including not only FABS but also other sectors, such as L'Oreal, Pfizer, AkzonNobel, and Inditex, are based in this business services zone. By the end of 2015, 21 office buildings on

West Nanjing Road produced CNY 14 billion in tax revenue and accounted for 44.44% of total tax revenue in Jing'an.[13] There is a third, less important, cluster that is nevertheless interesting—Central Huaihai Road featuring consulting and advertising. There are other services that feature in this zone at lower levels of abstraction. The most important fact is that this zone hosts the largest number of consulting firms, including the world leading giants—McKinsey, PwC Consulting, Mercer LLC, NERA Economic Consulting, Hewitt and so on. In the 12th and 13th Five-Year Plans (2016–2020) of Huangpu district government, the Central Huaihai Road is selected as one of the six modern service industry cluster zones in this district.

Figure 5.7 Grade A office buildings and business services cluster in West Nanjing Road



Source: Author

[13] Data source: http://www.jingan.gov.cn/xxgk/016001/016001001/20170515/5875d5ed-8149-4622-802f-f07074f582bf.html

To conclude, 40% of business services firms are concentrated in Lujiazui, West Nanjing Road and Central Huaihai Road; these are the preeminent business services clusters. First, in the context of spaces of flows, all cities, to very different degrees, are to some extent under the stress of the connection of each key center or cluster, of each key activity in the respective global network. In this regard, Shanghai's global city does not mean the whole or even the majority of this city and it mainly exhibits on the FABS clusters from a geography perspective, namely Lujiazui, West Nanjing Road and Central Huaihai Road. These kinds of places connect talent, firms and places to one another and enable information and capital to flow for business services. Second, the strategic planning from both the municipal and district level points to Lujiazui, West Nanjing Road and Central Huai Road as critical functional zones for FABS. For example, in 2017, Jing'an district government proposed a special plan that particularly focuses on the development of ABS in West Nanjing Road. Moreover, both West Nanjing Road and Huaihai Road used to be critical parts of Shanghai's old concession, and they possess a long history of business and a receptiveness to foreign firms. More importantly, the agglomerations and clusters in Lujiazui, West Nanjing Road and Central Huaihai Road should be seen as actor networks: associations of actors and resources. The dense networks of interaction at the micro-level between global actors within these places facilitates processes of financial and business innovation, and also helps to overcome critical knowledge asymmetries and uncertainties.

5.4.3 Integrating FABS into the GPNs in the architecture of the FTZ

GFNs are an indispensable necessity of GPNs because the agglomerations and clusters are exactly places for integrating FABS into real economy for flows of value (Coe *et al.* 2014). Taylor *et al.*'s (2003) research shed new light on the relationship between the City of London and Canary Wharf and they argued that Canary Wharf is viewed as an adjunct of the City and not as a separate, rival cluster. Similarly, in the case of Shanghai FTZ, this includes three new types of industrial cluster: Lujiazui, Zhangjiang and Waigaoqiao-Jinqiao. Has it formed functional interconnectivity based on local specialization within the FTZ? For example, does any evidence show the inter-firm networks and relational geographies between Lujiazui, Zhangjiang and Waigaoqiao-Jinqiao.

Figure 5.8 demonstrates the geographical area of the FTZ. In December 2014, the State Council approved the expansion of Shanghai FTZ by incorporating Lujiazui Financial Area, Jinqiao Export Processing Zone, and Zhangjiang High Tech Park, enlarging the FTZ from 28.78 square kilometers to 120.72 square kilometers to provide more space for reform trials (see the official website of the FTZ[14]). Zhangjiang is a base for innovations as Shanghai implements the national strategy for sustainable growth. Jinqiao is focusing on administrative and financial reforms, creating a good business environment to facilitate trade, and fostering strategic growth industries for sustainable growth and international competition. Waigaoqiao, which is a neighbor of Jinqiao, is an area designated for free trade logistics. Both Jinqiao and Waigaoqiao are export-oriented zones. The great progress of financial

[14] http://en.china-shftz.gov.cn/About-FTZ/Introduction/

innovation in the FTZ shows China's ambition to build Shanghai into an influential IFC and a global city in the post-Brexit and Trump era.

Figure 5.8 Map of Shanghai FTZ after expansion in December 2014



Source：Shanghai Daily

Beyond the concentration of FABS, the interactions within the FTZ are also important to show Lujiazui's growth as an IFC and global city at the local scale. In contemporary capitalism, the manufacturing sector remains a primary generative force in urban, regional, national, and global economies, especially when seen as

incorporating the production of information, industry-linked financial and professional services, and the so-called New Economy. This brings me to a discussion of the interactive relations between Lujiazui, Zhangjiang and Jinqiao-Waigaoqiao during Lujiazui's ascendance as an IFC and global city.

Lujiazui promotes the process of financialization in the FTZ. Here, I use the case of FTZ-based firms that are listed on the SSE to exemplify the combination of finance and the real economy, and the integration of the production network and financial network, which is the simplest way of financing production. By the end of 2015, 157 firms in Shanghai city were listed on the SSE and 66 of them were based within Lujiazui, Zhangjiang and Jinqiao-Waigaoqiao (see Table 5.4), amounting to more than 40% of the total. As Pryke (2011) believed, when these listed companies raise money from external sources through the stock exchange, they are exposed to varied forms of scrutiny and influence from different groups of FABS located within the IFC, such as legal services, financial consulting, accountancy and other business services. Through such channels, finance thus affects corporate geographies and the geographies of production network, and three specialized zones—Lujiazui, Zhangjiang, and Jinqiao-Waigaoqiao—are able to closely link with each other and achieve mutual cooperation. In addition, innovation-driven firms that are part of the rising role of the New Economy in contemporary capitalism are crucial for the reconfiguration and engagement of globalization and localization (Martin 2009). As shown in Table 5.4, in the FTZ, especially Zhangjiang, six of the 11 listed firms focus on the areas of the New Economy. The growing enterprises in the New Economy, as well as the sophisticated financial institutions, contribute to the micro foundation of

Shanghai and Lujiazui's prosperity as an IFC and global city, and also bring with the FTZ an ascending significance for the urban and national economy.

Table 5.4 The distribution and categories of FTZ's firms listed on the SSE (by the end of 2015)[15]

	Total	Manufacturing	Finance	Real Estate	New Economy	Others
Lujiazui	36	8	3	5	3	17
Zhangjiang	11	3	0	0	6	2
Jinqiao-	19	5	2	2	2	8

Note: Financial firms include banking, insurance, securities, fund management and related financial services firms; New Economy firms comprise modern manufacturing industry, information services and biomedical firms; others refers traditional industry, trade services and linguistic services.

Source: Author's based on the data from the official website of the SSE

5.5 Summary

The objective of this chapter was to analyze the clusters of Shanghai's FABS at city level, and to discuss the FTZ that is potentially facilitating Shanghai's formation as an IFC and global city through intensifying the Lujiazui Financial Zone and integrating finance into real economy, as well as a cohesion between the GFNs and GPNs. The main findings of the research are addressed here. First, the unequal growth of FABS within Shanghai is dramatic, while these geographies highlight that

[15] http://www.sse.com.cn/assortment/stock/list/area/

Pudong dominates in financial services, but business services show a structure of polycentric geography at the district level. Second, at the intensive cluster zone level, I recognize one cluster for financial services—Lujiazui—and three clusters for business services: namely Lujiazui, West Nanjing Road and Central Huaihai Road, that serve the dynamics of Shanghai's IFC and global city. Third, it also demonstrates the linkages between FABS, modern manufacturing, and high technology, which offers a substantial foundation for Shanghai's formation as an IFC and global city based on the processes of the newly established FTZ.

This work has done much to help us understand Shanghai's IFC and global city dynamics. Empirically, it illustrates the fact that there is a dramatically uneven growth of FABS within Shanghai, while the existing literature generally considers Shanghai as a whole on its IFC investigation. In addition, conceptually and theoretically, this perspective provides a new understanding of Shanghai's IFC, because the clusterings of FABS are inevitably necessary to sustain Shanghai's IFC and global city dynamics. This analysis underlines the fact that business services clusters are emphatically the critical components of IFCs in the local context since the extant study draws exclusive attention to the financial industry. It also shed light on the importance and impacts of modern manufacturing and high technology, and the dynamic interactions between different functional zones in Shanghai, a context in which the role of the IFC and global city have been under-studied and rarely combined with the analysis of Shanghai's modern manufacturing and high technology sectors. The geographies of FABS in Shanghai are similar to the spatial landscapes in Beijing, London and New York, which demonstrates a preeminent financial cluster and a polycentric configuration in terms of business services.

The focus of this study identifies the commonalities in terms of IFC dynamics between Shanghai and the centres from western countries. I employ the global city, culture, information, institution, network, 'geographical' political economy and financialization approaches to explain the geographies of FABS and test the validity of these 'oversea' approaches in China's case. At the same time, we should also notice that geographies of FABS, especially the incredible rise of Lujiazui in the last 27 years, is dramatically produced through a range of political discourses and state interventions. As Hall (2017) highlighted we should foreground the role of politics, and state and government in IFC formation. Therefore, chapter 6 attempts to examine the policy regime of Shanghai's IFC that is a state-led model beyond neoliberal orthodox. In the following chapter, it evaluates the strategic effects, points out the constraints of this model and explores a different pathway to an influential IFC within the framework of this model.

Appendix 5.1 Distribution of FABS at district level, Shanghai

District	Total	Financial regulatory	Financial Services	Business Services			
				Consulting	Accounting	Law	Advertising
Shanghai	614	7	307	81	77	72	70
Pudong	252	6	199	13	12	22	0
Huangpu	128	1	53	29	18	10	17
Jiang'an	77		17	13	12	16	19
Xuhui	47		8	13	6	5	15
Changning	40		9	8	10	5	8
Hongkong	27		15	1	7	2	2
Putuo	19		2	2	7	4	4
Yangpu	7		1	1	2	2	1
Suburban	17		3	1	3	6	4

Appendix 5.2 List of financial regulatory institutions and FABS firms

Financial regulatory (7)

The Second Headquarters of PBOC	CBRC (Shanghai)	CSRC (Shanghai)	CIRC (Shanghai)
State Administration of Foreign Exchange (Shanghai)	China Trust Registration Co., Ltd Shanghai Finance Office	Shanghai Municipal Office of Finance	

Financial services (307)

Shanghai Stock Exchange	National FX Trading Exchange	Shanghai United Assets and Equity Exchange	Shanghai Futures Exchange
Shanghai Gold Exchange	China UnionPay	China Financial Futures Exchange	Shanghai Clearing House
Shanghai Commercial Paper Exchange	Shanghai Insurance Exchange		
Firms in GaWC dataset 44			
ACE	DnB NOR	Banca MPS	Svenska Handelsbanken
UBI Banca	Resona Holdings	Mapfre	KB Financial Group
FirstRand	Goldman Sachs Group	State Bank of India Group	Chubb
Santander	Woori Finance Holdings	Westpac Banking Group	Wells Fargo
UniCredit Group	Türkiye Is Bankasi	State Street	Standard Bank Group
Société Générale Group	Shinhan Financial	Natixis	National Australia Bank
Munich Re	Intesa Sanpaolo	Generali Group	Deutsche Bank
Commonwealth Bank	BBVA-Banco Bilbao Vizcaya	Barclays	Bank of Nova Scotia
Bank of New York Mellon	Bank of Montreal	Bank of America	Morgan Stanley
Toronto-Dominion Bank	JPMorgan Chase	Icici Bank	Banco do Brasil
Sun Life Financial	Royal Bank of Canada	Zurich Financial Services	Nordea Bank
Banking 54			
Postal Saving Bank of China	Tianjin Bank	China Construction Bank	Wenzhou bank
Xiamen International Bank	Ningbo Bank	Jiangsu Bank	Beijing Bank
Bohai Bank	Zheshang Bank	Ping An Bank	China Merchant Bank
Minsheng Bank	Huaxia Bank	Everbright Bank	Citic Bank
Shanghai Rural Commercial Bank	Shanghai Bank	Bank of Communication	Bank of China

