The impact of subnational heterogeneity on foreign direct investment location decisions and the performance of foreign affiliates: The case of multinational enterprises in China

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Abstract

The international business (IB) literature increasingly recognises the limitations of the nation as a level of analysis when examining the impact of location and geography on multinational enterprises (MNEs). This has resulted in a growing interest in the interactions between subnational locations, subnational heterogeneity and MNEs. This study builds on this perspective to examine the impact of city-level heterogeneity, within an emerging economy, on the performance of foreign affiliates and foreign direct investment (FDI) location decisions. More specifically, the study explores subnational core-periphery disparities in China, with a focus on identifying the locational determinants of, and strategic motivations for, FDI into the 'peripheral' cities of emerging economies.

Drawing on 42 interviews, as well as econometric analysis of secondary data, the key findings of the study are: (1) subnational heterogeneity across factors of production, institutions and agglomeration economies embedded in a foreign affiliate's *local context* affect performance outcomes. Furthermore, core-periphery disparities negatively impact on firm performance across China's cities by increasing *liabilities of foreignness* (as reflected in negative performance effects) beyond core cities; (2) FDI in peripheral cities of China is often driven by idiosyncratic managerial opportunity recognition *('sense of place')* pertaining to their unique market, resource and institutional conditions; (3) the locational determinants of FDI significantly differ between core and peripheral cities in China, particularly concerning preferences for agglomeration and institutional conditions. Furthermore, FDI into peripheral cities is spatially dependent with core cities at a regional, but not at a national level and; (4) MNEs accommodate heterogeneity between Chinese cities by locating different business activities across core and peripheral cities. Overall, the study provides new theoretical insights into the determinant effects of subnational heterogeneity on the performance, and FDI location decisions, of MNEs.

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Chapter 1: Introduction

This dissertation reports the findings of an investigation into the interrelationships between foreign direct investment (FDI), foreign affiliate performance and subnational locations in the People's Republic of China (PRC; henceforth China).[1] This introductory chapter explains the theoretical and empirical rationale for the study through the presentation of two inter-related arguments that pertain to the changing nature of the global economy and the behaviour of the multinational enterprise (MNE). The key thrust of the thesis developed here is that current research underplays the important role of subnational locations and within-country heterogeneity on the location behaviour and performance of MNEs. In this chapter I introduce the key research aims and questions that underpin this investigation. It is subsequently argued that China presents a suitable context in which to conduct this study. The chapter closes with an overview of the structure of the dissertation.

1.2 Research rationale

1.2.1 Globalisation and urbanisation

FDI conducted by MNEs[2] is arguably one of the most prolific driving forces behind the increased economic integration which has come to define the contemporary global economy

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1 For the purposes of this study any references made to China relate to the People's Republic of China (PRC). Following UNCTAD's classification, this excludes the Hong Kong Special Administrative Region and Macao Special Administrative Region (UNCTAD, 2013). Taiwan ('Republic of China') is treated as a distinct national entity and is not included within references to China or the PRC in this study. All primary and secondary data collected for this study adhere to this definition.

2 In this study the term multinational enterprise is used to refer to any private-sector economic actor that owns and controls business activities in two or more countries (Buckley and Casson, 1976), "regardless of legal form and fields of activity of those entities" (Ghoshall and Westney, 1993: 4). A foreign affiliate of the MNE refers to any economic agent in which 10 per cent or more of the voting stock is owned and controlled by a foreign investor, in this case an MNE.

(McCann, 2008).[3] Since the early 1950s a range of complementary developments and co-evolutionary forces have directly and indirectly facilitated a rapid rise in cross-border investment flows. These forces include technological advances, radical political changes, increased international trade liberalisation and rapid economic progress in developing countries (Jensen and Pederson, 2011). These national developments and the corresponding 'globalisation' of the MNE have been well researched within the international business (IB) literature (Killing, 1995; Clougherty, 2001; Eden and Lenway, 2001; Buckley and Ghuari, 2004; Jensen and Pederson, 2011).[4]

Much less is known, however, about how these global developments play out at a 'local' or subnational level, despite the fact that increased global integration and development arguably increases the importance of 'local context'. In this study, I build on the theoretical and empirical work of others to consider local context as comprised of agglomeration economies, factors of production and institutions (discussed more in Chapter 2). As Meyer *et al.,* write, "local contexts are likely to become more rather than less important [in the context of globalisation], as locations that provide the necessary infrastructure for sophisticated business operations proliferate" (Meyer *et al.,* 2011: 248).

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[3] The World Bank defines FDI as "the net inflows of investment to acquire a lasting management interest (10 per cent or more of voting stock) in an enterprise operating in an economy other than that of the investor" (data.worldbank.org/indicator)

[4] 'Globalisation' is a weighty and multifaceted term and as a concept remains heavily debated. The extent to which the term offers an accurate description of empirical trends in the world economy has been challenged (Rugman, 2003). For example, the extent to which economic participation and integration is in fact global is regarded by some as inaccurate (Cooper *et al.,* 2008). Furthermore, evidence that economic and cultural convergence is occurring is weak and often only anecdotal (Guillen, 2001). For these reasons, the term 'globalisation' when used in this dissertation simply refers to generalised observations concerning "increasing economic openness of national economies and the increasing integration of the world economy" (Iammarino and McCann, 2013: 54).

Increased geographic opportunities for MNEs are proliferating at both a national and subnational level. At a national level, emerging and developing economies in South East Asia, South America, Eastern Europe and even Africa are attracting a growing proportion of global FDI flows (UNCTAD, 2013). Business opportunities at a subnational level are concomitantly expanding rapidly – especially in the more advanced emerging economies[5] such as China, Brazil, Russia, Indonesia and South Africa (UNCTAD, 2013).[6] Although both national and subnational economic developments present research opportunities for investigating the impact of 'place' on the FDI decisions of MNEs, a key argument developed in this dissertation is that subnational or *within country* locations provide a more suitable level of analysis for understanding the relationships between foreign firms and local context. Central to this is *subnational heterogeneity*. This refers to the variation that exists between different locations within the same host country (Chan *et al.,* 2010). It will be argued in this dissertation that heterogeneity between contiguous locations can have a determinant effect on both foreign affiliate performance and the FDI location decisions of MNEs. I argue that understanding the impact of subnational heterogeneity on international business activities is becoming even more important due to the forces of both globalisation *and* urbanisation.

The forces of globalisation have resulted in greater economic openness and intensifying integration of emerging, transition and developing countries into the world economy (Wright *et al.,* 2009). As a result of this integration, many of these economies have experienced rapid economic growth, with China, Poland, Russia, and Brazil being good examples (Estrin, 2008). However, the rapid pace of economic development in these countries since the 1980s is most keenly witnessed at a subnational level through unprecedented rates of *urbanisation*

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[5] The semantic integrity of the 'emerging economy' classification has previously been questioned (*Financial Times*, 2010). Indeed, it is asserted that, given the economic power of many of the countries that fall under the label, the term denigrates their importance within the global economy. However, it is still used widely within academic publications to broadly refer to high-growth, low income economies.

[6] Referred to as 'more advanced' because they are currently in 'Enhanced Engagement' with the OECD, with a view to developing the policies and conditions that are required for membership in the near future.

(Mans, 2010; UNDESA, 2011). The term 'urbanisation' describes the processes through which urban areas (i.e. cities) emerge and experience population growth and is a hallmark of advanced industrialised nations (David and Golden, 1954). Rates of urbanisation are typically defined by *de facto* population growth; however, the term also encompasses growth in geographic density and economic power (e.g. in terms of gross domestic product (GDP)) of urban areas (UNDESA, 2011). The pace of urbanisation is increasing globally (UNDESA, 2011). However, rates of urban development, particularly the rural-urban shift, are most pronounced in developing and emerging economies (UNDESA, 2011). Indeed, as Mans (2014: 78) comments, "current trends in demography and economic growth patterns are expected to lead to a new group of medium-size cities in emerging markets". Mans (2014) argues that these locations differ markedly from 'core' locations, such as capital cities within countries or well established 'global cities'.[7] In essence, Mans (2014) asserts that as the urban periphery becomes more economically pronounced on a global scale, there is a need to pay greater attention to these 'non-hub' locations as prospective business locations. However, it is argued here that existing IB literature and theory pertaining to the concept of location, offers only limited insight into the relationship between peripheral locations within countries and MNEs. This is not to say, however, that differences between the 'core' and the 'periphery' have not previously been discussed.

Perhaps one of the most salient theoretical contributions to subnational and regional economics of the past three decades is Paul Krugman's (1991) seminal article 'Increasing Returns and Economic Geography', which explicates the *'core-periphery'* model of regional divergence. Core-Periphery (CP) theory refers to the generalised observation that any geographically defined economic system is characterised by economic cores (which

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[7] AT Kearney (2008, 2010, 2012) measure the 'globalness' of cities on 5 weighted dimensions: Business activity (30/100); Human Capital (30/100); Information exchange (15/100); Cultural experience (15/100) and Political engagement (10/100). In the latest Global Cities Index (2012) the top five cities are: New York, London, Paris, Tokyo and Hong Kong. Chinese cities in the list are: Beijing (14); Shanghai (21); Guangzhou (60); Shenzhen (65) and Chongqing (66).

effectively act as economic nuclei) and surrounding peripheries (which despite being economically relevant, are secondary within an economic order). Krugman's restatement of this theory (building on the earlier, less developed iterations of Christaler, 1933 and Freidmann, 1972) focused on how these divergences emerge through the interactions between firms and geographic space. The CP model and the subsequent rise of New Economic Geography (NEG), of which the CP dynamic is a fundamental paradigm, subsequently evolved to become a rich sub-field of mainstream economics. As noted by Krugman (1998:13) himself:

> "Since its original statement in Krugman (1991), this core-periphery model has become to the new economic geography more or less what, say, the two by- two-by-two model is in international trade: not so much a model that everyone believes, but as the simplest model that illustrates all the main principles of the genre, and therefore the model one teaches first to show how this sort of thing works. This is not to say that the evolution of core-periphery patterns within nations is an unimportant question in itself. On the contrary, it is such a striking feature of modern economic history that one must view it as nearly scandalous that economists have ignored it until now. But it remains true that much, perhaps most, of the usefulness of the core-periphery model is that it opens the door to the study of a much wider range of issues."

Arguably, the rapid urbanisation of small- and medium-sized cities within emerging economies is an issue for which the CP model is appropriate. In this dissertation it is argued that the CP model of spatial relationships and disparities is becoming increasingly relevant in the current economic climate of globalisation and urbanisation. Increasing economic integration and convergence on a global scale – and particularly the connectivity of 'global cities' - is arguably creating conditions for even greater CP divergence at a subnational level (Krugman and Venables, 1995; Leamer, 2007; Iammarino and McCann, 2013; Mans, 2014). As noted by Iammarino and McCann (2013: 300), this is because "particular urban centres benefit from the increasing scale advantages of being nodes in global exchange networks". In other words, major metropolises across different countries are becoming increasingly recognised as one of the key mechanisms of global integration, serving as 'core' hubs for business activities, especially (and from the perspective of this study) those of MNEs (Goerzen *et al.,* 2013). However, this is not to say that the urban periphery - or non-'global

cities' - will become increasingly economically marginalised or irrelevant. Indeed, the McKinsey Global Institute (MGI) report that the economic contribution of the world's largest 100 cities to global GDP is expected to decline from 38 per cent in 2007 to 35 per cent by 2025 (MGI, 2011). This forecasted expectation is indicative, not of the decline in the global economy, but of the increasing role that peripheral cities will play in it. Indeed, the composition of MGI's '*Top 600 Global Cities*' (commonly known as the McKinsey's Global Cities or MGC list) is expected to become increasingly populated by small- and medium-sized cities from developing and emerging markets - at the expense of those from developed markets which have typically dominated the rankings (MGI, 2011). Therefore, it is expected that the new additions to the MGC list will be, not from major economic centres but, from the periphery (McKinsey, 2011; Iammarino and McCann, 2013). As Mans (2014) concludes, now more than ever *"the periphery matters"*. This dissertation leverages the insights of the CP model to: (i) extend IB theory on how subnational heterogeneity impacts on MNEs in emerging economy contexts and, (ii) provide insights into peripheral cities within emerging economies as business locations for MNEs. In doing so, the dissertation addresses several theoretical gaps in the extant IB literature.

1.2.2 The neglect of 'location' in IB

The FDI activities of MNEs have been integral to the processes of modern 'globalisation' through the linkages they create across countries and their influence on economic development (Buckley and Ghuari, 2004). Similarly, the spatial decision-making and location choices of MNEs are likely to be inextricably linked to the divergent patterns of urban-economic geography in developing and emerging markets.[8] However, location choice

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[8] In this study the term 'location choice' is understood as describing the process through which a corporate entity identifies and selects a physical place for a specified investment project (Ansar, 2010). For the purposes of this study, location choice encompasses 'how' and 'why' foreign investors select particular host territories for their foreign affiliates and the sets of location-specific attributes that might increase or decrease the proclivity of foreign investors to select or reject (foreign) host locations (Buckley *et al.,* 2007; Galan *et al.,* 2007). The terms 'location choice' and 'location decision' are used interchangeably throughout the dissertation.

studies in the IB literature have typically focused on the spatial investment behaviour of MNEs between countries (Sethi *et al.,* 2011). Indeed, many studies continue to examine MNEs' spatial decision making at the country level (Buckley *et al.,* 2007; Galan *et al.,* 2007; Enright, 2009; Jensen and Pederson, 2011). While research has investigated the determinants of FDI into individual countries (Edwards and Buckley, 1998; Tatoglu and Glaister, 1998), it is only relatively recently that the IB literature has acknowledged the influence of local context, and subnational heterogeneity, on MNEs (Meyer and Nguyen, 2004, 2005; Tan and Meyer, 2011; Belderbos *et al.,* 2011; Chan *et al.,* 2010; Ma *et al.,* 2013).

Four key gaps in the extant literature are identified which this study will address. First, relatively little is known about how subnational locations affect the performance of foreign affiliates. Recent studies have demonstrated that subnational heterogeneity within emerging economies is a determinant factor in explaining foreign affiliate performance differentials (Chan *et al.,* 2010; Shi *et al.,* 2013; Ma *et al.,* 2013). However, much less is known about the extent to which different sets of location attributes embedded across alternative subnational contexts affects foreign affiliate performance (Ma *et al.,* 2013). Extant theory suggests that locally embedded factors of production, agglomeration conditions and institutions are central to explaining MNE behaviour within emerging economies (Meyer *et al.,* 2011). Therefore, in order to offer more nuanced insights into the subnational heterogeneity-performance relationship, this study investigates the extent to which these dimensions of local context impact on foreign affiliate performance across different cities.

Second, it has been argued that theoretical perspectives on subnational location decisions in IB are presently underdeveloped (Sethi *et al.,* 2009; Tan and Meyer, 2011; Cookson, 2012). As such, a 'holistic conception of subnational location choice is yet to emerge' (Sethi *et al.,* 2011; 325). This study addresses this shortcoming in the IB literature by investigating how the local context of alternative cities affects FDI location decisions within an emerging

economy (Chapter 6). This study extends the literature on MNE location decisions further by directly examining FDI differentials between core and peripheral locations. In doing so, the study addresses the important issue of identifying the determinants of, and strategic motivations for, FDI into peripheral locations within countries (McCann and Mudambi, 2005; Fetscherin *et al.,* 2011) – (Chapters 5 and 6). The study also offers more fine-grained insights into the subnational location decision by examining the spatial disaggregation of different corporate activities (Enright, 2009; Jensen and Pederson, 2011) across core and peripheral cities of an emerging economy (Chapter 7).

Third, while many studies that examine the impact of location on MNEs consider the role of *'place'* – the specific location (country, region, city) in which the firm is located - few studies consider the role of *'space'* – heterogeneity and distances between alternative locations (Beugelsdijk and Mudambi, 2013). This research theoretically and empirically integrates the concept of space, and more specifically *'spatial dependence'* into explanations of foreign affiliate performance and FDI location decisions (Cookson, 2012). Spatial dependence refers to linkages and relationships among proximate locations that may be exploited by firms. In this study, I integrate this perspective with the CP concept to suggest that disparities between core and peripheral locations are, to some extent, lessened by proximity. Specifically, I argue that increased spatial distance from core locations negatively affects foreign affiliate performance because this increases *liabilities of foreignness* (Zaheer, 1996; Goerzen *et al.,* 2013) and because firms are less able to benefit from the advantages of core locations (Chapter 4). As a result, I argue that, when making the FDI location decision into peripheral cities, foreign managers are more likely to select those peripheral cities that are geographically closer to core locations (Chapter 5 and 6).

Finally, a general limitation of the vast majority of subnational location research in IB is that it does not examine spatial choices at the highly disaggregated level of cities; rather, these

studies typically examine FDI at the middle tier of national government administration, i.e provincial or state levels (Cookson *et al.,* 2012). Therefore, some of the nascent theoretical models of MNEs' subnational location decisions do not properly account for subnational heterogeneity between cities (Sethi *et al.,* 2011; Belderbos *et al.,* 2011; Tan and Meyer, 2011). It will be argued in this dissertation that cities possess unique characteristics which differentiate them from other units of 'place' such as countries, regions, provinces or states (Jacobs, 2000; Goerzen *et al.,,* 2013), and that accounting for the interrelationships between cities is paramount if we are to form more refined and precise theories of the 'MNE in space' (Casson, 1984).

1.2.3 Purpose of the study

From this discussion the following purpose for this study can be derived. New geographic opportunities for MNEs are placing greater emphasis on furthering our understanding of the relationship between MNEs and locations (Beugelsdijk *et al.,* 2010). It is imperative that such an understanding accommodates the impact of subnational heterogeneity given its impact on MNEs and its prevalence within national economies, particularly those that are developing or emerging (Chan *et al.,* 2010). Related to this, there is little research that has investigated the key constituents of a firm's local context and how these may impact on the performance of foreign affiliates and FDI decision making (Meyer *et al.,* 2011). Furthermore, in the context of increasing CP disparities and, particularly, the increasing economic relevance of peripheral locations there is a scarcity of research on the conditions under which MNEs forego core national metropolises and invest in the economic peripheries of countries (McCann and Mudmabi, 2005). In addition, theories of location choice now need to accommodate the increasingly sophisticated decision-making structures of MNEs – particularly in reference to the relationship between different sets of corporate activities and alternative sets of location-specific attributes embedded across diverse local contexts (Buckley, 2008; Enright, 2009; Jensen and Pederson, 2011). Therefore, the key purpose of

this study is to develop a more precise understanding of how subnational heterogeneity (between local contexts and between core and peripheral locations) impacts on the location behaviour and performance of MNEs.

1.3 Research aims, objectives and questions

The empirical trends and theoretical issues discussed above highlight the importance of improving our understanding of the relationship between subnational locations and MNEs. The general aim of this study, therefore, is to improve knowledge and theory pertaining to the subnational investment decisions of MNEs and the impact of local context on foreign affiliate performance. More specifically, the research objectives (ROs) of this study are as follows:

RO1: To identify the most salient aspects of subnational local context and their impact on the location choices and performance of MNEs;

RO2: To investigate the extent to which CP disparities affect the location choices and performance of MNEs;

RO3: To form a better understanding of the urban periphery as a business location for foreign firms, with a focus on identifying the antecedents of FDI into these locations.

The focal research question that binds the research aim and objectives together and that is addressed by the study is as follows:

How does subnational heterogeneity across cities impact upon the location decisions and performance of multinational enterprises within an emerging economy?

In order to manage the breadth of this research question, each empirical chapter of this dissertation explores a sub-research question. These sub-research questions are:

SRQ1: What aspects of local context impact on foreign affiliate performance and to what extent do core-periphery disparities affect this? (Chapter 4)

SRQ2: Why do some foreign investors eschew core city locations in favour of peripheral cities within an emerging economy? (Chapter 5)

SRQ3: To what extent are the determinants of FDI different between core and peripheral cities of an emerging market? (Chapter 6)

SRQ4: How do foreign investors accommodate subnational core-periphery heterogeneity in their location choice decision making for different business activities? (Chapter 7)

Now that the aims, objectives and questions that are addressed in this study have been outlined, the next section will introduce the empirical context in which the study takes place. More specifically, I will provide a case for why China is an appropriate country context in which to investigate the questions posed by the study. Next, I will briefly discuss the major findings and contributions of the study. Finally, I will outline the structure of the dissertation.

1.4 Research context - China

I will now argue why China represents an appropriate host country context in which to explore the aims, objectives and questions of this study. China offers an excellent "natural laboratory" (Head and Ries, 1996: 12) in which to investigate the interrelationships between subnational locations, FDI location choice, and foreign affiliate performance. To explain why, we need to first consider the history of China, particular the post-1978 economic reforms. Secondly, I will argue that China is one of the most important economies in the world today, particular in reference to MNEs. Thirdly, I will provide evidence to suggest

that rates of urbanisation in China are among the highest in the world, thus directly linking China to one of the key research rationales for this study. Finally, I will argue that subnational heterogeneity and CP disparities are quite pronounced in China, making it a highly relevant country context in which to explore the aims, objectives and questions of this study.

China officially re-opened its national borders to foreign investment in 1978 after retracting the policies of economic insulation which had proceeded the Chinese Communist Party's (CCP) rise to power in 1950. The 'Open-Door' policy and the market reforms of 1978 effectively ushered in a new era of modernity for China (Chadee *et al.,* 2003). This systematic and centrally orchestrated approach to economic reform meant that early foreign investors in China were restricted geographically. However, this geographical containment was highly pragmatic, as it essentially enabled the Chinese government to experiment with foreign investment and to learn how to manage, monitor and regulate it (Cheng, 2008) before opening up further to foreign firms.

Over time, China's central government, through successive reforms, has gradually opened up the country to FDI, albeit with exceptions. For example, it is still stringently regulated in the politically turbulent province of Tibet. China's 1978 policy reforms, in terms of stimulating economic growth and development, have been highly successful (see Figure 1). Indeed, in 2001 China was admitted as a member of the World Trade Organisation (WTO).

Figure 1 China's Economic Development 1970-2010

China's economic development 1970-2010
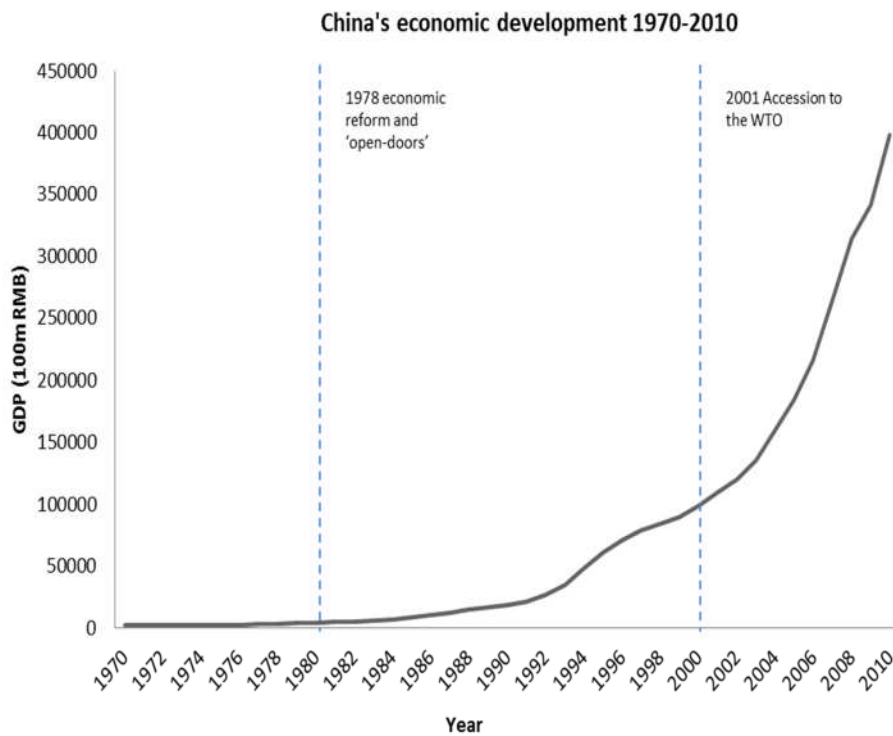
Source: China's National Statistics Office 2012

Within this setting, China offers an interesting host country in which to explore the theoretical and empirical interests of this study for several reasons. Firstly, China is arguably one of the most economically important countries in the modern global economy. There are several indicators to support this statement. In 2011, China's national GDP overtook that of Japan to become the world's second largest economy behind the USA (EIU, 2012). Whilst the economic size (in GDP) of the USA is significantly larger than that of China, the Chinese economy is growing much faster (*Economist*, 2013a). Furthermore, it has been suggested that the economic size disparities between the USA and China are much less pronounced than popular estimates suggest. This is because most estimates rely on comparisons of GDP, which some regard as a 'flawed procedure' (e.g. Financial Times,

2013).[9] When the economies of China and the USA are compared in terms of Purchasing Power Parity (PPP), it is estimated that the former is closer to 80% the size of the latter (*Financial Times*, 2013).

Secondly, several surveys conducted by the United Nations Conference on Trade and Development (UNCTAD) have found that China is the number one priority for firms' future foreign investment projects (UNCTAD, 2011, 2012, 2013). Indeed, during the first half of 2012, inflows of FDI into China exceeded those into the USA for the first time since China opened up the economy to foreign investors (*Economist*, 2012). Therefore, China is clearly a highly important host country for FDI.

Thirdly, as previously discussed, rates of urbanisation are most pronounced in emerging and developing economies. However, once again, China is an exemplar of this phenomenon. As Figure 2 shows, China has undergone rapid urbanisation since the 1980s. Indeed, based on current projections, China's rate of urbanisation will continue to outperform those of many developing and developed countries until 2025, when growth rates are forecast to saturate and become comparable with the world's most developed countries (UNDESA, 2011). However, not only will the Chinese economy become increasingly urbanised, but many of these rapidly urbanising cities are expected to become top performing cities globally (McKinsey, 2011). As mentioned already, the composition of the MGC's list will increasingly include cities from emerging and developing economies. However, by 2025 it is expected that an additional *100 Chinese cities* will enter this list – in addition to those major Chinese cities which are already included.

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[9] This is because estimates of Chinese GDP are made by converting Chinese growth figures into US$ which devalues actual economic power due to stark differences in the exchange rate between Chinese RMB and the US dollar.

Figure 2 Urban growth rates of selected countries and regions (1950-2050)

Urban Growth Rates
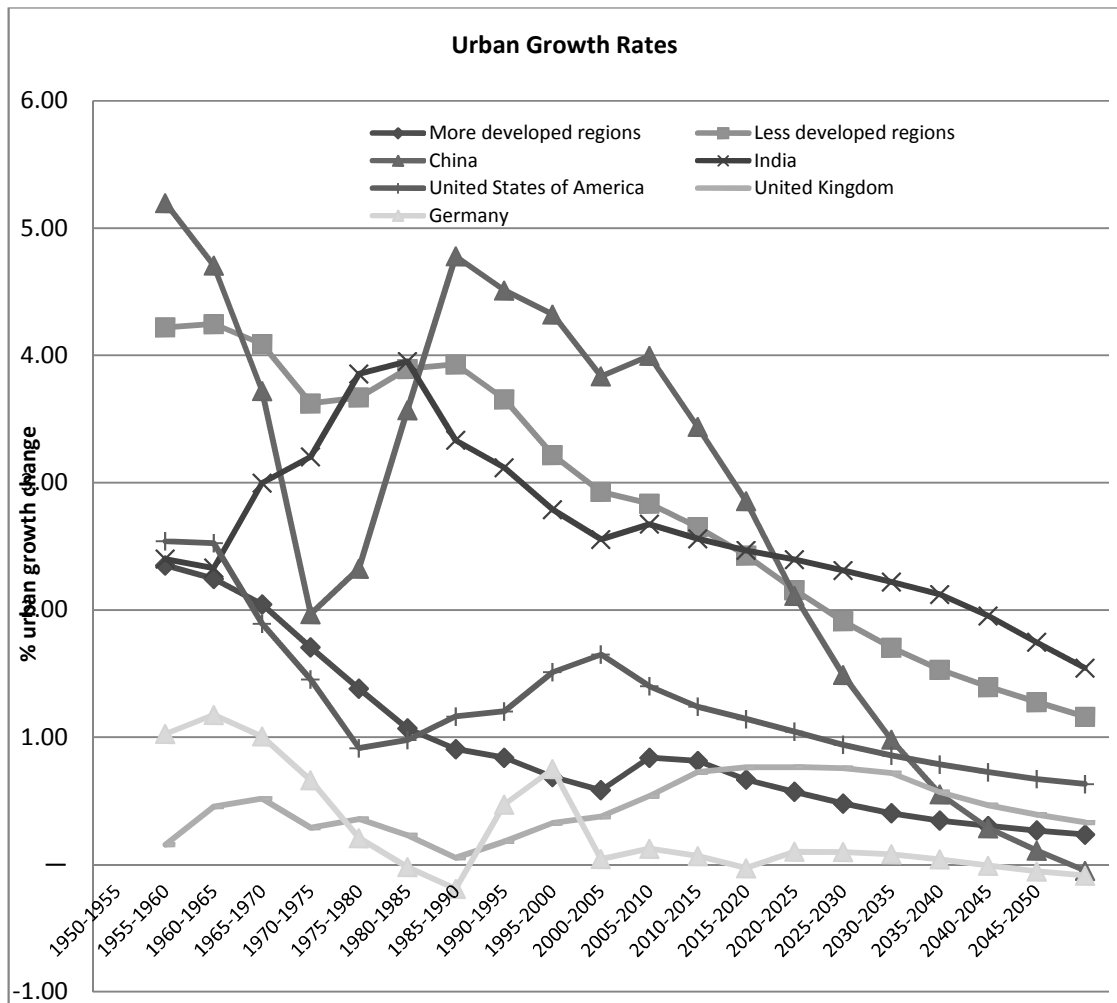
Note: More developed regions refer to Organisation for Cooperation and Development (OECD) countries. Less developed regions refer to non-OECD countries.

Source: Compiled by author from UNDESA (2011)

Fourth, in terms of CP dynamics, the economic structure of the Chinese geo-political and economic system is arguably conducive to creating deeper divergences between different economic areas. As discussed above, investigating these CP disparities is key point of interest for this study. CP divergence in China is partly rooted in its recent (i.e. post-1978) economic history whereby economic reform and opening-up policies were geographically confined during the initial stages of policy-reform. Table 1.1 explicates key developments in these policies. The result is an economy which is regionally fragmented and which suffers

from vast socio-economic disparities across different locations (Shi *et al.,* 2013). Understanding the role of subnational heterogeneity in location decisions and performance is integral to this study. Furthermore, the Chinese administrative structure is also highly decentralised (Canfei, 2006). This administrative decentralisation further contributes to CP divergence as certain areas of the country are demarcated as discrete political, administrative and economic centres in policy formulation. In particular, Beijing, Shanghai, Tianjin and Chongqing form the 'first-tier' of China's subnational economic structure since they are directly controlled municipalities of the Chinese government. Guangzhou, the provincial capital of Guangdong province in southern China, is also generally regarded as a 'National Central City' by the Chinese government due to its economic importance and population size (Darst, 2013).

Table 1 Key subnational developments in China's post-1978 economic reforms

Year	Policy	Details	Cities included
1979-1983	Special Economic Zones	SEZs were created to act as 'test-beds' for the open-doors policy. The institutional fabric of the SEZs was manipulated to make them conducive to the business activities of prospective foreign investors. For example, public goods and amenities, such as water and electricity, were improved in preparation for the influx of foreign investment. The main economic attraction of the SEZs was that they offered low tax rates and other preferential incentives. The income tax rate in SEZs was initially 15 per cent, in comparison to 33 per cent in locations outside of these areas. In addition to these economic incentives, the business environment was to be market-oriented, rather than guided by the 'hand' of the state.	Shenzhen, Zhuhai, Shantou, Xiamen and the Island province of Hainan
1984	Open Coastal Cities	Extended the favourable conditions in the SEZs to fourteen cities along China's Eastern belt. The business environments in these cities closely mirrored those in the SEZs, with investors able to take advantage of tax concessions, rebates and concessions, preferential land rents and costs for factor inputs.	Qinhuangdao, Dalian, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Beihai, and Zhanjiang.
1984	Economic and Technology Development Zones	The purpose was to distribute the favourable conditions found in other designated 'special zones' to a wider range of cities in China. However, ETDZs existed on a much smaller scale to OCCs and SEZs with only a small designated area within a city eligible for preferential policies.	As of 2011 there are 46 cities with an ETDZ.
1990-1992	Free Trade Areas	Between 1990 and 1992 thirteen 'Free Trade Areas' (FTAs) were developed along the Eastern coast. The specific purpose of these FTAs was export processing. These areas were established in close proximity to major cities, thus enabling foreign investors to exploit the dynamism and complementarities between the market size and favourable business conditions exhibited in major cities with the cost efficiency of these FTAs.	Shanghai, Tianjin, Dalian, Shatoujiao and Futian (Shenzhen), Guangzhou, Zhangjiangang, Haikou, Quingdao, Ningbo, Fuzhou, Xiangu, and Shantou
1992	Deng Xiaoping's tour of the South	This tour is noted for inspiring domestic Chinese entrepreneurship, as well as for encouraging greater openness and investor confidence. Despite growing awareness of regional growth and development disparities resulting from policies which largely favoured China's Eastern Coastal belt, Deng Xiaoping reaffirmed the 'necessity' of unequal development. However, following the tour preferential policies were extended to the capital cities of all inland provinces as well as a further ten cities along the Yangtze river delta.	Capital cities of all inland provinces as well as ten cities along the Yangtze River Delta
2000	'Open up the West' campaign	The 'Open up the West' campaign (*xibu da kaifa*) was designed to address the substantial socio-economic divisions which had resulted from twenty years of policies which overwhelmingly favoured China's Eastern and Southern provinces. The stated goals were to support the development of Western provinces using similar preferential policies to those which had been successfully applied in the East, and to economically and socially bridge the widening gap between the East and West. The policies have been criticised for their lack of direction and imprecise objectives.	Chongqing municipality and the Provinces of Sichuan, Yunnan, Quizhou, Shaanxi, Ningxia, Gansu, Qinghai, Inner Mongolia and Guangxi
2006	'Go Inland' campaign	Implemented to encourage investment in China's inland provinces in an attempt to reverse the unacceptably high levels of regional inequality in China.	The Provinces of Shanxi, Henan, Anhui, Hubei, Hunan and Jiangxi

Adapted from: Chadee *et al.,*, (2003); Kang and Lee (2007); Nishitateno (1983); Zhou *et al.,*, (2002); Goodman (2004)

Finally, China is an excellent example of a large, geographically diverse country which exhibits substantial levels of subnational heterogeneity across a range of socio-economic and institutional dimensions (Tse *et al.,*, 2010; Shi *et al.,*, 2012). This is true of many countries (especially large emerging markets) but, "given its size, holds even more so" in China (Tse, 2010: 19).

In summary, the significant levels of subnational heterogeneity, the evidence of CP disparities, the rapid rates of urbanisation and the importance of China to MNEs as a host country for FDI arguably make China and its cities a highly suitable level of analysis for the research questions that are addressed by this study.

1.5 Theoretical contributions of the study

The study offers several theoretical contributions to the existing IB literature. By examining the location-MNE relationship at the city level (rather than country or even subnational province level) the study is able to offer new theoretical insights into how a fundamental economic characteristic of national economies (i.e. core-periphery disparities) affects MNEs. In particular, the study demonstrates that the urban-geography of a country has a significant impact on (a) foreign affiliate performance; (b) the locational determinants of FDI and; (c) the location of different MNE business activities. From these findings two key theoretical inferences are made. Firstly, MNEs encounter liabilities of foreignness that vary across subnational locations (Zaheer, 1995). This study argues that core cities within economies ameliorate the LoF due to their unique characteristics of international connectedness, availability of advanced producer services and cosmopolitanism (Goerzen et al., 2013). This hypothesis is verified through an empirical analysis which applies a novel distinction between national core, regional core and peripheral cities of an economy and directly contributes to existing IB literature (Chan *et al.,* 2010; Ma *et al.,* 2013). The second key

theoretical contribution of the study is in demonstrating the impact of distance and proximity (or 'space') on the MNE (Beugelsdijk and Mudambi, 2013). By adapting the concept of *spatial dependence* and empirically accommodating distances between different cities the study shows that core-periphery 'space' has a significant impact on FDI location decision making and foreign affiliate performance. In other words, both the FDI decisions and the performance of foreign affiliates is affected by spatial distances and proximities beyond the firms immediate local context. This contributes to existing research that tends to treat locations as a distinct places without considering their interconnectedness (Cookson et al., 2012).

Further contributions are made to the location choice literature by demonstrating that the determinants of FDI differ markedly between core and peripheral cities (Mariotti and Pisciltello, 1995; McCann and Mudambi, 2005; Fetscherin *et al.,* 2011). Specifically, the findings reported in this dissertation indicate that, in the case of China, institutions play a much more important role in attracting FDI to the periphery than they do in core locations. This finding challenges some of the assumptions of the core-periphery concept (Mariotti and Pisciltello, 1995; He, 2002; Zhao *et al.,* 2005). A theoretical contribution is made to this literature by identifying the decision-making logics used by managers and firms to invest in peripheral locations, particularly in relation to the *sense of place* concept (Zaheer and Nachum, 2011). Finally, the study demonstrates that FDI projects that are more technologically intensive and that perform more knowledge and information intensive business activities are more likely to be located in core cities. This finding contributes to knowledge on the strategic fit between the FDI activities of MNEs and the characteristics of subnational locations (Jensen and Pederson, 2011).

There is a question as to whether the theoretical contributions of the research are China specific or generalizable to other emerging (and perhaps developed) economies. Given the

quite unique context of China and its developmental trajectory since 1978 it is anticipated that some of the findings presented in this thesis will be China specific, particularly in reference to specific features of Chinese cities (i.e. their local context). However, the core theoretical contributions of the study which pertain to interrelationships between subnational liabilities of foreignness, core-periphery disparities and spatial dependencies are arguably more generalizable. To illustrate, China is not the only national economy to exhibit stark socio-economic disparities between core and peripheral cities within the economy, with Brazil, Russia and India all being characterised by this dynamic (McKinsey, 2011). For example, Kulchina (2013) finds that in a sample of 113 Russian cities, Moscow (capital city and largest city), St. Petersburg (second largest city and centre for commerce) and Vladivostok (regional administrative centre) receive significantly more FDI than other Russian cities and are considered "outliers" within the sample because of this disparity. Arguably, therefore, the theoretical insights developed in this study could equally be applied to Russia to shed further light on MNE location decisions across different cities.

Furthermore, in terms of attracting FDI to the peripheral cities of an emerging economy, this study can offer important theoretical insights that can be applied to other countries (advice that can also be used by policy makers). For example, the insight into the role of local institutions in peripheral cities in reducing foreign investor uncertainty through financial incentives and qualitative set up assistance and support, is likely to be applicable to other countries that are attempting to rebalance the geographical distribution of FDI inflows.

Therefore, while empirically, this is a China study, theoretically, the insights can be applied and tested (or expanded and adapted) for other countries, particularly those that are emerging or developing.

1.6 Structure of the dissertation

The structure of the dissertation follows a 'papers–based' model. Chapter 2 provides a literature review pertaining to FDI as a mode of internationalisation, the relationship between locations and MNEs, the role of subnational locations and local context on MNEs and, finally, the potential impact of CP disparities on MNEs. Chapter 3 outlines the research design that was applied in the study. This includes details on data sources and operationalization of key variables. The empirical chapters (Chapters 4, 5, 6 and 7) provide much more focused literature reviews, which in three out of four cases result in hypotheses development, operationalisation of variables and statistical testing. More specifically, Chapter 4 examines empirically foreign affiliate performance differentials across 120 Chinese cities and demonstrates that CP dynamics do indeed create additional liabilities of foreignness for MNEs. Similarly, Chapter 5 explores the strategic logics for MNEs investing outside of major metropolises of China using interview and case-study data collected by the author in 2012. Then Chapter 6 examines whether the locational determinants of FDI differ between core and peripheral cities in China and identifies the conditions under which the attractiveness of China's peripheral cities to foreign investors are increased. This is followed in Chapter 7 with an examination of firm- and investment-level influences on location choices between different sets of cities in China. Finally, in the concluding Chapter 8, the thematic linkages between each empirical chapter are evaluated and the overall contribution of the study is discussed. Chapter 8 will also discuss the study's limitations, as well as recommendations for managers.

Chapter 2: Literature review

2.1 Chapter overview

As explained in Chapter 1, the general aim of this study is to form a better understanding of the FDI location decision and the impact of local context on the performance of foreign affiliates. I argued in Chapter 1 (see Section 1.1) that the impact of subnational locations on the decision making and performance of MNEs has been neglected in the extant IB literature (Beugelsdijk and Mudambi, 2013; Dunning, 2008). Therefore, in order to develop a theoretical basis from which to explore the research questions posed by this study, this chapter will integrate existing perspectives on location that have been developed in both IB and economic geography research.

Firstly, in order to interpret the location behaviour of MNEs it is first necessary to establish a clear understanding of FDI as a mode of internationalisation. In this chapter, I do so through consideration of the seminal works of Hymer (1960), Buckley and Casson (1976), Dunning (1977) and Johanson and Vahlne (1977). Secondly, building on existing IB theory, I argue that the decision to set up company-owned operations in a particular location derives from the interaction between the conditions and characteristics of that location and the nature of the business activities that are to be conducted there (Enright, 2009; Jensen and Pederson, 2011). However, I also argue that the *uncertainty* associated with the FDI process may moderate the types of locations that are most attractive to MNEs. Thirdly, whilst IB research suffers from a "fuzzy notion of location which is conceived primarily in terms of national borders" (Iammrino and McCann, 2013:46), perspectives on location developed in economic geography literatures can provide much more granular insights into the impact of subnational heterogeneity on MNEs. In particular, the CP concept will be used to

theoretically discuss differences between core and peripheral cities. Furthermore, I will argue that understanding the characteristics of local context is critical to furthering our understanding of the impact of geography on MNEs (Meyer *et al.,* 2011). Therefore, I build on recent work that is making attempts to integrate IB and economic geography (Meyer *et al.,* 2011; Chan *et al.,* 2010; Ma *et al.,* 2013).

2.2 FDI as a mode of internationalisation

The study of FDI has been one of the core staples of the IB research agenda for several decades and a vast body of literature has systematically catalogued the patterns (e.g. Wei, 1988), determinants (e.g. Chandprapalert, 2000), motivations (e.g. Kuemerle, 1999), structure (e.g. Cheng, 2006), impact (e.g. Yamin and Sinkovics, 2009), evolution (e.g. Mitra and Golder, 2002), and explanations (e.g. Buckley and Casson, 1976; Heinsz and Macher, 2004) of FDI. FDI is the outcome of management decisions concerning: (a) the geographical location of investment capital, and (b) the form such capital will take in a foreign country, in terms of mode of ownership and level of control. Foreign market entry (FME) modes can be classified as equity or non-equity based (Dunning, 2008; Buckley and Casson, 1998). FDI is manifested through equity-based modes of FME as it involves investments and ownership in tangible assets.[10] These equity-based FME modes can take the form of wholly foreign-owned subsidiaries (WFOEs), equity joint-ventures (EJV), and mergers and acquisitions (M&As) (Erramilli *et al.,* 2002).[11]

As mentioned, this study is primarily concerned with the *location* of a foreign investment project. While location and entry mode choices are highly interrelated (Filatovich *et al.,*

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[10] Non-equity modes include exporting and other contractual arrangements such as franchising and licensing.

[11] Furthermore, a wholly owned foreign entry strategy can be either 'greenfield', in which case the investing organisation develops new facilities from the 'ground-up', or 'brownfield', in which case the investing firm purchases existing facilities in the foreign location (Dunning and Lundan, 2008).

2007), it is the locational element of FDI which is argued to be the 'neglected factor' in extant IB research (Dunning, 1998, 2008; Buckley *et al.,* 2007; Cantwell, 2008; Enright, 2009; Beugelsdijk *et al.,* 2010). The following sections of this chapter will outline the general theory of FDI in order to provide an underpinning for the examination of subnational FDI location decisions that is undertaken throughout this dissertation.

2.2.1 The insights of Dunning (1958) and Hymer (1960)

As noted by Buckley (2011), the genealogy of IB theorising predates the pioneering work of Dunning (1958) and Hymer (1960). However, given that much of this early theory is disparate in nature and lacks a central binding theme, arguably the work of Dunning and Hymer provides a useful starting point for understanding the theories of FDI and the MNE.

Dunning's (1958) thesis on American FDI in the UK was one of the first to categorically examine the impact of FDI in a host country. Dunning (1958) was particularly interested in the 'spillover' accruals of FDI, including the role of FDI in stimulating industrial development and promoting efficiency in UK manufacturers. However, it is the Doctoral thesis of Steven Hymer (1960) which is most often credited as the first step towards theorising about the IB activities of MNEs (Dunning and Pitelis, 2008).

Hymer's thesis, although largely based on empirical evidence collected by Dunning (1958), made several compelling insights into the nature of FDI and the character of the MNE. He drew attention to the important distinction between portfolio foreign investment (PFI) and FDI, which were terms previously used interchangeably. However, the underlying rationale for PFI - which is differential interest rate arbitrage and risk mitigation - was considered to be insufficient for explaining contemporary FDI trends (Buckley, 2005). Hymer surmised that FDI was not determined by differential interest rates (since there was no observable

correlation between the two and FDI often occurred between the same countries simultaneously), and he therefore proposed an alternative explanation for FDI.

Hymer proposed that FDI was motivated by the desire to control and profit from business opportunities in foreign markets - rather than as a means through which to exploit interest rate differentials whilst dispersing risk. Hymer suggested that some firms possessed 'special advantages', that they developed and cultivated in their domestic markets, and that these advantages could be leveraged to expand into foreign markets. Hymer regarded these special advantages as a necessary precondition to profitability in foreign markets due to the challenges and uncertainties created by unfamiliar cultures and business systems. He reasoned that the increased challenges of international production necessitated the possession of firm-specific proprietary resources and capabilities that mitigated what would be later known as the liability of 'alien status' (Caves, 1971) or (more recently) 'foreignness'(Zaheer, 1995). The concept of foreignness and the liabilities that this may create in foreign markets is central to the study (see section 2.5.2).

Hymer's thesis, therefore, made revolutionary adjustments to contemporary thinking on the rationale and motivations for international economic involvement by private businesses. Although it would take almost a full decade before Hymer's ideas reached a wider audience (Kindleberger, 1969), his insights provided the foundation for a fundamental shift in thinking on the nature of the MNE. In particular, Hymer established a theoretical link between idiosyncratic firm-level resource and capability heterogeneity on the one hand and economic behaviour – which can be viewed as a precursor to the Resource Based View (RBV) of the firm – on the other, although this link was not to be fully articulated for another 31 years (Barney, 1991).

Hymer, therefore, paved the way for theorising about IB in general and the MNE in particular, and indeed, many of the foundational concepts he touched upon in his seminal thesis would later become core pillars of IB theory, such as 'internalisation' (Buckley and Casson, 1976) (referred to as integration in Hymer's thesis), 'firm specific advantages' (or FSAs) (Rugman and Verbeke, 1992) and the determinants of FDI (Dunning, 1988). Hymer also offered insights into the 'location problem'. More specifically, he proposed that the geography of the firm would come to reflect a fit between a hierarchy of locations with the hierarchy of MNE corporate activities. This notion will be considered further in section 2.3.4.

2.2.2 Explaining foreign direct investment

According to Buckley (2002), the original 'big question' for IB researchers concerned the explanations for FDI flows, and more specifically, why firms chose to engage in FDI as a means of economic involvement in foreign markets as opposed to engaging in arm's length or non-equity-based modes. Hymer (1960) speculated briefly as to why this might happen. However, it is the *internalisation* theory offered by Buckley and Casson (1976) that has emerged as the general, and indeed, some would argue, the 'core' theory of FDI (Buckley, 1990; Dunning, 1998). Internalisation simply refers to the process of organising and coordinating corporate activities within the hierarchy and organisational boundaries of the firm rather than through external market-based transactions with independent companies.

Internalisation theory rests on two core tenets: (i) firms will internalise imperfect external markets in intermediate goods and services until the point at which the costs of doing so outweigh the benefits; and (ii) when internationalising, firms will identify and select the most cost-efficient locations for their international activities (Buckley and Casson, 1976). The theory is underpinned by a presumption of imperfect markets. Neo-classical economic theory makes a presumption of perfect markets, which assumes (amongst other things)

perfect market information and an absence of barriers to market entry and exit. However, building on the transaction cost arguments pioneered by Coase (1937) and later Williamson (1975), internalization theory recognises market imperfections as an economic reality. Transaction costs are simply those costs associated with the organisation of economic activity or, more specifically, they are information costs, bargaining costs, enforcement costs and governance costs (Buckley, 1988). Coase (1937) speculated that the reason why businesses exist and operate as hierarchical organisations (as opposed to individuals contracting and exchanging with other individuals in a market) is because the costs of organising transactions internally are lower than the costs of relying solely on external markets and the 'price mechanism'. Therefore, in instances in which both market imperfections and transaction costs are high, *ceteris paribus*, we can predict that economic activity is likely to be organised internally by the firm. Buckley and Casson (1976) extended this argument to explain the existence and growth of FDI. In other words, firms engage in FDI as a mode of FME to circumvent higher costs and (or) institutional barriers to market entry.

Thus, internalisation can provide a means of FME in which firms benefit from lower costs of establishment and organisation than that which they could otherwise achieve through arm's length transactions. Furthermore, the internalisation of markets is not limited to tangible economic transactions, but also pertains to internal knowledge economies (Buckley and Casson, 1976). The MNE as a collective unit, albeit a geographically dispersed one, acts as a conduit within which knowledge and information can be more efficiently shared and intellectual property protected. The tangible and intangible benefits of internalisation can subsequently be leveraged by the MNE to offset the disadvantages (or liabilities) of foreignness. This institutional arrangement enables the MNE to more efficiently benefit from disaggregated cost and knowledge efficiencies which, through internalisation and the

hierarchical structures which support it, confers benefits to it in terms of higher appropriation of rents (Hennart, 2001).

Therefore, internalisation theory explains the existence and growth dynamics of the MNE through emphasising the efficiency of creating geographically dispersed internal markets within the firm when external markets are imperfect. The predictive power of internalisation theory in an economic sense is consequently strong (Heinsz, 2003). This is because when one can speculate or learn of the extent to which a market is efficient, one can predict whether or not an internationalising firm would be better off internalising or externalising its corporate activities abroad. Furthermore, if we work on an assumption of rational (albeit, boundedly so) managers we can forecast future, or analyse prior, MNE investment behaviour using the internalisation thesis (Hennart, 2009; Agarwal and Ramaswami, 1992; Hoskisson, *et al.,* 2000; Chan and Makino, 2007; Buckley and Casson, 1998; Meyer *et al.,* 2009). Thus, while Hymer (1960) theorised that the market power enhancing attributes of special firm-specific advantages enabled FDI, Buckley and Casson's (1976) internalisation thesis proposed a simpler explanation in that, FDI is in many instances a more cost-efficient means of FME and expansion for the MNE (Buckley, 1988; Pitelis and Verbeke, 2007).

2.2.3 The 'eclectic paradigm' – Ownership, Location & Internalisation

Dunning's (1977, 1988) 'eclectic paradigm of international production' (also known as the 'OLI' framework) examines the relationships between Ownership-, Location- and Internalisation-advantages. First, O-advantages refer to the FSAs that are needed for foreign firms to overcome the increased challenges and liabilities of operating a business in a foreign country. Secondly, L -advantages are needed to attract firms to set up their business activities in a new foreign host market. Finally, I-advantages refer to the gains to the MNE of organising international operations internally rather than at arm's length with independent local companies (as discussed above). The OLI paradigm suggests that MNEs not only seek

cost advantages from international locations but that they locate international operations in places which complement and enhance the nature of their O-advantages, as well as supporting both their corporate activities and investment motivations. Furthermore, the paradigm suggests that MNEs derive value from their ability to internalise the locational advantages of the multiple markets in which they operate. The theory also proposes that the ability of the MNE to create value, despite its disadvantages of foreignness, is due to strong proprietary resources and capabilities (i.e. ownership advantages), which it can augment in foreign locations through recombination with particular advantages of host country locations. Therefore, elements of both Hymer's (1960) and Buckley and Casson's (1976) ideas are integrated into Dunning's OLI paradigm.

The OLI paradigm has become a gestalt theory of IB in that it brings together large strands of the theory of the MNE (Dunning and Lundan, 2008). The relevance of the theory to this study is that is provides a basis for examining and understanding the relationship between MNEs and L advantages (discussed more in section 2.3 below).

2.2.4 Internationalisation – the Uppsala model

Finally, a fourth strand of IB theory needs to be explored in order to shed light on behavioural, or rather non-economic influences on, FDI. Arguably such an approach is encapsulated in the 'Uppsala' internationalisation model (Johanson and Vahlne, 1977). The Uppsala model envisages a process of internationalisation which is broadly based around successive stages of increasing commitment to international markets (see Figure 3). According to the model, FDI is one of the final stages of FME, which is employed once the firm has developed a significant degree of knowledge and experience in and about particular host markets. As a firm progresses through each stage of internationalisation it accumulates knowledge of international management and foreign markets, which subsequently attenuates any tendency to avoid 'psychically distant' host countries (Vahlne and Wiedersheim-Paul,

1977).[12] Under this behavioural-based view, managers are reluctant to engage in business in countries with real (or perceived) cultural, structural and lingual differences to their home country or those where they have done business before. Instead, they prefer to operate in markets they are more familiar with, at least in the initial stages of international expansion (Nordstrom and Vahlne, 1992). However, as an organisation and its managers gain more experience, the model predicts that they are more likely to seek international opportunities from a broader array of locations in more geographically and psychically distant countries.

Figure 3 Uppsala' Internationalisation Model
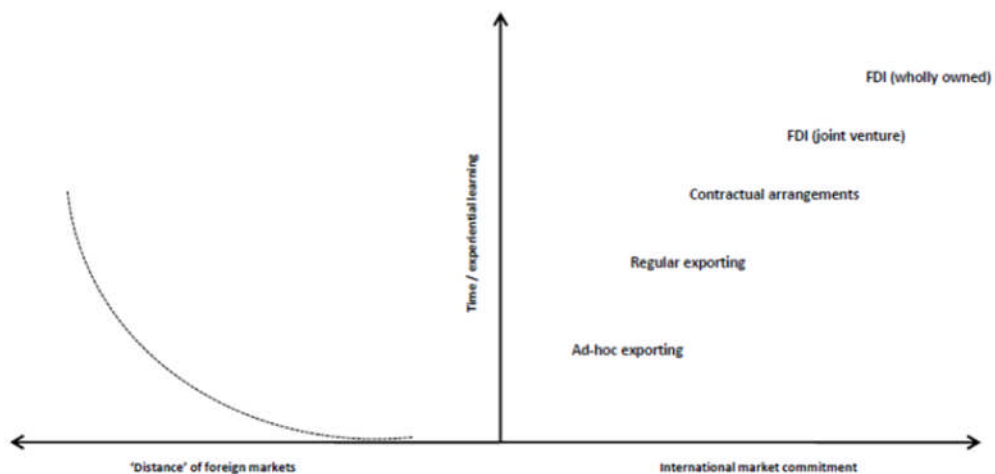
Source: Author, based on Johanson and Vahlne (1977)

The Uppsala model represented a significant departure from previous conceptualisations about the international expansion of MNEs, which tended to interpret the international expansion and growth trajectory as a series of discrete rational economic choices. However,

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[12] Psychic distance refers to perceived cultural and institutional differences between a firm's home country and the target host country (Kostova, 1996)

as demonstrated by Aharoni (1966), the FDI decision process is often messy and riddled with ambiguities. Unlike prior IB theory of the time, this model explicitly recognised the bounded limits of human rationality (Simon, 1947) and built this into a theory of MNE behaviour.

In terms of location decisions, the Uppsala model suggests that firms will position their international activities in host locations where uncertainty is minimised, especially in the early periods of foreign expansion. More specifically, the behavioural assumptions of the model suggests that firms will initially internationalise to locations that are 'psychically' close to the home country or familiar third countries. The model goes on to propose that as the firm's ability to manage and expand in international markets increases and experience and knowledge are accrued, its proclivity to invest in ever 'distant' markets grows. Limiting the geographic distance between the home country and the host country in the early stages of internationalisation is seen as a means of reducing the uncertainty created by psychic distance (O'Grady and Lane, 1996). It may also be a means of reducing coordination and transport costs during the internationalisation process (Mariotti and Piscitello, 1995). The Uppsala model, therefore, proposes that geographic distance between the home and host country can play an important role in determining the pattern of MNE location choices. However, the role of geographic distances between different locations within countries is much less established in the IB literature. In subsequent chapters (notably Chapters 4 and 6) it will be argued that geographical distances within countries also have a bearing on the location of FDI and the subsequent performance of foreign affiliates.

The generalities espoused in the Uppsala model have attracted considerable criticism. For example, Andersson (1993) describes it as vague, deterministic and tautological. However, the central interplay between uncertainty and international location choice remains relevant

(even the more recent update of the theory advanced by Johanson and Vahlne in 2009) – as will be discussed later in this dissertation, particularly in Chapter 5).

2.3 Locations and the MNE

The previous sections of this chapter provide insights in the nature of FDI as a means of internationalisation. The following sections will build on these perspectives but will explicitly examine the relationship between FDI and characteristics of different locations. Firstly, I discuss and differentiate between the national level location decision and the subnational location decision. In the following sections of this chapter I will discuss some of the major insights that have been made by international business scholars to understand the FDI location decision. In particular, I will discuss the location decision as conceptualised in the OLI paradigm (Dunning, 1977, 1980) which offers insights into locations decisions that are still relevant to the understanding of FDI location choice in IB (Graf and Mudambi, 2005; Buckley *et al.,* 2007). Secondly, I will discuss a critical, but neglected, insight made by Hymer (1960) into the correspondence between different tiers of the MNE corporate hierarchy and the subnational location of FDI. Finally, I will discuss the role of uncertainty in the FDI location decision. Central to this discussion is the concept of *location advantages.*

2.3.1: Location advantages

Location advantages refer to the endowed assets, characteristics or attributes that are embedded in a specific location. The concept encompasses a host of factors pertaining to particular sources of advantage that can be realised through establishing a business in a

particular geographic location.[13] Verbeke (2009) states that:

> "Location advantages represent the entire set of strengths characterising a specific location, and useable by firms operating in that location…Such strengths are really stocks of resources accessible to firms operating locally, and not accessible, or less so, to firms lacking local operations" (p.27).

Thus, the fundamental basis of location theory suggests that the diversity of resource configurations across locations creates opportunities for firms to seek productivity advantages beyond their home nations. Furthermore, the nature of location advantages means that they are bound in a specific geographical place.[14] The inference here is that without being physically present in a location it will be difficult for firms to benefit from location advantages. In the most general sense a foreign market must offer a set of location advantages that makes it profitable to perform business activities there rather than in the firm's home market (Markusen, 1995).

2.3.2 The hierarchical structure of FDI location choice

When a firm chooses a location for a FDI project it effectively selects a specific "parcel of land" (Ansar, 2010: 51) on which to produce.[15] The level of geographical specificity to which a specific site or 'parcel of land' is subjected to in location choice analysis varies from study to study. However, two key geographical units of analysis in the internationalisation decision can be discerned: (i) the choice of host country; and (ii) the

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[13] Although, we should be cautious of making the assumption that MNEs benefit from locations simply as a function of being established in them (Hennart, 2009; Zaheer and Nachum, 2011).

[14] Location bound advantages are theoretically differentiated from location-bound firm specific advantages (FSAs) and internationally transferable FSAs. While the interaction between locations bound advantages and FSAs is clearly important, this dissertation is mainly interested in the role of location bound advantages and their effects on MNEs.

[15] This assumes that a location decision is made. This may not be true in the case of mergers and acquisitions where location decisions were taken by previous management. Nevertheless, the location of current business activities may have a bearing on the merger or acquisition decision.

choice of where to produce in that country (i.e. a subnational or within country location choice).

The general assumption is that FDI location choice exhibits a hierarchical decision structure, with the choice of host country preceding that of a subnational location (Mataloni, 2011) (see Figure 4). However, this assumption is worth further consideration. To date, the lack of focus on the subnational element to location choice (Beugelsdijk et al., (2010) and the associated decision processes (Buckley et al., (2007) has left a considerable gap in our understanding of how MNEs structure their location choices. Essentially, the question is; what comes first? - the country or the city within a country? In other words, when creating a choice set, does the MNE first consider a group of countries and select one of these before deciding in which area within the shortlisted country to locate? Or, is the choice set constructed of cities with countries having little bearing on the choice?

It is likely that both of these choice structures occur, however, arguably firm and investment level contingencies effect which decision model is followed. For example, for technology intensive firms that perform specialised tasks there may only be a handful of suitable international locations that can provide the requisite inputs and infrastructures for their production activities (Alcacer, 2006). Thus, these firms may focus on deciding on particular cities that are endowed with specialised inputs, rather than considering alternative country characteristics. Likewise, financial services providers or investment banking firms are likely to structure their location decisions around which cities host stock markets and supporting financial institutions (Nachum, 2000). Activity specific factors may also have a bearing on this. For example, Bel and Fageda (2011) find that when selecting cities in which to relocate headquarters activities, the country is largely irrelevant, with international transport connections within cities being the more critical factor. These are issues which clearly need to be further explored, perhaps through the type of structured experimentation used by

Buckley et al., (2007). In this study, the prevailing theoretical assumption of a two stage country-city location choice is made. In other words, it will be assumed that when selecting between cities in China, the MNE has already made the commitment to invest in China and is not considering other cities across other national contexts in parallel (Chadee et al., 2003).

Figure 4 Hierarchical structure of location choice decision-making
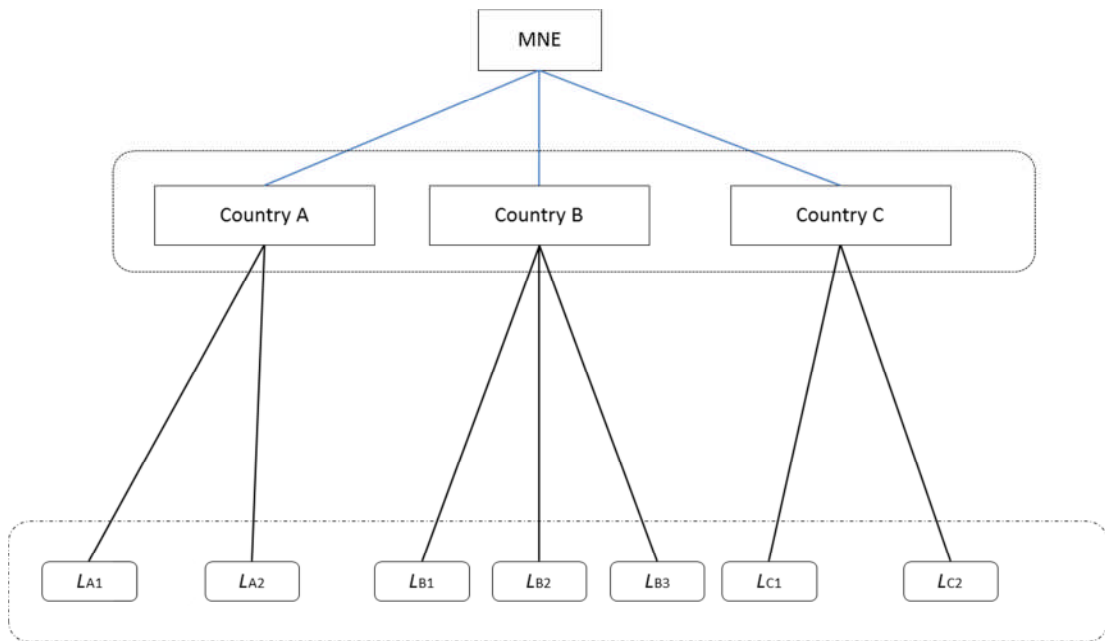
Source: Adapted from Iammarino and McCann (2013).

The IB literature has traditionally focused on FDI choice at the host country (or national) level (Buckley *et al.,* 2007; Galan *et al.,* 2007; Enright, 2009). It is possible to arguable, however, that a subnational level of analysis offers a significantly closer approximation of the realities of spatial decision-making within MNEs (Buegeldijk and Mudambi, 2013). Indeed, as Iammarino and Mccann note:

> "Whenever MNEs make investment decisions, they need to consider exactly where such investments are to be located, and the level of geographical specificity that MNE firms need to consider is always much more detailed than simply in which country they should invest" (Iammarino and Mccann, 2013: 68).

This is an important consideration since a significant body of literature (especially in IB studies) on the relationship between MNEs and locations has 'too often treated a location as being synomonous with a country, without providing any real differentiation or nuanced explanation of locational features" (Beugelsdijk, *et al.,* 2010: 487). Indeed, a key aspect of Porter's (1990, 1994, 1998) influential work on the contingencies between firm strategy and location is the notion that "the relevant economic area is smaller than the nation" (Porter, 1994: 38).

The key issue here is that when location choice is analysed at the level of the country, subnational diversity and contextual nuances of the specific locality are masked. Arguably, this is a significant oversight, especially in the context of widely heterogeneous countries such as the large emerging markets. In essence, between country location choice studies implicitly assume that locational features conditioned at the level of the country are reflected homogeneously across all subnational regions. However, not only is this an unrealistic assumption (Mataloni, 2011; Chan *et al.,* 2010), but it also offers only a stylised and highly unspecific account of the spatial decision making of MNEs in practice (Sethi *et al.,* 2011). For example, a particular business function is not located at a country level; rather, it is geographically positioned *within* a country. Thus, Iammarino and McCann (2013: 32) state that "an MNE's multiple locations are best understood as specific subnational areas" (Iammarino and McCann, 2013: 32)   In this study, I am concerned with generating greater insights into the relationship between MNEs and local contexts. For this reason, it seems fair to assume that the subnational level of analysis provides a much closer approximation of the realities of spatial decision-making in MNEs and the relevant aspects of local context which influence the choice of a location in which to conduct a particular set of business activities.

2.3.3 Location in the OLI paradigm

In Dunning's (1977) explication of location in the OLI model, he distinguishes between *general* location advantages and *specific* location advantages.[16] General advantages refer to the baseline advantages of a location. They are the fundamental factors that create attractive conditions in the host location. In Dunning's (1980) empirical paper testing the OLI he states that general location advantages relate to *productivity, profitability* and *growth* (PPG) factors. In effect, Dunning (1980) argues that MNEs, as rational economic actors, will only establish foreign affiliates in those locations in which it is profitable for them to do so. This means assessing the extent to which an acceptable return on investment (ROI) is possible, evaluating whether or not the location can satisfy productivity requirements and determining that there are clear opportunities for business development and growth - either in the host market or through leveraging the advantages of the host market to support business growth elsewhere – see Figure 5 for a conceptual overview of the location decision in Dunning's model.

Dunning's (1980) specific location advantages are *production costs, movement and transfer costs, government intervention* and *risk factors. Production costs* primarily refer to the cost of labour and land in a country and are a key contributor to overall costs of operating in a foreign market. *Movement and transfer costs* refer to the costs of moving intermediary goods, supplies and finished products to and from the host country. *Government intervention* refers to the tariff and non-tariff barriers which might restrict internationalisation to a particular country, or that may create additional costs of entry or delays. Finally, Dunning recognises that some countries, owing to political or social conditions, carry higher levels of risk, which can act to deter uncertain and cautious foreign investors. These factors generally

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[16] As noted already in Chapter 2, Dunning's (1977, 1980, 1988) eclectic 'OLI' paradigm was principally concerned with national level location advantage and FDI behaviour between nations. This is reflected in subsequent theorising from the model (Dunnning and Lundan, 2008).

represent the key locational determinants of FDI in the OLI paradigm, and are generally recognised as essential to examining the "location of international production" (Graf and Mudambi, 2005: 148). Obviously, Dunning's (1977, 1980) writings on location reflect the nature of foreign investment during this period, which tended to be dominated by manufacturing investments, often between the advanced industrialised nations (Mathews, 2004). Furthermore, as previously mentioned this analysis is based on country level differentials and therefore, lacks an appreciation for the subtlety of spatial disparities and divisions between alternative locations. Despite this, these factors have remained the cornerstones of locational thinking and theorising in IB (Buckley *et al.,* 2007; Galan *et al.,* 2007).

Figure 5 Dunning's location choice model
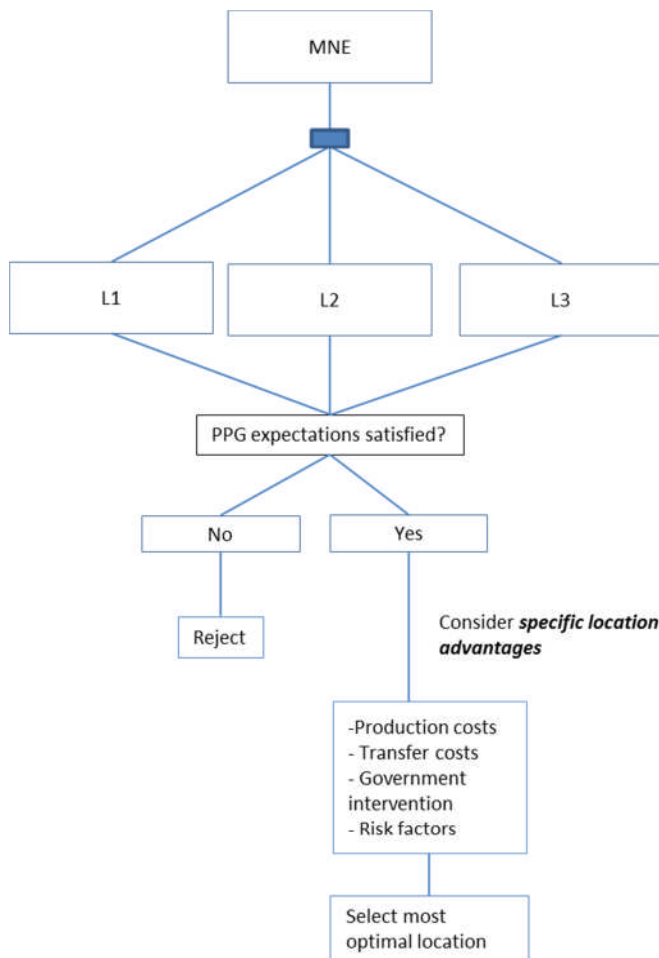
Source: based on Dunning (1977, 1980)

The forces of globalisation continue to expand the geographic scope of the MNE and with the locational opportunities available to MNEs increasing, so too has the volume and range of activities that have been offshored to foreign host countries (Jensen and Pedersen, 2011). For example, firms no longer just offshore manufacturing and sales operations, but increasingly also locate R&D (Demirbag and Glasiter, 2010) and headquarter functions in foreign markets (Bel and Fageda, 2008). The concept of location has, therefore, adjusted to accommodate these new patterns of MNE behaviour (Buckley and Ghauri, 2004; Graf and Mudambi, 2005). This has resulted in an activity-based view of location choice (Enright, 2009). This perspective on FDI location decisions will be elaborated on in Chapter 7. However, I will briefly outline some of the underlying theory for this activity based perspective.

2.3.4 Spatial dimensions of the MNE's corporate hierarchy

As discussed in section 2.2.1, Hymer's (1960) thesis had an indelible impact on MNE and FDI theory. However, Hymer (1970, 1972) also made notable, albeit generally neglected, contributions to location theory. Hymer's primary contribution to MNE theory was nested in his insights into the relationship between the transfer of firm-specific knowledge, resources and capabilities within the hierarchy of the MNE on the one hand and success in foreign markets on the other. Hymer's insights into the locational dimension of FDI build upon this thinking.