Agricultural Bank of China	ICBC	Exim Bank of China	China Development Bank
Zhejiang Mintai Commercial Bank	Industrial Bank	ZHEJIANG TAILONG COMMERCIAL BANK	Agricultural Development Bank of China
China Guangfa Bank	Nanjing Bank	Shanghai Pudong Development Bank	Hangzhou Bank
Pudong Silicon Valley Bank	Bangkok Bank	Zhengxin Bank	Australia and New Zealand Banking Group
DBS Bank	Standard Chartered	Starbright Finance Co.	RBS
The Bank of Tokyo-Mitsubishi UFJ	Sumitomo Mitsui Banking Corporation	Mizuho Bank	Nanyang Commercial Bank
HSBC	Fubon Bank (China)	OCBC Bank	East West Bank
Citi group	Hang Seng Bank	BNP Paribas	Bank of East Asia
Crédit Agricole· CIB	United Overseas Bank		
Securities firms 22			
Haitong Securities	Haitong Asset management	Shanghai Securities	Oriental Securities
Oriental Asset management	Shenwan-Hongyuan Securities	Huatai Asset management	Qilu Asset management
Guotai-Junan Asset management	Morgan Shidan Lihuaxin Securities	BOC International	Shanghai Huaxin Securities
HwaBao Securities	Huajin Securities	Haiji Dahe Securities	Guotai-Junan Securities
Tebon Securities	Changjiang Financing Services	Aijian Securities	Everbright Asset management
Citi-Oriental Securities	EverBright Securities		
Fund management firms 45			
Guotai	Tebon	MIRAE	JYAH
China nature	Golden Trust Sinopac	Huafu Fund	Max Wealth fund
Xinyuan	BOSC	Industrial Fund	Donghai fund
Taiping Fund	Chang'an Fund	Caitong fund	FUANDA fund
Niuyin Meilong Fund	BOC fund	Lombarda China Fund	Zhonghai Fund

Galaxy	Huatai-PineBridge Investments	Aegon-Industrial Fund	CITIC-Prudential Fund
Wanjia Fund	Taixin Fund	China International Fund	ABC-CA fund
Nordisk Fund	BOCOM-Schroders	Jinyuan Bilian Fund	Huitianfu Fund
HFT Fund	Hsbc Jintrust Fund	Huafu Fund	Fortune SG Fund
Huaan Fund	GTJA Allianz	Guohaifu Lankelin Fund	Fullgoal Fund
Soochow Asset	Changxin	Everbright Pramerica Fund	Axa Spdb Investment Managers
Shenwan Lingxin Fund			
Futures firms 28			
Hicend futures	SDIC futures	Dongxing Futures	Tianhong Futures
Dalu Futures	Zhongrong Huixin	Everbright Futures	Haitong Futures
Hengtai Futures	Huawen	Shanghai East futures	East Asia Futures
Oriental Securities Futures	Jinyuan Futures	Tongxin Jiuheng	UBS Futures
Tonglian Futures	Shanghai Zheshi Futures	Zhongcai Futures	SHZQ Futures
Shenyin-Wanguo	CES Futures	Xinhu Futures	Guotai-Junan
Soochow	Huaxin	CCB Futures	Guosen
Insurance firms 50			
Zhongmei Liantai Metropolis Life Insurance	AIA Group	Great Wall Changsheng Life Insurance	CPIC Life Insurance
SAMSUNG INSURANCE	STARR	Minsheng Tonghui	Huatai P&C Insurance
RGA America Reinsurance Company	General Reinsurance AG	Hannover Re	XL Insurance
Lloyd's of London	Cathay Insurance	Tokio Marine & Nichido Fire Insurance	AIG
Chubb Limited	RSA Insurance Group	Mitsui Sumitomo Insurance Group	CPIC Asset
Ping’an property	Huatai Property Insurance	China CMG property Insurance	AXA Tianping P&C Insurance

Alltrust Property Insurance	China Continent Property & Casualty Insurance	Tianan Insurance	CPIC Property
China Pacific Insurance	Anxin Agricultural Insurance	Zhong'an online property insurance	CPIC Asset management
BoCommLife Insurance	AEGON-CNOOC Life Insurance	CPIC Allianz Health Insurance	Pramerica Fosun Life Insurance
Allianz China Life Insurance	HSBC	Cathay Lujiazui Life Insurance	Founder Group
ICBC-AXA	Manulife-Sinochem Life Insurance	Great Eastern Life	Ping’an health
Yangtze River Social Endowment	Taiping pension	Ping An Annuity Insurance	CCB Life Insurance
Guohua life	Taiping Life Insurance		
The other financial firms 54			
China Union(Shanghai)	Zhonghai Trust	Shanghai Far East Zixin Assessment Limited Company	China Huarong Asset Management
Bank of Communications Financial Leasing	SPDB Financial Leasing	Aijian Trust	FosunGroup Finance Corporation Limited
Shanghai Purang	Shanghai CFETS-NEX International Money Broking	Tullett Prebon Sitico （China） Limited	Shanghai Dongzheng Automotive Finance
Brilliance-BEA Auto Finance	Ford Finance	Shanghai General Motors Finance	Dong Feng Nissan Auto Finance Co.,Ltd
Yangtze United Financial Leasing	Sinopec Finance	Sino - Australian International Trust	Taiping & Sinopec Financial Leasing Co.,Ltd
ABC Financial Leasing	CMB Financial Leasing	Panasonic Finance China	Waigaoqiao Limited
Double Coin	Shenergy Group Finance	ZHONG CHUAN FINANCE COMPANY	SPDB Financial Leasing
Baosteel Group Finance	Huabao Trust	Great Wall Asset management	Clearing center for city commercial banks
CES Finance	Shanghai Jinguo Consultation	Bright Finance	Shanghai Electric Finance
Shanghai Automobile Group Finance Company	China Cinda Asset Management	Shanghai Credit Information Services	Huajie Rating

CCXI	Shanghai Brilliance Credit Rating & Investment servics	BOC Consumer Finance	Fiat Financial services
China Power International Development	Hitachi Capital	Shanghai Industrial Investment Finance	Shanghai Bailian Finance
Jinjiang Finance	Zhongtai Trust	Zhonghai Finance	Anxin Trust
Shanghai International Trust	China Oriental Asset management		

Business services (300)

Consulting 81			
Fesco	Accor services	Gleeds	IMs
Mango associates	Booz Allen Hamilton	Hays	McKinsey
Alvarez & Marsal	Colliers International	DDI	Aon Hewitt
Arthur D. Little	Mercer LLC	NERA Economic Consulting	Booz & Company
The Boston Consulting Group	FTI Consulting, Inc.	Hudson	Euromonitor
Interbrand	Unisys	Autoliv	Navigant Consulting, Inc.
Capgemini	Monitor Group	Nielsen	Futures First
TUV Consulting	Credit D&B	Abeam consulting	Qiantan Consulting
AlixPartners, LLP	Bain & Company	DTZ	L.E.K. Consulting
Roland Berger	ZS Associates	Arvato	Dow Jones & Company
Merkle (China)	Deloitte	Haygroup	Opera
A.T. Kearney	Swifttrade	The Parthenon Group	Towers Watson
IBM Global Business Services	Kantar Media CIC	Meritco services	ARUP (Shanghai)
Evalueserve	Talent consulting	Hitachi consulting	frost&sullivan
Oliver Wyman	AAS (Advanced Analytic Service)	WT partnership	Langdon & Seah China

TYZX	上海汇聚领航	Energy source	Essence IMC
China-Co	HR Excellence Center	Blackboard	优克锡企业管理
思八达	Capvision	Forecast	CRI consulting
AMT consulting	Synovate	EIC education	Bokesoft
P&T group	Bebeyond	Accenture	Parsons Brinckerhoff
Fleishman Hillard			
Accounting 77			
DFK International	Geneva Group International	PwC	HLB International
BDO International	IAPA	RSM International	Moore Stephens International
Kreston International	AGN International	BKR International	IGAF Worldwide
Ernst & Young	Crowe Horwath International	Baker Tilly International	MSI Global Alliance
Praxity	Leading Edge Alliance	KPMG International	Deloitte Touche Tohmatsu
UHY International	Pan-China Certified Public Accountants LLP	Shanghai Ruihe Certified Public Accountants	Shanghai Credential Certified Public Accountants
Shanghai Guanghua CPA	Shanghai Wenhui CPA	上海申威联合会计师事务所（普通合伙企业）	Dahua CPA
Shanghai Huashen CPA	Shanghai Cairui CPA	上海东洲政信会计师事务所有限公司	Shanghai Chengchang CPA
Shanghai Gongzheng CPA	Shanghai Honghua CPA	上海中财信会计师事务所有限公司	Shanghai Lixinjiacheng CPA
Shanghai Hugang Jinmao CPA	Shanghai Donghua CPA	Shanghai Qiushi CPA	Shanghai Tiancheng CPA
上海迈伊兹会计师事务所有限公司	Shanghai Yongcheng CPA	Shanghai Shenzhoudatong CPA	Shanghai Shangzi CPA
Shanghai Qianyi CPA	Shanghai Linfang Certified Public Accountants	Shanghai Wanlona CPA	Daxin CPA
ShineWing CPA	Ruihua CPA	Huapu Tianjin CPA	MY CPA
Zonghui	Mazars CPA	Acumen Group	Shanghai Zhonghui CPA

Shanghai Well CPA partnership	Jinrun CPA	Shanghai CPA	Shanghai Shenbei CPA
Shanghai Huzhong CPA	Shanghai Zhongchuanghaijia CPA	Xinghua CPA	Zhongxincai Guanghua CPA
Shanghai Oriental CPA	Zhonghua CPA	Shanghai Zhongjiayongxin	Shanghai Zhaoxin CPA
Grant Thornton	Shanghai Wenhui CPA	Shanghai Zhonghe CPA	Shanghai Gongxin CPA
Yongtuo CPA	Shang shen CPA	上海新正光会计师事务所有限公司	Fu xing ming fang Certified Public Accountants
Hongda Dongya CPA firm			
Law 72			
Clifford Chance International (U.K.)	Sidley Austin National (U.S.)	Greenberg Traurig National (U.S.)	Jones Day National (U.S.)
Morgan, Lewis & Bockius National (U.S.)	McDermott Will & Emery National (U.S.)	Linklaters International (U.K.)	Latham & Watkins National (U.S.)
Kirkland & Ellis National (U.S.)	Freshfields Bruckhaus Deringer International (U.K.)	DLA Piper International	Baker & McKenzie International (U.S.)
Allen & Overy International (U.K.)	White & Case International (U.S.)	Weil, Gotshal & Manges New York	Skadden, Arps, Slate, Meagher & Flom National (U.S.)
Reed Smith National (U.S.)	Paul, Hastings, Janofsky & Walker National (U.S.)	Mayer Brown National (U.S.)	Lovells International (U.K.)
PKF International	K&L Gates	上海精诚海众律师事务所	Jinmao PRC lawyers
Chang An Law Form	Evergright law Firm	Shanghai Jianwei Law Firm	Jin Mao Partners
Jun He Law Offices	Hui Ye Law Firm	W&H law firm	Shanghai Junyue Law Firm
King&Wood Mallesons	Hiway Law firm	Huarong Law firm	Sloma & Co
Longan Law Firm	WATSON & BAND	Sunhold law firm	Shanghai Jiahua Law Firm
Dingli Law Firm	Bohe Law firm	Shanghai Push Law Firm	Shanghai Bright & Young Law Firm
Rolmax Law Office	Wintell & Co	Ganus Law	Trend Law Firm

Llinks Law Offices	Shenda law firm	Zhongyin Law firm	SG &CO PRC lawyers
Co-effort law firm	Zhonglun	大成Dentons	Allbright law offices
Deheng law offices	Barry law firm	Capital Equity legal group	Heqin Lawyear
Xinmin	Zhongxia Xubo lawyers	Jiehua Law firm	Brilliance Law firm
Debund law offices	Fangda partner	Grandall law firm	Shenzhong law firm
Yingke	Zhenghan law firm	Boss & Young, Attorneys-At-Law	Shanghai United Law Firm
Advertising & Media 70			
TSM	Carat	Dentsu	Adways
OMP	WTM	JCDecaux	Epsilon
OgilvyOne Worldwide	Fullsix	Activation Group	Lowe Worldwide
Hakuhodo	FCB	BBDO Worldwide	McCann Erickson Worldwide
Teein	Mecool	Inne media	ACME
Y & R	Touchmedia	Publicis	Wunderman
Satchi and Satchi	Razorfish	OMD Worldwide	Media Consulta
Leo Burnett Worldwide	TBWA Worldwide	Worldwide	Ogilvy and Mather
Kantar Group	JWT	Always	DDB Worldwide
Grey	Modernmedia	Ruder	Euro RSCG Worldwide
Asatsu-DK	Unisono fieldmarketing	Dun&Bradstreet Roadway	Cathay Advertising
Young & Rubicam	UUCMM柚柚传媒	灵智精实	上海致趣广告
mediacone	CCE Group	Allyes	EPC Eventplus
lansunmedia	BlueFocus	GroupM	UTOPPR
篱笆广告	Mediabrands	DDB BJ	上海声色广告公司
艾曦广告	山河斋	Raisen	上海星竹广告
Shanghai Shine	Shanghai Juxiao Advertising	上海弗兰广告	Dynamic Advertising
Lecast	上海信泽得风	Shanghai Advertising Limited	

Chapter 6 The dynamics of Shanghai's IFC formation: a state-led model beyond the neoliberal orthodoxy

1. Introduction

In the age of quicksilver global finance, we have witnessed the rise and establishment of a highly interconnected GFNs, along with the practices of globalization and the rise of IT technology. IFCs, where the metropolizes become the strategic sites of immense concentrations of financial power, bring with them a vast mix of knowledgeable people, lucrative deals and complex transactions (Wójcik 2013b). As such, the development of IFCs is of great interest to policymakers and business around the world, due to the benefits they bring for employment and tax revenue, as well as the geopolitical and geoeconomic impacts. As a consequence, some cities have ambitions to establish themselves as IFCs. One such city is Shanghai.

The growth of China has fueled demand in the global financial market and restructured the geography of global finance (Clark 2015). As a consequence, Chinese cities are increasingly embedded into global systems of production, capital flows and accumulation (Taylor *et al.* 2014). Against this backdrop, in March 2009, the central government set the goal of turning Shanghai into a true global financial center by 2020, a target with which the municipal government of Shanghai is in enthusiastic agreement (Shanghai Daily 2009). The latest 13th Five-Year Plan of the Shanghai Municipal Government and the financial innovations in the Shanghai FTZ also underpin the hope that Shanghai will become an influential IFC by 2020.

However, this ambition on the part of China and Shanghai has not inspired a sufficient impetus attention from economic geographers. This is especially true due to Shanghai's IFC dynamics, which reflect a state-led policy regime.

Hall (2010) pointed to the need to develop a more politically and geographically nuanced of money and finance and understanding of the geographical heterogeneity of the international financial system. Hall (2017) also highlighted that research needs to better understand the role of the state, and particularly financial authorities. Likewise, French *et al.* (2011) also argue that the financialization literature requires a far greater engagement with the wider political economy literature on money and finance. Therefore, this chapter attempts to explore a different pathway for IFC formation, based on the special characteristics of China's political economy and policy regimes, which provides a complementary approach to the orthodox theories derived from Anglo-American financial capitalism.

The first objective of this chapter is to provide a conceptual and theoretical analysis of IFCs by focusing in particular on the IFCs' main characteristics, categories and dynamics. The chapter then reviews the policy initiatives driving Shanghai's IFC formation, both from central and local governments, and evaluates the strategic effects of these policies in a way that emphasizes the differential pathways through which an emerging IFC can potentially become an influential one outside of the Anglo-American model. I try to do this by moving outside of the empirical terrain of the IFCs in the developed world, such as New York and London, to Shanghai. In brief, this is a discourse that focuses on the theoretical basis of IFCs, and Shanghai's pathways towards being an influential IFC with Chinese characteristics,

including the role of the government in intentionally devising pathways to IFC formation.

The organization of this chapter proceeds as follows. Section 6.2 establishes the conceptual and theoretical foundation, as well as providing an investigation of the relevant literature on Shanghai's IFC through the lens of financial geography. In Section 6.3 I review Shanghai's historical success and its decline after 1949, and I discuss the policy and strategy model and evaluate the evidence on Shanghai's progress since the 1990s. Section 6.4 explores the underlying factors and examines the disadvantage of Shanghai's IFC dynamics. The last section concludes and provides two strategic proposals for Shanghai's IFC enhancement in the context of FTZ and OBOR initiatives.

6.2 IFCs: concept, theoretical basis and relevant literature review

In order to develop an analytical framework for evaluating Shanghai's IFC progress, I first introduce the concept of the IFC by outlining its main characteristics, and then discuss the classification of major onshore IFCs. This is followed by an evaluation and assessment of the implications of the existing studies on the analysis of Shanghai's IFC growth.

Finance and financial activities, which are central to the operation of the system of financial products exchange, have become spatially concentrated in a few particular and developed cities (Sassen 1991; Pryke 2011). In previous studies, Fratianni (2009) revisited the historical record on IFCs with a much longer time horizon than that used by Kindleberger (1974) and Cassis (2006), who just focus on the 19th and

20th centuries. In this chapter, I pay close attention to the development and evolution of onshore IFCs in the era of globalization and post-Fordism, to fit my purpose in my discussion of Shanghai's strategic planning as an IFC since the 1990s.

6.2.1 What is an IFC in the contemporary world economy?

The concept of financial center as well as IFC, has been evolving since the last five centuries. In the very beginning of modern capitalism budding, the IFCs are places where banking activities are concentrated and that served the commercial and maritime trade. However, currently, they have evolved into the focus of all kinds of financial activities in the financial networks. Fratianni (2009) and Kinderberger (1974) found evidence of a long evolutionary chain of banking and finance by revisiting the historical record of IFCs in Western Europe and North America. Nevertheless, in this chapter, I mainly focus on the IFCs in the era of post-Fordism with the main characteristics of digital economy, neoliberal financialization and globalization, and its academic trajectory since 1970s and years afterwards. Based on my discussion in chapter 2.2, in brief, the key characteristics of IFCs in the contemporary economy include:

(1) a high-degree agglomeration of financial intermediation and related advanced professional services, such as financial services, legal services, accounting, consulting, information services and so on;

(2) strategic sites and key nodes in the structure of GFNs and the global interurban network for outward and inward flows of capital, information and elites. High connectivity to other IFCs and hardware through electronic trading systems,

providing fast, reliable data links, coupled with remote access to financial markets, reducing the need for physical proximity in conducting global transactions;

(3) major places of information collection and knowledge spillovers for financial innovation and sites for producing knowledge components that address the problem of incomplete knowledge of firms and investors in market economies;

(4) high-degree of internationalization of financial markets. Capital markets have deep market liquidity, contributed by a wide range of cross-border financial services and being host to large numbers of foreign listed firms;

(5) a high standard of regulation is provided by regulators with deep industry knowledge and technical skills appropriate for complex financial business, reinforced through flexible and co-operative relationships between the industry and regulators;

(6) strategic locations to redirect inward and outward flows of capital and value in search of spatial and territorial fix for global financial integration;

(7) openness to a highly-skilled, internationally mobile workforce with a depth and breadth of financial and related services' knowledge and experience, encouraged by government policy in immigration and education; and

(8) specific territories that exhibit most strongly the culture of global finance that is difficult to replicable in the other places.

6.2.2 Classification, policy regimes and the stages in the development of IFCs

IFC is not a completely universal category, although IFCs always share some commonalities and features: it is a specific category that is always dependent on concrete conditions and historical developments. In this section, I try to assess the key IFCs worldwide, to understand the differentiations, and to build theorizations to support new pathways for Shanghai's IFC formation.

I begin with distinguishing between the different types of IFCs. Based on the theories of legal frameworks proposed by La Porta *et al.* (1998) and Wójcik (2011), the main onshore IFCs can be classified into two large groups: the Anglo-American centers and the continental centers (see Table 6.1). While there are several important IFCs today, two stand out—London and New York—and both share a common institution, culture and language. As Hall (2003) pointed out, London and New York are very special cities and in this sense they represent the two poles of a transatlantic metropolis. While New York commands access to the largest and most liquid domestic financial market in the world, London's physical, political and historical geography implies access to a different time zone, European markets, and global connections (Clark 2002; Wójcik 2013b). Beyond New York and London, Hong Kong, Singapore, Toronto, Dubai [16]and Sydney also belong to the Anglo-American group, though with relatively less global influence, and are generally capital market-oriented. In contrast, there are a large number IFCs within the civil law framework, such as Tokyo, Frankfurt, Paris, Beijing and Shanghai. This group of the IFCs are

[16] The Dubai IFC employs common law, see https://www.difc.ae/laws-regulations.

often dominated by banking, non-English-speaking and coordinated market economies.

Table 6.1 Different categories of contemporary IFCs according to legal family

legal family	Function	Financial centers	Main characteristics
Anglo-American law system	Global hub and node	London, New York	Capital market-oriented; English-speaking
	Macro region gateway	Hong Kong, Singapore, Dubai, Sydney	Capital market-oriented; English-speaking
Civil law system	Macro region node	Tokyo, Frankfurt, Paris, Beijing, Shanghai	Banking dominant; non-English-speaking
Islamic law system	Macro region node	Istanbul, Jakarta, Kuala Lumpur	Sharia law-rooted; more of a socially just finance system than a conventional finance system (Lai and Samers 2017)

Source: Author

Meanwhile, according to Park (2011), IFCs can also be divided into three types in terms of their operational and geographical reach (see Table 6.2). Currently, Shanghai primarily functions as a regional player that serves Mainland China. Additionally, the GFNs also include some well known offshore financial centers, such

as the Cayman Islands, the British Virgin Islands, Jersey and the Bahamas. However, in this chapter I mainly focus on the onshore IFCs.

Table 6.2 Different categories of contemporary IFCs according to geographical impact

Geographical impact	Financial centers	Main characteristics
Global players	London, New York	They serve a global clientele in the broadest range of financial services and are in the forefront of financial innovations.
Regional players	Frankfurt, Tokyo, Shanghai, Hong Kong and Singapore, Beijing	They primarily cater to their regional-market clients as their comparative advantages lie in their intimate knowledge of, and their close geographical proximity to, their clients located in the respective regions.
Niche players	Sydney, Zurich, Luxembourg and Edinburgh	They specialize in certain financial service sectors.

Source: Park (2011)

Secondly, the importance to understanding policy regimes can be found in the variegated capitalism literature (Dixon 2011, Coe *et al.* 2013, Peck 2016), which represents an institutional approach in economic geography to differentiating market economies. Importantly, the ways in which markets are embedded within different sociopolitical institutions, are associated with the emergence and sustenance of different types of financial systems (Zysman 1983). Therefore, this section aims to conceptualize the financial policy regimes of London, Hong Kong, Singapore and Shanghai, and to provide a clearer and more critical understanding of how

sociopolitical relations impact IFC development. Then, I am able to extend the analysis of Shanghai's IFC strategies beyond the orthodox Anglo-American understanding of preconceived structuralism. As illustrated in Table 6.3, Woo (2015) identified four distinct policy regimes by studying the varying role of government and industry actors in financial policy. Shanghai's financial policy regime exhibits a high level of state intervention by central and local government, and industry actors in the local context possess little or no influence over the policymakers.