Hymer suggests that through the processes of international growth and expansion, MNEs develop a hierarchical structure. According to Hymer, this hierarchical structure is characterised by three tiers of corporate decision-making autonomy. Tier One (T1) represents the highest level of corporate decision-making (i.e the 'corporate-brain'). This is

essentially the MNE's corporate headquarters (HQ) where overall strategy is developed and key administration is conducted. The second tier (T2) of the MNE is represented by sub-divisions of the firm's headquarters which take responsibility for intermediary management activities at a regional or local (e.g. specific host country HQs) level, including administration, coordination, control and strategy. Finally, Tier Three (T3) is the 'operational' level of the firm, where primary corporate activities, such as production, logistics and sales take place.

Hymer argues that geographical specialisation increases with the level of decision autonomy (see Figure 6). In other words, he asserts that there is a relationship between the hierarchy of the MNE and the spatial geography of different corporate activities. Hymer (1972) refers to this as the '*correspondence principle*' and he links the spatial-geography of the MNE to divergent patterns of development in the global economy as well as global divisions of labour (Buckley and Ghuari, 2004). More specifically, however, this insight leads to interesting notions concerning the geography - particularly the subnational urban-geography - of the MNE.

Figure 6 The corporate hierarchy of the MNE
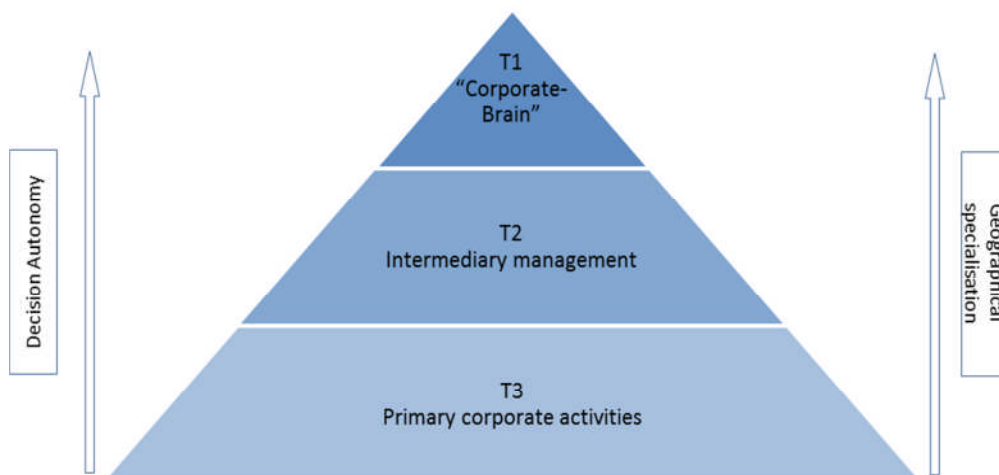
Source: Author, based on Hymer 1972

Hymer (1972) suggests that the nature of T1 activities demands a high degree of specialisation that only a limited number of geographical locations can provide. This does not necessarily refer to the endowed attributes of the location, but more to the supply of highly specialised services that are concentrated in select locations, such as "capital markets, media and governments" (Iammarino and McCann, 2013). Thus, Hymer (1972) asserts that these activities will tend to locate in, or gravitate towards major core centres of economic activity, such as global cities (i.e. major global financial centres such as London, New York, Paris or Tokyo).

T2 activities also require specialised inputs, such as highly educated and skilled labour, as well as sophisticated communication channels and well-developed infrastructures. However, locational 'needs' at this level are not as niche as T1. Therefore, they do not necessarily *need* to be located in global cities. T3 activities are likely to be the most geographically dispersed activities, according to Hymer, as their locational needs are significantly less specialised than T2 and T3 activities. Therefore, although Hymer (1972) did not have the empirical evidence to support his insights (indeed, extant evidence is often only based on stylised facts or anecdotal cases), he envisaged a corresponding relationship between the corporate hierarchy of the MNE and the geographic hierarchy of cities.

In many respects, Vernon's (1966) Product Life Cycle (PLC) theory of international production offers a similar interpretation of the FDI location decision to that proposed by Hymer (1972). Vernon (1966) relates different stages in the life-cycle of product development, innovation and market servicing to the location of production activities. The PLC offers a dynamic perspective on FDI location choice which contributes a much more nuanced understanding of how endogenous factors operating at both a firm and product-

level interact with exogenous location-level factors to drive location choices during the internationalisation process. However, Vernon's PLC model reduces the locational considerations of MNEs to market potential and cost differentials which arguably offer only a narrow conception of the spatial decision-making of firms. Despite the simplifications of Vernon's (1966) PLC model, it does focus attention on the relationship between the MNE, the degree of specialisation (or standardisation) required to perform particular business activities, and the characteristics of different production locations.

Despite these compelling insights into the nature of spatial decision-making in MNEs, "the international business literature has largely overlooked the interplay between spatial, and in particular urban, organisational and industrial structures" (Iammarino and McCann, 2013: 45). In this study (especially Chapter 7), Hymer's (1972) notion of a correspondence principle between the business activities conducted within the hierarchy of the MNE and the city-locations in which activities are located will be theorised further and empirically investigated. This will build on the recent work of others that are investigating the fit between geography and different corporate activities (Enright, 2009; Jensen and Pederson, 2011).

2.3.5 Uncertainty, foreignness and information costs in FDI decisions

If a firm is to select an optimal location for its foreign business activities then it follows that its managers will need access to all the necessary information relevant to the choice. Furthermore, this information will need to be systematically and objectively processed in order to facilitate a comprehensive decision-making process. However, information in the 'real world' is often fragmented, incomplete or simply unavailable (Aharoni, 1960; Kulchina, 2013). Moreover, cognitive limitations (Simon, 1947) and biases (Kahneman and Tversky, 1973) mean that objective, rational decision-making of the type assumed in classical economics is behaviourally implausible (Hodgkinson *et al.,* 2005).

Decision-making theory suggests that uncertainty can be mitigated by the collection of comprehensive information pertaining to a particular choice (Fredrickson, 1984; Shapiro and Spence, 1996). However, there are costs associated with information gathering and these costs are often compounded during the process of entering new foreign markets where decision-makers are likely to lack knowledge and familiarity about the conditions of the country (Peterson *et al.,* 2008; Mariotti and Piscitello, 1995). Consequently Mariotti and Piscitello (1995) introduced 'information costs' to the study of location choice. Information costs are simply those economic costs associated with the gathering and processing of information. Mariotti and Piscitello (1995) applied this line of reasoning to explain FDI location choice in Italy, arguing that the availability and cost of location-specific information weighed heavily on the location decisions of foreign businesses. Their theoretical framework rests on the premise that location choice research often neglects to consider the *'foreignness'* of decision-makers when evaluating international investment opportunities. It is possible to conjecture that foreign decision makers are typically not privy to insider information and are unlikely to possess the tacit knowledge required to objectively evaluate information associated with investment opportunities within a host country (Peterson *et al.,* 2008; Kulchina, 2013; Belderbos *et al.,* 2011). As such, the foreign decision-maker is in a position of adverse information asymmetry relative to domestic host country firms when selecting subnational locations for investment (Zhao *et al.,* 2005). Mariotti and Piscitello (1995) assert that, while the location decisions of domestic businesses are more likely to be guided by the factors and variables typically embedded in theories of industrial location (such as market and economic factors), the location decisions of foreign businesses are more likely to based on information availability and the expenses associated with its acquisition. Mariotti and Piscitello (1995) identify three types of information cost.

Firstly, the foreign firm will face *'location-specific observation costs'* prior to making an investment. These are the costs required to gather and process location specific information, such as local factor endowments and the character of the business environment, including the workings local labour markets and the effectiveness of local governments, for example. This information may be acquired at high cost or low cost. Low-cost information is readily available in the form of, *inter alia*, documented statistics pertaining to items of interest such as labour wages and local economic conditions. However, such information presents only a surface image of the environment (Ulgado, 1996). For a manager to gain a deeper understanding of the location environment, in terms of the workings of the institutional framework and the quality of particular locational attributes for example, additional and higher information costs will be incurred (He, 2002). This involves commissioning the collection of primary data and information about the particular workings of the environment.

Later, and after the investment has been made, the firm will incur *market and event observation costs*. These are the costs of monitoring trends in the general economic and institutional environment which may affect market and environmental conditions. Lastly, the location decision may be influenced by information costs associated with post-investment *communication, monitoring and control* of the foreign subsidiary. Mariotti and Piscitello (1995) argue that considerations pertaining to these three types of information costs have a greater bearing on the location decision than traditional location variables. They suggest, however, that information costs are relative and that certain locations, due to their higher levels of information availability, will be more attractive to foreign investors than to others. These areas include:

> **The country core**: Building on the ideas of CP theory, Mariotti and Piscitello (1995: 818) argue that location advantages such as "infrastructures, political and administrative institutions, business services and intangible assets related to

technology and management" are stronger in core economic centres. The accumulated location advantages of these core areas serve to reduce information costs, because information and communication flows are more readily accessible. Mariotti and Piscitello (1995) identified Milan and Rome as being the 'core' regions of Italy since they are the commercial and political centres of the country, respectively. To assess the influence of these city-cores on FDI location patterns, the authors measured the minimum road distance between both Milan and Rome and the capital of the province in which the focal firm was located.

Existing FDI concentrations: Mariotti and Piscitello (1995) argued that subsidiaries of foreign businesses represent vital channels for information relating to the local environment and business system. In particular, they theorised that the presence of other MNEs would increase the likelihood that a firm would locate in a given region. Firms may be inclined to mimic the location choices of firms they perceive to be reputable in some way, as their presence signals the attractiveness of the area and its viability as a location in which to invest.

Adjoining borders: According to Mariotti and Piscitello (1995), the border effect serves to explain the location choices of firms originating from a home country contiguous to the host country, or one that is particularly close to it. To illustrate, they find that, in the case of Italy, French firms demonstrate a greater proclivity to locate in Northern Italy than do other nationality firms. The explanation is that the spatial proximity of border regions to a particular country of origin reduces perceived geographical and cultural 'distance' for the investing firm and that similarities between countries may be more prevalent at border intersections reducing their 'foreignness', and it follows, the information costs required to identify and evaluate a locality in which to invest.

Mariotti and Piscitello (1995) find significant support for the influence of information costs in determining subnational location choice. Furthermore, they assert that the explanatory power of information cost indicators significantly surpasses that of traditional location choice variables. In other words, they find strong support for the thesis that the 'foreignness' of decision-makers influences how the location decision is modelled. Further support along these lines is reported by He (2002) and Zhao *et al.,* (2005) in the Chinese context.

The key contribution of the information cost argument is that it conceptually integrates the 'foreignness' of the decision-maker and the uncertainty this creates into models of subnational location choice. Furthermore, it highlights that certain regions are more conducive to foreign investment than others as a consequence of their geographical positioning and resources endowments.

The information costs argument will form one of the central building blocks for the analysis of FDI location and foreign affiliate performance conducted in this study. Specifically, I will argue that information costs play a key role in moderating the preferences of firms and their managers to conduct business activities in different cities within China (ideas which are developed further in Chapter 5). Furthermore, it will be argued that information availability is a key location advantage for core cities and that this in turn has a positive effect on the performance of foreign affiliates that are established in these locations (see Chapter 4).

Mariotti and Piscitello (1995) were among one of the first IB scholars to investigate the additional complexities that alternative subnational locations can give rise to. However, in favour of the information costs argument, the authors underplayed the role of local context (Meyer *et al.,* 2011). Furthermore, although they introduce the CP model as an explanation for subnational FDI trends, they do not comprehensively discuss the characteristics of

peripheral locations vis-à-vis core economic centres. In the next sections I will elaborate further on the important role of local context and will also discuss the CP concept in more detail.

2.4 Local context and subnational heterogeneity

As previously discussed (see section 2.3.2.), the MNE should be thought of as operating across different subnational locations (Iammarino and Mcann, 2013), where location advantages are embedded locally within these contexts (Verbeke, 2009; Beugelsdijk and Mudambi, 2013). However, as discussed in chapter 1 and again in section 2.3.2, local contexts can exhibit significant subnational variation within host countries. Furthermore, some countries exhibit more subnational heterogeneity than others. The growing literature on the strategic implications of subnational locations suggests than within country variations are most pronounced in emerging and developing economies (Meyer and Nguyen, 2005; Chan *et al.,* 2010; Shi *et al.,* 2011; Ma *et al.,* 2013; Wan and Hoskisson, 2003). In other words, the 'local context of a large emerging economy can vary significantly across its subnational regions' (Ma *et al.,* 2013: 67).

As Meyer *et al.,* (2011) observe, understanding and unravelling the multiple dimensions of local context that impact upon the behaviour of MNEs will become increasingly more important as the geographic scope of business activity increases. Local context in this instance broadly refers to the external environment in which the foreign affiliate is (or potentially will be) embedded in a host country. I made the argument earlier (see section 1.1) that cities, rather than nation-states, provide a closer representation of the realised or prospective local context of a foreign affiliate, given the greater geographical specificity offered by this level of analysis. In this study, therefore, the city is taken to be representative of the firms' realised or prospective local context.

Meyer *et al.,* (2011) consider two aspects of local context to be most salient from the perspective of MNEs, namely: (i) institutional frameworks and (ii) resource endowments (also referred to as *factors of production*). Building on this, Ma *et al.,* (2013) in their study of local context in China (at a province level) also include a third dimension, namely, agglomeration economies. A review of existing subnational location choice literature (presented in tabular form in Appendix I) demonstrates that these three dimensions of local context are frequently used to empirically construct subnational locations – though few studies have considered all three. In addition, existing research has also examined the comparative advantages of locations, such as their market size and the affluence of the population (Shaver, 1998; Amiti and Javorcik, 2008; Jean *et al.,* 2011; Crozet *et al.,* 2008). Comparative location advantages typically represent the 'baseline' (i.e. Dunning's (1980) location advantages of local context. Therefore, for the purposes of this study four dimensions of local context are considered: *institutional frameworks, factors of production, agglomeration economies* and *comparative location advantages* (summarised in Table 2*).* Subnational heterogeneity across these dimensions of local context are examined as explanations of firm performance and FDI location choice in China.

This addresses an important research gap in the IB literature. Firstly, of the two major studies that have investigated the impact of subnational locations on the performance of foreign affiliates (Chan *et al.,* 2010; Ma *et al.,* 2013), neither have examined locations at the disaggregated level of the city and neither have attempted to identify the key sources of socio-economic and institutional heterogeneity that impact upon foreign firms. Indeed as stated by Chan *et al.,* (2010: 1237), "one interesting extension of this [their] study would be to identify the constituent components of subnational institutions and test their relative influence of foreign affiliate performance". In this study, I directly address this research gap, (see Chapter 4), However, I also further extend theory on the subnational location-

performance relationship by integrating CP disparities as a further contributing factor to foreign affiliate performance differentials.

Table 2 Dimensions of local context

Dimension of local context	Description	Key subnational indicators	Example literature
Factors of production	Munificence, quality and cost of inputs necessary for production process and (or) service provision	Average wage cost; levels of human capital (university education); quality of critical utilities (i.e. electricity and water); availability of natural resources; physical (e.g. roads, railway) and technological infrastructure (e.g. internet provision)	Gao *et al.,* (2005); Cheng and Kwan (2006); Alcacer (2006); Li and Park (2006)
Institutional framework	The local formal and informal regulative, normative and cognitive 'rules of the game'.	Enforcement of contracts and intellectual property; levels of corruption; local government efficiency; local community attitudes; local culture	North, 1991; Meyer and Nguyen (2005); Bevan *et al.,* (2008); Du *et al.,* 2008; Ma *et al.,* (2013)
Agglomeration conditions	The presence of existing clusters of businesses or business activity.	Existing stock of domestic businesses; existing stock of foreign businesses; industry specific clusters	Belderbos *et al.,* (2011); Mariotti *et al.,* (2010); Chung and Alcacer (2002)
Comparative location advantages	The general advantages of a location such as market size, demand factors and economic growth.	Gross domestic product (GDP); GDP per capita; population size	Nachum (2000); Sridhar and Wan (2006); Chaddee *et al.,* (2003)

In the empirical chapters presented later in the dissertation I build on the insights of others who have considered different dimensions of location to investigate FDI location decisions

and performance. Each empirical chapter will provide a discrete and focused review of the relevant literature.

2.5 The New Economic Geography

In addition to understanding the impact of local context on FDI location decision making and performance of foreign affiliates in China, this study is also concerned with how spatial divisions – particularly core and peripheral areas of an economy – influence these outcomes. The ideas that are central to the 'NEG' concern the spatial concentration and dispersion of economic activity between central and peripheral locations. In this study, I specifically utilise the Krugman's (1991) concept of CP to investigate the impact of subnational spatial divisions in China.

Krugman (1998) argues that there are forces which both encourage economic concentration in core locations and those that oppose it. Krugman analogises this as a 'tug of war' between '*centripetal*' and '*centrifugal*' forces which both promote and oppose economic concentration. In this conceptualisation centripetal ('*to seek the centre*') forces are those external economies and 'spillover' effects that emerge in concentrated clusters of economic activity. Specifically, *market size effects, thick labour markets and 'pure external economies'* are the primary forces that lead firms to gravitate towards central and core locations (Krugman, 1998). Locations with large local markets allow firms to benefit from the scale advantages that proximity to a large number of customers provides. Furthermore, a large local mark*et al.,*so allows firms to develop linkages with other suppliers and manufacturers, thus providing markets for the supply and demand of intermediary goods. Secondly, concentrations of industries and markets also lead to the development of 'thick local labour markets' – in other words, dense concentrations of human capital. This makes it easier for firms to find, attract and train specialised, highly educated and skilled employees.

Finally, 'pure external economies', primarily refers to the information and knowledge spillovers that are disseminated in localised concentrations of firms and industries.

However, Krugman (1998) recognised that certain factors also act to oppose economic concentration in central and core locations. These centrifugal forces ('*to flee the centre*') create pressures and conditions which lead firms and industries to avoid locating in central locations. Krugman (1998) suggests three forces that may lead to geographical dispersion: *immobile factors, land rents* and *pure agglomeration diseconomies.* Many location factors are immobile, such as land and natural resources. This immobility can, to a large extent, dictate the location of businesses (Dunning, 1998). Furthermore, the location of businesses that need to be geographically proximate to customers will have their location choices determined by where core customer segments can be found (Enright, 2009). These forces encourage geographical dispersion, but does not necessarily *discourage* concentration. Central locations may also develop conditions and characteristics that militate against their attractiveness. The concentration of firms and residents in some locations and the high levels of demand that this generates serve to drive up rent, land and labour costs and consequently discourage cost-sensitive industries from locating there. These costs may discourage cost-sensitive industries from core locations. Furthermore, competition for both markets and resources in central locations may further deter some firms from setting up in these locations (Salop, 1979). Furthermore, Krugman (1998) also notes that some locations may suffer from *pure agglomeration diseconomies*. For example, central locations in which economic activity is highly concentrated may suffer from congestion, crime or pollution that further discourages economic concentration.

Beyond the realm of theoretical economics, 'real world' locations are likely to exhibit some of these traits simultaneously. The tensions created by these centripetal and centrifugal

forces are a key component of the NEG. Furthermore, they also play an integral role in the development and maintenance of spatial divisions, as encapsulated in the CP model.

2.5.1 Cities and economic geography

In this study cities are theoretically representative of 'local context' and are the principal empirical level of analysis. A discussion, therefore, of cities and, more importantly, the economic geography of cities is important to the key considerations of this thesis. A simple but important question is *what is a city?* The Oxford English Dictionary defines a city as "a large and important town". Indeed, most standard definitions tend to indicate that a city is, fundamentally, defined as such because of its scale – typically in terms of its population (Pile, 1999).

The OECD define cities as "large concentrations of population and economic activity that constitute functional economic areas typically covering a number of local government authorities" (OECD, 2008: 31). However, there is no standard or unified agreement on what degree of scale qualifies a town as a city. Across different countries the administrative classifications of what is a city and what isn't differ which can make cross-country city comparisons difficult. For the purposes of this study, however, the broad definition offered by the OECD is accepted as it captures the two defining feature of cities, that is, density and concentration of population and economy (Pile, 1999).

Cities have long held an interest for economic geographers (Storper and Venables, 2004) – particularly those in the sub-discipline of urban studies (Jacobs, 1977; Beckman, 1975; Gibb, 2007; Evans, 2013). The study of urban areas (cities) has evolved in multiple directions, from the role of cities in facilitating social movements (Nicholls, 2008) to socio-technical characteristics of 'smart cities' for the future (Shapiro, 2006). The most relevant

strand of this wide and diverse literature on cities is that which is concerned with cities, principally, as economic areas (Storper and Venables, 2004).

The concentration of economic activity in cities, combined with the cohesion they facilitate between individuals, businesses and institutions mean that they hold a prime position as hubs for innovation, economic transactions and growth (McCann and Iammarino, 2013). Central to this is the density of human capital and complementary labour markets in cities (Scott, 2009). Furthermore, access to customer and intermediary goods markets also augment the location advantages of operating within a city (Sridhar and Wan, 2008).

Effectively cities provide unique contexts in which to explore the fundamental arguments that underpin economic geography – that is, the concentration and dispersal of economic activity (Marshall, 1920; Krugman, 1998). This thesis builds on these core arguments, firstly in its explicit consideration of core-periphery dualism – which are manifestations of concentration and dispersal and secondly in its consideration of the impact of existing business agglomerations located within cities.

Recently, economic geographers have begun to examine global and national hierarchies across different cities. This interest in city hierarchies reflects the ongoing trends toward urbanisation (see section 1.2). On a global scale, theoretical conversations have focused on 'global cities' and 'world cities' (Smith, 2012). The command and control characteristics of these cities that derive, primarily, from their powerful financial institutions place them in central positions within the global economy (and their national economies, e.g. Paris, Tokyo, New York and Tokyo). Complementing this, very recent work has begun to recognise the economic potential of "second-tier cities" (Evans, 2013, "beta-cities" (Rekers, 2012), "second-order cities" (Champion and Townsend, 2013) and "peripheral cities" (Mans,

2014). There is growing recognition that these cities will be critical components of economic growth over the next two decades. However, despite the interest in these cities from economic geographers, there has been very limited interest, as of yet, in the role of FDI into, and international business activities between, these cities. Arguably the rapid development of an urban periphery in emerging economies further emphasises the need to consider core-periphery disparities within these nations. Despite the theoretical insights offered by economic geographers into cities and economic activity within them, this research is "largely isolated from the main research on MNEs" (Iammarino and McCann, 2013: 69). This thesis integrates some of the key arguments from this literature – particularly that pertaining to core-periphery disparities and urbanization externalities to better understand the relationship between MNEs and cities, which are both discussed below.

2.5.2 Core-periphery disparities

The CP model advanced by Krugman (1991a) arguably resides as a cornerstone of the NEG. The CP model of regional divergence suggests that spatial distances and the forces of agglomeration create divergent patterns of economic development overtime (Krugman, 1991a). In Krugman's (1991a) theoretical exposition of this model, it is suggested that economic systems take on dualistic structures characterised by an urban core (where manufacturing activities are performed) and a rural periphery (where agricultural activities are performed). However, this broad concept can be applied to analyse CP spatial disparities at multiple levels of analysis. For example, Mans (2013) uses the CP concept to theoretically explore interrelationships amongst world cities. In the present study, the concept is used as a basis to consider CP divisions between cities within China. More specifically, the CP concept is applied in this study to explore differences between core cities that act as centres of economic activity and peripheral cities, that are economically significant, but are not economic centres or hubs. The operationalization of this concept is discussed in Chapter 3.

The processes of regional divergence which are manifest in CP dynamics can create stark disparities between core and peripheral locations (Mariotti and Piscitello, 1995; Henderson *et al.,* 2005). The inference is that core economic centers have stronger comparative location advantages relative to peripheries and are, therefore, more conducive to facilitating economic efficiency and business growth – which in turn has a positive influence on inward FDI (Zhao *et al.,* 2005; Scott, 2009).

Building on the NEG and IB literature, I propose that there are six dimensions which differentiate core cities from peripheral cities. These six dimensions relate to two different constructs, *liabilities of foreignness* (LoF) and *urbanisation economies.* Building on the global cities literature (Sasson, 1988; Beaverstock, 2000), I argue that the *availability of advanced producer services,* the *cosmopolitanism* and the *international connectedness* of core metropolises serves to reduce LoF (Goerzen *et al.,* 2013). In addition, I argue that urbanisation advantages and particularly the *localisation advantages,* the higher *information and knowledge advantages* and the *'buzz'* created through face-to-face interactions with key stakeholders, can generate productivity advantages for firms located in core cities (Jacobs, 2010; Venables and Scott, 2004; Liu, 2013) . These constructs, in addition to local context, form the theoretical foundation for the empirical chapters that follow (see Figure 7), but they will briefly be introduced below.

Figure 7 Core location advantages and local context
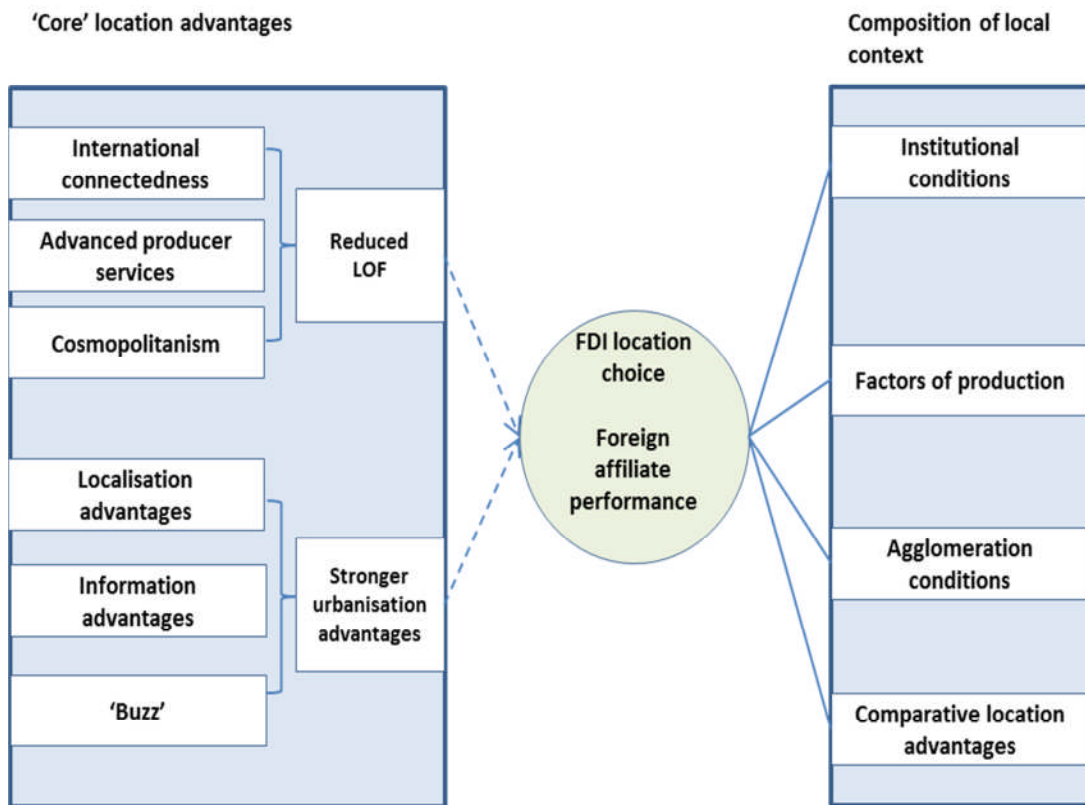
Notes: (1) ----- indicates that in empirical chapters these factors are not directly observed); (2) No perforation indicates that these factors are directly observed in empirical chapters; (3) This framework is not intended to hypothesize the direction of or magnitude of effects. Its purpose is to present the factors that are central to understanding location in the dissertation.

2.5.3 Liabilities of foreignness and core-periphery disparities

The concept of LoF refers to the additional costs borne by MNEs that are associated with entering a foreign market and operating a business there. In other words, they are "the costs of doing business abroad that result in a competitive disadvantage for an MNE subunit" (Zaheer, 1995)**.** IB research has long recognised that foreign firms face costs of doing business abroad (CDBA) that are not incurred by local firms in a host country (Hymer, 1960/1976; Caves, 1971). Eden and Miller (2004), however, distinguish the CDBA from LoFs. They argue that CDBA are the anticipated economic costs that are incurred in foreign markets. Such costs may arise from geographic distance and transport costs. In contrast, Eden and Miller (2004) suggest that the LoF concept differs, in that, it places more emphasis on the *social costs* faced by foreign firms in host countries. In Zaheer's (1995) original

statement on the LoF these social costs stem from of additional *complexity* and *uncertainty* associated with operating a business in an unfamiliar context as well as the *discrimination* faced by foreign firms in some host countries. However, while Zaheer (1995) considers LoF to be generalised factors that affect foreign firm performance in unfamiliar host markets, I argue that LoF can vary across different subnational locations.

Goerzen *et al.,* (2013) suggest that the unique characteristics of *global cities*[17] serve to reduce LoF. They argue that the *international connectedness, availability of advanced producer services* and *cosmopolitanism* of major metropolises mitigate LoF. This trifecta of characteristics serves to reduce these liabilities in three key ways. Firstly, the international connectedness of major metropolises, in terms of advanced communication channels and international linkages (i.e. intercontinental airport hubs, chambers of commerce, central governments) serves to increase access to valuable information, channels for importing and exporting resources and increases opportunities for face-to-face contact with important economic and institutional actors (Storper and Venables, 2004). Secondly, major cities are characterised by the concentration of advanced producer services such as accountants, financial markets, banking institutions, advertising and media and legal services (Sasson, 1994; Beaverstock *et al.,* 1999; Iammarino and McCann, 2013). Finally, as stated by Goerzen *et al.,* (2013: 430) "certain cities develop characteristics that emerge from politics, communications, education, culture, and other social factors creating a cosmopolitan environment". This cosmopolitanism arguably reduces cultural and psychic distance (as discussed in section 2.2.4) when entering foreign markets by providing a business environment that is international in nature and, thus, quite similar to other contexts in which the firm may operate. Furthermore, the cosmopolitanism of major metropolises may be

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[17] Goerzen *et al.,* (2013) use Beaverstock's (2000) classification of global cities. In this typology, London, Paris, New York and Tokyo are the 'alpha' global cities. However, in total they classify 55 global cities. Within this classification the Chinese cities, Beijing, Shanghai and Guangzhou are included.

conducive to the formation of beneficial social linkages and exchange networks, particular amongst expatriate communities. Therefore, new foreign entrants may find that they have more 'friends', who can share information, experience and contacts (Tan and Meyer, 2011). Thus, the combined presence of these characteristics in major metropolises arguably serves to reduce LoF and makes these cities much more attractive for the location of foreign affiliates.

In addition to reducing LoFs, the characteristics of major metropolises may also contribute to reducing liabilities of outsidership (LoO) (Johanson and Vahlne, 2009). Johanson and Vahlne (2009: 1411) state that, "outsidership, in relation to the relevant network, more than psychic distance, is the root of uncertainty". The authors suggest in the modern context of shared business models (Buckley and Ghuari, 2004) and relational mechanisms of exchange (Yeung, 2009), 'insidership' within business networks can play a critical role in firm success. The corollary of this is that modern firms face a LoO, which is arguably heightened in emerging economies where networks and relationships of various types play major roles in business transactions (Jansson, 2007). However, the characteristics of major metropolises as mentioned above arguably reduce the LoO – particularly the cosmopolitanism of these locations.

Goerzen *et al.,* (2013) argue that these factors are characteristic of global cities. However, their fundamental argument may be extended to other core-centres of economic activity such as capital cities and major business centres within countries (Mariotti and Piscitello, 1995; He, 2002; Zhao *et al.,* 2005). The inverse inference of their argument is, however, that non-core cities, or rather those on the periphery, are not endowed with this triad of advantages and, thus, may exhibit increased LoF. Thus, from a purely IB perspective, there is a theoretical basis from which to believe that core and peripheral subnational locations exhibit vastly different characteristics and that these inherent differences may impact on MNEs.

2.5.4 Urbanisation economies and core-periphery disparities

Urbanisation economies are those advantages that can be exploited through locating a business in an urban site (Brown *et al.,* 2010). Arguably, cities possess unique characteristics that differentiate them from other units of 'place', such as countries, regions or provinces (states) (Storper and Venables, 2004). One of the earliest theoretical underpinnings of urban locations is provided by Jacobs (1969, more recently, 2000). Jacobs differentiated urban locations from other geographical units of analysis through highlighting the cohesion that cities provide as nodes for bringing together a diverse range of complex economic processes. In Jacob's view the concentration and organisation of economic processes within cities generates *localisation advantages* for co-located firms. Cities effectively enable firms to benefit from economies of scale and scope through the proximity provided to customers, suppliers and labour markets. This density of business activity in cities also creates opportunities to develop dense linkages among co-located businesses which intensify *information and knowledge spillovers* (Jaffe *et al.,* 1993; Wallsten, 2001; Feldmen and Walsten, 1999). For example, previous research has suggested that firms that are co-located within cities often cite each other in patent applications (Frost, 2001). In addition to these localised interactions and increased potential for technological innovations (Feldmen and Walsten, 1999), proximity to such a range of relevant stakeholders provides better opportunities for face-to-face interactions, which are often critical to the development of social capital, deal-making and contract negotiations (Storper and Venables, 2004). Indeed, Storper and Venables (2004) argue that the 'true economic power' of cities is in their capacity to facilitate these face-to-face interactions and the subsequent *'buzz'* that this creates.

In essence, in this study, I argue that cities are differentiated from other units of place by the geographic proximity they provide to a diverse range of economic actors as well as the

opportunities they provide for rapid market development, innovation and the development of social capital. However, while recognising that cities are privileged sites for the location of business activities, the literature also recognises that cities exist within broader urban hierarchies (Sassen, 1991). In other words, not all cities are equal. Indeed, as theorised in the CP model, core centres of economic activity typically have larger and more advanced markets, larger pools of human capital and stronger agglomeration externalities, such as information and knowledge spillovers (Krugman, 1998). Therefore, the theoretical assumption that can be inferred is that core cities possess stronger urbanisation advantages in comparison with peripheral cities. Once again, when we consider that both core and peripheral cities coexist within countries, we can begin to understand that the CP dynamic is a key source of subnational heterogeneity.

2.6 Core-periphery disparities and FDI-location decisions

I mentioned already that one research gap that is addressed by this study is unravelling how different constituent characteristics of local context impact on the performance of foreign affiliates. However, the discussions presented above also serve to highlight some important gaps in the extant literature on the location of FDI.

As outlined above, existing theory suggests that foreign investors often reduce the uncertainty and complexity of international strategic decisions by locating in country capitals and core centres of economic activity (Goerzen *et al.,* 2013; Mariotti and Piscitello, 1995). Furthermore as outlined above, it is suggested that the unique characteristics of these locations serve to reduce complexity, information costs, uncertainty and discrimination against foreign investors (Goerzen *et al.,* 2013; He *et al.,* 2003; Storper and Venables, 2004). Indeed, empirical evidence indicates that foreign firms overwhelmingly favour major core economic centres as subnational business locations (Goerzen *et al.,* 2013; Iammarino and

McCann, 2013). But, *what then attracts foreign investors to cities beyond these core locations? Do the overarching differences between core and peripheral cities impact upon FDI location choice decision making? And, if so, how?* These are theoretically important and timely research questions. Indeed, *a*s noted by McCann and Mudambi;

> "The locational analysis of the MNE at the subnational regional level is now coming to be regarded as ever-more important … within individual countries, identifying the conditions under which MNEs will locate in large or small urban cities, in central or peripheral locations, and in specialized or diversified areas, is now regarded as essential" (McCann and Mudambi, 2005: 1862).

The research gaps that are addressed in the empirical chapters of this dissertation are summarised in table 3. Specifically, by addressing each of these research gaps, the dissertation aims to offer more nuanced insights into the impact of subnational locations on FDI decision making and performance, whilst also further extending IB theory to accommodate subnational heterogeneity across local contexts and between core and peripheral locations.

Table 3 Research gaps and questions

Chapter no:	Chapter title	Sub-research questions	Research gaps addressed
C4	City-level heterogeneity, spatial distance and liabilities of foreignness (RO1, RO2)	To what extent do subnational disparities and spatial distances create additional liabilities of foreignness across cities?	Liabilities of foreignness are typically considered to be generalised disadvantages that foreign investors face in unfamiliar host countries. However, there is little research that has investigated whether LoFs vary subnationally. By examining the performance of foreign affiliates across Chinese cities this chapter addresses two gaps in the literature. Firstly, it identifies those location attributes that most affect foreign affiliate performance. Secondly, it identifies that spatial distances between the core and periphery create additional LoFs.
C5	Foreign direct investment into unfavourable environments (RO1, RO3)	Why do some foreign investors eschew first-tier locations in favour of lower tier cities within an emerging economy?	Existing research suggests that the vast bulk of foreign investment projects are located in 'global' and 'first-tier' cities. It is suggested that the unique characteristics of these locations makes them privileged sites for foreign investors. However, there is little known about why some foreign investors choose to avoid these privileged locations in favour of more peripheral locations. This chapter attempts to address this gap be identifying the strategy logic for locating in so called 'unfavourable locations' such as second tier locations within an emerging economy.
C6	Core-periphery divergence and FDI location determinants (R01, RO2)	To what extent are the determinants of FDI different between core and peripheral cities?	There is a long history of research on the determinants of FDI. However, although there is a base of literature in the economic geography and regional science literature on subnational location, there is little known about how characteristics of core and peripheral cities moderate the determinants of FDI. Specifically, this chapter attempts to determine the extent to which the determinants of FDI differ between core and peripheral cities.
C7	The spatial disaggregation of MNE corporate activities and core-periphery disparities (RO2, RO3)	How do foreign investors accommodate subnational variations in their location choice decision making for different business activities?	There is an emerging view in IB that location choices should be analysed at the affiliate level, in order to determine interrelationships between local contexts and the location of different MNE business activities. However, there are few empirical studies that have examined how the characteristics of particular investment projects influences the types of locations in which MNEs place them. This chapter addresses this gap by examining where MNEs place different types of corporate activities within a country.

In chapter 5, I investigate this issue drawing on primary data collected during 32 interviews with managers of UK MNEs who were responsible for instigating foreign investments in China. Fieldwork was conducted in the UK and China. Chapter 6 of the dissertation seeks to formally model the locational determinants of FDI in core and peripheral locations. The final

empirical aspect of this study integrates findings from Chapters 4 to 6 to examine how investment-specific factors influence the urban geography of FDI within China (building on the discussion in section 2.3.4). More specifically, in Chapter 7, I examine the extent to which different corporate activities performed by MNEs influences the type of Chinese cities in which they locate.

2.7 Chapter summary

This chapter has outlined some of the key theoretical foundations which will be applied to explain the location behaviour of MNEs in this study. The diversity of these perspectives highlights the complexity of spatial decision making in MNEs. The critical issue highlighted by this chapter is that the choice of a location may be affected by multiple factors that are endogenous and exogenous to the MNE.

The review of extant FDI theory above suggests that there is a cost and organisational efficiency logic attached to the decision to use FDI as a form of FME, but that this choice may also be affected by uncertainty and geography. More specifically, existing theory suggests three key points that pertain to the relationship between MNEs and locations, namely: (i) internalisation theory suggests that MNEs will select the most cost efficient locations for their international activities; (ii) the OLI paradigm suggests that MNEs will select those locations that match or enhance their O-advantages and are aligned with the type of corporate activities that they are locating abroad and, (iii) the Uppsala theory suggests that MNEs will select those locations that reduce uncertainty and both psychic and spatial 'distances'. Most importantly, this chapter has drawn specific attention to some of the ways in which uncertainty and 'foreignness' may affect the *subnational* location choices of MNEs. This point will be elaborated on further in Chapters 5 and 6.

A key purpose of this chapter was to build on existing literature to develop theoretically relevant conceptions of subnational locations that can be applied in this study. The potential for local context to impact upon MNE location behaviour and performance is encapsulated in the theoretical framework presented in figure 7. The cornerstone foundation of location theory is the concept of location advantages. Dunning's framework for location advantages offers a general set of constructs for conceptualising locations. However, these factors relate to country level conditions, and although many of these factors can be extended to analyse MNE location choices within countries, they arguably provide a generalised perspective on 'location' and do not fully allow for relevant factors specific to local contexts to emerge. Existing literature suggests that subnational local contexts are composed of four key dimensions, *institutional frameworks, factors of production, agglomeration conditions* and *comparative location advantages.* These concepts provide the foundation for investigating the local context of subnational locations throughout this study. Furthermore, I argue that CP disparities affect the qualities and characteristics of different subnational locations that, in turn, have an influence on the attractiveness of their business environments. More specifically, the above analysis suggests that core economic centres are endowed with characteristics that mitigate LoF and that augment their urbanisation advantages. In essence, this chapter has provided a basis for examining how subnational heterogeneity may impact upon both the FDI location decisions and performance of foreign affiliates within a large emerging market such as China.

Chapter 3: Research design and methodology

3.1 Chapter overview

This chapter provides an overview of the key issues pertaining to the research design and methodologies employed in this study. Specific details of the methodological approaches applied are provided in each of the empirical chapters that follow. The purpose of this chapter is to highlight the most salient issues that pervade the empirical aspects of the study. In particular, I discuss the theoretical underpinning of the research methodology (following a *critical realism* approach) and the empirical strategy followed (which involves the use of both quantitative and qualitative methods). Furthermore, I explain how the study differentiates between core and peripheral cities in China as this categorisation extends across each of the empirical chapters that follow.

3.2 Philosophy of social science

Empirical research, both in the social and natural sciences, is underpinned by philosophical assumptions about the nature of being and reality (ontology), and of knowledge and evidence (epistemology) (Benton and Craib, 2001). Scientific progress requires certain philosophical assumptions to be made that both guides and informs it (Benton and Craib, 2001). Thus, ontological and epistemological views dictate the nature of the 'worldview' of researchers and the legitimacy of the knowledge claims they make from researching it. The philosophical perspective that underpins this study is that of Bhaskar's (1975) *critical realism.*

Critical realism views reality as eclectic, stratified and composed of multiple layers (Collier, 1994). Critical realism upholds a belief in the ontological divisibility of the external world and our knowledge and assumptions about the nature of being and reality (Collier, 1994). Therefore, the objective reality of critical realism occupies a metaphysical space which exists, acts and behaves independently from our understanding of it. However, epistemologically, this external reality is (to relative degrees), capable of being empirically understood (Benton and Craib, 2001).

According to Bhaskar (1975), reality is composed of those phenomena which we can observe, such as "events, states of affairs, experiences, impressions and discourses" (Bhaskar, 1975: 67). However, these are only the manifestation of a surface reality which consists of 'underlying structures, powers, and tendencies' which are less amenable to observation (Patomaki and Wight, 2000). This reality is composed of the 'real', the 'actual' and the 'empirical.' Critical realism seeks to penetrate and understand the generative mechanisms which reside beyond that which is empirically observable, and which exert causal influence on worldly phenomena. These causal mechanisms are often elusive, and unravelling them requires the researcher to 'dig' beyond that which is readily observable. Therefore, critical realism departs from the acceptance of observable empirics as an accurate reflection of reality, and instead posits that the 'surface appearance' of phenomena may misrepresent the 'true character' of things (Benton and Craib, 2001). Therefore, unlike positivism, critical realism does not accept understanding of the observable veneer of reality to be the objective of scientific inquiry. The critical realist is not merely concerned with understanding cause and effect but rather, is more concerned with elucidating the generative mechanisms that underlie causal relationships. The external objective reality of critical realism is known as the 'intransitive dimension' (Bhaskar, 1975).

Critical realism also holds the view that our understanding of reality is imperfect, and laden with affectations rooted in the processes of socialisation. This is the 'transitive dimension' of critical realism, and it recognises that, while objective realities exist, social and institutional forces are embedded in the processes of knowledge generation and, therefore, our understanding of reality is distorted by structural influences. Consequently, for critical realists, the independent external reality is only (and to a certain extent) knowable in its true form. In essence, while an intransitive dimension of the world exists, our understanding of it is transitive, and therefore subjective (Benton and Craib, 2001).

The ontology of critical realism would suggest that various methodological tools will be required to unravel the multiple layers of which reality is composed. However, critical realism does not prescribe any particular methodological preferences, and as such, some have argued that it is a philosophy in search of a method (e.g. Yeung, 1995). Others have argued that only through harnessing the advantages of both qualitative and quantitative research in conjunction can one illuminate the multiple depths of reality that the critical realist ontology suggests (Downward and Mearman, 2006; Johnson and Johnson, 2007). For example, in the context of this particular study, previous researchers have revealed empirical observations concerning the nature and determinants of FDI (Dunning and Lundan, 2008). Such large scale observations are made possible through the use of techniques such as econometric modelling which can capture thousands of observations and which enable the identification of general patterns of behaviour. From these empirical observations we can make inferences about the nature of FDI decision-making structures in organisations. However, such inferences are constrained by the variables and issues modelled in the first instance. Therefore, any deductions are essentially restricted by the parameters of the modelling specifications. This means that, on the one hand, these methods enable us to theorise about the contingent relationship between locational characteristics and MNE investment behaviour. On the other hand, they deny us the rich knowledge of 'actual'

decision-making behaviour within organisations, and the wider generative mechanisms embedded in this process. The critical realist, however, is interested in both layers of reality which in the context of this study are the macro patterns of foreign investment behaviour, and the decision processes which create foreign investments. Therefore, to gain a holistic understanding about FDI patterns in terms of location choice, the critical realist would be interested in explicating the underlying micro processes and related antecedents which underscore and determine these macro patterns. Therefore, for the purposes of this study a mixed methods research design is adopted.

3.3 Research design

Specific details of the particular methodological approaches deployed are provided in each of the empirical chapters that follow. It is important to state at the outset here that the use of both quantitative and qualitative research methods was determined to be the best approach for generating a comprehensive understanding of the relationship between the location behaviour of MNEs, the performance of foreign affiliates and the characteristics of subnational locations. This is because the research objectives of this study (see section 1.3) are intended to offer insights into both locations and MNE decision making behaviour. In order to generate insights into the characteristics of different locations it was deemed necessary to collect secondary data that would allow comparability of characteristics across different subnational locations. While secondary data is also used to generate insights into the relationship between MNEs and subnational locations, the research objectives also intend to understand *why* investors choose particular cities in China. This necessitated the collection of primary data.

The methodological approaches used in each chapter and the questions they are designed to address are intended to offer complementary perspectives on the overarching research

questions of this study. Both primary and secondary data sources are used to inform the overarching research question and its component sub questions. The data structure of the study is presented in Figure 8.

Figure 8 Overview of data structure

Data structure					
Primary data			Secondary data		
Case study data	Managerial interviews	Stakeholder interviews	World Bank (2006)	WB 06 /China stat. yearbooks	World Bank (2012)
N=29	N=32	N=8	N=1397	N=480	N=172
Chapter 5			Chapter 4	Chapter 6	Chapter 7
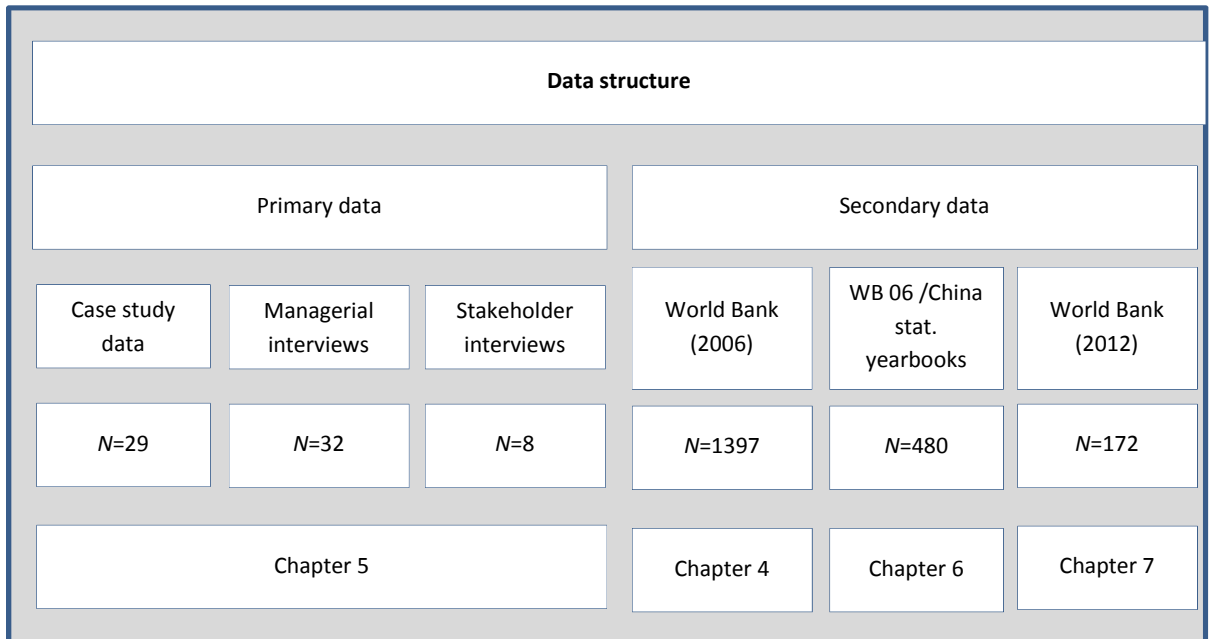
3.4 Primary data sources

The key source of primary data that were used in the study are derived from interviews with senior managers of UK businesses that have been responsible for managing a FDI project in China. These interviews were conducted in the UK and China between February and August 2012. The businesses were identified primarily through the membership database of the *China-Britain Business Council* (CBBC). Interviewees were contacted in the first instance by email and asked if they would agree to meet with me to be interviewed about their experiences of investing and operating a business in China. The approach adopted is a case based methodology that uses managers as the primary informants (Orr and Scott, 2007)

3.4.1 Rationale for the fieldwork

The decision to engage in fieldwork, rather than relying on secondary data alone, was intended to generate a richer and more contextualised understanding of the research questions of this study. For example, a key objective of the research is to understand why some firms eschew 'privileged locations' such as first-tier core-economic centres (Goerzen *et al.,* 2013) in favour of 'unfavourable' peripheral cities in China (Tsui-Auch and Mollering, 2010). Whilst it would be possible to make certain inferences about this decision using secondary data or survey based methods, arguably these would fail to capture much of the underlying logic underpinning these strategic choices – as suggested by the research philosophy of critical realism. Indeed, as Birkinshaw *et al.,* (2011: 573) note, qualitative research is often necessary "to understand the complexities of emergent and evolving phenomena scattered over distance, and the differentiated contexts typical to many topics under investigation in international business". As mentioned in both the introduction and literature review of this dissertation, the phenomena being investigated in this study are emerging and have, thus far, received little research attention. Arguably, therefore, there is a need for more qualitative research to investigate the impact of subnational locations on MNEs.

A secondary purpose of the fieldwork phase of data collection and analysis was to provide me with an opportunity to develop a more grounded sense of the character of different cities in China, rather than writing about and analysing them from a distance. In other words, I wanted to develop an experiential knowledge of these cities to complement my knowledge of them garnered from statistical data and public reports. My fieldwork in China proved to be a valuable experience in that it provided me the opportunity to speak with foreign businesses across a range of different cities and to gain a first-hand sensory experience of these locations.

3.4.2 Case selection

As with previous research which utilises case based methods (Brannen and Peterson, 2009; Bruton *et al.,* 2009) the sampling procedure was designed to create a theoretical sample: that is, a sample appropriate for the purposes of generating new theory (Eisenhardt and Graebner, 2007). In line with this, the sample used for my study was composed of both manufacturing and service firms with the aim of bolstering theoretical generalizability to both sectors. However, to avoid convoluting the results, the number of different industries involved was minimised (for more information about the case companies see Chapter 5). The three specific selection criteria for my sample were as follows:

1. *Length of establishment in China*: To ensure adequate recall from informants, only firms who have been established in China for ten years or less at the time of my fieldwork were included. Such a sampling technique has previously been used by Orr and Scott (2008). A secondary purpose for setting this time frame was to control for the impact of temporal fluctuations in China's investment climate (Dees, 1998; Chadee *et al.,* 2003). In the early years of China's 'Open Door' policies the location of foreign investment was strictly controlled. Successive policies over the past thirty years have gradually relaxed geographical restrictions on FDI and today, with a few notable exceptions (see Section 1.4), prospective foreign investors can exercise a much greater degree of strategic choice over where in China to establish their operations. Furthermore, in 2001, China officially became a member of the WTO. This accession has been heralded as the beginning of a new era of economic openness and transparency in China. Therefore, the investment conditions met by foreign investors after China's initiation into the WTO are likely to be markedly different from those faced by earlier ones (Hong, 2008). Therefore, the ten year time frame used to select cases (2002-2012) is likely to provide a contained and relatively

controlled temporal context in which to explore the location choice dynamics of MNEs in modern China.

2. *Mode of establishment*: Only firms that had established in China as a wholly-owned foreign enterprise (WOFE) were included in the sample. Acquisitions were not included because "in the case of acquisitions, location choice largely follows the location of the acquired firm, such that there is no 'location decision'" (Tan and Meyer, 2011: 14). EJVs were also excluded on similar grounds since previous research has demonstrated that, for firms entering a new country or market via a JV, the most important aspect of the decision is partner selection (e.g. Chan and Makino, 2007; Filatotchev, 2007) rather than location. In such instances the location decision is often either secondary or one predetermined by the location of the JV partner's existing operations, or a decision taken by the partner themselves. However, three of the firms included in my final sample had initially entered China with a domestic Chinese partner. In each of these cases the JV was unsuccessful and the firms rescinded the partnership agreement and subsequently re-established themselves as WOFEs which involved relocation of their operations within China. Therefore, despite initially selecting locations on the basis of where their JV partner was currently located, these firms eventually revaluated their position in China and made independent location choices. Consequently, they were admitted into the sample.

3. *Company size*: For the purposes of creating a general theoretical model of subnational location choice the sample composition included firms of different sizes. Definitions of how to delineate categories of company size are varied and often dependent on the research context (Buckley, 1993). This study follows the delineations used by the European Commission for Enterprise and Industry (EUEI), which defines three categories of firm size. Firms with less than 10 employees are

'micro', firms with more than 10 but less than 50 are described as 'small' and firms with more than 50 but less than 250 are described as 'medium-sized'. Therefore, by default firms with more than 250 employees will be considered 'large'. Using these definitions the sample was composed of 6 large firms, 8 medium-sized firms, 5 small firms and 6 micro firms.

In total, 32 interviews with managers were conducted across 25 companies. These 'core' interviews were supplemented with an additional eight interviews conducted with a range of Chinese investment officials, domestic and foreign law firms and business consultants.

From the 25 case firms, six involved interviews with more than one informant per firm. Therefore, with the majority of cases being based on one interview, the issue of informant bias is a concern. Data triangulation is seen as a method of mitigating this bias through cross-referencing the validity of respondent statements from multiple sources. However, because the research is investigating a high-level decision making process, there was often only a very small number of people in each firm involved in the location decision in China. This meant that in some cases there was often only one relevant person in the firm to speak with. In other cases, limited access to the firm prevented multiple interviews. Vignettes of each of the case study firms, including an overview of their entry into China and key details of their location choice is given in Appendix B.

3.4.3 Unit of analysis

In each case-study, the unit of analysis is a specific investment(s) in China, with the manager's experience, interpretations and actions providing the primary source of data (Yin, 1994). In the interview process, the manager essentially acts as an "informant to describe the experiences of an organisational unit" (Orr and Scott, 2008: 568). Therefore, my case studies

do not focus on the organisations in their entirety, but rather, my focus is on a particular "organisational subsystem" (Orr and Scott, 2008).This approach allowed for the interviews to concentrate on specific FMEs and, thus, enabled the informant to elucidate the processes, circumstances and issues which surrounded the particular investment and the choice of location.

3.5 Secondary data sources

The secondary data used in the study come from two sources: (i) the Chinese City Statistical Yearbooks (CSYs) (2003-2007) compiled by the Department of Urban Socio-Economic Surveys of the National Bureau of Statistics of China and (ii) the Enterprise Survey Data (2006, 2012) reported by the World Bank (WB). In particular, the analysis made in Chapters 4 and 7 rely solely on WB (2006) and WB (2012) data respectively, while in Chapter 6 data from the CSYs (2003-2006) and WB data (2006) are integrated. Data from CSY have been used for previous research on Chinese cities (e.g. Chadee *et al.,* 2003; He, 2002), whilst WB (2006) data have been cited in various prior studies (e.g. Weiss, 2008; Kinda, 2010). However, to the best of my knowledge, this study is one of the first to engage in an in-depth statistical analysis of the data. Also, the WB (2013) data have not yet been cited in existing academic journals owing to its recentness.

3.5.1 Description of the data

In 2006, the World Bank (WB) released a report entitled '*Governance, Investment Climate, and Harmonious Society: Competitiveness Enhancements for 120 Cities in China*'. This report is based on a survey of 12,000 foreign and domestic firms in China. The city-level data presented in this report were generated from both official Chinese statistics and aggregated firm-level responses to a standardised questionnaire. Questionnaire based data for each city are aggregated from at least 100 firm responses. The primary nature of the data

in the WB (2006) report make it a valuable dataset since, although many of China's laws, regulations and policies were standardised across regions at the time the survey was conducted, enforcement and administrative efficiency continued to differ significantly at the local level (Li and Park, 2006). Furthermore, with 120 cities captured by the survey the report provides significant coverage of spatial variation in China. Data from this report is analysed in Chapter 4 and 6.

The published WB report provides performance values for multiple indicators at the city level. However, I also accessed firm-level data from the raw dataset used to compile the final report – this data is made publically available from the World Bank. From this raw data, I identified 1397 foreign invested manufacturing enterprises (excluding investors from Hong Kong SAR, Macau SAR and Taiwan) in China (See Table 4 for firm-level descriptive statistics). I subsequently integrated the firm level and city level data into a single dataset. In this dataset, firm level data are matched with location data from the city in which the respondent foreign affiliate was situated. This firm level data is analysed in Chapter 4.

Table 4: Sample descriptive statistics from World Bank 2006[18]

Foreign affiliate descriptive statistics	
Industry	*no. of firms*
Agriculture and side-line food processing	90
Beverages production	22
Cultural, educational and sports goods	7
Electrical equipment and machinery	156
Electronic and telecommunications equipment	230
Equipment for special purposes	40
Food production	26
Furniture manufacturing	3
Garment, shoes and caps manufacturing	35
General machinery	118
Handicraft products and other machinery	22
Instruments, meters, cultural and office machinery	18
Leather, furs, down and related products	21
Medical and pharmaceutical products	43
Metal products	54
Nonmetal mineral products	64
Papermaking and paper products	27
Plastic products	41
Printing and record medium reproduction	2
Raw Chemical Materials and chemical products	130
Rubber products	5
Smelting and pressing of ferrous metals	28
Smelting and pressing of non-ferrous metals	21
Textiles manufacturing	60
Timber processing, bamboo, cane products	12
Tobacco production	1
Transportation equipment	119
Firm characteristics	
Average size (employee numbers)	832
Ownership (no. of WFOE)	618
Average number of years established	8

Additional data were drawn from Chinese Statistical Yearbooks (CSYs) covering the years 2003-2006. The CSYs are annual volumes published by the Chinese government and cover a broad spectrum of statistics at multiple administrative levels. For the purposes of this study data were collected from the city level CSYs. Relevant data were collected for the same 120 cities that were included in the WB (2006) report. CSYs have been used extensively in

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[18] These firms are the unit of analysis in Chapter 4.

studies of Chinese economy and foreign direct investment (Wang *et al.,* 2009; Du et al., 2008; Buckley et al., 2002).

Issues concerning multicollinearity and endogeneity were both considered and addressed. multicollinearity refers to statistical error resulting from highly correlated independent variables. Following Buckley et al., (2002), correlation coefficients below 0.50 are not considered to be indicative of any serious multicollinearity problems. Only two variables had higher correlations than 0.50. To check if the degree of correlation was acceptable a variance inflation factor (VIF) analysis was performed (see appendix D). The VIF does not indicate that there are any problems of multicollinearity in the data.

Endogeneity refers to errors in a statistical model caused by autocorrelations amongst dependent and independent variables, or errors due to the omission of relevant impendent variable's. These errors can lead to incorrect inferences of causal relationships. For example, In Chapter 4 it is argued that the characteristics of core cities have a positive effect on foreign affiliate performance. However, it could be argued that better performing MNEs locate their foreign affiliates in these core cities, thus, the issue could be one of firm self-selection, rather than location. Endogeneity is a particular concern for cross-sectional data (which is used in Chapter 4). However, this chapter is exploratory and does not claim cause and effect relationships between the independent variables and the dependent variable. Rather, the argument is that factors embedded in the foreign affiliates local context are *associated* with foreign affiliate performance. Thus, cause and effect relationships are not claimed at this stage, but, associative relationships are.

3.5.2 Analytical techniques

The chapters of the thesis that examine quantitative data each employ different analytical techniques. Chapter 4 applies linear regressions using an ordinary least squares (OLS) estimation. This analytical technique is well suited to the data given that the dependent variable is scalar and the relationships between the dependent variable and independent variables is assumed to be linear. Furthermore, this method of analysis has been used in previous examinations of foreign affiliate performance (Peng and Luo, 2000).

In Chapter 5, the determinants of FDI location choice in peripheral cities were estimated using a generalised least squares (GLS) with random effects (RE) regression model (Li and Park, 2006). Furthermore, random effects are more suitable given that the variations across cities are assumed to have an impact on the dependent variable – this was further confirmed with a Hausmann test.GLS was used to correct for heteroskedasticity in the data which is a concern when dependent and independent variables exhibit significant levels of variation (Cookson et al., 2012). Furthermore, random effects are more suitable given that the variations across cities are assumed to have an impact on the dependent variable –the appropriateness of this estimation was further confirmed with a Hausmann test.

In Chapter 7, a multinomial logit (MNL) model was used to investigate the location of different business activities across alternative city categories. The MNL model allows for qualitative categorical outcomes to be treated as dependent variables. In effect, an MNL model allows for the estimation of the probability that a particular firm will be located in a qualitatively defined location (i.e. NCC, RCC, peripheral), given a set of explanatory variables. The MNL, therefore, "allows the explanatory variables to affect different odds of choosing one alternative relative to the other" (Demirbag and Glaister, 2010: 1548). MNLs are, therefore, an appropriate method given the nature of the statistical inquiry (Jensen and Pederson, 2011).

3.5.3 Rationale for using secondary data

As mentioned above, the ROs of the study require a comparative analysis of characteristics and attributes across Chinese cities. Such an analysis necessitates the use of data specific to the cities under investigation. Such data has already been collected by secondary sources, such as Chinese National Statistics departments and the World Bank. Therefore, I collected secondary data in order to allow for an objective comparison of the characteristics of different locations to be possible. This comparison is integral to the study's aims, objectives and questions all of which revolve around the concept of subnational heterogeneity and the impact of subnational locations and local context on MNEs. Chapters 4 and 6, in particular, rely on the use of secondary location data.

3.6 The subnational administrative structure of China

In this section I provide an overview of the administrative structure of the PRC. Forming an understanding of this structure is essential for differentiating between core and peripheral cities in China.

The PRC is represented and administrated by four centrally controlled municipalities, 23 provinces and five autonomous regions. This is the *provincial level division* of the PRC. According to Canfei (2006), China's administrative order is characterised by the decentralisation of economic power and fiscal responsibility. The 1978 reforms transferred significant economic power to subnational (i.e. provincial and municipal) governments including "the authority to grant business licenses, make investments, transfer land use rights, coordinate urban developments, restructure state-owned enterprises and even resolve business disputes" (Canfei 2006: 35). This further extends to the authority to approve FDI projects – albeit within certain central government (i.e. State Council) imposed limits.

Prior to the major economic reforms of 1978, fiscal planning and expenditure was under the direct control of the central government with provincial governments having no control over local expenditure. However, following the reforms, fiscal responsibility was transferred to provincial governments "within a broad set of central government guidelines" (Canfei, 1996: 28). Additionally, provincial governments were given responsibility for economic and fiscal arrangements for sub-provincial (i.e. local) governments (Knight and Shi, 1991). This essentially created a three-tier hierarchy of government: central government, provincial government and sub-provincial government. However, the central government retains significant authority over the general direction of subnational governments through central-directives which take the form primarily of five-year plans (FYPs).

China's post-1978 administrative order has been described as a variant of 'market-preserving federalism' (Canfei, 2006; Qian and Roland, 1998). In essence, China has a:

"system of decentralised governments with two critical elements: a proper division of power between the central and local governments in economic matters and a hard budget constraint facing the local governments" (Canfei, 2006: 34).

This structure is intended to ensure that subnational governments have sufficient autonomy to maintain social order and stimulate local economic growth whilst also respecting the power dynamic of their principle-agent relationship with the central government (DeMello, 2006; Canfei, 2006). Furthermore, the power balance and budgetary restraints conditioned by the central government facilitate competitive relationships between local governments (Head and Ries, 1996). Subnational governments compete with each other in order to: (a) increase the economic efficiency and power of their jurisdiction; and (b) increase their favour with the central government through the achievement of centrally mandated

objectives (Qian and Wiangast, 1996). Furthermore, in contrast to democratic systems where local representatives are elected by the populace of subnational jurisdictions (such as the Congress and Senate in the USA), senior Chinese representatives of subnational governments are appointed by the central government, typically through the offices of the Chinese Communist Party. This has the effect of stimulating further competition between subnational governments, as provincial party chiefs compete for elite positions within the central government hierarchy by demonstrating their administrative capabilities within their jurisdictions (Landry, 2008).

Beneath the provincial level division of China, there is the *prefectural level division.* This administrative level is composed of 'sub-provincial' level cities and 'prefecture' level cities (Canfei, 2006).[19] Sub-provincial status was granted to 16 prefecture-level cities in 1994 to recognise their economic power and population size (Chadee *et al.,* 2003). These cities (which are comprised mostly of provincial capitals) are governed by the province in which they reside. However, local government officials in these sub-provincial cities have greater decision-making autonomy over the direction of economic matters. Prefecture-level cities are also governed by provinces, but they have less autonomy than do sub-provincial cities – see Figure 9.

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[19] It should be noted that provinces, sub-provincial and prefecture level cities are not the lowest tier of administration within China. A further level of administration at the county, district and township level also exists. However, sub-provincial cities and prefecture level cities are arguably more representative of urban China and the urbanisation phenomenon more generally. Furthermore, previous studies have identified that the urban-collective (i.e. the city), rather than specific counties or district, provides a better representation of the foreign firm's location environment as they draw on resources and are affected by contextual influences beyond their own 'parcel of land' (e.g. Ansar, 2010; McCann and Immarino, 2013).

Figure 9The administrative hierarchy of China
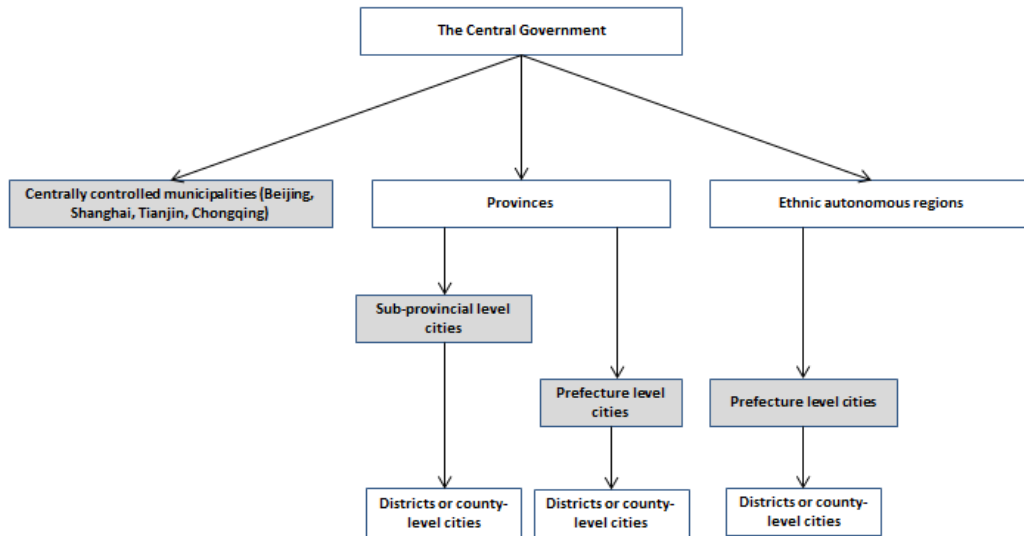
Source: Adapted from Canfei (2006)

Notes: (1) Shaded areas are the levels of analysis examined in this study; (2) prefecture level cities are examined from all provinces and autonomous regions of China, with the exception of Tibet.

This study examines FDI location decisions and performance differentials across the four centrally controlled municipalities (Beijing, Shanghai, Tianjin and Chongqing) and Guangzhou (the 'National Central Cities' – discussed below), sub-provincial level cities and prefecture level cities of China.[20] The next section explains how these cities are categorised as core and peripheral for the purposes of this study.

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[20] Chinese cities are sometimes referred to with reference to a hierarchy of tiers. However, as of yet, there are no official classification systems used to categorise and differentiate between alternative city tiers. Typically, the four centrally controlled municipalities are recognised as first-tier. Beneath this, sub-provincial level cities along with other provincial capital cities are often recognised as 'second-tier'. Beneath this, there are prefecture level cities, which are often recognised as third-tier.

3.6.1 The urban core and periphery in China

For this study to be theoretically relevant it is important to develop a categorisation of core and peripheral cities that is empirically accurate. However, for a country as large and heterogeneous as China such a categorisation can present difficulties. In comparatively smaller countries, capital cities or major economic centres can be taken as 'core' with all other locations being non-core and thus part of the periphery. However, the geographic scale of China, combined with manifest subnational variation in economic and social matters, means that operationalizing the 'core' as just one or two cities would not be empirically, or geographically, useful.

In Section 3.6, I discussed the hierarchical structure of China's decentralised subnational government (see Figure 9). In this study, this hierarchy provides a basis for differentiating 'core' cities from peripheral cities (See Table 5 for an overview of the city categorisations used in this study). The four centrally controlled municipalities provide a clear 'core', given their economic and political importance (Chadee *et al.,* 2003; He, 2002). These cities can be regarded as 'national cores' since they are directly controlled by the central Chinese government. In addition to this, Guangzhou may also be considered as a national core. In 2010, the Chinese government introduced the concept of National Central Cities (NCCs). This initiative designates the four CCMs *and* Guangzhou as China's leading cities and recognises that they "serve functions such as leadership, influence as well as centralization and distribution in terms of politics, economy and culture" (People's Daily Online, 2010). Beneath the 'national cores', I delineate a group of 'regional cores'. These regional cores are composed of sub-provincial cities and provincial capital cities. Recognising spatial-economic divisions beyond national cores is arguably essential for a country as large and heterogeneous as China. For example, having classed the NCCs as cores, it would be inaccurate to regard Chinese cities such as Shenzhen, Wuhan, Ningbo or Chengdu as peripheral. These cities are large and economically significant in the Chinese context.

Furthermore, as mentioned in section 3.5 they are differentiated from other cities in China either through their sub-provincial status or through being provincial capital cities. Therefore, beneath the NCCs, the study includes a set of 'regional core cities' (RCCs). These RCCs are composed of sub-provincial cities and provincial capitals, both of which are indicative of their administrative and economic importance in the Chinese context (Canfei, 2006). By default, therefore, all other prefectural cities that cannot be categorised within this administrative hierarchy are regarded as peripheral. Chinese cities for which secondary data were collected can be seen in Table 6 and 7.