Table 6.3 A policy regime comparison between London, Hong Kong, Singapore and Shanghai

IFC	Drivers	Impacts of industry actors
London	Market-oriented, low level of state intervention	Influential
Hong Kong	Market-oriented, low level of state intervention	Not influential
Singapore	Hybrid dynamics	Influential; a close-knit network of state and industry actors
Shanghai	State-dominant, strong state intervention by both central and municipal government	Not influential

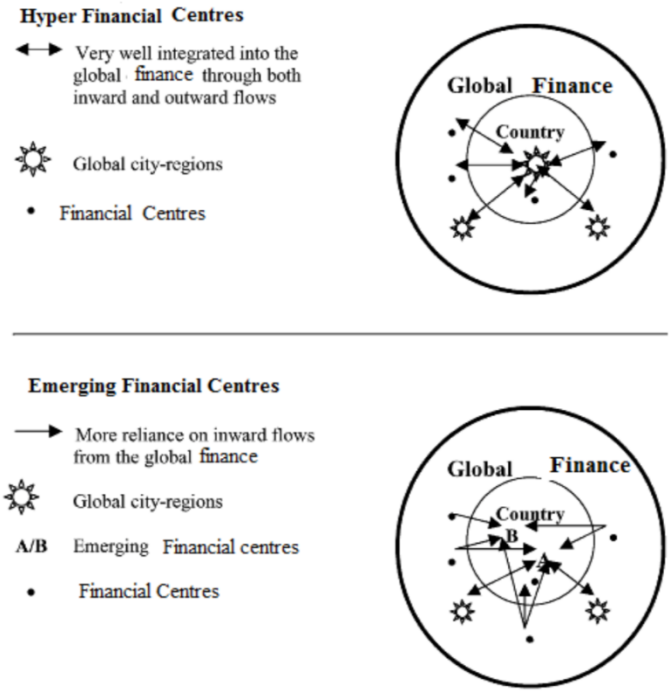
Source: Woo (2015)

Thirdly, IFCs take time to evolve, and I identify two stages in their development, as outlined below, in order to make a comparison between Shanghai and London in the empirical analysis. Based on the three categories of global city formation proposed

by Olds and Yeung (2004), I attempt to theorize the spatial functions of two kinds of IFCs: hyper IFCs, like London and New York, with global influence and emerging IFCs, such as Shanghai. As portrayed in Figure 6.1, a hyper IFC is a truly global financial center and is very well integrated into the GFNs through both outbound and inbound flows (Taylor *et al.* 2014), while an emerging IFC shows more reliance on inward flows from global finance.

For every financial center, the network analysis generates estimated work-flows to every other financial center. This pattern of flows is called a financial center's hinterland (Taylor *et al.* 2004; Zhao *et al.* 2004, 2005). Generally, hyper IFCs and their global city-regions are well embedded into the GFNs; therefore, they simultaneously generate a vast information hinterland by relational geographies. In contrast, emerging IFCs have only limited relational linkages with the other financial centers, which results in their hinterland being relatively narrow.

Figure 6.1 A comparison between emerging IFCs and hyper IFCs



Source: Adapted by the author from Figure A topology of global cities in Olds and Yeung (2004: 504)

6.2.3 The chances for a latecomer: Shanghai's IFC from a financial geography perspective

Although the state plays a critical role in Shanghai's IFC dynamics, the policies and strategies, as well as the central–local political relations regarding IFC formation, have not attracted much attention from the financial geography perspective to date. Xu (2009) started with revisiting the strategy evolution and policy support of Shanghai's IFC from 1990 to 2006. Then he discussed the advantages and

disadvantages of Shanghai as an IFC, and introduced the 11th Five-year Plan for Shanghai's IFC ambition. In conclusion, he believed that Shanghai would be one of the most important IFCs in the Asia-Pacific Region. Additionally, both the 13th Five-Year Plan of the local authority and the latest Shanghai 2040 global city planning confirm that Shanghai will become an influential IFC by 2020.

However, most scholars are not so optimistic about Shanghai's prospects. For example, Yeung (2010) believed that Shanghai lacks political and economic freedom and its rule of law needs improvement to adjust the international standards. Besides, Shanghai has few financial-related decision-making institutions as most of these are based in Beijing. Similarly, in regard to the institutional and regulatory context, Jarvis (2011) pointed out that Shanghai's financial sector development is not its own but reflects a national development strategy that is substantially controlled by Beijing (the central government). Rescaling of governance as greater financial and political power is transferred from the central government to the local municipal government but in a process which is not always contiguous, consistent or predictable (Lai 2006). Therefore, Jarvis argued that Beijing remains a major obstacle to Shanghai's desire to liberalize its financial services sector and implement policies aimed at speeding up the process of financial clustering and increasing financial density, and concluded that Shanghai would likely prove to be laggard. More recently, Zhang (2014) examined Shanghai's IFC progress in the context of Shanghai's global city formation and highlighted the complexity of a state-led model of IFC and global city formation. She underpinned that despite the long-term efforts by the state, Shanghai's progress towards becoming an IFC and global city is relatively slow due to the inflexibility in the orientation of the state–market relation as well as the central–local politics.

After the establishment of the FTZ in 2013, a revisit of Shanghai's IFC evaluation is needed. First, the central government is speeding up the process of financial innovation and policy dexterity, and has announced a series of new initiatives in the contexts of the FTZ and OBOR initiatives. Second, with the process of financialization globally, global financial markets are gradually building a cross-border, correlated and sophisticated network of IFCs. However, the previous assessments of Shanghai's IFC were often confined within its local territory or involved comparisons with Hong Kong or Beijing by focusing on the financial agglomeration and clusters, and neglected the flows, connectivity and relational geographies within the GFNs. Third, the conventional analysis examines Shanghai's achievements and failures within the framework of the neoliberal model, instead of considering China's political and institutional context. In order to meet the research gaps mentioned above, I propose the following questions. What have been the changing policy initiatives for Shanghai's IFC since the 1990s? What are the strategic effects and the weaknesses of this kind of policy regime? Is there a model beyond neoliberal dynamics that can contribute to upgrading Shanghai's IFC in the future?

6.3 Shanghai's development as an IFC: historical success, contemporary strategies and outcomes

6.3.1 Shanghai's historic success as an IFC and its decline after 1949

Murphey (1953) cast pre-war Shanghai as an all important bridgehead of Western innovation in East Asia, against the backdrop of the Communist takeover of the

Mainland. The headquarters of the government's financial department and most foreign banks were located in Shanghai in the 1930s. 'The only gold market, vibrant business environment, various capital markets, financial talents cluster, and active financial culture' actually reflected Shanghai's prosperity in financial activities in the first half of the 20th century. In *Shanghai's Finance in the 20th Century*, Hong (2004) argued that Shanghai was the most important IFC in the oriental world during the first half of the last century. In addition to the objective conditions, like its geographical location, the government's policies also played a critical role in the development of the financial industry at that time. The central bank was officially established in the Bund in November 1928, which not only attracted the other banks to build their headquarters or branches in Shanghai, but also strengthened the financial influence of Shanghai (Yatsko 2001). The growth of the central bank was beneficial to the development of Shanghai as a financial hub.

The Bund used to be the preeminent financial center in Shanghai, with a high degree of banking agglomeration (Horesh 2009). By the end of 1937, 54 headquarters of banks and 128 branches were located there. The Central Bank of China, the Bank of China, the Bank of Transportation and the Bank of China Farmers were based in Shanghai, and had 491 branches nationwide in total. 36 of 73 China's commercial banks had their headquarters in Shanghai. These 36 commercial banks had a total of 278 branches in China, which accounted for 68.1% of the total number of commercial bank branches in the country. In addition, Shanghai had 27 foreign banks, while other major cities were far behind. Meanwhile, in other cities there were 17 foreign banks in Hong Kong, 14 in Tianjin, 10 in Peking, 10 in Hankou, 7 in Dalian, 7 in Guangzhou, and 6 in Qingdao (Wu 1994). In 1949, Shanghai was Asia's leading financial center, hosting 24 state banks, some 200 private lending entities,

trust companies and financial institutions, and home to the world's third largest stock market, behind New York and London (Laurenceson and Tang 2005).

The destiny of Shanghai's financial development was completely reversed after the founding of the People's Republic of China in 1949. Firstly, most headquarters of domestic banks migrated to Beijing. Secondly, due to the foreign policies of the Party, all foreign financial institutions revoked their branches and the central government confiscated their asserts in China. They then closed all capital markets, in accordance with Communist rules. As a consequence, Shanghai lost its position as a financial center and trade hub, and became a totally industrial city (Yusuf and Wu 2002). Shanghai's new role in state socialism has been described as that of a dragon head of state-led industrialization and modernization (Wu 2000a, 2000b) and is linked to the central government's priority of developing national defense capacity through the process of industrialization (Lai 2006).

In the early stage of China's reform and opening up, Guangdong and Fujian were selected as the institutional experimental areas to strengthen China's links to the world economy. Although Shanghai was designated as one of the 14 Open Coastal Cities in 1984, compared to other fast-growing provinces over the period 1979–1989 Shanghai's growth rates in terms of national income were considerably lower (see Table 6.4).

Table 6.4 The growth of Shanghai and selected Eastern Coastal Provinces (%), 1953–1989

	Shanghai	Shandong	Jiangsu	Zhejiang	Guangdong	National average
1953–1978	8.7	5.7	5.6	5.6	5.3	6.0
1979–1989	7.6	10.4	11.0	12.8	11.6	8.1

Source: Cheung (1996: 53); Lai (2006)

After the 1990s, Shanghai gained a new opportunity to reinvent itself as an IFC. The nation needs Shanghai as a strategic site to be integrated into the globalizing economy. The experiments and innovation in Shanghai Pudong New Area after 1990 have helped it become a financial center of national strategic significance. Pudong was granted some privileges in China's second round of economic and institutional reforms.

6.3.2 The central–local policy initiatives in the strategic vision and institutional building for a state-led IFC

In Bergère's viewpoint (2009), Shanghai is the gateway and hub for China's modernity, and it has also been an economic and financial portal for internationalization and neoliberal practices during the latest steps of opening up. The central government has promulgated a series of policies and strategies to support Shanghai's regeneration as an IFC since 1990. These policy initiatives can be divided into three phases: the 1990s, between 2001 and 2008, and after 2009.

The first stage was the 1990s, when China underwent a dramatic transition from a planned economy to a market economy. As documented in Table 6.5, in April 1990,

the State Council officially announced implementation of the strategy of developing and opening up in Pudong, and thus Shanghai became the dragon head for China's second round of reform and opening up. More importantly, a modern capital market —the SSE—was also established in Shanghai, igniting the regeneration process of Shanghai's financial center. 1992 was the first year for the Mainland's reform to build market economy dynamics. The State Council 'Report on the Work of the Government' proposed that Shanghai should gradually develop into being one of the economic, financial and trade centers in the Far East, and the report of the 14th National Congress of the Party also highlighted the critical role of Shanghai's IFC in local, regional and national development. Both of these strategies accelerated the progress on developing the capacities necessary for Shanghai's financial sector.

Second, in the 21st century the growth of Shanghai's IFC has entered a new stage, and China's accession to the WTO has brought with it an agreed timetable for financial liberalization on the Mainland and Shanghai, including the proposal for more complicated financial instruments and a trading platform, and the localization of foreign banks. Between 2001 and 2008, Shanghai witnessed one of the most concentrated periods of financial expansion in its history after 1949. During this period, the central government rolled out a series of market institutions, such as the Shanghai Foreign Exchange, the Shanghai RMB bonds trading center, the Shanghai Gold Exchange, and the SFE (Jarvis 2011). Meanwhile, in the 10th and 11th Five-Year Planning of the local authority, the upgrading of Shanghai's IFC was one of the main targets for urban development.

Third, after the eruption of the global financial crisis, China's role in the world economy and globalization started to transform. Its rising economic power was

reflected in the policies in respect of Shanghai's IFC. In March 2009, the government set the goal of turning Shanghai into a true IFC by 2020. Furthermore, in September 2013 the first FTZ was established in Pudong in order to deepen the reform and innovation, including the convertibility of the Chinese Yuan under the capital account, market-oriented interest rates in the financial market, cross-border use of RMB, and pilot reform of foreign exchange administration.

In the past three years, Shanghai has enjoyed an incredible financial deepening and innovation. Shanghai-Hong Kong Stock Connect was launched in November 2014, which indirectly accelerated the internationalization of SSE. Meanwhile, in December, the State Council approved the expansion of the FTZ by incorporating Lujiazui Financial Zone, Jinqiao Export Processing Zone, and Zhangjiang High Tech Park, enlarging the FTZ from 28.78 square kilometers to 120.72 square kilometers to provide more space for reform trials. In 2015, the central and local government jointly issued a progressive proposal to accelerate Shanghai's integration into global finance, which includes 40 suggestions on financial innovation, reform and openness.[17] For instance, the convertibility and cross-border flows of RMB, the establishment of Shanghai Insurance Exchange, encouraging SSE to establish an international financial assets exchange platform in FTZ, reforms on financial institutions and regulations, and so on. In 2016, RMB officially joined the IMF's SDR. The inclusion in the SDR is a milestone in the internationalization of the RMB, and is an affirmation of the success of China's economic development and the results of the reform and opening up of the financial sector. The latest policy initiatives in 2017 include the launch of a new free trade port inside the zone, attracting foreign

[17] http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/2970998/index.html

investors to issue yuan-denominated financial products, and cutting taxation on companies or projects that are involved in the "Belt and Road" initiative. The State Coucil also supports the growth of the BRICs Bank and attempts to establish an international board at SSE.