Table 5 Categorisation of Chinese cities

Administrative designation	*Description*	*Categorisation for the study*
Centrally controlled municipalities	The highest administrative level for Chinese cities. These cities are under the direct control of national government. This categorisation includes Guangzhou – designated as a 'National Central City' in 2010.	National cores cities (NCCs)
Sub-provincial cities	These cities are administratively differentiated from other cities in China by the autonomy that they have in regards to their economy and law. This is to recognise both their size and economic significance.	Regional core cities (RCCs)
Provincial capitals	Provincial capital cities are often the economic hub for business activity within the provinces in which they are located. The majority of the sub-provincial level cites are also provincial capitals.	
Prefecture level cities	Prefecture-level cities are governed by the province in which they reside and have little autonomy over their economy or law.	Peripheral cities

In addition to classifying cities into core and periphery, this study also accounts for spatial distances between core and peripheral locations. This is to recognise the role of 'space' when modelling FDI location behaviour and foreign affiliate performance (following

Cookson *et al.,* 2012). Furthermore, this also recognises that some peripheral cities are more peripheral to the core than others: i.e. they are more isolated in geographic space. In order to calculate distances between core and peripheral cities, I first collected latitude and longitude data for the 120 cities in my sample. These data were collected using 'Google Maps' and cross-referenced using the Geo-Cities database. The latitude and longitude data represents the most central point in each city. From this data I calculated great circular distance (GCD) between China's core and peripheral cities. Similar to straight line distance (sometimes colloquially referred to '*as the crow flies'*), GCD is the shortest distance between two points on a globe. However, unlike straight line distance, GCD accommodates spherical geometrics in its distance calculation and, therefore, accounts for the shape of the Earth. GCD is, therefore, regarded as the more accurate measure of distance (Cookson *et al.,* 2012).

Two types of CP spatial distance were calculated: geographical distance in kilometres (KMs) to NCCs and distance to RCCs. To measure distance to national cores I calculated for each peripheral city and for each regional core its distance from the five NCCs of China. The NCC with the shortest distance from the peripheral city or regional core was taken as the nearest national core and the corresponding distance value was recorded in the dataset. To measure distance to regional cores, I calculated for each peripheral city its distance from all cities designated as regional cores. The regional core with the shortest distance from the peripheral city was taken as the nearest regional core and the corresponding distance value was recorded in the data set.

Therefore, for the peripheral cities of China, the effects of two spatial distances are examined; distance from national cores and distance from regional cores. For regional cores, their distance from national cores is examined. It should be noted that these distance calculations are determined on the assumption that the most relevant core, at both a national and regional level, is the one that is geographically closest to the focal peripheral city.

However, given the size of China and the significant transportation costs that distances can create, this is not an unreasonable assumption (Castellani *et al.,* 2013).

Table 6 Core' cities for which secondary data were collected

Administrative status	*Core cities (34)*
CCM	Beijing
SP / PC	Changchun
PC	Changsha
SP / PC	Chengdu
CCM	Chongqing
PC	Fuzhou
SP / PC	Guangzhou
PC	Guiyang
SP / PC	Haerbing
PC	Haikou
SP / PC	Hangzhou
PC	Hefei
PC	Huhehaote
SP / PC	Jinan
PC	Kunming
PC	Lanzhou
PC	Nanchang
SP / PC	Nanjing
PC	Nanning
CCM	Shanghai
SP / PC	Shenyang
PC	Shijiazhuang
PC	Taiyuan
CCM	Tianjin
SP / PC	Wuhan
PC	Wulumuqi
SP / PC	Xian
PC	Xining
PC	Yinchuan
PC	Zhengzhou
SP	Ningbo
SP	Qingdao
SP	Shenzhen
SP	Xiamen

Notes: CCM = Centrally Controlled Municipality: SP = Subprovincial city: PC = Provincial capital city

Table 7 'Peripheral' cities for which data was collected

Peripheral cities (86)

Anqing	Langfang	Xinxiang
Anshan	Leshan	Xuchang
Baoding	Lianyungang	Xuzhou
Baoji	Linyi	Yancheng
Baotou	Liuzhou	Yangzhou
Benxi	Luoyang	Yantai
Cangzhou	Maoming	Yibin
Changde	Mianyang	Yichang
Changzhou	Nantong	Yichun
Chenzhou	Nanyang	Yueyang
Chuzhou	Qinhuangdao	Yuncheng
Dalian	Qiqihaer	Yuxi
Daqing	Quanzhou	Zhangjiakou
Datong	Qujing	Zhangzhou
Deyang	Sanming	Zhoukou
Dongguan	Shangqiu	Zhuhai
Foshan	Shangrao	Zhuzhou
Fushun	Shantou	Zibo
Ganzhou	Shaoxing	Zunyi
Guilin	Suzhou	
Handan	Taian	
Hengyang	Taizhou	
Huanggang	Tangshan	
Huizhou	Tianshui	
Huzhou	Weifang	
Jiangmen	Weihai	
Jiaxing	Wenzhou	
Jilin	Wuhu	
Jingmen	Wuxi	
Jingzhou	Wuzhong	
Jinhua	Xiamen	
Jining	Xiangfan	
Jinzhou	Xianyang	
Jiujiang	Xiaogan	

Following previous research (Chadee *et al.,* 2003; Hong, 2008), any reference made to 'coastal cities' refers to cities located in the provinces of Beijing, Jiangsu, Hainan, Guangxi, Guangdong, Tianjin, Fujian, Zhejiang, Shandong, Hebei and Liaoning. This also includes the centrally controlled municipalities of Beijing, Shanghai and Guangzhou.

3.7 Chapter summary

This chapter has provided detail on key aspects of the research design and the nature of data that have been collected and analysed in this study. To answer the research question a research design that uses both quantitative and qualitative data and that is underpinned by the philosophy of critical realism has been applied. The purpose of a mixed qualitative and quantitative research design is to enable the research to penetrate different layers of the phenomenon under investigation and, in doing so, to enrich understanding and theory. Furthermore, this chapter has demonstrated how the core cities of China are differentiated from peripheral cities in this study. Although to some extent this categorization is arbitrary, as discussed, the national and regional cores identified in the study are administratively and economically differentiated within the Chinese government's subnational hierarchy. I have argued that this hierarchy provides a sound basis for classifying cities as national core cities, regional core cities and peripheral cities.

Chapter 4: Subnational heterogeneity, spatial distance and foreign affiliate performance across Chinese cities

4.1 Chapter overview

Recent empirical work has demonstrated that the subnational location is an important unit of analysis for explaining foreign affiliate performance (Chan *et al.,* 2010; Ma *et al.,* 2013). This chapter builds on this perspective by considering how location-specific and spatial dimensions of a foreign affiliate's subnational context affects its performance. The key contribution of this chapter is that it demonstrates that spatial distance from core centres of economic activity has a negative effect on the performance of foreign affiliates located in the periphery. More specifically, my findings suggest that disparities created by *core-periphery* dynamics in China negatively affect the performance of foreign affiliates in locations which are more distant from national and regional core cities. I argue that this is because *liabilities of foreignness* are more severe beyond the core centres of economic activity. These issues are examined using a sample of 1397 foreign affiliates distributed across 120 Chinese cities. There is clear evidence for both location specific and spatial distance effects on the performance of foreign affiliates. The chapter is organised as follows: Firstly, I introduce the key issues and research gaps that are addressed in the chapter. Secondly, I review relevant literature for the purpose of generating testable hypotheses pertaining to the subnational location-performance relationship. Thirdly, I present the specific methodology which is used for this component of the study. Fourthly, I discuss the main findings and discuss their significance. Finally, I conclude the chapter.

4.2 Introduction

Recent studies have demonstrated that subnational variations in large, heterogeneous emerging economies can affect the strategic behaviour and decision making of multinational enterprises (MNEs) and their locally embedded foreign affiliates (Meyer and Nguyen, 2005; Shi *et al.,* 2011; Chan *et al.,* 2010; Ma *et al.,* 2013). These studies have resulted in a growing interest in the interactions between MNEs, foreign affiliates and local context *within* host countries (Meyer *et al.,* 2011; Tan and Meyer, 2011). This is part of a wider empirical shift in the international strategic management literature, from a national level of analysis to a subnational level (Beugelsdijk and Mudambi, 2013), with greater focus being paid to the impact of location on important outcomes, such as performance.

While subnational variation can act as a determinant of foreign affiliate performance (Chan *et al.,* 2010; Ma *et al.,* 2013), the specific constituents of local context that may impact on performance are less clear. Existing studies, rather than trying to identify the most salient aspects of local context that impact on foreign affiliates, have instead focused on determining the magnitude of performance heterogeneity that can be explained by variations across locations. At a national level this location-performance relationship has been investigated by Khanna and Rivkin (2001) and Chan *et al.,* (2008) and, more recently, at a subnational level by Chan *et al.,* (2010) and Ma *et al.,* (2013). However, in order to understand the role that local context plays in determining performance variation, it is important to determine what the key constituents of local context are *and* there salience as explanations for firm performance (Chan *et al.,* 2010).

However, in this chapter, I argue further that the existing literature on the subnational location-performance relationship has treated locations as distinct places and assumes, albeit implicitly, that 'distance' (i.e. space) between alternative locations has no impact on the

performance of foreign affiliates. However, there are reasons to suggest that foreign affiliate performance might be affected by spatial distances amongst proximate locations. Firms are not confined to the administrative boundaries of the location in which they are legally established (Coe and Bunnel, 2003). Thus, firms can benefit from the advantages and characteristics of neighbouring locations despite not holding tangible assets within them (Cookson *et al.*, 2012). In other words, there may be spatial dependencies - geographical linkages and relationships amongst proximate locations - between alternative places that affect the behaviour, decision making and performance of foreign affiliates (Cookson *et al.,* 2012). In this study, we suggest that space between 'core' and 'peripheral' locations, in particular, will have an impact on the performance of foreign affiliates (Krugman, 1991a).

Building on both the NEG and IB literature, I suggest that core economic centres are endowed with attributes and characteristics that *increase* their urbanisation externalities and *reduce* liabilities of foreignness (LoF) (Zaheer, 1995). Furthermore, building on the concept of spatial dependence, it is argued that increased spatial distance from core economic centres reduces the ability of MNE foreign affiliates to benefit from their superior location advantages, which has a bearing on performance. In essence, it is suggested that considerations of the subnational location-performance relationship must consider the impact of both place *and* space.

This study examines the relative contribution of local context and CP dynamics on foreign affiliate performance using a sample of 1397 foreign affiliates across 120 cities in China. I address two specific research questions: (1) What are the most salient constituents of a foreign affiliates local context and to what extent do they affect performance? And, (2) to what extent are firm performance differentials affected by CP space?

4.3 Literature review and hypothesis development

4.3.1 Subnational variations

Subnational variations may exist for a number of reasons, including historical legacies, regional specialisations, divergent industrial ecologies, politically motivated allocations of policy incentives and economic development initiatives as well as physical geography, differences in regional endowments and cultural nuances - amongst other things (Crafts and Mulatu, 2005; Porter, 1998; Meyer and Nguyen, 2005). The issue of strategic importance is not the extent to which regions vary but the degree to which it matters for firms (Chan *et al.,* 2010; Ma *et al.,* 2013). Chan *et al.,* (2010) have provided key evidence in support of this proposition. They examine foreign affiliate performance among Japanese investors in China and the USA and find that subnational disparities have a much stronger effect on foreign affiliate performance in China than they do in the U.S.A. The authors conclude that the subnational location of the MNE is an important unit of analysis in studies of firm performance, but that its explanatory power is much greater in emerging economy contexts. They suggest that this is because variations across political, economic and social institutions are much greater in emerging economies than in advanced economies. However, the authors present no direct evidence in support of this view. Ma *et al.,* (2013) build on Chan *et al.,* (2010) by incorporating indices for *factors of production* and *institutions* in their research the subnational location-performance relationship. They find that the effect of subnational variation on foreign affiliate performance is weaker in provinces where factors of production and institutions are more developed. The inference is that when these aspects of local context are more munificent and more developed, variations across alternative subnational regions does not matter as much as a determinant of performance heterogeneity. However, while Ma *et al.,* (2013) attempt to capture direct variations across subnational locations, they do not decompose either factors of production or institutions into relevant components. Indeed, they state:

"Although our analyses represent an improvement over prior studies…the nature of variance decomposition analyses does not allow one to isolate the specific sources of variation in performance within each effect." (Ma *et al.,* 2010, p.84)

Thus, while previous studies have demonstrated that variations across subnational locations contribute to explanations of foreign affiliate performance, research has not yet identified what aspects of subnational locations matter most, particularly in reference to subnational institutions (Chan *et al.,* 2010; Tan and Meyer, 2011). The importance of understanding the impact of different characteristics embedded within and across local contexts on MNEs has been increasingly highlighted in the international strategic management literature (Meyer and Nguyen, 2005; Wright *et al.,* 2005; Jensen and Pederson, 2011; Figueiredo, 2012; Shi *et al.,* 2013). In this study, local context is unpackaged into several constituents, namely; *factors of production*, *institutions* and *agglomerations* (Meyer *et al.,* 2011; Ma *et al.,* 2013).

4.3.2 Factors of production

Factors of production relate to the configuration of land and utilities, labour and materials and technology and information that are required to perform both manufacturing and service based business activities. In other words, they are, "the inputs necessary to produce goods or services" (Ma *et al.,* 2013: 69). The configuration of inputs required for a particular business operation will depend on both activity and firm-specific idiosyncrasies. However, the general factors of production in a city or region will have a bearing on how conducive the location is to facilitating the efficient performance of business activities (Oliver, 1997; Meyer and Nguyen, 2005). Two features of factor inputs - abundance and quality - are particularly salient in the context of subnational variations (Ma *et al.,* 2013), each of which may create location-advantage differentials across subnational regions. Factors of production may be endowed, created or human (Wan and Hoskisson, 2003). Endowed input factors primarily refer to natural resources, and for firms in extractive or natural resource seeking industries they constitute fundamental requirements of the production process (Dunning,

1988). However, variation across endowed attributes is unlikely to have a large bearing on the performance of foreign affiliates (i.e. non-extractive industries) because, for many firms, they simply will not be a relevant component of the production process. Conversely, it is argued that the created and human factors of production within local contexts are much more likely to have an impact on the performance of foreign affiliates.

Created factors of production are those location specific attributes of a local context that are developed, managed and maintained, such as tangible (e.g. roads, bridges) and intangible infrastructures (e.g. internet, electricity). A key 'created' factors of production is the utilities infrastructure within a location (Ansar, 2010). Infrastructural considerations, and particularly the efficient provision of critical utilities (e.g. telecommunications, power and water), are often a key consideration for foreign firms when selecting subnational locations (Driffield and Love, 2007; Ansar, 2010). However, previous research has identified the varying quality of critical utilities as a key source of regional disparity across developing and emerging economies (Démurger, 2001; Crezenzi *et al.,* 2012). If provision of critical utilities is variable or inefficient, foreign affiliates may experience disruptions to their operations which, consequently, may affect other aspects of their value chain, such as their sales (Driffield, 2002; Zhou *et al.,* 2002). Thus, I propose that the quality of the local utilities infrastructure has an influence on foreign affiliate performance across alternative subnational local contexts. Thus;

> **Hypothesis 1a:** *Cities that have more efficient utilities infrastructures positively affect the performance of foreign affiliates*

Human capital refers to the experience, education, knowledge, skills and capabilities that are embedded in people (Coleman, 1988; Head and Mayer, 2004). One of the most salient growth restraints on firms is a lack of suitably qualified and skilled labour capable of absorbing the necessary training required to perform complex tasks effectively (Penrose,

1956; Rugman and Verbeke, 2004). The abundance of human capital in a local context directly affects a foreign affiliate's pool of talented labour that they can potentially employ (Kafouros, 2006). Firms in locations with more abundant and higher quality human capital pools can more easily attract the best employees who bring with them ideas, knowledge and capabilities that can affect the foreign affiliates ability to compete, develop new technologies and grow (Cantwell, 2008). However, in emerging economies, educational systems are often under-developed, meaning that, human capital can vary significantly across locations (Wright *et al.,* 2005; Liu, 2013). Therefore, it would be expected that the quality and abundance of human capital within a firm's local context to have a bearing on their performance. Hence;

Hypothesis 1b: *Cities that have higher levels of human capital positively affect the performance of foreign affiliates.*

4.3.3 Agglomeration economies

Agglomeration economies refer to the advantages that arise and diffuse in concentrated clusters of economic activity (Krugman, 1991b; Belderbos *et al.,* 2011). Agglomerations can create multiple sources of advantages for co-located firms. Firstly, the self-reinforcing effects of agglomerations improve the local economic environment through spillover and knowledge diffusion effects (Audretsch and Feldmann, 1996) which improve local technology conditions (Almeida & Phene, 2004; Cantwell & Iammarino, 2000; Frost & Zhou, 2005). Secondly, agglomerations offer resource advantages as they attract increased pools of labour and suppliers (Nachum, 2000). Finally, agglomerations offer opportunities for sharing local information and knowledge about the business environment which can help firms adapt to and anticipate future changes in the market (Mariotti and Piscitello, 1995; Tan and Meyer, 2011).

In this study, I distinguish between foreign firm agglomerations and domestic firm agglomerations. This is because, as Mariotti *et al.,* (2010) demonstrate, foreign firms' subnational location choices are positively influenced by agglomerations of other foreign firms, but are negatively influenced by domestic firm agglomerations. Mariotti *et al.,* (2010) suggest that foreign firms may perceive a heightened risk of knowledge leakages to domestic firms and thus avoid co-locating with them. In an emerging economy context, such as China, the risk of knowledge leakages is likely to be intensified due to the weaker intellectual property (IP) protection regimes in these countries (Du *et al.,* 2008; Kreupp *et al.,* 2009). Major incidents of foreign firms' IP theft by domestic Chinese firms have been reported in the media (*Economist*, 2012). In addition, domestic firms are less likely than foreign firms to share local knowledge and information, thus inhibiting foreign affiliates' awareness of opportunities, threats and changes in the market (Tan and Meyer, 2011) and possibly exasperating 'outsidership' from relevant business networks (Johanson and Vahlne, 2009).

At the same time, and following the logic of Tan and Meyer (2011) and Belderbos *et al.,* (2011), I argue that foreign firm agglomerations may act as conduits of knowledge and information and are not as threatening to the foreign affiliates or parent company's IP rights. In other words, other foreign firms are more likely to act as 'friends' in uncertain, unfamiliar and difficult locations (Tan and Meyer, 2011), thus enabling firms to become more embedded in the host location (McDonald *et al.,* 2008). Furthermore, foreign firms in emerging markets are generally more technologically intensive than are domestic firms (Aitken and Harrison, 1999; Blalock and Gertler, 2008), meaning that the knowledge spillover accruals from foreign firms are arguably more conducive to supporting superior performance than domestic firms (Almeida & Kogut, 1999). It is proposed, therefore, that in subnational locations with strong agglomerations of domestic firms, foreign affiliate performance will be negatively affected, but will be positively affected in subnational locations with large concentrations of foreign firms. Thus:

Hypothesis 2: *Cities that have higher levels of domestic agglomeration negatively affect the performance of foreign affiliates, while in cities with high levels foreign agglomeration performance is positively affected.*

4.3.4 Subnational institutions

Institutional theory makes the conceptual distinction between the firm's 'technical' environment, where it engages in the management of supply and demand, and the institutional environment, where firms strive to receive support and legitimacy from non-market actors, such as government and regulatory agencies (Scott, 1995; Suchman, 1995; Oliver, 1997). Broadly defined, institutions are the formal and informal 'rules of the game' (North, 1991) and are composed of regulatory, normative and cognitive mechanisms that define the acceptability and legitimacy of both individuals' and economic actors' behaviour (Scott, 1995). Institutional regimes in many emerging economies are often under-developed, meaning that the 'rules' and other mechanisms that govern market and non-market transactions are ineffective, inefficient or both (Wright *et al.,* 2005; Xu and Meyer, 2012; Peng *et al.,* 2008; Chan *et al.,* 2010). Therefore, the variable nature of institutions may impact on firm performance (Hoskisson *et al.,* 2003; Wan *et al.,* 2003; Khanna and Palepu, 2005; Bevan *et al.,* 2005). Institutional environments are composed of a "tangled web of mutually reinforcing elements" (Orr and Scott, 2008: 187). However, for analytical purposes it is helpful to identify particular spheres of institutional influence. The institutional environment of a subnational location may be stratified into three interrelated sub-spheres, namely; economic, political and social (Chan *et al.,* 2010).

Economic institutions facilitate efficient exchanges and interactions between economic actors. For this reason local economic institutions can directly affect the transaction and information costs associated with doing business in a region by determining the

effectiveness and transparency of exchange processes (Shi *et al.,* 2012). For example, an institutional environment in which contracts are respected, where administrative bureaucracy is minimised and where social relations and other opaque exchange mechanisms are minimised is more likely to support efficient and 'fair' economic activities (Heinsz, 2003; Fan *et al.,* 2009). In addition, subnational economic intermediaries such as regional development agencies have authority for granting licences, work permits and other necessary documentation required for setting up and growing a business. These administrative agencies have the ability to enable or constrain the efficiency with which businesses can become incorporated or diversify (Tan and Meyer, 2010; Chan and Makino, 2007; Orr and Scott, 2008). Therefore, inefficient administrative institutions can potentially disrupt operational efficiency through creating unnecessary bureaucratic hurdles for foreign affiliates (Meyer and Nguyen, 2004; Tan and Meyer, 2011). Arguably, therefore, when administrative institutions are more efficient and less bureaucratic then foreign affiliate performance is likely to be positively affected. Thus:

> **Hypothesis 3a:** *Cities that have higher levels of administrative efficiency positively affect the performance of foreign affiliates.*

However, corruption is a widely reported economic reality in many emerging and developing economies (Hoskisson *et al.,* 2003; Du *et al.,* 2008). Though it is typically illegal for foreign firms to engage in corrupt activities in foreign markets, a high level of localised corruption may impact upon the operational efficiency of foreign affilaites (Galang, 2012). Corruption may create market access barriers or disrupt production activities if firms choose not to engage in corrupt practices (Spencer and Gomez, 2011; Galang, 2012). Thus:

> **Hypothesis 3b:** *Cities that have increased levels of corruption have a negative effect on the performance of foreign affiliates.*

In China, and in other emerging economies, there is significant cross-over between political and economic institutions, with political institutions exerting significant influence over the local economic landscape and the investment regime for foreign businesses (Galang, 2012). For example, Meyer and Nguyen (2004) describe circumstances of either '*red-carpets*' or '*red-tape*', where the former reflects an open and welcoming attitude to foreign firms from the local government, while the latter reflects a restrictive and unhelpful approach to dealing with foreign investors. Given the increased role of government in economic matters in emerging economy contexts (Hoskisson *et al.,* 2003; Peng *et al.,* 2008), it is argued that subnational locations with effective local governments will be more conducive to foreign affiliate performance. Thus:

Hypothesis 3c: *Cities that have higher levels of government effectiveness positively affect the performance of foreign affiliates.*

Local political institutions are also responsible for overseeing the effectiveness of the legal system. China's plethora of laws which deal with the regulation of foreign investment and the management of foreign businesses are dense, with there often being a considerable gap between law and reality (Schawbach, 2007; Corne, 1997). Although many laws will be writ by central government and standardised across subnational regions, in many cases the implementation and enforcement of law is done at the local level (Li and Park, 2006). This creates scope for significant subnational variation in terms of applications of specific laws, judicial effectiveness and enforcement. Thus, the regulative 'rules of the game', such as protection offered for IP and business contracts, can vary widely across different subnational locations (Du *et al.,* 2008). The importance of intellectual property to innovation and for securing competitive advantage has been well established in the strategic management

literature (e.g. Leiponen, 2008; Reitzig and Puranam, 2009). It would therefore be expected that locations with stronger legal protections for foreign firms' IP and contracts to be more conducive to the superior performance of foreign affiliates. Thus:

Hypothesis 3d: *Cities that have more effective legal systems positively affect the performance of foreign affiliates.*

This study does not specifically examine social institutions. However, as discussed below, arguably some subnational locations have more developed social institutions, which I argue reduce *discrimination* against foreign investors. Specifically, it is suggested that the social institutions of 'core' locations will be more conducive to supporting stronger foreign affiliate performance.

4.3.5 Spatial distance and core-periphery dynamics

As previously outlined, this study seeks to add an additional layer of explanation to the subnational location-performance relationship. The key argument developed in this chapter is that firms are affected by both place (their immediate local context) and space (the wider economic, institutional and geographic context in which they operate). Our argument builds on the notion of spatial dependence (Cookson *et al.,* 2012). Spatial dependence suggests that distances between neighbouring locations effects firm behaviour. However, the vast majority of literature that has examined the influence of subnational locations on firm performance (or decision making and strategic behaviour) has treated locations as distinct places. This approach raises two problems. Firstly, as noted by Cookson *et al.* (2012: 2)*,* "the boundaries between alternative locations are often quite arbitrary and defined by administrative fiat rather than political-economic reality". Therefore, while the conditions of a particular administrative unit may impact upon the performance of the firm, the operational reach of

the firm may well extend beyond the location in which it is established. Foreign affiliates often cross administrative units and thus operate across geographic 'space' (Kappen *et al.,* 2010). The consequence is that locational influence on a firm's behaviour transcends the particular place in which the firm is established. Secondly, the literature on 'spillover effects' suggests that location advantages can diffuse across proximate locations, meaning that the location advantages of one location may permeate nearby locations (Liu *et al.,* 2000; Meyer and Sinani, 2009; Eden, 2009; Fabrizo and Thomas, 2011). There is potential, therefore, for weak advantages in one location to be mitigated by geographically proximate locations that have stronger advantages. Thus, our key argument here is that, if locations are treated as distinct places, rather than being related across space, then important 'spatial' influences on the performance of firms are ignored. As mentioned, this study is particularly interested in the CP spatial dynamic. Building on extensions of the CP theory in the IB literature, and on the geography of cities, it is suggested that the location advantages of core centres of economic activity increase *urbanisation economies* and reduce *liabilities of foreignness*.

As discussed in Chapter 2, the NEG literature advances CP theory as a key paradigm for interpreting spatial distance and regional disparities (Krugman, 1991a; Duranton and Puga, 2001). Building on the spatial dependence argument I suggest that distance from core centres of economic activity has important repercussions for firm performance. More specifically, and developing the reasoning I presented in Section 2.5.2, I assert that core centres of economic activity can serve to attenuate LoF (Hymer, 1960; Kindleberger, 1973; Zaheer, 1995). Recall that LoF refer to the additional costs incurred by businesses when they operate in foreign markets. Zaheer (1995) identifies three key sources of LoF, namely *complexity*, *uncertainty* and *discrimination*. LoF are generally examined by researchers at the country level of analysis (Asmussen, 2009; Eden and Miller, 2004; Zaheer, 1995). As such there has been little consideration in the extant literature of how sub-national

heterogeneity affects the severity of LoF. As outlined in Chapter 2 (see Section 2.5.2) Goerzen *et al.,* (2013) suggest that *international connectedness*, *availability of advanced producer services* and *cosmopolitanism* associated with 'global' cities combine to reduce the LoF and their effects. In this study, I build on this argument to elucidate foreign affiliate performance differentials across different subnational locations.

Firstly, it can be argued that the international connectedness of major cities leads to the development of institutions that promote fairness and equality of treatment which in turn reduces *discrimination* against foreign firms – a key liability for foreign business when operating in emerging markets (McKinsey, 2012). Furthermore, this connectedness also serves to provide better information channels, which helps to reduce *uncertainty* and improve the ability of foreign affiliates to react to, and predict, future changes in the market-place (Mariotti and Piscitello, 1995). Moreover, the superior availability of advanced producer services in major cities creates a stronger business support infrastructure around the firm, meaning that the foreign affiliate can benefit from the local knowledge and experience of external professional service providers rather than having to organise service-related functions internally (Iammarino and McCann, 2013). Arguably, this will decrease those LoF that stem from *complexity.* Finally, the cosmopolitan environment of major cities may increase acceptance of foreign businesses among various stakeholders (i.e. customers, suppliers, labour, the local government and the general populace) and therefore further reduce *discrimination* against foreign affiliates. Combined these characteristics serve to lower information and transaction costs experienced by foreign businesses. In this sense we can regard core cities as a type of industrial district that confers socio-economic advantages to firms (referred to as 'type II industrial districts' – McDonald and Vetova, 2001). Indeed, as noted by McDonald and Vertova (2001) "some regions within nations may be able to develop socio-economic networks that reduce transaction costs, whereas others regions may lack this ability" (p160). I argue that the LoF reducing characteristics of core cities help

facilitate the development of socio-economic networks between firms, customers, suppliers and institutions. These networks further contribute to supporting superior firm performance in core city locations.

Consequently, there are strong grounds for suggesting that the severity of LoF will differ across different types of location and, more specifically, that core centres of economic activity have the effect of reducing LoF for foreign firms (Goerzen *et al.,* 2013) and are thus more conducive to supporting superior firm performance. Furthermore, building on the spatial dependence argument, I also suggest that: (i) the characteristics of neighbouring locations affect the behaviour and performance of foreign firms, and more specifically that (ii) greater spatial distance from core cities results in heightened LoFs for the affiliates of foreign firms. As discussed in section 3.4 of the dissertation, I operationalise core cities at two levels, the regional and the national. Hence:

Hypothesis 4a: *Foreign affiliate performance is negatively affected by increased spatial distance from regional core cities*

Hypothesis 4b: *Foreign affiliate performance is negatively affected by increased spatial distance from national core cities*

4.4 Methodology

4.4.1 Data and operationalization of variables

This chapter uses World Bank (2006) data (see section 3.5.1 for a detailed description). The firm-level data covers 1397 foreign affiliates across 120 Chinese cities. Descriptive statistics for the firm level data are provided in section 3.5.2.

4.4.2 Dependent variable

Foreign affiliate performance is measured using a three year average (2003-2005) of firms'

total factor productivity (TFP) in China. TFP is calculated using a production function that

estimates the residual output once investments in fixed assets and labour are controlled for.

I calculate the TFP of foreign affiliates using three variables for a three year period: sales

revenue, investment in fixed assets and number of employees. The TFP calculation thus

provides the "residual productivity output after netting out the effects of capital and labour"

(WB, 2006: 95). The residual productivity of foreign affiliates in China was calculated in

STATA. TFP effectively provides an evaluation of the performance of a foreign affiliate in

terms of its proficiency at converting inputs into valuable outputs. TFP is considered the

'currently prevailing approach' for estimating spatial performance differentials (Giacinto *et*

al., 2013: 9).

The problems associated with measuring firm performance in emerging economy

environments are well documented (e.g. Hoskisson *et al.,* 2003; Wright *et al.,* 2008). In

particular, Liu (2005) states that financial measures of firm performance in emerging

economies are often fraught with difficulty due to relaxed financial reporting procedures and

variable quality of local auditors, amongst other things. Therefore, a non-financial measure

such as TFP is arguably more appropriate as a measure of foreign firm performance in an

emerging economy such as China. Given that the measure I use is a three-year average, it

accommodates productivity anomalies caused by yearly fluctuations, thus providing a more

robust indication of firm performance than a single year observation. For a summary of all

variables see Table 8.

Table 8 Description of variables and data

Hypothesis no.	Variable	Description
Dependent variable	Foreign affiliate performance	Three year average (2003-2005) total factor productivity measure (TFP = total sales revenue x investment in fixed assets x number of employees).
H1a	Utilities infrastructure	Output losses caused by inadequate power or transport infrastructure as percentage of total revenue (%).
H1b	Human capital	Proportion of city's population with university level education (%).
H2	Domestic agglomeration	Gross industrial output value of domestic funded enterprises as a percentage of total industrial output (100m Yuan).
	Foreign agglomeration	Gross industrial output value of foreign funded enterprises as a percentage of total industrial output (100m Yuan).
H3a	Administrative efficiency	Time spent with four different government regulators (tax administration, public security, environmental protection and labour and social security).
H3b	Corruption	Firms' expectations (yes / no) that unofficial payments will be required to secure access to loans (Binary)
H3c	Government effectiveness	Composite indicator based on four measures: (i) taxes and fees as a percentage of sales (t), (ii) percentage of 'entertainment costs' for government officials over total revenue (e), (iii) average number of days to clear customs for imports and export (c) and, (iv) the time-cost (total number of days per year) spent dealing with four bureaucracies (tax administration, public security, environmental protection and labour and social security) (b).
H3d	Legal effectiveness	Likelihood that firms' intellectual property and contracts will be respected by local courts based on percentage of cases in which a favourable verdict was passed and enforced (%)
H4a	Distance from regional cores	Great circle distance between the peripheral city location of affiliate and the nearest sub-provincial city or provincial capital (Kilometeres)
H4b	Distance from national cores	Great circle distance of the peripheral city location of affiliate from either Beijing, Shanghai, Chongqing, Tianjin or Guangzhou (Kilometres)
Control	Economic development	GDP per capita of city (GDP / city population)
Control	Coastal cities	Dummy variable to signify a coastal city (1 if coastal, city 0 if inland or western)
Control	Inland cities	Dummy variable to signify an inland city (1 if inland, 0 if coastal)
Control	Industry	Foreign affiliate's 2-digit industry code
Control	No. of years established	Number of years the foreign affiliate has been established (years established = 2006 minus year established)
Control	Ownership	Dummy variable to capture whether the foreign affiliate is a joint venture or not. (Wholly owned foreign enterprise = 1, JV = 0)
Control	Size	Average total number of employees between 2003 and 2005 (employee numbers)

4.4.3 Independent variables

As previously hypothesised the study examines the effect of two factors of production on foreign affiliate performance, utilities infrastructure and human capital. I take into account the quality of the utilities infrastructure (H1a) by examining aggregated city level values for

responses to questions in the WB (2006) survey that considered '*output losses as a percentage of total sales created by inadequate utilities infrastructure*'. [21] The variable for human capital (H1b) across cities is measured as the percentage of the total city population that holds a university degree.

In order to assess agglomeration economies in a city, I examined both domestic and foreign agglomerations (H2). Following previous research on the impact of agglomeration on FDI (Li and Park, 2006; Cookson *et al.,* 2012), I measure foreign agglomeration by considering the gross industrial output of foreign firms in a city as a percentage of total industrial output and repeat the calculation using domestic agglomeration. This creates two individual agglomeration variables each of which provide an indication of relative presence of foreign and domestic firms in a city.

Administrative efficiency (H3a) is measured as the time-cost (days per year) spent with four different government regulators (tax administration, public security, environmental protection and labor and social security).[22] Corruption (H3b) is captured using aggregated managerial responses to a question in the WB report that asked respondents "Is there a need for informal payment to staff from the banks or loan providing institutions?" (Yes / No). If firms are required to make 'informal payments' to obtain such loans then they are being exploited by institutions that hold significant power over them. If firms make such informal payments they are engaging in bribery, which is a corrupt practice. Therefore, cities in which

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[21] This variable is reversed so that higher than average output losses are recorded as negative values. Therefore, lower output losses are recorded as a positive. In other words, lower output losses reflect higher levels of efficiency in the city's utilities infrastructure.

[22] This variable is reversed so that higher than average time-cost (days) is recorded as negative. This means that in this analysis the variable functions as a measure of efficiency rather than bureaucracy.

expectations for informal payments are reportedly higher can be said to have a higher level of institutionalised corruption.

Government effectiveness (H3c) is a composite variable created by the WB. In its report, the WB (2006) provides values for each city's government in terms of: (i) taxes and fees as a percentage of sales – providing an indication of the value of government services; (ii) 'entertainment costs' for government officials – providing an indication of government professionalism and; (iii) the average number of days required to clear imports and exports – providing an indication of the efficient of a specific government service. These variables are combined to provide a composite indication of the local government's effectiveness. The legal system of each city (H3d) is assessed by aggregated firms responses to a question that asked "In commercial or other legal disputes, what percent of cases were your company's legal contracts or properties protected (a favourable verdict was passed and enforced)".

As discussed in Chapter 3, I construct the distance variables by calculating the great circular distance between core and peripheral cities (expressed in kilometres). Thus, using latitude and longitude data for the central point of each city, I calculated the distances between peripheral cities and regional cores[23] (H4a) and distances between peripheral cities, regional core cities and national cores (H4b).

I control for a number of location, regional and firm-specific factors. In terms of location, I control for variations across levels of economic development by including a measure for the gross domestic product (GDP) per capita of the focal city location. Furthermore, I control for regional effects by creating dummy variables for those cities located in the more

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[23] In this calculation I calculated national core city distance to the nearest regional core city (Beijing-Shigiazhuang, Shanghai-Hangzhou, Tianjin-Shigiazhuang, Guangzhou-Shenzhen, Chongqing-Chengdu)

economically developed coastal regions of China and those located in the less developed inland regions. In addition, I control for four firm-specific factors, namely industry, ownership (joint venture (=0) or wholly owned (=1)), size (number of employees) and length of time in the location. These firm and location specific variables are included in the analysis to ensure that the model, which specifically is designed to examine local context and spatial distance effects, is robust to the inclusion of other factors that may impact on foreign affiliate performance.