Table 6.5 The strategic evolution of Shanghai's ambition to become a truly IFC

1990	The experiments in Pudong New Area after 1990 made Shanghai a city of national strategic importance; it was to drive the growth of the Yangtze River delta and Yangtze River region and connect China to the global economy through its financial and trade sectors. The SSE was established in Pudong.
1992	In the report of the 1992 Congress, the Communist Party of China proposed an ambitious idea: they imagined building an international economic, financial and trade center in Shanghai as soon as possible, driving the development of the Yangtze River Delta and the Yangtze River Region.
2001	Shanghai municipal government made a blueprint of the 10th Five-Year Plan that aimed to build Shanghai into a truly IFC. State Council approved the municipal development plan of Shanghai as an IFC.
2005	Pudong New Area was selected as the first comprehensive reform experimental zone in 2005 with the purpose of financial reform, innovation and openness.
2006	Shanghai municipal government announced the blueprint of the 11th Five-Year Plan that promoted the construction of Shanghai as an IFC.
2009	On 25 March 2009, the State Council Standing Meeting gave the go-ahead for the municipality's proposal to speed up Shanghai's growth into a major IFC after the global financial crisis. They proposed that Shanghai would be built into a major international financial center and shipping hub by 2020.
2013	China (Shanghai) FTZ was established in Pudong New Area. The financial reform and innovation, such as the convertibility of RMB, will definitely accelerate the growth of Shanghai's financial center.
2014	The BRICs Bank was established in July and is based in Shanghai.

2014	Shanghai Gold Exchange opened its international board in September.
2014	Shanghai-Hong Kong Stock Connect was launched in November, which accelerates the internationalization of the domestic market.
2015	The PBOC, CSRC, CBRC, CIRC, Ministry of Commerce, State Administration of Foreign Exchange and Shanghai municipal government jointly enacted a critical document in order to further promote financial innovation and openness in the Shanghai FTZ and accelerate Shanghai's development as an IFC. This document is usually called Financial Innovation 40.
2016	RMB officially joined the IMF's SDR.
2017	The central government aims to deepen the financial openness and innovation in Shanghai FTZ, and promote the process of Shanghai's development as an IFC.

Source: Author

6.3.3 The strategic effects and outcomes of Shanghai's IFC

Profound advances in the composition, geography and industry structure of Shanghai's economy and finance over the past three decades have had great implications for its IFC formation and growth. After 25 years of efforts, the construction and progress of Shanghai's financial center has achieved preliminary outcomes. Different kinds of evidence are employed here to assess Shanghai's performance in IFC formation.

The first is Shanghai's changing ranking and rating in the Global Financial Center Index (GFCI) reports. Based on the GFCI 1-21, Table 6.6 and Figure 6.2 illustrate some significant features. While the first report of the GFCI was published in March 2007, the GFCI 21 is the latest available one. Shanghai and Beijing experienced big

jumps, not only in ranking but also in rating, between 2007 and 2017. This reflects the impact of the global financial crisis and the dramatic rise of China in the 2010s. As shown, Shanghai's rating achieved a major improvement, with a 139 point increase and it has narrowed its gap with Anglo-American centers in the last 10 years. Shanghai's evaluation has remained stable in the past few years. Shanghai was recognized as the most important emerging IFC by the reports.

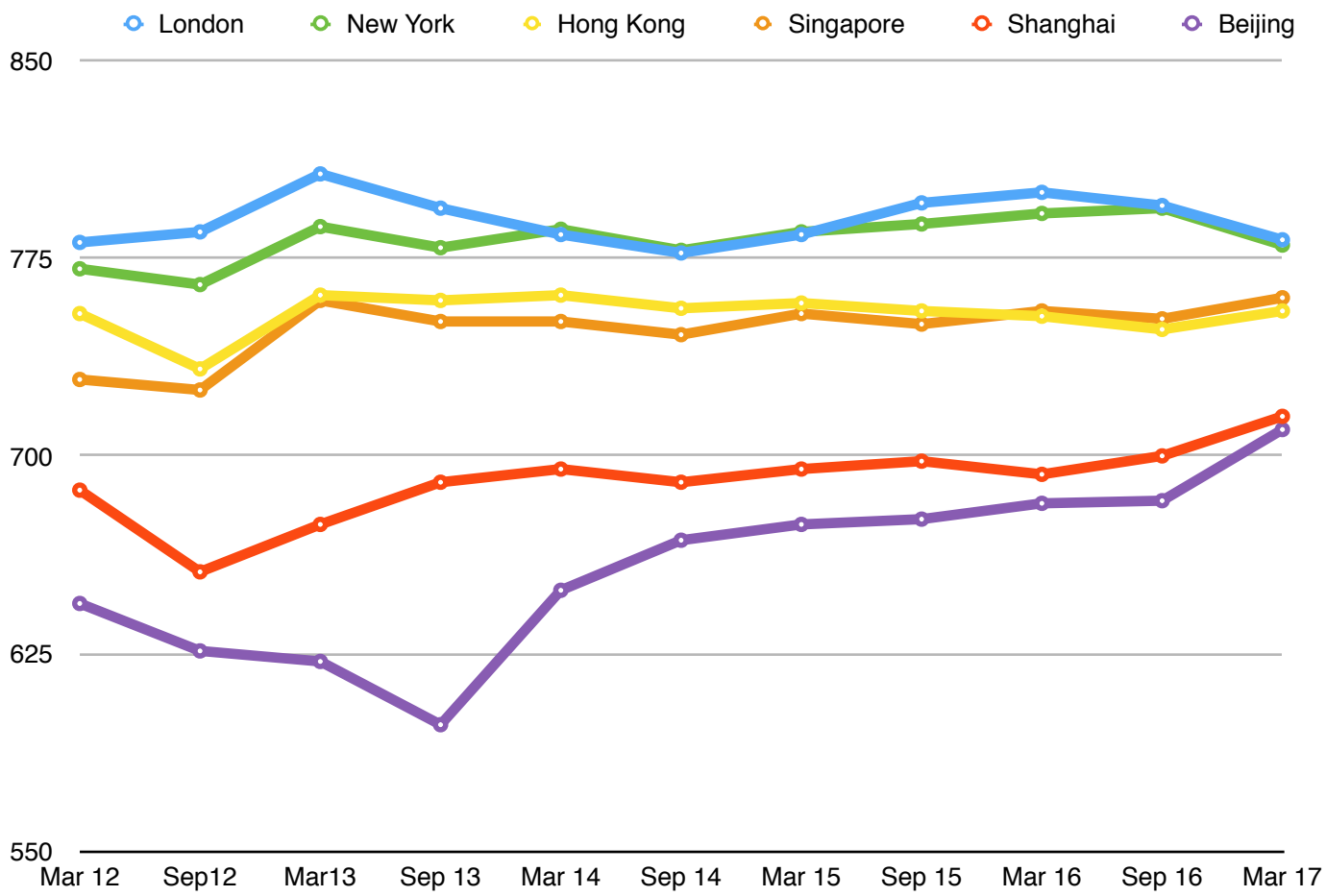
Table 6.6 Changing ranking and rating of Shanghai, Beijing and Anglo-American centers

City	Ranking (March 2017)	Rating (March 2017)	Ranking (March 2007)	Rating (March 2007)	Change in rating (GFCI1-21)
London	1	782	1	765	+17
New York	2	780	2	760	+20
Singapore	3	760	4	660	+100
Hong Kong	4	755	3	684	+71
Shanghai	13	715	24	576	+139
Beijing	16	710	36	513	+197

Note: The March 2007 report and September 2016 report covered 46 and 87 cities, respectively.

Source: Author's based on the data from http://www.zyen.com/research/gfci.html

Figure 6.2 Changing rating of Shanghai, Beijing relative to Anglo-American IFCs, 2012–2017

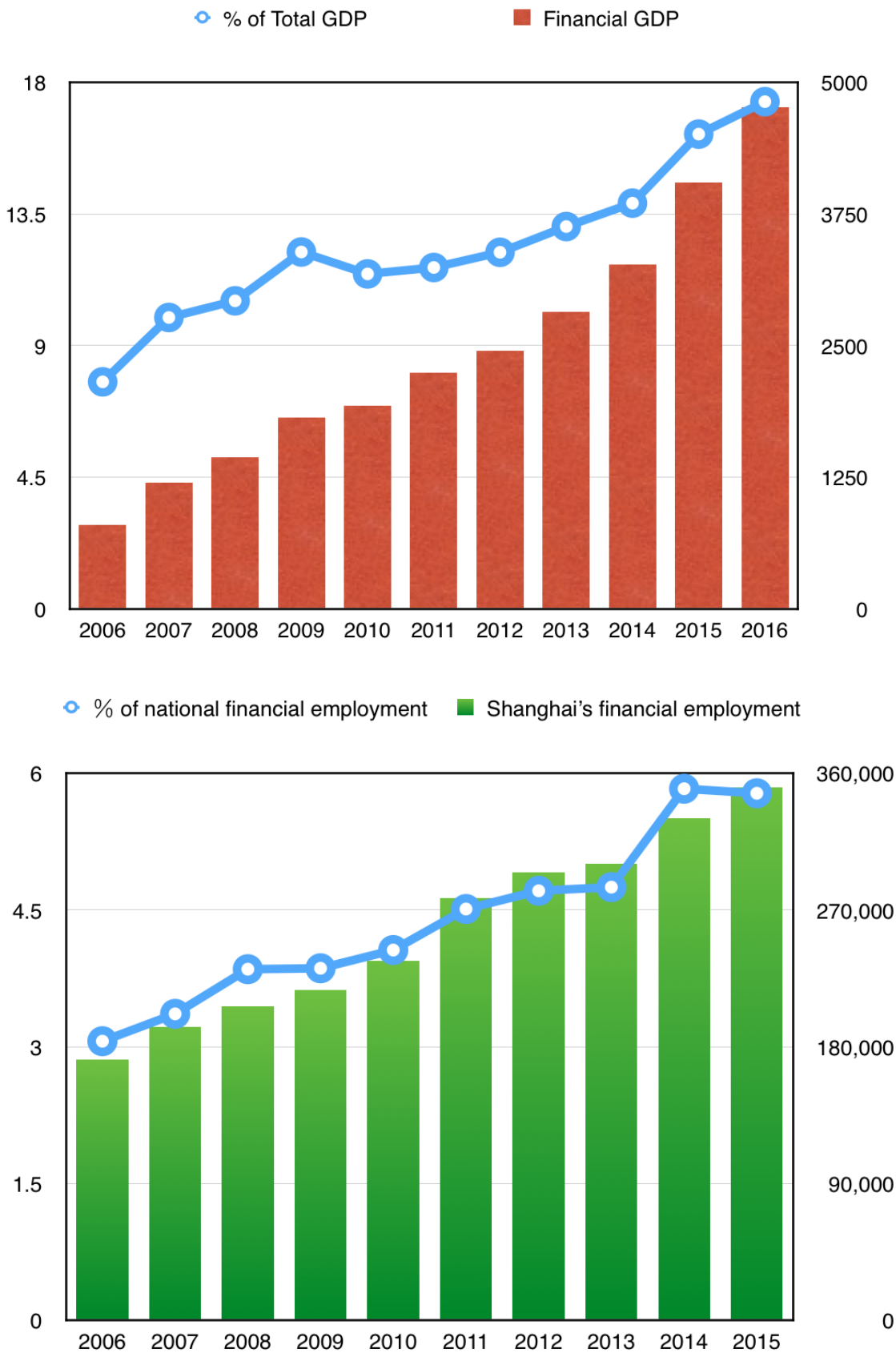


Source: Author

Second, the massive growth in terms of the financial sector and capital markets demonstrates Shanghai's potential capability as an emerging IFC. Several important structural changes are discernible in Shanghai. The GDP of, and employment in, the financial industry have soared after the global financial crisis. In accordance with Figure 6.3, the share of the financial sector in the total local economy rose dramatically, by 10 percentage points, from 2006 until 2016, while the financial GDP in 2016 was approximately five times that in 2006 and was ranked the first in

Mainland China. Meanwhile, the past 10 years also witnessed an increase in Shanghai's financial employment. Shanghai's financial employment increased from 171,376 to 350,700 and its share in national financial employment nearly doubled over 2006–2015, which reinforces the city's status as a leading domestic financial center. Additionally, the infrastructure for financial markets in Shanghai has come into greater prominence since the financial crisis of 2008. As shown in Table 6.7, the number of financial institutions that serve the capital markets rose from 98 to 350, which represents a response to the financial innovation and state support in the past few years. In addition, turnover in the stock market, futures market and gold market witnessed dramatic growth over this period. For example, by the end of 2015, the SSE altogether had 1,081 listed companies (both A-Share and B-Share) with total market capitalization hitting 29.5 trillion RMB. Its total annual turnover in 2015 stood at 266.37 trillion RMB. By the end of January 2016 the SSE ranked fourth in market capitalization worldwide, while it was second in turnover among the members of the World Federation of Exchanges.