4.5 Results

The correlation between all variables can be seen in table 9. In order to isolate the relative effects of factors of production, agglomeration economies, institutions, and CP distance related factors, five linear regression models were run (see Table 10 – robustness checks for these regressions can be found in appendix D). The base model includes control variables only. Model 1 introduces factors of production (utilities infrastructure and human capital) into the regression. The quality of the utilities infrastructure across subnational locations is found to have a positive and statistically significant effect on firm performance (0.0283**). Levels of human capital also have a strong and statistically significant effect on performance (0.081***). These results support Hypotheses 1a and 1b and reveal that, in the case of China, subnational variations in the availability and quality of factors of production do affect foreign affiliate performance. Thus, the results suggest that foreign affiliates that operate in those cities with a better utilities infrastructure and greater availability of human capital are more likely to experience positive performance-gains.

Table 9 Variable correlations

No.	Variable	Mean	Std. Dev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Performance	0.117	0.011	1.000																
2	Utilities infrastructure	0.130	0.022	0.088	1.000															
3	Human capital	0.358	0.025	0.283	0.191	1.000														
4	Domestic firm agglomeration	-0.769	0.034	-0.274	0.096	-0.331	1.000													
5	Foreign firm agglomeration	0.819	0.035	0.314	-0.177	0.169	-0.917	1.000												
6	Administrative efficiency	-0.146	0.027	-0.028	-0.002	-0.244	0.164	0.066	1.000											
7	Corruption	0.339	0.020	-0.205	0.031	0.176	-0.303	0.387	0.095	1.000										
8	Government effectiveness	0.262	0.026	0.316	0.004	-0.161	-0.099	0.343	0.277	0.419	1.000									
9	Legal effectiveness	0.095	0.026	0.076	0.134	-0.287	0.003	0.140	0.341	0.228	0.615	1.000								
10	Distance to country cores	0.432	5.016	-0.115	0.123	-0.363	0.193	-0.107	0.130	0.018	0.198	0.286	1.000							
11	Distance to provincial capital	0.895	6.907	-0.220	-0.158	-0.121	0.002	-0.107	-0.055	-0.091	-0.280	-0.107	0.006	1.000						
12	GDP	0.277	0.031	0.180	0.217	0.514	-0.040	-0.025	-0.240	0.063	-0.039	-0.219	-0.232	-0.330	1.000					
13	Coastal	0.723	0.012	0.352	0.123	0.163	-0.432	0.510	-0.012	0.298	0.318	0.138	-0.124	-0.303	0.179	1.000				
14	Inland	0.194	0.011	-0.268	0.084	-0.170	0.348	-0.397	0.028	-0.357	-0.197	-0.085	0.206	0.007	-0.157	-0.796	1.000			
15	Industry	31.039	0.240	0.201	0.002	0.276	-0.314	0.265	-0.187	0.124	0.055	-0.038	-0.131	-0.035	0.133	0.146	-0.121	1.000		
16	Year established	0.950	0.140	-0.110	-0.104	-0.095	0.084	-0.051	0.089	-0.049	-0.030	-0.011	0.001	0.013	-0.048	-0.106	0.079	-0.031	1.000	
17	Ownership	0.442	0.013	0.077	-0.029	-0.031	-0.282	0.325	0.060	0.157	0.140	0.138	0.060	-0.060	-0.098	0.137	-0.081	0.054	0.040	1.000
18	size	0.354	0.027	0.072	-0.026	0.055	-0.195	0.200	-0.039	0.061	0.047	-0.009	-0.055	-0.051	0.058	0.143	-0.107	-0.009	-0.051	0.051

Table 10: Hierarchical multiple Linear regression models

Independent variables	Base B	S.E	1 B	S.E	2 B	S.E	3 B	S.E	4 B	S.E
Factors of production										
Utilities infrastructure			0.0283**	0.0129	0.0291**	0.0133	0.0285**	0.0138	0.0337**	0.014
Human capital			0.0881***	0.013	0.1067***	0.014	0.1115***	0.0142	0.1037***	0.0145
Agglomerative conditions										
Domestic agglomeration					0.1302***	0.0222	0.0215	0.0307	0.0104	0.0313
Foreign agglomeration					0.1651***	0.0218	0.0513*	0.031	0.0513*	0.0314
Institutional conditions										
Administrative efficiency							0.0116	0.0124	0.0121	0.0124
Corruption							-0.0377**	0.0157	-0.0372**	0.0157
Government effectiveness							0.1454***	0.0164	0.1449***	0.0163
Legal effectiveness							0.0369**	0.0134	0.0365**	0.0135
Spatial dependence										
Distance from regional core cities									-0.0001**	0.0001
Distance from national cores									-0.0001**	0.0001
Control factors										
GDP per capita	0.0367***	0.0089	0.0037	0.0101	0.0089	0.0101	-0.0013	0.0101	-0.0102	0.0106
Coastal	0.3068***	0.037	0.3138***	0.0383	0.1757***	0.0422	0.1132**	0.0425	0.0642*	0.0469
Inland	0.0403	0.0415	0.0607	0.0432	0.0134	0.0422	-0.041	0.0438	-0.0830*	0.0484
Industry	Included		Included		Included		Included		Included	
Year established	0.0053**	0.0019	0.0044**	0.0019	0.0050**	0.0422	0.0039**	0.0018	0.0041**	0.0018
Ownership	0.0330	0.0205	0.0324	0.0202	0.0012	0.0207	0.0054	0.0201	0.0044	0.0201
Size	0.0075	0.0101	0.0057	0.0100	0.0006	0.0099	0.0005	0.0096	0.0001	0.0096
Model										
Constant	10.3114**	3.8285	8.4795**	3.7909	9.7431**	0.0422	7.6945**	3.6184	8.1252**	3.6129
F	54.20***		46.61***		44.80***		39.91***		35.32***	
R2	0.14		0.186		0.2199		0.2557		0.27.91	
N	1397		1397		1397		1397		1397	

Dependent variable: TFP 2003-2005 *** P = < 0.001, ** p = < 0.05, * p = < 0.10

Model 2 includes agglomeration economies into the regression. Both domestic and foreign firm agglomeration economies are found to have a strong, positive and statistically significant effect on foreign affiliate performance (0.1302*** and 0.1651*** respectively). Therefore, in contrast to the predictions of Hypothesis 2, this model indicates that performance is not reduced when foreign affiliates are located in cities that have significant levels of domestic Chinese firms. Indeed, the results indicate the opposite. However, the results do confirm that foreign affiliate performance is stronger in those cities with significant levels of other foreign firms. Therefore, the results offer tentative support for Hypothesis 2.

In Model 3, I include institutional conditions into the regression. The institutional constituents of subnational locations are found to have clear effects on foreign affiliate performance. In particular, the results indicate that the subnational institutions that impact most on foreign affiliate performance are government effectiveness (0.1454***), legal effectiveness (0.0369**) and corruption (-0.0377***). Administrative efficiency is found to have no statistically significant effect on foreign affiliate performance (0.0116). More specifically, both government and legal effectiveness in a city are revealed to have a positive effect on the performance of foreign affiliates located there, whereas corruption is found to have a negative relationship with TFP (in other words, high levels of corruption in a city are associated with reduced affiliate performance). These results confirm Hypotheses 3a, 3c and 3d.

In model 4, I introduce the spatial dependence variables into the regression. As previously hypothesized, I suggested that the more distant is a foreign affiliate's city-location from a core centre of economic activity at a regional (H4a) and national level (H4b) then the more likely that performance will be negatively affected. Both spatial distance variables are found

to be negative and exercise a statistically significant effect on foreign affiliate performance thus offering support for Hypotheses 4a and 4b. These findings offer empirical support for the role of 'space', and more specifically CP spatial distance, and its impact on the performance of foreign affiliates. Furthermore, this finding suggests that both national *and* regional cores are important in considerations of foreign affiliate performance. In other words, there are two core-periphery dynamics that may impact on foreign affiliates, the firm's relationship with a regional core city and the firm's relationship with a national core city. Overall, these results support the contention the subnational location-performance relationship is affected by both place *and* space. In the next section I will discuss the implications of these findings.

In this final model, with all variables included we can observe the following statistically significant positive effects of local context on foreign affiliate performance; *utilities infrastructure, human capital, foreign agglomeration, government effectiveness and legal effectiveness.* Interestingly, with all variables included, the effects of domestic agglomeration lose their statistical significance. The following statistically significant negative effects of local context on foreign affiliate performance can be observed; *corruption, distance to regional core cities and distance to national core cities*.

4.6 Discussion

This study was motivated by the desire to explore how variations across both place *and* space affect the performance of foreign affiliates in an emerging economy context. This study builds on the pioneering research of Chan *et al.,* (2010) and Ma *et al.,* (2013), whose work departs from traditional thinking in IB theory that has tended to emphasise resource and industry-based explanations of performance heterogeneity, but has generally downplayed the role of location. The study reported in this chapter demonstrates that a

significant portion of performance heterogeneity across foreign affiliates can be explained by location-specific attributes across subnational localities. The study demonstrates that within-country heterogeneity is highly disaggregated across China's cities and that this variation is of a degree of salience to affect firm performance. Thus, I find strong support for the argument that it is necessary for both management and IB theorizing to engage much more thoroughly with the role of 'local context' (Meyer *et al.,* 2011) in discussions of MNE behaviour and performance. Previous studies in this vein of research have examined the relationship between subnational variations and performance at the provincial and state (i.e. regional) level (Chan *et al.,* 2010; Ma *et al.,* 2013). However, this study demonstrates that subnational variation is much more acute and localised than researchers in this field have generally recognised up to now.

The results demonstrate that multiple attributes embedded in a foreign affiliate's local context can affect its performance. These findings complement those of Chan *et al.,* (2010) and Ma *et al.,* (2013) by demonstrating that, although institutional variations across subnational locations are highly important determinants of foreign affiliate performance, variations across factors of production (especially human capital stocks) and agglomerative conditions are equally, if not more, important. Arguably, the strength of this effect is not surprising given the importance of human factors to firm growth in general, and the scarcities of highly educated and skilled labour in emerging economies in particular (Gao *et al.,* 2005). Furthermore, I also show in this study that the quality of the utilities infrastructure is an important contributor to foreign affiliate performance differentials in China. Firms rely on critical utilities such as electric and water to power their local operations and the results indicate that foreign affiliate's significantly benefit from being established in those cities where provision of these critical utilities is better.

The findings concerning the impact of agglomeration economies on foreign affiliate performance are equally interesting. As established in the literature review, agglomeration economies can offer important sources of advantage for firms. I argued, however, that the agglomeration economies offered by other foreign firms would be most beneficial from a performance perspective. The findings indicate that this is the case. The inference, therefore, is that in those cities where there is already a large presence of other foreign firms, the performance of foreign affiliates will be improved. In demonstrating this positive performance effect, the results complement those of Tan and Meyer (2011) who argued that foreign firms can act as 'friends' in difficult location environments. Furthermore, the results also complement Belderbos *et al.,* (2011) by showing that, in addition to reducing the uncertainty associated with the subnational location decision, foreign affiliates can experience performance gains by setting up in cities that already have a large presence of other foreign firms. Although the specific mechanisms through which this occurs cannot be isolated, I suggest that this is a latent effect of the increased information and knowledge sharing between other foreign firms as they can establish mutually supportive business and social networks that can reduce LoF (Lamin and Lavanis, 2013; Tan and Meyer, 2011).

It was suggested that large presences of domestic firms from the host country may lead to "outsidership" from key business networks (Johanson and Vahlne, 2009) and exasperate intellectual property leakages (Mariotti *et al.,* 2010), thus hampering the performance of foreign affiliates. However, in contrast to the hypothesized expectation, foreign affiliates do not experience a negative performance effect in those cities that have a significant presence of domestic Chinese firms. Indeed, the results show that this effect is positive - though in the final model, with all other variables included, it is not statistically significant. The results indicate, therefore, that domestic firm agglomerations do not act as a significant subnational location advantage, though they are not a disadvantage either. Domestic Chinese firms arguably play an important role in the wider economic environment as suppliers,

intermediaries and customers, which confer economic, though not performance enhancing, advantages. Future research that isolated the specific advantages that different types of agglomeration confer to businesses would be useful for the purposes of more clearly elucidating differences between foreign and domestic firm agglomerations.

Chan *et al.,* (2010) theorised that a key explanation for foreign affiliate heterogeneity across subnational regions was the varying quality and efficiency of institutions within emerging economies. In this study, I directly build on their study by isolating specific institutional constituents of a local context that may have a bearing on the performance of foreign affiliates. Three out of the four institutions that were examined have significant positive (government effectiveness and legal enforcement) and negative effects (corruption). Therefore, the findings offer new insights into some of the most salient constituents of subnational institutions. In particular, these results highlight the importance of government and legal institutions in the context of foreign affiliate performance and provide further support for the emphasis on the 'institution-based-view' for emerging economy focused research (Peng *et al.,* 2008; Xu and Meyer, 2011). The results also highlight the need for IB research to engage with locally embedded institutions rather than country level institutions (Bevan *et al.,* 2008).

The primary contribution of the findings presented in this chapter is that they demonstrate the negative effect of increased spatial distance from core centres of activity at regional and national levels on foreign affiliate performance. In contrast to previous studies that have examined the determinants of foreign firm performance, the findings reported in this chapter demonstrate that 'space' as well as 'place' matters in the context of elucidating and clarifying the subnational location-performance relationship. Clearly, there is a need to bring spatial models of business activity more into the realm of strategic management literature.

To the best of my knowledge, this study makes an important first step in this direction. By extending the insights of CP theory to a large and heterogeneous emerging economy like China, I empirically demonstrate that CP distance matters in such a context. I argue that this is a function of the higher level location advantages associated with core locations, particularly when contrasted against some more underdeveloped peripheral cities of China. Extant literature suggests that core locations are endowed with a range of higher level location advantages, such as stronger information channels and better social networking opportunities (Storper and Venables, 2004). The findings presented here suggest that the more distant a foreign affiliate is from core cities, the more its performance is negatively affected. A possible suggestion for this is that firms that are situated in peripheral cities that are closer to the core can more readily benefit from the spillover advantages associated with such locations. For example, it may be easier for a foreign firm to attract highly educated and skilled labour to work for them if they are situated close to a national or regional core. They may also find it easier (and more cost effective) to tap into important business networks and social connections in these situations.

In effect, evidence is found for spatial dependencies in foreign affiliate performance (Cookson *et al.,* 2012). In doing so, this chapter contributes to the international strategic management literature by showing that models of MNE behaviour need to accommodate spatial geography. A further theoretical contribution of this finding is that it demonstrates the impact of spatial disparities and CP distances on the LoF experienced by MNEs. Data limitations prevent the direct statistical observation of the urbanisation externalities and LoF reducing characteristics argued to be associated with core cities. However, by demonstrating the negative performance effects associated with distance from core cities, this study provides strong evidence for the existence of CP disparities. Furthermore, the findings also demonstrate the moderating role of distance in these CP effects. The study reported here is

one of the first to explicitly factor this dynamic into a better understanding of the location-performance relationship.

Finally, although not a primary point of interest, our control variables reveal interesting insights for the interpretation of foreign affiliate performance and its determinants. For example, the number of years a foreign affiliate has been established in China has a positive and significant relationship with performance, indicating that the accumulation of experience about operating in a particular place improves performance. This may be because firms develop routines and knowledge that enable them to circumvent institutional voids and other challenges associated with operating within a large, heterogeneous and quickly developing country such as China. Interestingly, the variables for firm size and ownership mode do not offer significant explanations for performance differentials in any of the models. Previous research (Ma and Delios, 1996) has suggested that the local knowledge that can be accessed by forming joint-ventures can help MNEs overcome location specific liabilities. However, our results would seem to suggest that there is no specific performance gain associated with either being established as a JV or a WOFE. The location specific control variables show that foreign affiliates located in coastal cities experience positive performance effects. As mentioned in the introduction to this dissertation (1.4), China's economic development since the beginning of the economic reforms in 1978 have been highly skewed towards Eastern provinces (Canfei, 2006). The result of this is the existence of stark developmental disparities between coastal provinces and inland and western provinces. The results presented here suggest that the latent effects of these disparities continue to have important repercussions. However, it should be noted that, despite the statistical significance of this variable, the effects of attributes embedded across local context remain important predictors of foreign affiliate performance (robustness checks further confirm this – see Appendix D).

It should be noted that this study is not without its limitations. Most notably, I use only one measure of firm performance. Ideally it would be preferable to capture and analyse multiple dimensions of foreign affiliate performance. Furthermore, it would be better to incorporate data on return on investment to provide a 'hard' financial performance indicator (Chan *et al.,* 2010). However, such data is seldom publically reported or disclosed and can be untrustworthy in emerging economy contexts (Wright *et al.,* 2009). Secondly, although I include multiple subnational locations at a highly disaggregated level for China, the results would be more generalizable if I had a comparator sample with other cities within another country. However, extensive subnational data are not widely available for other countries, which make this task difficult. Interesting avenues for future research would be to explore further the role of firm specific factors on the subnational location-performance relationship. For example, it would be interesting to investigate how firm-level capabilities and resources interact with and moderate the subnational location-performance relationship. Furthermore, research into the role of 'space' and different dimensions of distance and spatial dependence may also shed further light on the interactions between geography, MNEs and performance outcomes.

4.7 Chapter summary

The subnational location has emerged as an important unit of analysis in the strategic management literature. This study makes several important contributions to this emerging stream of theory. Firstly, I have demonstrated that subnational variations exercise a potent force on foreign affiliate performance - even at the highly disaggregated level of cities. This shows that subnational heterogeneity is much more localised than previous studies have recognised. Furthermore, this strengthens my argument that the city is a better subnational unit of analysis, and provides a much closer approximation of firms' relevant economic area than provinces or states. Secondly, I stratify subnational location environments into three

sets of factors and demonstrate that relevant location factors from each set significantly affect the performance of MNE foreign affiliates in emerging economies. Most importantly, However, I have demonstrated that spatial distance between cores and peripheries affects the performance of foreign affiliates.

The findings presented in this chapter contribute to the growing literature on the relationship between subnational locations and foreign firm performance. The extant strategic management literature has typically focused on how factors endogenous to firms, such as their resource and capability base, affect their performance. However, as demonstrated, the subnational location in which firms are embedded has important performance implications and the findings of this chapter directly contribute to this emerging literature stream.

Chapter 5: Foreign direct investment location choice in "unfavourable environments"

5.1 Chapter overview

Extant international business theory suggests that the inherent uncertainty embedded in the decision to invest overseas leads firms to overwhelmingly favour particular sets of 'privileged' subnational host locations, such country cores and 'global cities' (Goerzen *et al.,* 2013). This chapter investigates why some firms eschew advantaged locations such as these for their FDI projects and instead locate in more 'unfavourable locations', such as peripheral cities within an emerging economy (Tsui-Auch and Mollering, 2010). I argue that extant international business theory does not adequately explain why some firms self-select to situate themselves into, what are *prima facie,* unfavourable host location environments. Building on the 'sense of place' concept I argue that the decision to select particular subnational locations is moderated by idiosyncratic recognition of opportunities in particular places. The findings reported in this chapter suggest that the antecedents of the decision to invest in a peripheral city within an emerging economy can be understood by exploring managerial opportunity recognition pertaining to three sets of location conditions: namely (i) *market and competitive environment*, (ii) *cost structure and human capital* and (iii) *local government financial incentives and support*. Furthermore, the chapter advances the '*sense of space'* concept as a key influence on subnational FDI decisions. The findings are based on interview data collected from 32 managers of British MNEs who were involved in decisions to invest in China. The chapter is organised as follows. Firstly, I introduce the research problem and outline the theoretical perspective that is applied in this chapter. Secondly, I discuss the methodology that was used for this element of the study. Finally, I present the key findings and discuss their implications to IB theory.

5.2 Introduction

In the modern context of increased global integration and cooperation, international expansion is often seen as a necessary component of business growth and competitiveness (Arregle *et al.,* 2013). Selecting attractive host locations for FDI is a critical component of the internationalization process and, as such, it has been a key area of interest for strategic management and international business researchers (Belderbos *et al.,* 2011; Lee and Song, 2012). As discussed in Chapter 2 (see Section 2.4.4), previous research has suggested that foreign investors often seek to reduce the uncertainty and complexity of international expansion by locating in country capitals and core centres of subnational economic activity (Goerzen *et al.,* 2013; Mariotti and Piscitello, 1995). Indeed, empirical evidence indicates that foreign firms overwhelmingly favour major metropolises, such as country capitals and core-economic centres, when selecting investment locations *within* countries (He, 2002; Zhao *et al.,* 2005; Iammarino and McCann, 2013). For example, Goerzen *et al.,* (2013) report that in a sample of 6955 overseas Japanese subsidiaries, 77% are located in a select group of 55 major metropolises because of their stronger location advantages and LoF reducing characteristics. But, what then attracts foreign investors to operate in peripheral cities beyond these global cities and major metropolises? In other words, why do some MNEs choose to eschew core city locations in favour of 'non-hub' or peripheral cities? (Mans, 2013). The purpose of this Chapter is to shed light on this neglected aspect of location theory.

An increasing amount of media coverage from high-profile business publications such as *The Economist* (2013) and *The Wall Street Journal* (2007) has focused on the viability of non-hub peripheral cities within emerging economies as host locations for the business activities of MNEs. Such cities have also been a central focus of several consultancy reports

aimed at highlighting their prospective economic growth and future business opportunities (e.g. KPMG, 2012; McKinsey, 2011). Furthermore, home-country policy-makers are also beginning to examine opportunities in peripheral cities in foreign markets for their domestic MNEs (e.g. UKTI, 2008, 2011; EIUA, 2012). Effectively, there is a growing consensus that peripheral cities will be the future engines of economic growth in emerging economies, especially in those which are urbanising rapidly. However, there is evidence that many MNE managers still have doubts about the viability of these business locations. For example, in a recent KPMG report (2012), several senior representatives from MNEs voiced concerns about the attractiveness of 'second- and third-tier' cities in China. To illustrate, the managing director of a large MNE stated that "I see the massive potential for these markets but the cities are essentially still in their infancy" (KPMG, 2012:.36). However, it is also clear that peripheral cities are increasingly attracting a growing proportion of inward FDI directed towards emerging economies (McKinsey, 2011). Despite this, I will argue below that current internationalisation and location choice theory cannot fully explain why firms self-select to operate in what might generally be regarded as the 'unfavourable environments' offered by peripheral city locations (Tsui-Auch and Mollering, 2010).

The focal research question addressed in this chapter is; *why do some firms eschew core economic centres in favour of peripheral cities when making foreign investments in an emerging economy?* This research question is approached via a qualitative methodology, primarily based on an analysis of 32 interviews with managers from UK businesses that have recently undertaken an investment project in China.

5.3 Literature review

5.3.1 Theoretical perspectives on subnational location decisions

As discussed in Chapter 2 (see Section 2.3), IB researchers are becoming increasingly interested in the subnational location decisions of MNEs. There is growing recognition that country level conditions represent only partial and geographically imprecise estimations of the factors that influence the location choices of MNEs (Yeung, 2009). Indeed, as Beugelsdijk and Mudambi (2013:415) point out "firms do not locate in country centres, nor do they employ workers that represent country averages". FDI location choices often involve vast amounts of capital and have important strategic implications (Ulgado, 1997; Graf and Mudambi, 2005). Consequently, selecting optimal subnational locations should be seen as an extension of building a sustainable competitive strategy for MNEs (Porter, 1998).

As discussed in Chapter 2 (see Section 2.6), Mariotti and Piscitello (1995) argue that foreign decision makers are more inclined to locate in particular geographic areas of a country (see also He, 2002 and Zhao *et al.,* 2005). In particular, they suggest that core economic centres reduce information costs for foreign firms because of the more developed infrastructures and communication channels found in such locations. The authors investigate the location of FDI in Italy and find significant support for their hypothesis that Rome (the country capital) and Milan (a key business centre) serve as prime hubs for FDI. More recently, He (2002) and Zhao *et al.,* (2005) reported similar findings for China in relation to Beijing (the country capital), Shanghai and Guangzhou (core business centres). Thus, the lack of actionable information about investment locations can compound the already highly uncertain process of managing a FDI decision (Aharoni, 1966; Johanson and Vahlne, 1977, 2009; Benito and Gripsprud, 1991; Buckley *et al.,* 2007). This can result in foreign investors significantly favouring 'core' locations for their productive activities (Tan and Meyer, 2011).

In Chapter 2 (see Section 2.5.2), I further argued that severity of the LoF varies across different subnational contexts (Goerzen *et al.,* 2013; Beaverstock, 2000). Indeed, this point was empirically demonstrated in Chapter 4 with the finding that distance from core-centres of economic activity at both a national and regional level negatively affects foreign affiliate performance. More specifically, I developed the thinking of Goerzen *et al.,* (2013) and Beaverstock (2000) to argue that core centres of economic activity are endowed with unique characteristics that mitigate LoF. The inverse of this argument, however, is that non-global cities or non-core centres of economic activity are much less attractive to foreign investors because they create much more uncertainty, exhibit higher information costs, and exacerbate LoF. Furthermore, as discussed in Chapter 2, locating beyond a core city may also increase the liabilities of outsidership (LoO) (Johanson and Vahlne, 2009). This is because MNEs are less exposed to the social linkages that pervade major metropolises. This is one of the reasons why locations such as non-core cities within emerging economics are deemed to be 'unfavourable environments' (Tsui-Auch and Mollering, 2010).

5.3.2 'Sense of place': A possible explanation?

A possible theoretical avenue from which to explore the question of why firms self-select to locate in less favourable peripheral cities is the *sense of place* concept developed by human geographers (Tuan, 1977; Malpas, 1999; Florida, 2007). This concept was recently introduced to the realm of IB studies by Zaheer and Nachum (2011). Sense of place refers to the idiosyncratic connections that form between people (or organisations) and locations. The concept is based on the argument that different locations evoke distinct identities to different observers. In other words, locations are more than just generic bundles of resources, markets and physical architectures. Instead, they have unique identities that are constructed and interpreted by individuals and organisations (Weick, 1995). Zaheer and Nachum (2011) argue that these idiosyncratic sensemaking processes provide the basis for understanding the actions and behaviour of MNE managers in, and toward, particular host

locations. At a firm level, Zaheer and Nachum (2011: 97) state that sense of place is the "recognition of potential in a location". This idiosyncratic process of spatial opportunity recognition means "that locations do not have the same value for all MNEs" (Zaheer and Nachum 2011: 96). Thus, "firms assign different meanings to locations and, as a result, have a unique recognition of the potential of location resources and a distinctive sense of the opportunities they embody" (Zaheer and Nachum, 2011: 99).

In essence, sense of place is a more specific component of a wider and on-going process of sensemaking (e.g.,Taylor & Van Every, 2000; Weick, 1995). As noted by Cornelisson and Clarke (2010), the act of making sense is not inherently retrospective, but may also be prospective and "aimed and creating meaningful opportunities for the future". Cornelisson and Clarke (2010) advance a theory of opportunity recognition that emphasizes processes of inductive reasoning by actors in a way that supports the viability of prospective opportunities. This process of opportunity recognition and the rationalisation processes that accompany it are embedded within the 'sense of place' argument. The distinction is that sense of place allows for subjective opportunity recognition that is location-specific. Here, I extend this thinking by asserting that sense of place plays a determinant role in the subnational location choices of MNEs and, as such, may be particularly useful for understanding location choices in 'unfavourable environments'. In other words, the concept of sense of place might explain why some firms eschew core subnational locations despite their apparent advantages. Effectively, it is possible to assert that managers who invest in peripheral locations may be able to recognise opportunities in these locations that others may not.

5.4 Methodology

For this chapter, the research question is addressed using a qualitative methodology. Qualitative research methods provide a good methodological fit bearing in mind that the research is driven by a '*why?*' question (Edmundson and McManus, 2007). The qualitative methodology I used is composed of two elements. Firstly, in-depth semi-structured interviews were conducted with senior managers of UK businesses with FDI projects in China. Secondly, the same managers completed a visual-comparison (VC) task which was designed to replicate the cognitive processes of selecting between alternative investment options. Fieldwork for the study was conducted between January and September 2012.

5.4.1 Semi-structured interviews

In keeping with the exploratory nature of the study, the interviews relied on open-ended and probing questions. The majority of these interviews were recorded and transcribed which, in total, amounted to over 60 hours of interview data. These interviews followed a semi-structured format in which informants were asked open-ended questions such as; "*Why did your organisation decide to locate their business operations in this city?*", "*What are the key challenges you have faced in this location?*" And, "*How do you think the business environment in this location compares with other cities in China?*" (see Appendix C for the exploratory interview questions). This semi-structured format enabled the interviews to hone in on the key issues particular to specific cases whilst also allowing for a high degree of consistency across multiple interviews. For all firms included in the sample, the location choice that was primarily discussed was the firms first creation of a WOFE in China.

5.4.2 Application of the Visual comparison task

The VC task applied in this study is broadly based around the techniques used in repertory grid research designs. The repertory grid technique was pioneered by Kelly (1957) and is

grounded in his personal construct theory (PCT) of human cognition which postulates that human sensemaking processes are informed by personal 'constructs' that are applied to interpret events and experience (Camock, *et al.,* 1995; Kelly, 1957). In Kelly's theory, personal constructs determine how we make sense of the world and act as a basis for future actions. According to the theory, these constructs are idiosyncratic to the individual and reside at a low level of consciousness. Therefore, verbalising them or bringing them to the fore can often be difficult without the application of a focused task. The strength of a the repertory grid technique is that it offers a proven method for uncovering the "attitudes, feelings and perceptions" of people (Easterby-Smith *et al.,* 1996: 176).

The interviewees were presented with a set of 24 'city cards' using a software application on a digital tablet device. An example of such a 'city card' is given in Figure 10. All the cities shown to managers using these cards are at the prefectural level in China and they were drawn from a recent report which investigated the attractiveness of different cities in China for UK businesses (UKTI, 2011). The research conducted for the UKTI report involved the collection of data on over 250 Chinese cities and used multiple rounds of statistical screening to identify attractive investment locations *beyond* Beijing (capital) and the three core-economic centres of China (namely Shanghai, Guangzhou and Shenzhen). In the report 35 'second- and third-tier' cities in China were identified and evaluated on the basis of more than seventy-five economic, social and institutional indicators. Rather than including all 35 cities from this report, I selected 24 from this set so as not to overwhelm the complexity of the task

Figure 10 Example city 'card'

It should be noted, however, that the interviewee was not confined to choosing among the 24 cities that were initially presented to them using the city cards. Managers were also given the option of identifying cities that were not included in the original set. This was to ensure that the boundary conditions of the 'choice set' were not dictated by the research design and, thus, it enabled the task to be reflexive to the idiosyncratic experience and knowledge of each participant.

Immediately following the semi-structured interview the respondent was asked to look at the set of Chinese cities presented to them via the digital tablet device. Figure 11 provides a screenshot of the display shown to managers. Respondents were then asked to identify or add those Chinese cities (a minimum of six) with which they were familiar and to then rank them hierarchically in order of their attractiveness from an investment perspective. At the same time, the interviewees were asked to explain their reasoning as they completed the task. After the set of cities had been ordered hierarchically the triad task began. At this point, three cities were selected at random from the ordered set and the participant was asked to '*Tell me one reason why these two cities are similar yet different from the third in terms*

of their attractiveness from an investment viewpoint'. If the manager did not select a NCC they were asked to compare two of their selected cities against Shanghai (which was included in the set).[24] Different permutations of triads were used until either no new thoughts emerged or all relevant permutations had been explored.

For the purposes of this study I am specifically interested in those firms that eschew the major core centres of economic activity – which in this case is the NCCs of Beijing, Shanghai, and Guangzhou, Chongqing and Tianjin. This follows on from the theoretical discussions in the extant IB literature, particularly the previous work of Mariotti and Piscitello (1995), He (2002), Zhao *et al.,* (2005) and Goerzen *et al.,* (2013) that have all discussed the importance of national cores from a foreign investment perspective. While I recognise that there are developmental differences between regional cores and peripheral cities, to invest in either of these city groupings still means eschewing the key subnational core centres of economic activity. Therefore, focusing on this decision allows for focus on the theoretical point of interest, namely the decision to invest beyond the country core.

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[24] Recall that this refers to the cities of Beijing, Shanghai, Tianjin, Chongqing and Guangzhou.

Figure 11 Screenshot of city comparison screen presented to managers

5.4.3 Sample

In total, the 32 interviews with managers were conducted across 25 individual organisations – for sampling information see Chapter 3 (Section 3.3, for case-company information see table 11). British businesses provide a theoretically interesting sample for my study because they originate from a home country context that is institutionally and culturally distant from China. It is, therefore, unlikely that UK businesses would be endowed with 'insider' information pertaining to Chinese investment environments, nor do they have any particularly strong ethnic ties to particular regions of China. Thus, for UK investors, the decision to locate in China is likely to carry greater uncertainty than for MNEs from countries that are 'closer' geographically and culturally to China, such as Taiwan.

Table 11 Case company information

ID no.	Company name	Informants position in the company	Manager code	Company size in China	Company's location(s) in China (City)	Entrant organisation type	Activities in China	Year of est. in China
1	Apollo	General manager (China)	M1	Large	Shenzhen	Design and manufacture equipment and devices for education sector	Manufacturing primarily for export markets	2004
		Operations manager (China)	M2					
2	Belpack	International markets development manager & ex-general manager (China)	M3	Large	Tangshan	Packaging manufacturer	Packaging for local and export markets	2002
3	Pharmapack	General manager (Eastern China)	M4	Large	Kunshan, Nanjing	Packaging manufacturer (Pharmaceuticals)	Manufacture and sell to local and other Asian markets	2003
4	Pompeii	HR director (China)	M5	Large	Suzhou	Design, engineer and manufacture metals.	Manufacture for local markets	2002
5	Micount	Director for international markets	M6	Large	Shenzhen, Wuxi	Manufacture precise counting machines for food processing	Manufacture for local and export markets	2005
6	Gooddesign	Director for South China	M7	Large	Beijing, Chongqing, Guangzhou, Shanghai, Tianjin, Wuhan, Shenzhen	Professional services firm specialising in architecture, design and engineering	Local market development	2002
		General manager (Wuhan)	M8					
7	Panspace	Managing director	M9	Medium	Chengdu	Manufacture components for aerospace industry	Manufacture and export	2007
		General manager (China)	M10					
		HR director China	M11					
8	Flickcase	Chief technology officer	M12	Medium	Chengdu	Design and manufacture bespoke display cases for museums	Manufacture and sell to local markets	2003
		General manager (China)	M13					
9	OEM-Link	Chairman and CEO	M14	Medium	Guangzhou & Wuhan	OEM manufacturer	Manufacturing to domestic and export markets	2004
10	CAI	General manager (China)	M15	Medium	Dongguan, Shenzhen	Design and manufacture acoustic control equipment	Manufacturing and local market development	2006
11	Ensav	General manager (China)	M16	Medium	Shenzhen	Design, manufacture and sell energy saving equipment	Manufacturing, local market development and selling to export markets	2004
12	Panlazer	Technical director (China)	M17	Medium	Chengdu	Design and manufacture advanced measuring equipment	Manufacture and sell to local and export markets	2002

13	Sunhealth	General manager (China)	M18	Medium	Suzhou	Design advanced sterilisation equipment	Manufacturing and local market development	2008
14	Inmotion	General manager (Chengdu)	M19	Medium	Chengdu, Shanghai, Guangzhou	Design and manufacture advanced measuring and motion control equipment	Local market development	2003
15	Ronix	CEO	M20	Small	Dongguan, Tianjin	Semi-conductor engineering	Initially manufacturing & design. Currently just customer service	2004
16	Moneyware	General manager (Chengdu)	M21	Small	Chengdu, Shanghai	Software developer (Banking and finance)	Local market development	2006
17	Sonchip	International markets development manager (UK)	M22	Small	Xi'an, Shanghai and Shenzhen	Chip designer	Chip design & engineering, local sales, design development for export markets	2009
		General manager (China)	M23					
18	Vendesign	General manager (West China)	M24	Small	Shanghai, Chengdu	Architectural practice	Local market development	2005
19	Radiowave	CEO	M25	Small	Wuxi	Manufacturer of remote radio equipment	Service and sales to local market	2012
		General manager (China)	M26					
20	Wu-Detune	General manager (China)	M27	Micro	Wuhan	Provides advanced engineering solutions to the aerospace and energy industries.	Local market development. Currently in process of setting up manufacturing facility.	2008
21	Wu-Steel	General manager (China)	M28	Micro	Wuhan	Advanced steel production and engineering	Local market development	2006
22	Safenest	Market development director (China)	M29	Micro	Nanjing	Design and manufacture advanced health and safety solutions for energy industries	Local market development	2009
23	MSE	CEO	M30	Micro	Shanghai	Design and manufacture static elimination equipment	Local sales & market development	2010
24	App-Physics	CEO	M31	Micro	Shanghai	Design and manufacture ultrasensitive spectroscopy equipment for the life sciences	Selling to local markets	2010
25	Simware	International markets manager	M32	Micro	Rizhao	Software developer (Simulation and gaming)	Establishing a design centre	2012

Note: Company names are pseudonyms

5.4.4 Data analysis

The analysis of the qualitative data in this study progressed through several different stages as described below. Firstly, all of the interviews were recorded and transcribed verbatim. The qualitative data subsequently progressed through several rounds of 'coding', which is the process of assigning meaning to segments of text (Easterby-Smith *et al.,* 1997). These data were uploaded and coded using the Nvivo qualitative data analysis software. All of the data were analysed together, with first-order codes being assigned and then subsequently recoded into second-order codes. These second-order codes are often referred to as 'higher-order constructs' (Bryman and Bell, 2008) since they act as an umbrella construct for a diverse set of codes which all share commonalities. Secondly, I cross-matched these codes with background information about and from the firm whose manager provided the data. Then I proceeded to reanalyse the data to identify interview content that could be classified as opportunity recognition.