Figure 6.3 The GDP of financial industry (above) and financial employment (below) in Shanghai



Note: Financial GDP means the GDP created by the financial industry, including banking, insurance, capital market and the rest of the financial sector[18]; the unit of financial GDP is RMB 100 million.

Source: Author's based on the data from Shanghai Statistical Yearbook 2007–2016; China Labor Statistical Yearbook 2007–2016

Table 6.7 Growth of capital markets in Shanghai after 2009

	The number of financial firms serving capital markets	Turnover of SSE	Turnover of SFE	Turnover of CFFE	Turnover of Shanghai Gold Exchange
2009	98	44,187.5	73,758.3	–	1,103.0
2010	138	39,839.6	123,479.5	41,069.9	2,020.5
2011	149	45,465.2	86,908.9	43,765.9	4,441.1
2012	193	54,753.5	89,195.4	75,840.7	3,529.7
2013	252	86,509.8	120,833.5	141,006.6	5,224.2
2014	292	128,149.8	126,470.7	164,017.0	6,514.0
2015	350	266,369.1	63,555.3	417,760.5	10,784.2

Source: Author's based on the data from Shanghai Statistical Yearbooks 2010–2016

Note: The unit of turnover of the capital markets is billion RMB.

[18] See http://www.stats.gov.cn/tjsj/tjbz/hyflbz/201310/P020131023306972568040.pdf

Third, FDI and ODI are critical components of the cross-border capital flows. As shown in Table 6.8, FDI and ODI flows are extremely spiky, but remain concentrated among a select group of cities or provinces in eastern China. These geographies display a highly skewed distribution pattern, concentrated on the eastern coastal belt, which is a favorable location, with economic capacity, outward-oriented characteristics, and a long history of international trade. Unsurprisingly, Table 6.8 indicates that Shanghai is the largest recipient and preeminent hub for both FDI and ODI flows. The total value of FDI flows in Shanghai reached US$127.96 billion from 2006 through 2015, while its total ODI flows exceeded US$40 billion over the same period. The leading role of Shanghai in the geography of FDI and ODI can be ascribed to its superior location, its well established global connection and its export-oriented economy.

Table 6.8 The top 10 cities/ provinces in terms of cross-border capital flows over 2006–2015

Rank	FDI		ODI	
	City	Total volume	City/province	Total volume
1	Shanghai	127.96	Shanghai	40.11
2	Tianjin	121.60	Beijing	28.45
3	Suzhou	80.19	Shandong	24.61
4	Dalian	80.13	Shenzhen	23.12
5	Beijing	73.84	Jiangsu	23.08
6	Chongqing	67.97	Zhejiang	21.22
7	Chengdu	54.32	Guangdong	20.44
8	Shenzhen	47.02	Liaoning	11.83
9	Hangzhou	45.15	Tianjin	9.62

10	Shenyang	44.99	Fujian	7.67

Source: Author's based on the data from China City Statistical Yearbook and the annual report of Statistical Bulletin of China's Outward Foreign Direct Investment

Note: The units of FDI and ODI are US$billion. The data of Guangdong's ODI excludes Shenzhen.

Finally, the progress of the financial sector is also articulated through the substantial construction of the FTZ since 2015 (see Table 6.9). The FTZ has become a globalizing impulse and has aimed at using liberalization and greater financial innovation as a tool to rapidly upgrade Shanghai's status as an IFC since its expansion. In 2016, FTZ-registered companies achieved 492 overseas investment projects, involving USD 19.59 billion of investment from China. The Shanghai Insurance Exchange and Shanghai Trust Registration Company were established in the Lujiazui Financial Zone. Additionally, the integration between FTZ and OBOR initiatives injects vitality into Shanghai's IFC and broadens its international influence. For example, the world's second-largest aluminum producer in Russia, UC Rusal, registered its prospectus for Panda bond issuance at SSE on March 16, 2017, offering RMB1 billion (USD 14.57million) of bonds with a tenor of seven years. It is the first OBOR company to issue Panda bonds in China. Meanwhile, China's UnionPay, based in the FTZ, is upgrading its clearing system and technology standards to better integrate with markets in OBOR countries.

Table 6.9 The key indicators of the FTZ in 2016 and growth since 2015

Indicator	Unit	Total value	Growth rate
General budgetary revenue of local	RMB billion	55.938	23.7
FDI	USD billion	6.179	28.2
Total investment in fixed assets	RMB billion	60.793	9.4
Gross output value of industry	RMB billion	431.284	14.2
Total retail sales of consumer goods	RMB billion	139.676	6.9
Total sales of goods	RMB billion	3,360.923	6.9
Total revenue of service economy	RMB billion	416.759	7.0
Total volume of international trade	RMB billion	783.68	5.9
Total volume of export	RMB billion	231.585	14.5
Regulatory financial institutions	Number	815	7.5
New financial firms	Number	4651	11.9

Source: Author's based on the data from http://www.shanghai.gov.cn/nw2/nw2314/nw2318/nw26434/u21aw1210720.html

To recap on my analysis in Section 6.3, the examination above shows that Shanghai has achieved great progress as an emerging IFC and in enlarging its financial agglomeration over the recent period. The growth in the economy of scale and financial employment, the increasing global influence and the financial innovations demonstrate Shanghai's rapid enhancement and the strength of this kind of policy regime. When China adopted a policy initiative of openness which aimed to attract foreign banks and expand capital markets, and promote the financialization after the 1990s, Pudong was the primary zone designated for the experimental

implementation, through the establishment of a second-round special economic zone and the latest FTZ. As a consequence of Shanghai's revival as an IFC, it is making full use of its advantages to upgrade its global influence, using its spatial base for cross-border investment activities and capital flows in its own geographic orbits and reactivating their significance as a portal for China's globalization and financialization. In this regards, Shanghai's IFC can be considered as a place for 'territorial fix' since 1990s (Christophers 2014b). However, there are many constraints on the local and central state's capacities to intervene in Shanghai's process of upgrading from being an emerging IFC to becoming a globally influential one. This will be examined in next section.

6.4 A not-so-internationalized IFC: compare Shanghai with New York and London

IFCs are places where financial content relating to the global economy and capital flows are exchanged and shared within the GFNs. As Zhang (2014) argued, although Shanghai has made some progress in IFC formation and in enlarging its economy, it is still limited in developing specialized financial and business services, not to mention global control capability. As key nodes in an evolving global network, contemporary IFCs are vital territories in the spatial articulation and manifestation of intersecting global finance and production networks (Coe *et al.* 2014).

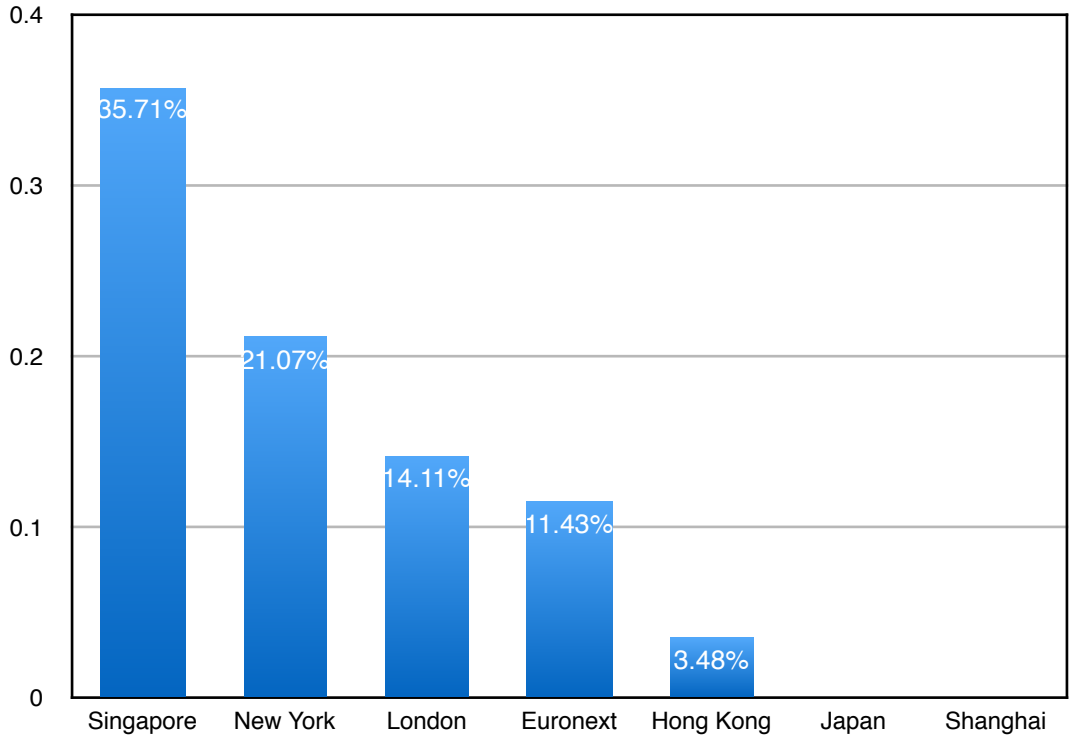
In terms of building the 'hardware' of a financial center, Shanghai has caught up rapidly with other IFCs in the past three decades. However, the greatest barriers to internationalizing Shanghai's IFC are the suffocating regulations and bureaucratic meddling by the government. The development of a financial center's 'software' has

been much slower, partly due to the constraint on the state of the pace of financial reforms and economic liberalization: for example the convertibility of RMB, a shortage of skill labor, the opaque state–market relationship and the degree of financial openness (Lai 2012b; Zhang 2014).

More specifically, to start with it should be noted that the financing scope of SSE is quite limited. Figure 6.4 shows the internationalization of selected stock markets: the percentage of the number of overseas listed firms of all listed firms on the stock exchange. As illustrated in Figure 6.4, SSE is a completely domestic market for financing, without the participations of international investors and listed companies. Thus, the strict financial regulations impose a barrier and a fence between finance and the real economy, which is not only an obstacle for the internationalization of Lujiazui's financial markets, but also prevents the domestic and foreign firms from financing effectively. For instance, WuXi PharmaTech is a leading global contract R&D service provider serving the pharmaceutical, biotech, and medical device industries. This multinational company is based in FTZ and has business in both China and the United States.[19] It is the biggest in Asia, with 19 R&D centers globally, and it employs over 9,000 professionals worldwide, which enables 2,000 collaborators on this platform. However, it is listed in the New York Stock Exchange instead of Lujiazui because the Wall Street is a hyper IFC with global impacts, where the firm is able to attract global investors. This negative case indicates the deficiency of Shanghai's financial market, which suggests the need for further financial reform in the context of the FTZ.

[19] http://ir.wuxipharmatech.com/phoenix.zhtml?c=212698&p=irol-homeProfile&t=&id=&

Figure 6.4 The internationalization of selected stock markets by the end of 2015[20]



Source: Author's based on the data from Xinhua IFC Development Index Report 2015 and the World Federation of Exchanges

In addition, in the era of space of flows, capital flows are not only flows of money: they also collect and transfer financial information between nodes within the GFNs. As a result, the information hinterland of Shanghai is not so vast as New York and London. According to my theoretical category in Figure 6.1, London is defined as a hyper financial center, while Shanghai is an emerging one. As portrayed in Figure 6.1, hyper financial centers and their city-regions are deeply integrated into the contemporary GFNs. Therefore, these kinds of advanced centers generate a vast

[20] The degree of internationalization refers to the percentage of foreign listed companies.

information hinterland. In contrast, an emerging IFC like Shanghai has only limited outbound relational linkages with the GFNs. They also rely much more on inward flows of capital and information from global finance. Thus, the information hinterland of Shanghai is relatively small.