5.5 Findings and discussion

The findings indicate that those firms that invest in non-NCCs exhibit a strong sense of place in relation to these locations. Specifically, idiosyncratic conceptions of the value inherent in a particular location differed markedly between managers who had invested in NCC cities and those that had invested in RCC and peripheral cities. For example, the following excerpts are from two different managers discussing Chengdu whilst completing the VC:

Manager in Shanghai:

> "You know, they talk about going out to the Chengdu area, Sichuan province, you know really cheap, 'Go West', but the problem is, labour is not skilled there, so unless you are Intel or the big guys who can afford to train hundreds of thousands of employees in their way of doing business then you can't go there" (General Manager, Company, 3)

Manager in Chengdu:

> "Another key driver for us was the local skill base, the quality of the workforce here is very good...if there were one determinant factor I would say it would be the structure and nature of society, here is a lot less kick and rush, and 'chase job' which makes labour retention less of an issue" (Chairman, Company 7)

These examples serve to highlight how divergent perceptions of the characteristics of different cities can create distorted conceptions of their attractiveness and their inherent business opportunities. Another manager based in Shanghai referred to inland locations in China cities as *"the Wild West",* adding that they were *"seriously not a good place to be"* and throughout the VC referred to other peripheral cities as the *"hinterland".* This manager further stated that peripheral cities were 'not on his radar' because there were no direct flights to them from the UK and that this would create a significant amount of *"hassle"* when trying to set up a business there.

In particular, our analysis of the interview data reveals that location choices in peripheral cities is related to the recognition of opportunities across three dimensions of location, namely (i) *market growth and competitive environment;* (ii) *cost structure and human capital* and (iii) *local government financial incentives and support*. In addition, I identified two investment level factors that moderate sense of place. In particular, the findings indicate that the *size* of the investment project and the nature of the *corporate activities* that take place there both serve to moderate the manager's sense of place. A further finding is that the manager's sense of place concerning peripheral cities is connected to the city's proximity to a core location. This reveals that sense of place is also spatially dependent. Expressed another way, the recognition of opportunities in one location is also related to the proximity of that location to others.

5.5.1 Market growth and competitive environment

Our findings indicate that a manager's sense of place is strongly connected to the potential for market growth and business development in the prospective location. Analysis of the interview data reveal that managers who invested in peripheral cities were motivated to do so by their belief that they could grow their business faster in these locations. In particular, the market growth and competitive environment in China's peripheral cities have created business opportunities in three aspects, namely (i) *competitor avoidance*, (ii) *first-mover advantage*, and (iii) *asset visibility and exploitation*. Several managers regarded competition levels in national core cities of China to be too intense, to the point that they believed they would be *"crowded out"* of these markets by more established foreign and domestic competitors (M1, M6, M9). The intensity of the competitive environment in China's core cities created a sense among managers that they would encounter *"market access barriers"* (M4, M17, M24) because they believed business networks to be already too saturated. Therefore, investment in a peripheral city of China was often used as a *competitor avoidance* strategy. Closely related to this was the desire to gain *"first-mover advantages"* (M3, M8, M15, M25). Interviewees frequently contrasted the rapid rates of growth in China's peripheral cities with the maturing growth rates in Beijing, Shanghai and Guangzhou. Because of this, interviewees recognised business opportunities to "be part of the growth and change" in particular cities of China (M17).

Therefore, perceptions around rapid growth rates, coupled with perceived lower levels of competitiveness, have fostered opportunities to *"lock-in"* (M12) consumers and to *"create brands and reputation"* (M24) in peripheral cities more so than these managers believed would be possible in the major cores cites of China. For example, during the VC task, one manager stated that his previous business in China was able to secure from one of China's leading banks a large contract to build a network of ATMs by developing a business relationship with one of its subsidiary operations in a peripheral city. This led to the

company subsequently being awarded further contracts by this bank across China. The manager stated:

> "If we were pitching to them in Beijing or Shanghai or whatever, we wouldn't stand a chance, we were too small. But, by starting off small with them in Nanjing, showing that we are competent and, to be honest, much better than some of the Chinese firms doing the same thing, we were able to become one of their main suppliers." (General Manager, Company 12)

A further theme identified across many of the managers who had established their businesses in a peripheral Chinese city was the rationale that the firm's unique resources and capabilities would have greater *visibility and exploitative capacity* beyond these locations (M7, M12, M13, M29, M32). Many managers that had invested in non-NCCs perceived that the technology and service level offered by foreign firms was superior to that offered by many domestic Chinese firms - who are generally far more numerous in these locations relative to foreign investors. Therefore, many new investors in China have seen opportunities to break into these markets and to develop a customer base by demonstrating their superior advantages relative to domestic Chinese firms. This is illustrated in the following interview excerpt:

> "We are investing in second-tier cities because our technological and service advantages will be more obvious since we are more professional than local organisations. This makes it is easier for us to take a percentage of the market." (CEO, Company 23)

5.5.2 Cost structure and human capital

Many interviewees were concerned by how much the demand for both land and labour has driven up rent and wages across China recent years. Indeed, one interviewee stated that, *"I am not sure for how much longer it will make sense to be a manufacturer in China"* (M6).

Ostensibly, some investors recognised the opportunities created by the cost benefits in non-NCCs. One manager noted:

> "I found the salary costs in Shanghai just ridiculous; an experienced engineer's salary is literally the same as it is in the UK, whereas in Xi'an there is a huge difference in price." (Operations Manager, Company 20)

Another manager stated that when making the decision to invest in a *"cost-competitive economy, you may as well go to a location in that economy where labour costs are actually low" (M16).* Furthermore, some managers felt that the cost premiums associated with national core cities did not correspond to the quality or productive efficiency of the Chinese labour force found there. As one manager commented:

> "This whole western thing is coming in, now I don't mind that, but the difference is, the productivity out of Chinese staff is far lower than you get in the west [referring to the 'Western' advanced nations], but now they want all the conditions that they see from their western counterparts. Now, I don't mind if you can get productivity up to those levels, then I can afford to do it, but currently it isn't" (Case 9, Chairman)

This company had originally set up a large medical equipment manufacturing facility in Guangzhou in 2004. However, in 2010 the chairman made the decision to begin building a new factory in Wuhan due to the excessive costs of labour (but low quality of production) in Guangzhou.

However, while there were concerns about the cost-quality relationship, one of the biggest concerns for foreign investors was whether or not they would be able to find labour with the requisite knowledge and skills required for their business (in other words, access to a pool of suitably skilled human capital). The competition for *"talented"* employees in the major metropolises made it difficult for foreign firms to attract top quality graduates and managers

in these locations. Indeed, some interviewees felt that as foreign firms they were *"bottom of the pecking order"* (M27) for the best graduates who would rather work for Chinese government departments and Chinese businesses and if they were going to work for a MNE, then they would want to work for a *'Fortune 500',* which created further difficulties for smaller foreign firms. However, in peripheral city locations the problem was further exasperated by the sheer scarcity of highly educated employees. As such, when making location choices in China one interviewee stated that the most important question they ask is *"can I get talented labour"* (M8). Despite this, the findings indicate that due to the lower number of firms competing for scarce supplies of human capital, it was easier for firms to both attract and retain highly educated and skilled employees in peripheral cities.

5.5.3 Local government financial incentives and support

The third dimension of location in RCCs and peripheral cities that was conducive to fostering positive sense of place was the increased likelihood of receiving either financial incentives or non-financial support (or both) from local governments. The interviews indicate that managers perceived or directly experienced local government indifference in NCCs. Specifically, our findings suggest that increased local government selectivity in these cities in relation to the types of investment they will financially incentivise is pushing many firms away from NCCs. The interview data also suggested that many managers believe that if they invest in a NCC they will be neglected by government officials and administrative bodies, in terms of qualitative support that they may receive. In one telling example, a firm that was in the process of selecting a location for their first FDI project in China, intended to set up a manufacturing and sales facility within Shanghai. However, when recounting their first meeting with local officials in Shanghai, the interviewee stated:

> "We initially looked at Shanghai, but we went to meet some officials there and they told us that 'as a manufacturer, unless you are going to invest 100 million USD,

basically it is not really attractive for us'. This doesn't exactly create a sense of confidence." (General Manager, Company 13)

In contrast, the local government in neighbouring city, Suzhou, were much more supportive, offering to provide both set-up assistance and introductions to key people in the firm's industry. This ultimately persuaded the managers to establish operations in Suzhou. When the same manager completed the VC (see managers city shortlist in Figure 12) the manager ranked Shanghai as the most attractive city. However, when Shanghai was compared with other cities, the manager would often mention the lack of government support in Shanghai as a basis of comparison. Effectively, a large part of the firms' rationale for investing in a peripheral city was that the local governments in these cities were often more receptive to smaller and medium sized investment projects. Firms could further exploit competition between peripheral city governments by *"shopping around for the best deal"* (M15).

Figure 12 Example of manager's city shortlist
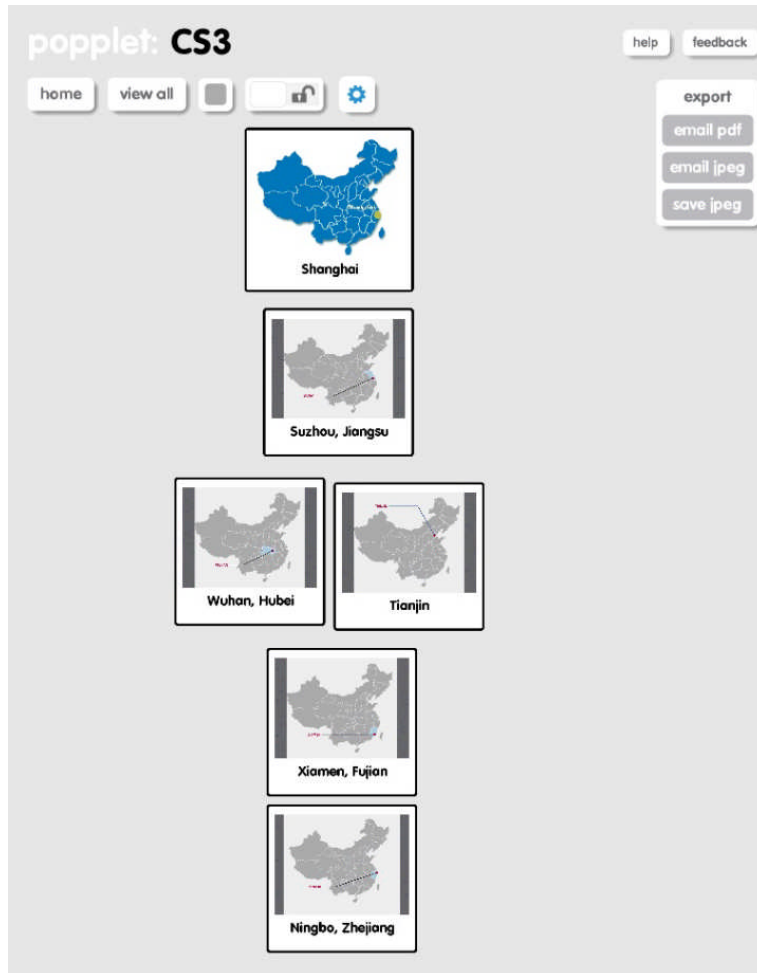
The managers that were interviewed were generally of the view that peripheral city government officials are more welcoming and prepared to offer 'qualitative' support, as well as preferential treatment such as tax breaks, reduced rent and accelerated investment approval than their counterparts in China's NCCs. Furthermore, inland provinces of China are targeted by national level campaigns aimed at stimulating economic development in these regions. The 'we*stern Development initiative'* ('Go west') was launched in 2000 with the purpose of attracting foreign and domestic enterprises to underdeveloped provinces in western China. In 2004, the *'Rise of Central China'* campaign was launched with the aim of encouraging businesses to invest in centrally located Chinese provinces. Both campaigns

attempt to attract foreign investment through offering preferential policies and other special treatments for firms who invest in the targeted provinces (Cheng, 2007). These preferential policies also strongly influence the proclivity for foreign managers to locate in ST cities:

> "It was just overall, over a period of time, I [senior management] just felt that Chengdu was the place to be. Although, I would say the biggest driver was probably the government grants that Were available." (General manager, Company 8)

Therefore, there were opportunities in peripheral cities for foreign firms to benefit from both *local government financial incentives* and *local government support*, which firms typically believed would not be available to them in NCCs.

Table 12 Selected evidence from interviews

Location conditions	Opportunities created	Selected evidence
Market growth and competitive environment	*Competitor avoidance*	"We are not choosing first line cities because the competition there is really intense, so it is not wise for us to go to them" (M19)
		"One of our major competitors in China are in Guangzhou and Shanghai they have been there for around 5 years or so…we thought of doing the same, of setting up in Guangzhou, but then we through, 'wait a minute, why put ourselves in a position where we have to scrap for customers against [competitor], China is a big place, lots of growth. So going to one of the lower tier cities made a lot more sense for us at the time" (M5)
		"Why put yourself into a situation where you are having to fight with major players who are much more established, who have much more capacity than you, why do that when you can go to somewhere like Nantong, where the market is still large, but much less competitive" (M18)
	First-mover advantage	Chengdu is like a new born baby, it still has a lot of time to grow up, you will find that the infrastructure here is not as good and you will find the construction still under development...so I think we can find a lot of opportunities here" (M19)
		"When we first came out here six years ago, we were one of the only foreign firms doing this type of thing. Now, that is beginning to change a bit, more and more foreign businesses are setting up, but certainty being one of the first here has benefited us" (M4)
		"These cities are growing, they are developing really fast and they have a lot of untapped potential and that it one of the major points that brought us here" (M23)
	asset visibility and exploitation	"We are investing in second-tier cities because I and our advantages will be more obvious since I are more professional than local organisations. This makes it is easier for us to take a percentage of the market." (M23)"
		"…it's not a case that you don't have to try as hard here, product quality and service offering still has to be top-notch, but I think it is easier, as a foreign firm, to communicate that to potential clients."
Cost structure and human capital	*Lower costs of operation*	"Chengdu is still a hell of a lot cheaper than Shanghai, probably still 30-40% cheaper and figured that if we were going to move to a 'low cost economy', we might as well move to a low cost part of China, so rather than just moving into China, why not go to a part that is actually low cost" "Cost wasn't a major reason for us for getting into China, it was more about the potential market and wanting to get something going in this corner of the world. But, once we started looking around, it was quite striking, the cost differences I mean, the lower costs in the second tiers very quickly became very appealing"

	Lower local density	"Cities like Guangzhou and Shanghai, they have lots of Western companies already, and they are kind of full of them, and they are all are competing for talent, so we would really struggle to get people in these cities" (M5)
		"Although there is perhaps a lower available pool of top quality employees here, competition for them is not as fierce. This makes it easier to attract them, but even more importantly to retain them." (M13)
Local government financial incentives and support	*Favourable financial packages (e.g. reduced rent and tax)*	"It was just overall, over a period of time you just felt you knew Chengdu was the place to be. Although, I would say the biggest driver was probably the government grants that were available, they were better here." (M7)
		"We were offered three years tax free and two years half tax for setting up here...it certainly helped us justify the decision to set up here" (M18)
	Set-up assistance and developmental support	"Whichever one makes the best impression, the one which I think is going to give me the most support in terms of setting up quickly and efficiently. It's not just financial, it's time and making the process easy and efficient" (M21)
		"Suzhou Industrial Park actually said, "We will help you to introduce your service to key hospitals in the City", they didn't give us tax incentives or anything like that, but they clearly made great efforts to put us together with all the healthcare related personnel in the City" (M14)
		"The decision to move out to Hubei was the easiest, simply because the government there were pushing for foreign investors like us" (M11)

5.5.4 Sense of *space*?

A related factor that increases the propensity of foreign firms to locate in peripheral cities is there proximity to core economic centres. It seemed that managerial conceptions of peripheral cities were not confined to specific administrative units but encompassed surrounding areas and the value that they could offer the firm. This conceptual task of cognitively weighing multiple locations within value estimations of investment environments differs from how location choice is typically analysed within the location choice literature, i.e. modelling locations as distinct units of analysis. This indicates spatial dependence in subnational location choice. It seemed that many firms were using location arbitrage as a strategy for penetrating the China market. I identified two components to sense of space. One was based on generating *economies of scale* and the other on *location arbitrage*, by which I mean benefiting from the cost advantages of a peripheral city whilst selling into a RCC or NCC city. These logics are illustrated in the following interview excerpts.

Economies of scale:

> "While both Xi'an and Wuxi would both be feasible for what I do, with Wuxi you have the added value of being 20 minutes away from Shanghai, Hangzhou and Suzhou…this greatly expands the potential of our local sales. So despite the cost advantage of Xi'an, the opportunities in and around Suzhou allowed us to expand much faster than I think I could out there (in Xi'an)." (CEO, Company 4)

Location arbitrage:

> "Kunshan is convenient because it is close to Shanghai, but it is not Shanghai, so I don't have the labour costs of Shanghai, I don't have the electricity, the land costs…the overall operating costs are just higher in Shanghai and you don't need to be in Shanghai to do business in Shanghai, we are close enough." (General Manager, Company 3)

Many managers also stated that some of the peripheral cities were not appropriate for sales or corporate administration business activities. There was a sense that there is not yet enough

commercially skilled employees in peripheral cities which limits the scope of these cities for developing sales. However, some firms were overcoming this by setting up small sales or administrative offices in the NCCs in addition to larger manufacturing or service projects in RCCs or peripheral cities. This was also done with the intention of capitalising on one of the major location advantages of FT locations, namely, *social capital*:

> "Shanghai has the majority of the fortune 500 companies in China, they are all located in that city. So you can have your manufacturing base in one of in the surrounding cities of Shanghai, but your sales office has to be in Shanghai city, because you can't underestimate the possibility of meeting people who work in multinational, top 500 companies" (International operations director, Company 2)

Therefore, it seems that managers' logic of subnational location decision making also directly and explicitly integrates wider spatial awareness, or what we may refer to as 'sense of space' to build on sense of place.

5.6 Discussion

The purpose of this study was to identify why some firms eschew 'privileged locations' such as NCCs, in favour of 'unfavourable' locations such as peripheral cities within an emerging economy (Tsui-auch and Mollering, 2010). The interview data suggests that sense of place plays a critical role in firms' decision to invest in peripheral cities. In particular, the interview data suggest three logics that contribute to manager's sense of place in relation to peripheral cities, namely market-, resource- and institutional-logic's. Therefore, this findings presented here contribute to the development of the sense of place concept (Zaheer and Nachum, 2011) by showing some of the key logics through which managers identify opportunities.

Effectively, not all firms see these peripheral locations as unfavourable, but rather, recognise the potential opportunities in these locations for business development and growth. This highlights the importance of recognising firm level conceptions of location and the role these perceptions play in shaping location choices (Buckley *et al.,* 2007; Devinney, 2010). This study attempted to draw out perceptual nuances in the recognition of location specific opportunities, and in doing so, to offer a possible explanation for why some firms self-select into unfavourable environments. The analysis of the interview data suggest that location choice into peripheral cities is driven by the unique opportunities these locations can present firms for business development and growth. The scope for rapid development and growth in these cities arguably counteracts some of the increased liabilities that they may present firms with. Existing theory suggests that firms will avoid locations in which they faced higher CDBA, LoF and where they might also face outsidership from local business networks (Tan and Meyer, 2011; Johanson and Vahlne, 2009). I argued that existing location choice theory in the IB literature cannot adequately explain why firms would self-select into unfavourable environments where they might face greater challenges. Arguably, these conditions are exasperated in peripheral cities of emerging economies (Tsui-Auch and Mollering, 2009), indeed the data show that managers often do perceive secondary cities to have a higher LoF. It seems, however, that government incentives and qualitative support offered by local governments can help to alleviate some of these difficulties. In central and western regions of China, where LoFs might be higher owing to the historical differences in regional FDI, firms can take advantage of favourable financial incentive packages which arguably attenuate the additional CDBA. Furthermore, by receiving favourable government support in terms of set up assistance and the facilitation of key introductions, governments can effectively reduce LoF by making the business environment less complex and less uncertain for new foreign entrants. These findings demonstrate how subnational institutions can ameliorate the major concerns of foreign investors by presenting them with set-up assistance and business support. Essentially, this demonstrates the role of subnational institutions in encouraging prospective investors to invest in peripheral cities.

A further insight is that the decision to invest in a peripheral city is often a reaction to conditions in core cities (in this case NCCs). In other words, some firms actively avoid locating their operations in core cities due to perceived disadvantages – such as local density (Eden and Miller, 2004). Therefore, while core cities do possess strong advantages, our evidence suggests that conceptions of first tier cities must also consider problems relating to *local density, market saturation, hyper competitiveness and lack of government incentives or support.* These characteristics create conditions that serve to push some foreign investors away, and should be considered in analyses of 'global cities' and economic hierarchies more generally (Beaverstock, 2000). Indeed, when recent evidence has suggested that local density negatively impacts upon the performance of foreign subsidiaries (Eden and Miller, 2007), there is a need to ask whether 'global cities' and NCC cities are still the best locations for foreign investment projects.

One of the most interesting findings of this study is the extent to which the wider spatial environment influences the subnational FDI decision. The original sense of place argument as advanced by Zaheer and Nachum (2011) only considers the manager's (or firm's) opportunity recognition in relation to a specific location. However, the findings of this study indicate that while sense of place is clearly important, the manager's recognition of the opportunities embedded in neighbouring locations also plays an important role in the decision process. I refer to this as *sense of space*, the recognition of opportunities in the wider spatial environment surrounding a location. This research has identified two logics underlying sense of space; *economies of scale* and *location arbitrage.*

Effectively, the study demonstrates that locating in peripheral cities is often used as an arbitrage strategy, whereby firms exploit CP dynamics, to benefit from the location

advantages of multiple locations. Foreign firms are much more confident about those peripheral cities that are geographically closer to core cities. There are two possible explanations for this. Firstly, firms perceive that those cities that are closer to major metropolises will share some of their characteristics, such are their level of development and cosmopolitanism. Secondly, this affords firms the opportunity to exploit the opposing characteristics of the core and the periphery. By doing so, firms can benefit from the strategic advantages associated with locating in peripheral cities, while also benefiting from the characteristics of major metropolises. Indeed, as seen, some firms strategically create mutli-plant investments whereby they fine slice their sales and manufacturing units across different cities, usually with the sales operation in a major metropolis and a manufacturing operation in a RCC city or in the periphery.

5.7 Chapter summary

Why do some firms eschew privileged locations in favour of unfavourable environments? This study set out to explore this pertinent question in the context of subnational location choice in China. I argued that existing location choice theory could not adequately explain firm-level decisions to self-select into 'unfavourable environments'. However, the findings of the study indicate that, so called, 'privileged locations' also create additional challenges for some firms, particularly in regards to local density which creates both competitive and resource pressures in these cities. Therefore, firms are to some extent pushed from NCCs. While a lower cost basis might be expected in these locations, the interview data suggest that much more pertinent explanations are the ability of firms to grow much faster in these locations due to their rapid development and lower levels of competition. The key contribution of this chapter is in advancing the sense of space concept as a complement to sense of place.

Chapter 6: Urban-disparities and the locational determinants of foreign direct investment across Chinese cities

6.1 Chapter overview

This study extends the insights of CP theory to discern subnational FDI differentials across 120 cities in China between 2003 and 2006. The aim is to identify the conditions under which FDI is attracted to peripheral cities within a high-growth economy. I find that the spatial determinants of FDI differ significantly between core and peripheral cities of China, particularly in reference to preferences concerning agglomeration economies, labour markets and institutional conditions. Furthermore, I find that increased spatial distance from regional cores cities has a negative effect on the propensity for MNEs to invest in peripheral cities, thus suggesting spatial dependence in FDI location choices. Interestingly, distance from national core cities does not seem to have a strong effect on FDI into peripheral cities. The chapter is structured as follows. Firstly, I provide an introduction to the specific issues and questions that are addressed in this chapter. Secondly, I provide a rationale for why the determinants of FDI may differ between core and peripheral cities. Thirdly, the methodology and data used in this chapter are presented. Fourth, I outline the main results. Finally, I discuss the significance of the study's findings and conclude the chapter.

6.2 Introduction

"As globalization continues apace, today's world cities face increasingly tough competition from middleweight cities that are still positioned at the margins" (Mans, 2013: 157)

Current debates concerning the globalisation of economic activity have emphasized the role that a select group of 'global' cities play in facilitating greater international interconnectivity (Beaverstock, 2000; Goerzen *et al.,* 2013). In particular, the agglomeration of financial markets and advanced producer services in cities such as London, Paris, New York and Tokyo consolidate their position as hubs for international transactions, foreign direct investment (FDI) and multinational enterprises (MNEs) (Iammarino and McCann, 2013). However, as noted by Brown *et al.,* (2010, 16) 'all cities experience contemporary global processes, and globalization can therefore not be construed as affecting just a few privileged cities'. Indeed, the intensification of urbanisation in high-growth emerging economies is expected to lead to the rapid development of 'non-hub, small and medium sized cities' (Mans, 2014; UNDESA, 2011). It is expected that these non-hub, 'peripheral' cities will increasingly compete with core economic centres – such as 'global cities', country capitals and major business centres - for, among other things, the foreign investments of MNEs (McKinsey, 2011; Economist Intelligence Unit, 2013). Thus, Mans (2014: 7) argues that, now more than ever, "the periphery matters".

While it is acknowledged that these peripheral cities in emerging economies will increasingly compete with global cities for FDI, there is little known about the character of these cities or, more importantly, *how* they can compete with more established investment hubs for foreign investment (Iammarino and McCann, 2013). While previous studies have recognized that major cities on a global (Goerzen *et al.,* 2013) and national (Lamin and Lavinis, 2013) scale act as major hubs for foreign investment, there has been relatively little consideration of the relationship between MNEs and peripheral locations. In this study, I

attempt to shed light on these issues by examining the locational determinants of FDI between core and peripheral cities within an emerging economy context.

As discussed in section 2.4 of this dissertation, it is widely recognised that comparative location advantages are often significantly weaker in peripheral locations (Mariotti and Piscitello, 1995; Henderson et al., 2005). Theories of the MNE (Buckley and Casson, 1976; Dunning, 1988, 2008) suggest, however, that FDI will gravitate towards those geographic territories which possess the strongest location advantages (Dunning, 1980) – where MNEs can maximise the rent creation of their foreign affiliates (Buckley and Casson, 1976) - such as well-developed markets, resource munificence and efficient institutional and political structures (Graf and Mudambi, 2005; Ansar, 2010). MNEs seek to internalise the advantages that are embedded across nations, regions and cities, with a focus on "choosing the set of locations for which the overall average cost of production is minimised" (Buckley and Casson, 2009: 1564).

At the same time, MNEs will generally avoid investing in locations where 'liabilities of foreignness' (LoF) – the increased costs incurred by MNEs in foreign markets - are highest (Zaheer, 1995; Eden and Miller, 2004) as such liabilities can manifest in higher costs of production and weaker performance. While these issues are typically examined at a country level (e.g. Galan *et al.,* 2008), Goerzen *et al.,* (2013), suggest that LoF vary at the sub-country level and are typically more severe in 'peripheral' locations, relative to major metropolises and 'global cities'. Previous research recognises that, within emerging economies, peripheral locations can create 'unfavourable environments' (Tsui-Auch and Möllering, 2009), and the extant empirical evidence suggests that peripheral subnational locations of an economy are typically avoided by MNEs (Mariotti and Piscitello, 1995; Goerzen *et al.,* 2013). A pertinent question, therefore, is under what conditions will FDI be attracted to locations with, *prima facie*, weaker advantages and increased liabilities?

Focusing on this key question, I argue that (1) the locational determinants of FDI into peripheral cities differ from those of core cities and, (2) in lieu of well-developed location advantages, FDI into peripheral cities is, to an extent, dependent on proximity to core cities. I develop these arguments by exploring how locally embedded *factors of production*, *agglomeration economies* and *institutions* – the key constituents of local context (Meyer et al., 2011; Meyer and Nguyen, 2005) - affect the proclivity of MNEs to invest in peripheral cities. However, the key argument developed here is that, FDI into peripheral locations is spatially dependent (Cookson et al., 2012) with core cities. In other words, the choice to undertake FDI into a peripheral city is affected by its proximity to a core city.

This chapter models the locational determinants of FDI across a set of 120 Chinese cities. The findings indicate that there are special conditions that increase the propensity of FDI into peripheral cities. More specifically, FDI is found to favour those peripheral cities with a high presence of foreign investors, a low presence of domestic investors and efficient government and legal institutions. This is in contrast to the core-cities of China where human capital and market size play a much more salient role in determining their attractiveness for FDI. Furthermore, I also find evidence of spatial dependence for FDI across cities in China. Increased spatial distance from RCCs has a negative effect on FDI in peripheral cities.

6.3 Literature Review

6.3.1 Core-periphery disparities and foreign direct investment

Arguably, the key differentiating factor which distinguishes the core from the periphery is relative informational advantages. For example, Storper and Venables (2004) argue that the economic force of cities is rooted in their conduciveness to facilitating face-to-face contact and direct interaction between relevant economic and institutional actors. In other words, exchanges of information, knowledge and the development of social capital are key

determinants of the attractiveness of cities. Indeed, in Granovetter's (1989) seminal paper on economic action and contextual embeddedness, social connections are pivotal to the economic behavior and choices of firms and other economic agents.

There is evidence to suggest that core economic centers are more conducive to higher information flows and knowledge exchanges than peripheral cities. Firstly, as stated by Mariotti and Piscitello (1995: 819), "locations within the country-core facilitate the processing and transmission of information because of the better international integration of the local communication systems and the services involved". Indeed, Bel and Fageda (2008), find that the improved availability of intercontinental flights and other infrastructures in major cities increased opportunities for tacit information exchanges, which in turn was found to have a significant influence on the location of foreign firms' headquarters. Secondly, He (2002) suggests that both public and privately held information relating to suppliers, customers, opportunities, threats and the general business environment is more widely available and accessible in core economic centers. This is because there is less information asymmetry between foreign firms and institutional structures in these locations. Thirdly, core cities are typically endowed with a host of advanced producer services which, in less developed locations, may have to be internalized by firms. This enables foreign firms to become much more embedded within functional social structures which in turn allow for greater transmission and absorption of information and knowledge (Granovetter, 1985). Furthermore, the 'global cities' literature suggests that the interconnectedness and cosmopolitanism of the business environment in major cities significantly increases their attractiveness to foreign investors relative to peripheries (Brown *et al.,* 2010; Goerzen *et al.,* 2013). Indeed, in their investigation of the location choices across a sample of 6955 Japanese subsidiaries, Goerzen *et al.,* (2013) find that over 75 per cent are located in global cities. Within their classification of global cities (See Beaverstock *et al.,* (1999)), there are three Chinese cities; Beijing, Shanghai and Guangzhou. Extant theory, therefore, suggests that stronger comparative advantages and, in particular, the superior quality of information

channels associated with core economic centers makes them more attractive to foreign businesses when selecting locations within a host country (He, 2002; Zhao *et al.,* 2005).

The factors relevant to the locational determinants of FDI have been extensively catalogued in prior research (Viladecans-Marshal, 2004; Kronenberg, 2012; Basile *et al.,* 2009). However, the extent to which existing theoretical frameworks are appropriate for understanding the location of FDI within large, heterogeneous economies is not yet apparent (Meyer and Nguyen, 2005; Li and Park, 2006). As outlined in Chapter 2, existing location theory suggests three sets of factors that are most relevant within the subnational context of a firm's foreign market entry and development strategy (Meyer and Nguyen, 2005; Tan and Meyer, 2011). These location specific attributes are factors of production (Dunning, 1988; Graf and Mudambi, 2005), agglomeration economies (Krugman, 1991b; Mariotti *et al.,* 2010; Belderbos *et al.,* 2011) and institutional conditions (North, 1990; Scott, 1995; Meyer and Nguyen, 2005).[25] Existing research suggests that those locations that have more munificent and higher quality factors of production are generally more attractive to foreign investment (Buckley *et al.,* 2007; Galan *et al.,* 2007). Likewise, those locations have stronger agglomeration economies are said to be more attractive to foreign investors because of the spill over effects that accrue from co-located business activity (Nachum, 2000; Tan and Meyer, 2011). The question of interest, however, is whether these attributes of local context are equally as attractive in peripheral city locations. Furthermore, much less is known about how subnational institutional conditions effect the location of FDI (Beugelsdijk *et al.,* 2010; Beugelsdijk and Mudambi, 2013) – especially in 'emerging' and developing country contexts (Meyer and Nguyen, 2005; Du *et al.,* 2008; Tan and Meyer, 2011). Institutions determine the 'rules of the game', and broadly refer to the social and governmental mechanisms that confer meaning and stability within a given context (North,

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[25] These concepts were introduced in detail in Chapter 4 in relation to their potential to affect the performance of foreign affiliates. However, in this Chapter it is necessary to discuss these concepts again to show their relationship to FDI location decisions.

1991; Scott, 1995). Subnational institutions have been highlighted as one of the most fundamental determinants of the location strategies of MNEs in emerging markets (Hoskisson *et al.,* 2003; Wright *et al.,* 2005; Meyer *et al.,* 2011). However, as of yet, the influence of different types of subnational institution embedded across varying local contexts has not yet been sufficiently explored. The salience of local institutions and their impact on foreign investors is, therefore, little understood. I now consider why the determinants of location choice may differ across core and peripheral cities, with reference to location theory derived from both the economic geography and IB literatures

6.3.2 Agglomeration economies

The term agglomeration describes the process whereby firms co-locate in order to benefit from knowledge and resource externalities which arise in concentrated clusters of economic activity (Marshall, 1919; Krugman, 1991b). Firm agglomerations attract prospective foreign investors in two ways; (1) They offer superior economic benefits since the availability of suppliers, customers and labour is increased, amongst other things, and; (2) They offer superior opportunities for business improvement and innovation since they promote and facilitate knowledge and resource exchanges. There is widespread support for the prevalence of the agglomeration effect (Nachum, 2000; Mariotti and Piscitello, 1995; Du *et al.,* 2008; Chung and Alcacer, 2006) and recent theoretical advances have distinguished between different models of agglomeration decision-making (Belderbos *et al.,* 2011) and different types, such as country-of-origin versus same industry agglomerations (Tan and Meyer, 2011) and domestic versus foreign agglomeration (Mariotti *et al.,* 2010). For example, Mariotti *et al.,* (2010) suggest that, while agglomeration economies attract new FDI in general, the effect is more complex than theory generally recognizes. They find that foreign investors are less likely to co-locate with a host country's domestic firms - an effect which they attribute to the potential for knowledge leakages. In an emerging economy context

where intellectual property regimes are typically weaker than in advanced economies this effect is likely to become more pronounced (Du *et al.,* 2008; kreupp *et al.,* 2009).