According to information hinterland theory, an information hinterland is an inevitable necessity for a world-influential IFC. One of London's most powerful advantages is that this center is the hub of the GFNs, which is ascribed to its vast information hinterland and well-established social network. It is easily perceived that London is closely linked with major IFCs such as the New York and London nexus, as well as Hong Kong, Singapore, Toronto, Dubai, Sydney, Mumbai and Johannesburg, and so on. Simultaneously, social connectivity allows London's financial market to maximize the profits of its network connectivity and accelerates the speed of financial agglomeration in this IFC. Most of the value that modern technologies can produce for financial services lies in the externalities, which indicates human resources and the capacity for social networking that maximize the benefits of connectivity. In addition, asymmetric information requires a complex mixture of elements—the social infrastructure for global connectivity, which gives London a leading edge. London's enviable advantage is attributed to British economic development and colonial expansion through military force after the first Industrial Revolution. From a historical perspective, its colonial origins helped London to to be the most connected city in the WCNs.[21] This colonial history has contributed to creating an openness to constant shift of the urban landscape, and an outward-oriented and relatively cosmopolitan sensibility (Meyer 2015; Olds and Yeung 2004). Colonialism also helps London to lay

[21] see the latest result from GaWC: http://www.lboro.ac.uk/gawc/world2016t.html

the legal, linguistic, technological facility and transportation manufacture foundation for integration into the contemporary GFNs. In brief, London's success clearly depends upon the complex and intertwined influences of historical context and cultural path dependency. The transformation of London is definitely related to the historical context such as the rise of Great Britain after the Industrial Revolution and transnational migration from British colonies to suzerain after World War II, and geographical embeddedness like national capitals, policies and clustering advantages (Massey 2007).

Third, Shanghai's IFC does not meet the international standards for global business. The disadvantage firstly reflects in the shortage of English-speaking financial elites and professionals. This then negatively impacts the effect of information collection and knowledge spillovers. The local labor market has not caught up with the rapid growth of the financial industry. Global business transactions are very largely dependent on the English language and Anglo-American common law and this is perhaps especially true of the financial industry (Wójcik 2011). As a consequence, a leading IFC must have a large number of fluent English-speakers. Less than 10,000 employers in Shanghai reach international standards in respect of financial professionals. Furthermore, international location decisions taken by financial and business services firms often result from a complicated interplay of factors, among which the state and government interventions act as important drivers of decision-making. However, the policy supports from the central government are not constant since 1990. Meanwhile, it is very difficult to ascertain how major policies are made in China due to its opaque policy regime.

To summarize, in order to respond to my theoretical and empirical discussion above, I illustrate Shanghai's IFC in Table 6.10. With regard to Shanghai's IFC, it is subject to civil law, which is mainly based on the German legal system. Currently, it is an emerging IFC in East Asia, with an increasing influence in the GFNs, but it also shows some disadvantages in contrast with the global leading IFCs. The state-dominant dynamics have contributed to its rapid ascension in the past 25 years, but a state-led model also demonstrates its limitations. To some extent, this kind of policy regime has also brought with it some uncertainty for Shanghai's upgrade, due to the complicated central–local politics.

Table 6.10 The characteristics of Shanghai's IFC dynamics

Category	Characteristics
Legal family	Civil law, mainly based on German legal system
Geographical influence	Regional IFC. Shanghai mainly functions as a domestic center in Mainland China, but shows a growing impact in the world economy, especially in the Asia-Pacific Region.
Policy regime	Definitely state-dominant. A bundle of quite complicated central–local politics results in fitful policy support.
Development stage	Emerging IFC. Shanghai is a relatively passive player in the GFNs. It is strong in hard infrastructure but weak in soft power.

Source: Author

In light of Shanghai's IFC dynamics, however, I highlight that currently the OBOR initiatives and FTZ strategy should promote Shanghai as a strategic fulcrum of

China-led globalization in the era of Bexit and Trump. Shanghai can learn something from London's success, described in Section 6.4, but I also highlight Shanghai's financial dynamics with Chinese characteristics. Shanghai's financial hinterland should be based on economic exchange in the context of OBOR and the growth of Shanghai FTZ. Against this background, one path that has become increasingly evident is that we should confirm Shanghai's critical position in cross-border RMB transactions. China's penetration has a remarkable effect in the world economy, with a vast economic hinterland. As Hall (2017) noted, RMB internationalization has been identified as the most important process reshaping the global financial system since the birth of the Euro. Meanwhile, it is necessary to speed up the process of convertibility of RMB and build the RMB onshore market in Shanghai. In the case of capital account liberalization, RMB has represented the emerging economies and merge into the world's main settlement and reserve currency basket (IMF's SDR). Currently, London, Hong Kong, Singapore and Frankfurt are striving to build the RMB offshore markets, which also indirectly enhances Shanghai's influence in global finance. A second path is that Shanghai can try to build a new financial network through China's social network worldwide. Shanghai's financial institutions need to build an advanced type of interpretation into daily work processes: this will involve not only financial talent but also information-rich milieus in the future endeavour (Sassen 2012b).

6.5 Summary

This chapter has identified the key features that IFCs have in common as they grow, has classified IFCs based on different dynamics, characteristics and stages, both of

which provide a theoretical basis for my empirical study on Shanghai's IFC progress. The chapter then revisited Shanghai's historic success pre-1949, its decline between 1949 and 1990, and its regeneration as an IFC since the establishment of Pudong New Area. This chapter also analyzed Shanghai's policy initiatives and evaluated its strategic effects from a political economy perspective.

Since the 1990s Shanghai has undergone a dramatic growth in its financial sector through continuous policy initiatives from both central and local government, which substantially enhanced Shanghai's position and connectivity in the GFNs. However, Shanghai's policy regime for constructing an IFC also constrains its transformation and Shanghai's weaknesses as an IFC include its low level of internationalization, its shortage of financial professionals and its under-standardized business environment. Therefore, in this conclusion, I put forward two strategic proposals from the point of view of financial geography. Against this backdrop, the proposals will potentially help Shanghai to extend its influence and relations in the world economy through encouraging both inward and outward flows of talent, capital, services, and knowledge and information.

As Hall (2017) argued the state plays a significant, yet comparatively neglected, role in shaping the development and changing nature of IFCs according to the existing literature. Hall also called for more attention to be paid by economic geographers and related scholars to understanding finance as a political relation. My research can be recognized as a response to her appeal: it shows how work on IFCs can respond to call for the development of more politically sensitive accounts of the geographies of global finance.

Chapter 7 Conclusions and implications

7.1 Introduction

The argument I have sought to present here is that when we look at financial centres in China through a geographical lens, it is far from the rose-tinted vision of emergence and development of financial centres for all offered by narrow economic explanations. As the discussion in the previous chapters of this thesis demonstrate, an understanding of China's financial centres has developed from a number of different theoretical standpoints from financial geography approaches.

Thinking geographically about financial centres means much more than acknowledging this. My strategy has focused on two aspects in the preceding chapters. On the one hand, I assume that theoretical approaches originating from western countries can explain the development of China's financial centres. On the other hand, I emphasise that China's geographical heterogeneity cannot be simultaneously omitted. Given the centrality of money and finance to the market economy, as well as to China's particular history and geography, I provide an interrogation of the wider social, political, institutional, technical and cultural context for financial centres development in mainland China in chapters 3–6 (following the literature review in chapter 2). Although each chapter in the empirical study shows some particular characteristics, they are a cohesive, coherent and concrete body, as I have emphasised in chapter 1.4. To summarise, my research has a common objective, and there are conclusions and implications that can only be drawn when we put the findings of all the chapters together.

The main objective of Section 7.2 is not to classify and repeat all of the results from chapters 2–6, but rather to present briefly the major findings of the whole project. Section 7.3 discusses the contributions and implications of the project for the literature. Finally, the chapter indicates the limitations of my research and possible directions for future financial centre study, as well as financial geography research in China.

7.2 Restatement of findings

Since the 1980s, the geography of money and finance has proven an increasingly important trend in the research of economic geography. More recently, some geographers like Clark et al. (2017) and Sokol (2013) argue that the discussion of finance should move onto the central stage of economic geography. The changing approach to financial centre research mirrors the coevolution of economic geography and financial geography in the past decades.

The current body of financial centre theories generally originates from the neoliberal practices in the developed countries after the end of Bretton Woods System in the mid-1970s, especially based on the success of London and New York in the post-Fordism era. It also demonstrates the dramatic impact of the global financial crisis of 2008–2009.

Chronologically, I summarise the evolving approaches to financial centres from the following perspectives: agglomeration and cluster, world city and global city, cultural economy, information and knowledge, institution, network, and most recently, ‘new’

political geography, and financialisation. Each of the above approaches has an advantage for explaining why financial centres and IFCs can still exist in the age of digital economy.

The approaches mentioned above have been well developed in existing empirical studies of developed economies. In contrast, existing studies of China's financial centres engage with few approaches and show limitations in theoretical substance, which gives me an opportunity to address these gaps from a financial geography perspective in this thesis. I then clarify these shortcomings in the current research agenda of China's financial centres and address the specific approach applied in chapters 3–6.

In chapters 3–6, this thesis answered the research questions proposed in chapter 1 by an investigation of China's financial centres, particularly Shanghai. Overall, I attempted to examine the geographies of China's financial centres, map the hierarchical networks of these financial centres, and account for these phenomena through the lens of financial geography. To shed light on this topic, my thesis was primarily attentive to the analysis of the geographies of financial industry in chapters 3 and 4. It then took Shanghai as an example in chapters 5 and 6.

The main characteristics of China's financial system are reflected by the progressive transition of the banking sector and the increasing importance of the securities industry since the country's reform and opening up. China's financial system was completely controlled by the banking industry during the period of planned economy, and still is dominated by banking currently; but the nature of banking has changed a

lot to meet the requirements of market economy reform. I first therefore explore the changing banking industry that reflects China's transition from planned economy to market economy.

The findings of this study outline a hierarchical network of geographies of China's commercial banking. This network shows the status of Beijing and Shanghai as the primary agglomerations in the mainland's banking system. Beijing is the capital for domestic banking, while Shanghai is a preeminent centre for foreign banking. At the same time, Shenzhen, Guangzhou, Tianjin, Hangzhou, Nanjing, and some provincial capital cities grew quickly, which contributed to the overall dispersal of the banking sector at the city level. This trend is further exemplified by an analysis of the geographic concentration index of banking assets, which reveals the dramatically decreasing trend at the provincial level (and at the city level). On the one hand, the decentralisation of banking power from Beijing to the provincial level, and the establishment of the provincial financial system, brought the dispersal of banking activities. On the other, the process of devolution simultaneously led to the rise of interprovincial and provincial centres over this period, which produced obvious banking agglomerations beyond Beijing and Shanghai and resulted in a decreasing concentration of banking at the city level.

Along with the sweeping reforms of the financial system since the 1990s, capital markets have played increasingly important roles in contemporary China's financial landscape beyond the banking industry. In the same vein, therefore, I attempt to explore the geographies of securities intermediaries, including securities firms, futures firms and fund management firms, after the interrogation of banking sector.

The results of this study show that there also exists a hierarchical network of geographies of China's securities industry, which is slightly different from banking. In terms of headquarter locations, Shanghai dominates across the subsectors of the industry, followed closely by Beijing, with Shenzhen in the third place. Secondary centres are far behind in terms of size, but geographically close to the triad, the largest including Guangzhou and Hangzhou. The analysis of employment and transactions, in contrast, showed the primacy of Beijing over Shanghai and Shenzhen. Overall, the geography of securities industry is spikier than that of the banking industry.

From the institutional and political economy perspectives, what in my view explains this discrepancy is the tendency of many intermediaries to establish headquarters in Shanghai and Shenzhen to take advantage of lower taxes and cheaper land, and to follow the official policy to promote Shanghai as China's IFC while maintaining and developing their main operations in Beijing to remain close to the centre of political power and information. I also stress that the large potential for the institutional consolidation, innovation and growth of the industry, as well as the complex interplay of political and economic forces, mean that its spatial footprint remains in a state of flux. This phenomenon mirrors the complexity and interplay of market forces and state interventions in (re)producing the geographies of China's securities centres.

The interrogations on the geographies of the financial industry in chapters 3 and 4 also demonstrate that politics and state interventions play critical roles in shaping the developments of financial centres in China. In the latest strategic planning, such as the Yangtze River Delta Mega-region planning and Shanghai 2040, both the central

and local governments aim to upgrade Shanghai's status as an IFC and global city in a world economy by 2020. As such, in chapters 5 and 6, I attempted to understand the development of China's financial centres through a crucial case of Shanghai's IFC.

After the central government gives Pudong's development a priority, Shanghai will function as a gateway between the mainland and the world economy. During this process, Shanghai will gradually emerge as a global city in the WCNs and GFNs. Chapter 5 focused attention on Shanghai's IFC by employing the global city model. As Sassen (2012a) emphasises, not only financial sector but also business services are critical components for IFC growth.

This chapter provided a geographical analysis of the clusters of FABS in Shanghai. The findings revealed the uneven geographies of FABS within the city, and close geographical linkages between finance and the non-financial sectors in the context of FTZ. I discussed the FABS firms that enable Shanghai to be global. I also considered the new intensity and complexity of globally-connected systems of production, finance and business services, which require Shanghai to build the organisational architecture for integration into the global network both in terms of production and finance. This study showed the internal spatial dynamics of Shanghai as an IFC and a global city, pointing to three leading clusters for FABS (Lujiazui, West Nanjing Road, and Central Huaihai Road), and also delineating how these clusters are shaped and why they are important in the process of Shanghai's globalisation and localisation.

Chapter 5 analysed Shanghai's IFC at the local scale. Chapter 6 built on its insights to interrogate the following question: what is the developmental model that sustains Shanghai's emergence as an IFC and global city in the past decades, and how does this model compare to other IFCs worldwide? In chapter 6, I started to provide a conceptual and theoretical basis by summarising the main characteristics of contemporary IFCs, and the different categories according to legal family, geographical impact, policy regimes, and developmental stages. The chapter then reviewed the policy initiatives driving Shanghai's IFC formation, both from the central and local government perspectives, and evaluated the strategic effects of these policies. This empirical study demonstrated the great advances of Shanghai as an IFC since 1990, but noted at the same time that this developmental model also brought some obstacles to Shanghai's progress at the global scale. I identified some disadvantages of Shanghai's IFCs, such as the internationalisation of capital markets, global impacts, and the business environment. In brief, this discourse focused on the theoretical basis of IFCs and examined the role of politics and state intervention in IFC formation. In this chapter, I also highlighted Shanghai's pathway towards becoming an influential IFC with Chinese characteristics, including the role of the government in intentionally devising pathways to IFC formation in the context of OBOR initiatives and FTZ.

To summarise, this thesis provides a geographical understanding of geographies of China's financial centres through its focus on the financial industry using a specific case: Shanghai. On the one hand, it tests and exemplifies the validity of theoretical approaches on China's cases. On the other hand, it also shows the different characteristics of China's financial centres in terms of their history, politics, culture

and developmental model. This research is therefore a close dialogue of financial geography between western countries and China through the financial centre study.

7.3 Contribution to literature

The contribution and significance of this thesis are potentially considerable for existing research. In general, I attempt to build a bridge between Chinese economic geography and Anglophone economic geography from the perspective of financial geography. This research provides a concrete step for a cross-country comparative study, and also contributes to an innovation in Anglophone economic geography by focusing beyond Anglo-American economies and pursuing 'engaged pluralism', as suggested by Barnes and Sheppard (2007).

In terms of the critical empirical findings, first, chapters 3 and 4 investigate the geographies of the banking and securities industry, and outline the hierarchical networks of each. Second, both chapters 3 and 4 highlight Beijing's critical role in China's financial system. This city is never usually considered as a financial centre in official documents, and its importance is also underestimated in academic studies. Third, chapter 4 examines the geography of the securities industry for the first time and shows that Shanghai is the primary centre of the securities industry at all subsector levels, although it competes for this role with Beijing. Fourth, chapter 5 is the first attempt to integrate business services into Shanghai's IFC discussion. It reveals that the unevenness of FABS at the local scale sustains the dynamics of Shanghai's IFC and global city in the GFNs and WCNs, and it essentially posits an imperceptible economic nexus link between different functional zones in the

framework of Shanghai FTZ, while these kinds of interconnections and interdependencies integrate finance into the GFNs. Fifth, based on a leading-edge conceptual analysis on IFC, I evaluate the effects of Shanghai's policy initiatives, point out its disadvantages, and propose its upgrade in the context of OBOR and FTZ.

Theoretically, in this research, I have tried to achieve a combination of financial geography approaches to conceptualise China's financial centres. Overall, in chapters 3–6, this thesis provides an understanding of China's financial centres from a 'new' political economy approach and highlights that politics and state interventions are critical in producing and shaping the geographies of China's financial centres and the growth of Shanghai's IFC. Hall (2010) points to the need to develop a more politically and geographically nuanced view of money and finance, and an understanding of the geographical heterogeneity of the international financial system. This thesis explores the different pathway for financial centres development based on the special characteristics of China's political economy and its transition, providing a complementary strand for the other financial centres worldwide.

More specifically, first, in chapters 3 and 4, I use the network, institutional and political economy approaches to analyse the geographies of China's financial centres beyond the agglomeration perspectives, and I also indicate Beijing's critical role by emphasising its information advantage. Second, chapter 5 employs the global city model to explore Shanghai's IFC's dynamics. I use the case of FABS to show an uneven growth within Shanghai to demonstrate how the spiky geography are vital in supporting the conditions on which the GFNs and WCNs can depend. It

also involves the application of GFNs and financialisation, while focusing on the case of Lujiazui Financial Zone and the FTZ. Finally, as French et al. (2011) argue, the financialisation literature requires far greater engagement with the wider political economy literature on money and finance. Chapter 6 shows that Shanghai's IFC is a strategic location to redirect inward and outward flows of capital in search of spatial and territorial fix for global financial integration, which exemplifies the financial approach that considers financial centres as intermediaries for spatial and territorial fix.

7.4 Limitations and directions for future research

While this thesis explores the issue of China's financial centres, there are limits to its depth and scope. Several topics integral to understanding the dynamics of China's financial centres are not explicitly considered. Given the combination of the approaches applied here, it is not surprising that this study actually provokes more questions than it answers. Suggestions for future research that stem from this project can be divided in several categories. This division partly corresponds with the limitations of research.

The first limitation is the sectoral focus, which excludes insurance, 'New Finance' such as parts of shadow banking, informal financial sector, internet finance, and so on. Chapters 3 and 4 examine the geographies of mainland's financial centres through the lens of the banking and securities industry. Although the banking and securities sector are important components in China's financial system, they do not tell the whole story. For example, the insurance industry is one of the four main

subsectors of China's financial system, but the geography of China's insurance centres has not been investigated by the existing study. Furthermore, the alliance between finance and IT potentially reshapes and reproduces the geographies of financial centres in the age of the electronic 'space of flows'. Meanwhile, China has been promoting the innovation of internet finance since 2013. Future studies should consider the impact of 'New Finance' on geographies.

Second, chapter 4 is a substantive and innovative research into the securities industry, but it does not claim to be the end of examining the geography of the securities industry. The geography of the securities industry in mainland China might be significantly influenced by national policy initiatives, reform processes, and institutional changes related to capital markets (Wójcik 2011). Currently, the implementation of the IPO approval system has been postponed by the CSRC, and the central government has cancelled the proposal of establishing a new board in Shanghai for high-technology firms listing in the 13th Five-Year Plan. More importantly, the CSRC is attempting to transfer Beijing's New Three Board into a formal stock exchange, like the NASDAQ, in the capital city. How will these policies and reforms reshape the geographies of the securities industry? To be more conclusive, my study would have to extend into the future to allow a comparative analysis of how the political economy of the mainland's capital markets affects the changing geographies of the securities industry.

Third, this research draws little attention to Hong Kong, which serves as China's IFC. Hong Kong is part of China politically, but it is a separate entity in terms of economy and finance. Hong Kong's IFC is a member of the Anglo-American world in terms of

its institutions, history, language and networks. This thesis, therefore, focuses on the financial centres on the mainland, but Hong Kong plays a critical role in producing and shaping the geographies of China's financial centres. The existing study has shown the urban vectors and financial nexus between Beijing, Shanghai, and Hong Kong (Lai 2012a; Taylor et al. 2014). As Wójcik and Camilleri (2015) believe, the dynamics of Hong Kong's IFC as a portal between the mainland, China, and the world economy should be emphasised by a network approach. The study of Meyer (2015) also reveals that Hong Kong's financial industry gains competitive advantages in producing FABS from its network exploitation of its access to sophisticated information, knowledge, and talents from China and East Asia.

Fourth, I do not explicitly analyse the impact of offshore financial centres in producing the financial geographies of mainland China and Hong Kong. Wójcik and Camilleri (2015) have examined the critical role of offshore centres to integrate Chinese firms into GFNs. They also demonstrate that Hong Kong functions as an onshore-offshore IFC between mainland and offshore jurisdictions. Existing data, for example the FDI and ODI, has also shown the close relationship between the cities in mainland, Hong Kong and offshore financial centres. It is well documented that China's financial system is connected to a bundle of offshore financial networks (Sharman 2012). In future studies, the financial networks between China's centres and these jurisdictions should be underlined, especially in the context of OBOR.

Fifth, this thesis makes limited use of expert opinion data and in-depth interviews. Expert opinion data is a useful proxy for actual evidence when experts are surveyed on issues within their domain of expertise (Clark 1998, 2002). In the autumn of 2014,

I carried out a number of interviews in the State Council regarding the FTZ and financial reform. In China, however, policy strategies are often decided by the Central Political Bureau through opaque processes. Sometimes these decisions cannot be interpreted from an academic perspective. For example, the experts in the Ministry of Commerce believed that no new FTZ would be established within a year, but Tianjin, Fujian and Guangdong FTZ were proposed by the State Council in December 2014. In future studies, expert opinion and interviews from governments should be carried out to understand the process of China's policy decisions. Meanwhile, intensive interviews on firms and business institutions are also necessary because we need to obtain more geographical features, for example the business and finance culture, which cannot shown by quantitative data.

Of course, no single project can cover every relevant parameter, and this project is already extensive in theoretical and empirical discussion. Instead, the weaknesses in the thesis offer opportunities for future research geared specifically towards finding the answers that the shortfalls suggest to be missing.

7.5 Where is the bridge?

In summary, I propose this research study as a bridge between Chinese and western financial geography through the topic of the financial centre. However, it is just a beginning for this sort academic exchanges. Future studies ask for a great leap in the financial geographies of China. This is ascribed not only to the increasing significance of China in global finance and the world economy, but also to the poor status of financial geography in China.

Currently, the research paradigm of economic geography in China is quite parochial. The approaches (especially the post-structural approach) that cannot be extended by quantitative methods are completely neglected. This leads to the poor condition of the theoretical construction of economic geography in China. The approaches that I have introduced in chapter 2 should be developed into a future study of China's financial geography beyond a study of financial centres, as well as the broader economic geography.

Financial geography, as a sub discipline of economic geography, has also not formed a substantive research body in China. Very few scholars like Simon Zhao and Fenghua Pan are attentive to this research area, focusing on selective topics. In western countries, the new millennium has witnessed a shift from the geography of finance to a much broader financial geography as a subdiscipline in the understanding of finance. Substantive research foci range from established concerns, for example IFCs, to some novel research topics: for example the research on specific financial markets and their global impacts, such as infrastructure investment, pension fund capitalism, sovereign fund, and investment management and corporate governance, the sustainable and green finance, the digital finance, the fintech, and so on. None of these topics is ever mentioned in the research of Chinese geographers. In chapter 2, I have summarised the evolution of the financial geography approach, which could possibly help build a basic framework for financial geography in China.

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