I extend this line of reasoning by suggesting that foreign firms are less sensitive to the presence of high-concentrations of domestic firms in core cities. Stronger information flows in cores economic centers act to mitigate uncertainties for foreign investors when entering a new host market (Mariotti and Piscitello, 1995; He, 2002; Zhao *et al.,* 2005). Furthermore, the increased levels of human capital (Scott, 2009) and social-networking opportunities (Storper and Venables, 2004) found in country cores, as well as the knowledge and perceptions that the general investment and production climate is likely to be better (Henderson *et al.,* 2005), arguably contribute to reducing the sensitivity of MNEs to the presence of domestic firms, given the strength of higher-level location advantages. However, in contrast, theory also suggests that foreign firms will experience higher levels of pre-entry uncertainty and 'information-costs' in peripheral locations (Zhao *et al.,* 2005; He, 2005; Goerzen *et al.,* 2013). Therefore, it is likely that foreign firms will perceive large concentrations of domestic firms in peripheral locations to be a threat to their knowledge, intangible assets and intellectual property. Furthermore, high levels of domestic firms in a peripheral location may also signal in-group localism (Meyer and Nguyen, 2005) which could promote the problems associated with 'outsidership' from business networks (Johanson and Vahlne, 2009), and raise market-access barriers, thus deterring FDI (Du *et al.,* 2008). Hence:

> **Hypothesis 1a:** *High levels of domestic firm agglomeration will have a positive effect on the propensity for foreign firms to invest in core cities, but will have a negative effect on FDI in peripheral cities.*

At the same time, the uncertainty and informational ambiguity associated with locating in peripheral cities is likely to increase the proclivity of foreign managers' to favour those peripheral cities which already have a large presence of other foreign firms. For example, Belderbos *et al.,* (2011) argue that under conditions of uncertainty new entrants will base their location strategies on those of prior entrants, either through directly mimicking the location choices of similar firms or through following a more generic group of foreign businesses - or through a hybrid of both. Furthermore, Tan and Meyer (2011) demonstrate that when foreign investment managers perceive locations to have institutional inefficiencies, they are more likely to co-locate with other foreign investors, who they value as conduits for local information and set-up assistance. Therefore, I argue that a high concentration of other foreign investors in peripheral locations serves as a symbolic representation for the viability of the location in lieu of the existence of perceived liabilities (Heinsz and Delios, 2001). While I also expect this type of effect to be positive for core cities, the theoretical rationale suggests that it will be significantly stronger in peripheral locations. This is because, although foreign agglomerations confer advantages in both cores and peripheries, the increased uncertainty associated with peripheries arguably serves to increase the determinant effect of foreign agglomerations on new FDI. Thus:

Hypothesis 1b: *Foreign firm agglomeration will have a positive effect on the propensity for foreign firms to invest in both core cities and peripheral cities; however the effect will be stronger in peripheral cities. .*

6.3.3 Factors of production

In considering the impact of factors of production on the location of FDI across cities, we could consider the cost and quality of labour. However, previous studies provide mixed results for the role of cost in attracting FDI, whereas the quality of labour across subnational locations is found to be a much more significant determinant of FDI given the scarcity of

human capital within emerging economies (Cheng and Kwan, 2000; Sun *et al.,* 2002; Gao, 2005).Therefore, in this study the focus is on the quality of labour across cities, or rather, the human capital.

Human capital broadly refers to the level of education, skills and capabilities available in the local workforce (Graf and Mudambi, 2005; Scott, 2009). Despite the expectation that businesses will be attracted to locations with high levels of human capital, Graf and Mudambi (2005) state that evidence on the relationship between human capital and the location of FDI is often only anecdotal and that there is little evidence to suggest a clear direction of effect. A similar conclusion was reached by Alcacer (2006), who found that levels of human capital across states did not have a significant effect on FDI flows across states in the U.S.A. Labour markets in high-growth emerging economies, however, are typically much less munificent in comparison with advanced industrialized nations, such as the USA (Hoskisson *et al.,* 2000). Therefore, accessing scarce labor resources is likely to be a critical decision factor for MNEs when making FDI location choices in an emerging market context (Cheng, 2006). I argue that the effect of human capital on FDI inflows will be much stronger in core-cities. Core economic centers are likely to have higher concentrations of human capital because the highly educated and skilled tend to gravitate towards core economic centers where employment opportunities (and pay levels) are better (Scott, 2009; Storper and Scott, 2009). Furthermore, high profile universities – that serve to generate and foster human capital - also tend to be located in or near to major cities rather than in more marginal ones (Scott, 2009). Furthermore, as previously suggested, one of the key drivers of FDI to peripheral cities is their lower labor cost, rather than the quality of their labor markets. Thus;

Hypothesis 2: *Human capital has a stronger positive effect on the propensity for foreign investors to invest in core cities than in peripheral cities.*

6.3.4 Institutions

Literature on high-growth emerging economies tends to emphasise the salience of institutions on the behaviour, decision-making and performance of foreign firms (Meyer and Nguyen, 2005; Khanna and Palepu, 2005; Peng *et al.,* 2008; Chan *et al.,* 2010). Institutions directly and indirectly govern and moderate behaviour at both individual and group levels, through regulatory, normative and cognitive mechanisms (Scott, 1995). From a more practical perspective, institutions may be considered as 'created assets' (Bevan *et al.,* 2004: 44) of an environment. From a foreign firms' perspective relevant institutional aspects of location include the functioning of the legal system, government effectiveness and the efficiency of local regulatory and administrative agencies as well the extent of corruption and illegitimate practices (Du *et al.,* 2008; Tan and Meyer, 2011). Therefore, in this chapter, the focus is on formal institutions pertaining to government and law and informal institutions relating to corruption.

Previous research demonstrates that subnational institutional contingencies significantly affect the subnational location choices of MNEs (Meyer and Nguyen, 2005; Du *et al.,* 2008). However, subnational comparisons between institutional contexts are lacking – especially at the city-level. This is mainly due to a lack of reliable data on local institutional effectiveness (Ma and Delios, 2006). Furthermore, as stated by Li and Park (2006), in emerging economies there is often a stark contrast between policy and law as writ and policy and law as enforced. Reliable data on subnational institutions is therefore not widely available.

Given the importance of institutions within emerging economies as well as their significant role in facilitating efficient set up processes and facilitating the development of foreign affiliates, we would expect that institutional conditions will have a strong effect on the propensity for foreign firms to invest in particular locations (Du *et al.,* 2008). More specifically, we would expect that foreign firms are more attracted to those cities that have better government and legal institutions (Bevan *et al.,* 2004). In contrast, corruption is likely

to have a negative effect on the location of subnational FDI inflows because of the increased operational inefficiencies that it creates (Habib and Zurawicki, 2002). How though might these effects differ between core and peripheral locations? Theory suggests that institutional structures will be more developed in core centres of economic activity, meaning government, administrative and legal systems are likely to be more efficient, and measures to limit corrupt and illegitimate activities are likely to be in place (He, 2003; Li and Park, 2006). Therefore, institutions such as effective local governments and fair legal systems that provide judicial protection to MNEs are likely to be a key attraction for MNEs to invest in core cities. The reverse inference, however, is that institutions in peripheral cities are less developed and, therefore, less conducive to the business activities of MNEs. It is suggested, therefore, that that well developed government and legal institutions in core cities will be an important antecedent for FDI into them. However, received theory would suggest that institutions in peripheral cities are not as developed and, thus, unlikely to be an important FDI antecedent for these locations. Furthermore, these underdeveloped institutions may also increase instances of corruption in peripheral cities which may act as a key deterrent for MNEs. Building on this discussion, the following hypotheses are suggested:

Hypothesis 3a: *Government effectiveness has a positive effect on FDI into core cities, but not in peripheral cities*

Hypothesis 3b: *Legal effectiveness has a positive effect on FDI into core cities, but not in peripheral cities*

Hypothesis 3c: *Corruption has a negative effect on FDI into core cities, but not in peripheral cities*

6.3.5 Core-periphery spatial dependence

So far I have argued that the locational determinants of FDI will differ between core cities and peripheral cities within an emerging economy. However, whilst these discussions have considered the potential for differences to exist across 'place', I have not yet considered the impact that 'space' may have on FDI inflows (Beugelsdijk *et al.,* 2010; Beugelsdijk and Mudambi, 2013). In particular, the concept of spatial dependence is relevant to a discussion of geographic space.

Spatial dependence refers the existence of relationships and linkages across proximate locations in geographical data. Cookson *et al.,* (2012) relate the concept to Tobler's first law of geography that states "everything is related, but near things are more related than distant things" (Tobler, 1970). The fundamental notion here is that, in considerations of geography, locations should not be treated as distinct places, but rather, they should be treated as related to other locations across space, with distance acting as a moderating variable. In this study, I build on the general spatial dependence argument to include CP distances. More specifically, the argument developed here is that the spatial dependence between cores and peripheries may have an impact on the location of FDI inflows.

As previously mentioned, it is widely acknowledged that core cities possess superior location advantages such as advanced producer services and stronger information channels and larger pools of human capital. However, the literature on 'spillover effects' shows that location advantages can diffuse across proximate locations, meaning that the advantages of one location may permeate nearby locations (Liu *et al.,* 2000; Meyer and Sinani, 2009; Eden, 2009; Fabrizo and Thomas, 2011). There is potential, therefore, for weak advantages in one location to be mitigated by geographically proximate locations that have stronger advantages. Thus, some peripheral cities may have the additional location advantage of being geographically closer to core-centres of economic activity. Complementing this, it is

also recognised that firms are not confined to the administrative boundaries of the locations that they register their capital in and legally establish their operations (Cookson *et al.,* 2012; Coe and Bunnel, 2004). Thus, in considering the location of FDI, it is reasonable to assume that investment managers consider one locations relationship to others. Furthermore, extending the 'global cities' argument of Goerzen *et al.,* (2013), I suggest that characteristics of core cities reduce the uncertainty, complexity and discrimination faced by MNEs in emerging markets – in other words, they reduce the liabilities of foreignness (LoF).

Consequently, there are good reasons to assume spatially dependent relationships between core cities and peripheral cities. In other words, FDI inflows into peripheral cities are not solely a function of their endowed location attributes, but also their distance to other cities, and specifically, to core centres of economic activity. In this study, I consider the distance of peripheral cities to core cities at both a national and regional level. The theorising suggests that distance of peripheral cities to both national and regional core (defined in the methodology section) will impact upon their attractiveness to foreign investors. Hence, building on the argument above, two distance factors for peripheral cities are examined; distance from both regional core cities and national core cities;

> **Hypothesis 4a:** *Increased spatial distance from national cores has a negative effect on the propensity for foreign firms to invest in peripheral cities.*
>
> **Hypothesis 4b:** *Increased spatial distance from the regional cores has a negative effect on the propensity for foreign firms to invest in peripheral cities.*

6.4 Methodology

6.4.1 Data compilation

In order to test these hypotheses I collected and combined data from two sources, namely from: (1) World Bank China Enterprise Survey data (2006 – see section 3.5.2) and; (2) Chinese City Statistical Yearbooks (CSY) (2003-2006).[26] Data from both the WB report and the CSYs is aggregated at the city-prefecture level and is thus comparable across both sources. The final data set is a four-year (2003-2006) balanced panel. Descriptions of all variables are presented in Table 13.

6.4.2 Operationalization of variables

FDI flows actually utilized at the city level, derived from CSYs, were taken as the dependent variable. FDI actually utilised is the amount of FDI flows in a given year that are actually received by the city as opposed to the amount initially contracted for – which is often inflated (Li and Park, 2006). In total, the dataset includes 480 observations (120 cities x four years FDI data). The advantage of this approach is that it considers total FDI inflows into a city, rather than a select number of projects, thus, allowing for more robust models of the FDI-location relationship (Cookson *et al.,* 2012). However, it is acknowledged that this is at the expense of capturing country of origin and industry effects, which have previously been found to affect the regional distribution of FDI in China (Wang *et al.,* 2009).

Overall, 136 of these FDI observations were for core cities, while 344 were for peripheral cities. Core cities (RCCs and NCCs) were coded with a value of 1 while peripheral cities (all remaining cities) were coded as 0. Although, NCCs and RCCs are likely to exhibit differing characteristics, they are both treated as 'core' for the operationalization of the core-periphery

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[26] CSYs are official statistical records complied by the Chinese government.

split. This is because, although they may exhibit differing characteristics, they both represent core centres of economic activity.

In order to assess agglomeration economies in a city, both *domestic* and *foreign* agglomerations were examined. Following previous research on the impact of agglomeration on FDI (Li and Park, 2006; Cookson *et al.,* 2012), foreign agglomeration is measured by considering the gross industrial output of foreign firms in a city as a percentage of total industrial output and repeat the calculation for domestic agglomeration. This creates two individual agglomeration variables each of which provide an indication of relative presence of foreign and domestic firms in a city. The *human capital* variable is measured as the percentage of the city's population that holds university degree.

The three institutional variables that were created for this study were each derived from primary data in the WB 2006 report. The variable for government effectiveness provides a score for each city's local government across multiple dimensions; taxes and fees as a percentage of sales, quality of the utilities infrastructure and average number of days to clear imports and exports. A variable for *legal effectiveness* was created using the aggregated scores for firms' responses to a question on the likelihood that both their contracts and intellectual property would be respected and enforced by local courts. The variable 'corruption' is based on the likelihood that informal payments would be required in order to receive bank loans. Arguably, this does not provide a holistic measure of corruption across cities, however, it may be indicative of a wider culture of corruption that is characteristic of particular locations. Refer to the Chapter 3.6.1 for an explanation of the how distance between core and peripheral cities at regional and national levels were constructed.

The study controls for the effects of comparative location advantages. These factors are well established in the FDI literature as having a positive impact on FDI location choice (Dunning, 1988; Head and Mayer, 2011; Clein and Krafts, 2012). Indeed, they arguably

form the foundational basis of a location's economic attractiveness and are thus unlikely to vary significantly in their relative effects on FDI across locations. In this study these control variables are population size, labour cost, GDP per capita and total GDP. Furthermore, dummy variables were created to capture differences between the more developed coastal cities and inland cities which have resulted from years of unbalanced economic development policies (Chadee *et al.,* 2003). Controlling for these factors helps to mitigate the effect of heteroskedastic errors when modelling dependent variables (FDI) across disparate subpopulations in datasets (Goldberger, 1998). The control variables for population, labour cost, GDP per capita and GDP were all taken from CSYs (2003-2006).

Table 13 Description of variables[27]

	Variable	*Source*	*Data type*	*Description*
Dependent variable	FDI	China's city statistical yearbooks	Panel (2003-2006)	FDI actually received by the city
Moderating variable	Core-periphery	Created by author	Dummy variable	Centrally controlled municipalities, sub-provincial level cities and provincial capitals represent core cities and are coded with a value of '1'. All other cities are peripheral cities and are coded with a value of '0'.
H1a	Domestic agglomeration	China's city statistical yearbooks	Panel (2003-2006)	Gross industrial output value of domestic funded enterprises as a % of the cities total output (100m Yuan).
H1b	Foreign agglomeration	China's city statistical yearbooks	Panel (2003-2006)	Gross industrial output value of foreign funded enterprises as a % of the cities total output (100m Yuan).
H2	Human capital	China's city statistical yearbooks	Panel (2003-2006)	Proportion of city's population with university level education (%).
H3a	Government effectiveness	World Bank 2006	Construct	Composite indicator based on four measures: (i) taxes and fees as a percentage of sales, (ii) percentage of 'entertainment costs' for government officials over total revenue, (iii) average number of days to clear customs for imports and export and, (iv) the time-cost (total number of days per year) spent dealing with four bureaucracies (tax administration, public security, environmental protection and labour and social security).
H3b	Legal effectiveness	World Bank 2006	Construct	Likelihood that firms' intellectual property and contracts will be respected by local courts based on percentage of cases in which a favourable verdict was passed and enforced (%)
H3c	Corruption	World Bank 2006	Construct	Firms' expectations (yes / no) that unofficial payments will be required to secure access to loans (Binary)
H4a	Distance from regional core cities	Created by author	Fixed distance measure	Great circle distance (KMs) between peripheral cities and the provincial capital of the nearest sub-provincial or provincial capital city
H4b	Distance from national core cities	Created by author	Fixed distance measure	Great circle distance (KMs) from nearest national central city
Control	Population	China's city statistical yearbooks	Panel (2003-2006)	Population size
Control	Labour costs	China's city statistical yearbooks	Panel (2003-2006)	Average salary of workers in the city
Control	GDP	China's city statistical yearbooks	Panel (2003-2006)	Total economic output
Control	GDP per capita	China's city statistical yearbooks	Panel (2003-2006)	Total economic output as a proportion of the cities' population
Control	Coastal	Created by authors	Dummy variable	Cities located in coastal provinces (border touching ocean)

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[27] The World Bank data is cross-sectional, however, I standardized the variables across the four years of FDI observations. In order to minimize the effects of differences between the data formats, the FDI data only covers the four year period between 2003-2006. The WB data was collected between 2004-2006 and therefore the data covers a comparable temporal range, and can be assumed to be relatively stable across the period. This makes the assumption that some of the variables are time invariant. However, similar assumptions are made by Chung and Alcacer (2002) in their study of FDI into the U.S.A.

6.4.3 Analytical procedures

Firstly, I check for evidence of spatial dependence on the dependent variable, which is FDI. In order to do so I calculate Moran's I which is a measure of spatial autocorrelation (and thus dependence) in geographical data (Moran, 1950; Li *et al.,* 2007). Moran's I tests the assumption that a given variable in one location is correlated with proximity to other locations. In order to so a spatial weights matrix (SWM) was generated in STATA. The spatial weights matrix creates proximity weights for all locations in a dataset and enables the identification of spatial autocorrelations in geographical data. In this case we are interested in geographical distances between cities. Therefore, to generate the SWM I use latitude and longitude data to determine minimum and maximum distances between cities. The SWM subsequently generates dyadic spatial weights (the degree of proximity) for all cities that are included, meaning that, the matrix is composed of 120 x 120 cities. The SWM can subsequently be used to estimate the degree of spatial dependence in the data as distance and proximity values for all cities are known. In other words, for city 1, the SWM includes spatially weighted values for its relationships to city 2, 3, 4…120. To check for spatial dependence of FDI flows into cities, we averaged each city's FDI inflows over the four year period and tested whether FDI was affected by spatial autocorrelation – i.e. if FDI observations in one city can be explained by the cities proximity to other cities.

Table 14 Moran's I test of spatial dependency

	Moran's I	E(I)	sd(I)	z	p-value*
FDI (2003-2006)	0.031	-0.008	0.015	2.595	0.005

The significant p value for Moran's I (table 14) indicates that spatial dependences have a significant impact on FDI inflows into Chinese cities. In other words, FDI inflows are affected by space. This supports the argument that spatial dependencies exist and provides further justification for examining whether CP spatial distance affects FDI into peripheral locations.

Secondly, to compare the location conditions between the core and periphery I used a one-way ANOVA test. Mean differences between location-specific attributes were compared to evaluate the relative attractiveness of core cities and peripheral cities. The regressions follow a generalised least squares estimation (discussed in section 3.5.2).

6.5 Results

During the 2003-2006 period of observation 54.3% of FDI inflows were received by China's core cities in the sample. Considering that only 34 of the 120 cities captured in the dataset were core cities, this indicates that FDI into China during this time was highly skewed towards core cities.. Before testing the hypotheses and ascertaining the extent to which the determinants of location choice differ between core and peripheral cities I cross compared location attributes across core and peripheral cities The results of this comparison can be seen in Table 15.

Table 15 Variations between groups of cities

| Location specific attributes | Variation (sum of squares) | | | | Variation between core and periphery | |
	Between groups	df	Within groups	df	Mean square	F
Domestic agglomeration	37.791	2	469.342	480	18.895	28.819***
Foreign agglomeration	7.522	2	514.72	480	3.761	6.098***
Average wage	23.442	2	147.255	480	11.721	22.769***
Human capital	104.013	2	170.136	480	52.007	86.692***
Government effectiveness	19.341	2	475.201	480	9.671	21.591***
Legal effectiveness	21.997	2	480.354	480	10.998	23.172***
Corruption	30.452	2	456.438	480	15.226	12.873***
Population	81.692	2	422.872	480	40.8	13.4***
GDP	5.263	2	570.21	480	2.631	2.24
GDP per capita	6.191	2	267.843	480	3.095	5.06**

*** P $=< 0.001$, ** p $=< 0.05$, * p $=< 0.10$

The results from the ANOVA test indicate that location conditions significantly vary between core and peripheral cities. The F statistics indicate that these variations are most pronounced across human capital (F = 86.69***), total factor productivity (F = 55.59***), government effectiveness (F = 21.591***), legal effectiveness (F =23.172***), domestic agglomeration (F = 28.81***) and average wages (F = 22.26***). It is interesting to note that in all cases, the level of within group variation is higher than variation between groups. This indicates that, whilst levels of locational variation are statistically significant between the core and periphery, there are also significant levels of variation within each category. This points to the existence of substantial amounts of heterogeneity between cities in China and further justifies examining locational effects at the highly disaggregated city level.

6.5.1 Determinants of FDI location choice

Correlations for all variables can be seen in table 16.To test the hypotheses and ascertain the nature of the relationships between the location of FDI and location-specific attributes in core cities and peripheral cities, I ran two GLS regression models (Table 17). The first model examined FDI across all cities. The results show that FDI across all cities is positively influenced by both *foreign* and *domestic* (0.1543***) firm agglomerations (0.2269***),

labour cost (0.2753***), *human capital* (0.1327***), government effectiveness (0.1140**) *population size* (0.1405***), and *GDP per capita* (0.3154***). Interestingly, distance from NCCs have a negative effect on FDI (-0.1564***). In other words, the further a city is from these country cores, the less likely it is to receive FDI. The results become much more nuanced when I examine FDI differentials between the core and periphery.

Table 16 Variable correlations

		Mean	Std. Deviation	1	2	3	4	5	6	7	8	9	10	11	12	13
1	FDI	-0.0444	0.8445	1												
2	Foreign agglomeration	-0.0241	1.0159	0.5053	1											
3	Domestic agglomeration	0.0667	1.2352	0.3059	-0.4296	1										
4	Labour cost	-0.2863	0.5897	0.6418	-0.3495	0.4166	1									
5	Human capital	-0.0014	0.7472	0.4336	-0.401	0.3417	0.3788	1								
6	Government effectiveness	0.0261	1.0036	0.2574	-0.0919	0.1916	0.1212	-0.0803	1							
7	Legal effectiveness	0.0083	1.0118	0.1035	-0.0734	0.081	-0.1112	-0.0294	0.5915	1						
8	Corruption	0.0131	0.9930	0.2524	-0.231	0.2003	0.263	0.1359	0.3461	0.307	1					
9	Distance to regional core	0.0000	1.0003	-0.1391	0.0992	-0.0974	-0.2348	-0.2045	0.1164	0.0597	-0.0719	1				
10	Distance to national core	-0.0004	1.0004	-0.1972	0.006	-0.1877	0.0003	-0.0596	-0.3109	-0.2175	0.0344	-0.0406	1			
11	Population	0.0204	1.0042	0.2979	-0.0471	0.251	0.0006	0.2149	0.1243	0.098	-0.0457	-0.0929	-0.288	1		
12	GDP	0.0463	1.0838	-0.0502	0.0236	-0.0721	-0.0939	0.0382	-0.0145	-0.024	-0.1976	0.2385	-0.0415	0.0532	1	
13	GDP per capita	-0.2236	0.7470	0.6495	-0.4096	0.4126	0.7268	0.2123	0.2234	0.0127	0.2975	-0.1325	-0.1265	-0.0822	-0.0435	1
14	Coastal	0.4797	0.5001	0.4236	-0.308	0.2969	0.4228	0.0401	0.3362	0.1698	0.3034	-0.0784	-0.115	0.0614	-0.1173	0.5019

Table 17 Determinants of FDI location choice

Location variables	*Dependent variable: FDI utilized (2003-2006)*		
	All cities	*Core cities*	*Peripheral cities*
Agglomeration economies			
Foreign	0.2269 (.0201)***	0.3207 (.0336)***	0.0891 (0.0250)***
Domestic	0.1543 (.0201)***	.0852 (.0437)*	-0.1070 (0.0251)***
Factors of production			
Human capital	0.1327 (0.0317)***	0.1167 (0.061)**	0.0212 (0.0475)
Spatial distance			
Distance from RCCs	-0.0651 (0.0406)	-	-.0715 (0.0244)**
Distance from NCCs	-0.1564 (0.0420)***	-0.0705 (0.2462)**	0.011 (0.0300)
Institutional conditions			
Government effectiveness	0.1140 (0.042)**	-0.1034 (0.0855)	0.1993 (.0481)***
Legal effectiveness	0.0362 (0.0497)	-0.0856 (0.0656)	0.1189 (0.304)**
Corruption	0.0477 (0.0431)	0.0521 (0.0490)	-0.0154 (0.0278)
Comparative advantages (control)			
Population	0.1405 (0.0236)***	0.1249 (0.0418)**	(0.1626) 0.0301***
Labour cost	0.2753 (0.0557)***	0.5835 (0.1329)***	0.1332 (0.0661)**
GDP	-0.0101 (.0192)	0.0899 (0.0400)**	-0.0257 (0.0216)
GDP per capita	0.3154 (.0438)***	0.4069 (0.0859)***	0.3985 (0.0542)***
Regional Dummies (control)			
Coastal	.0877 (.0711)	0.2839 (0.1251)**	0.0690 (0.0800)
N	480	136	344
R2	0.62	0.76	0.67

Notes: Standard errors in parentheses
Significance levels: *** P = < 0.001, ** p = < 0.05, * p = < 0.10

In the second model the regression was repeated but the dataset was split between the core and the periphery. When the locational determinants of FDI are directly compared across core cities and peripheral cities significant differences in the responsiveness of FDI inflows to location-specific attributes are found. The results suggest interesting relationships between FDI and agglomeration economies. As previously predicted, domestic agglomeration has no significant negative effect on FDI in core cities. However, the effect is negative and statistically significant for peripheral-cities. Thus, H1a is confirmed. Furthermore, foreign agglomerations exercise a positive effect on FDI in both core-cities and peripheral-cities, confirming H1b. Human capital has a strong and positive effect on FDI inflows in core locations but appears to have no effect on FDI location choice in peripheral cities. Thus, H2 is accepted.

In terms of institutional conditions, the results indicate that, institutions play a much larger role in attracting FDI to peripheral cities than they do to core cities. These results counter our hypotheses and the received theory on which these were based. Firstly, the variable for corruption is not significant across any of the models. However, both government effectiveness and legal effectiveness have positive and significant influences on FDI into peripheral cities, but are not significant for core cities. This seems counter-intuitive as CP theory is based on the logic that core locations have stronger advantages, particularly in respect of institutional development and the related efficiencies that these confer (Maritotti *et al.,* 1995).

The study finds that the spatial distance variables exercise strong effects on the location of FDI in peripheral cities. Firstly, the distance of a peripheral city to a RCC has a negative effect on FDI inflows. In other words, the further a city is from a regional core the less likely it is to receive FDI. Thus H3a is confirmed. Distance from country cores, however, does not have a significantly negative effect on FDI in peripheral cities. Thus H3b is rejected.

Therefore, these results suggest that FDI into peripheral cities is spatially dependent – at least with RCCs.

6.5.2 Discussion and conclusion

The analysis reveals multifaceted relationships between location specific attributes, spatial distance, FDI inflows the CP spatial division. However, the findings also reveal that the CP dichotomy is more complex than theory generally assumes. First, in relation to agglomeration economies, the findings suggest that FDI is more sensitive to the presence of domestic firm agglomerations in peripheral cities, than it is in core cities. Previous studies have suggested that foreign firms are likely to avoid co-locating with domestic firms due to fears over intellectual property theft and knowledge leakages (Mariotti *et al.,* 2010; Tan and Meyer, 2011). However, this finding suggests that this is a relationship that is moderated by whether the city is core or peripheral. It is likely that in core locations, the presence of domestic firm agglomerations is not considered to be a major issue as the business environment in these cities is more conducive to instilling confidence in foreign investment managers (Mariotti and Piscitello, 1995; Goerzen *et al.,* 2013). However, in peripheral cities, where foreign decision makers' are likely to experience more pre-entry uncertainty, the presence of large domestic firm agglomerations is likely to add to uncertainty and thus, deters FDI inflows.

Second, one of the most unexpected findings of the study is that institutional conditions (government and legal effectiveness) have a much greater influence on FDI inflows into peripheral cities than they do into core cities. A possible explanation for these results is that the administrative burden of peripheral cities is lighter than in core cities, where there is likely to be much more economic activity to regulate, administrate and monitor. In other words, local institutions in peripheral cities might have more time for foreign investors, in

terms of helping them set up and dealing with legal concerns that they have. Furthermore, it is also possible that peripheral cities, in an effort to attract foreign investment away from the more attractive core cities have focused on improving their institutional fabric in an effort to confer an '*institutional advantage*' to firms that locate their investments away from core locations. Thirdly, from a firm level perspective, we may interpret these results as a strategic response to the existence of institutional inefficiencies within China. In essence, firms recognise that by locating in peripheral cities they can benefit from institutional incentives (such as government support and efficiency or financial incentives), more so that they can in core cities. The local governments in peripheral cities compete not only with other Chinese cities for foreign investment but also other cities globally. Perhaps aware that cost is not a major factor in the location choices of foreign firms entering China, officials in these peripheral cities are attempting to ameliorate the major concerns of foreign investors which are, amongst other things, their uncertainty and unfamiliarity with the business environment as well as the protection of their intellectual property. Arguably, such institutions play a role in increasing investor confidence when investing in peripheral cities, thus reducing liabilities associated with foreignness (Goerzen et al., 2013) and outsidership (Johanson and Vahlne, 2009). This finding is particularly relevant in light of recent studies which have suggested that variations across institutions in emerging economies influences, not only FDI location choice (Meyer and Nguyen, 2005; Tan and Meyer, 2010), but also the performance levels of foreign affiliates (Chan et al., 2010; Ma et al., 2013).

Third, the spatial distance variables reveal that FDI inflows into China are spatially dependent (Cookson *et al.,* 2012). One of the key arguments developed in this chapter is that FDI across cities is spatially dependent, with CP dynamics playing a key role in these relationships. Our results confirm these arguments. Firstly, the study clearly demonstrates that FDI is spatially dependent across all China cities. This means that spatial relationships and linkages across proximate locations have a large influence on the determinants of FDI

into individual cities. However, the key contribution of this chapter is that it theorises and finds empirical support for the existence of CP spatial dependence for FDI into peripheral locations. Distance from national cores has a negative effect on FDI in general. However, interestingly, the regional core is more important than is proximity to national cores for FDI inflows into peripheral cities. It is surprising that distance from national cores has no significant negative effect on the propensity for FDI inflows into peripheral cities, given the importance attributed to national cores in previous studies (Mariotti and Piscitello, 1995; He, 2005; Zhao *et al.,* 2005). There may be several reasons for this. Firstly, FDI inflows into peripheral cities may not benefit from the types of advantages that national cores have to offer. In other words, the antecedent investment motivation for FDI into peripheral cities may not be influenced by the types of factors unique to national cores, such as their international connectedness. Therefore, locating in, or close to, a national core might not be a key concern for investors in RCCs. However, at the same time, regional cores provide a local hub and core economic centre for business activity. Secondly, perhaps for a country as large and heterogeneous as China, the national cores are just too dispersed to significantly effect FDI inflows into peripheral cities.

6.6 Chapter summary

This study was motivated by the desire to identify the locational conditions under which FDI is attracted to peripheral cities. In general, the results show that the determinants of FDI location choice significantly differ between core and peripheral cities and that the periphery is indeed different. I find that FDI is most attracted to peripheral cities with high levels of foreign firms, low levels of domestic firms from the host country and effective legal and governmental institutions.

Chapter 7: The spatial disaggregation of MNE corporate activities and core-periphery disparities

7.1 Chapter overview

In this chapter, the CP theory is applied to examine the disaggregation of MNE corporate activities across Chinese cities. More specifically, I investigate how the technological intensity of the key business activities performed by foreign affiliates of MNEs affects the likelihood that investment projects will be located in NCCs, RCCs or peripheral cities. Furthermore, I also examine how location choices are affected by different value chain activities performed by the foreign affiliate. The findings suggest that foreign affiliates that are more technology intensive are much more likely to be located in NCCs than in RCCs or peripheral cities. Furthermore, different value chain activities also show discernible preferences for different cities within a country, with research and development (R&D) and headquarters (HQ) activities showing a clear preference for NCCs. The findings suggest a *'correspondence effect'* between subsidiary technological intensity, higher-added value business activities and subnational location choice. The chapter is structured as follows. Firstly, I provide an introduction to the specific issues that are examined in this chapter and outline recent literature that has investigated relationships between the different corporate activities performed by MNEs and locations. Secondly, I outline the methodology and the empirical specifications used in this study. Finally, I discuss the main research findings and discuss their significance.

7.2 Introduction

The study of where and why MNEs direct their foreign investments is a key area of interest for both IB and management researchers. Yet, despite an enduring interest in the concept of location, theoretical and empirical work on interrelationships between local contexts and MNE location decisions for different business activities is quite limited (Enright, 2009; Jensen and Pederson, 2011; Meyer *et al.*, 2011). This study attempts to offer greater geographical precision in the analysis of the strategic fit between investment characteristics and local context (Beugelsdijk and Mudambi, 2013; Jensen and Pederson, 2011). More specifically, in this chapter I attempt to form a more nuanced understanding of the subnational economic geography of the MNE by considering how the technological intensity of foreign investment projects and the key business activities that are performed locally influences the types of cities that MNEs are attracted to. I build on the CP concept developed throughout this dissertation to suggest that the disparities between NCCs, RCCs and peripheral cities, lead MNEs to locate different types of foreign investment projects in different cities.

7.3 Literature review

7.3.1 MNE business activities and location choice

Enright (2009) advocates an activity-based-view (ABV) to the analysis of FDI in which the location choice is seen as a dyadic decision which attempts to achieve a fit between the needs of particular business activities and the characteristics of local context (Alcacer, 2013; Jensen and Pederson, 2011). Existing location choice research tends to either model business activities singularly (i.e. the location of research or development activities) (Brockhoff and Schmaul, 1996; Demirbag and Glaister, 2008) or generically (i.e. manufacturing and (or) services) (Chadee *et al.*, 2003). However, there are a few exceptions. Alcacer (2006)

investigates the global location choices of production, R&D and sales activities from a single industry. He finds that production and sales activities are widely dispersed but R&D activities tend to be more concentrated – likely owing to the more specialised locational attributes required to support knowledge intensive R&D activities. Furthermore, Alcacer (2006) finds that the proclivity for firms to be co-located is moderated by the business activity, with R&D and production activities more likely than sales activities to be co-located. Enright (2009), building on this, investigates activity-location choices across twelve countries in the Asia-Pacific region and demonstrates that the influence of location variables and their capacity to exert influence on FDI decisions significantly varies according to the specific business activity performed by the local affiliate of the MNE. Extending this argument, Jensen and Pederson (2011) find that advanced business activities are more likely to be located in advanced countries (such as the USA) than more standardised activities (which are more likely to be located in emerging and developing countries). In this study, I extend the ABV of location choice to examine the subnational location preferences of different MNE business activities. The purpose of this study is to offer more fine grained insights into how subnational heterogeneity influences how MNEs 'fine-slice' their foreign investment activities (Buckley, 2011). While, the studies cited above have provided clear evidence in support of an ABV, questions remain as to how this plays out at a subnational level. The question driving this study is, *how do MNEs accommodate subnational heterogeneity in their location choice strategies?*

7.3.2 Business activities and CP disparities

This study examines the extent to which the technological intensity of the foreign affiliate as well as the type of business activities that it performs moderates preferences between NCCs, RCCs and peripheral cities. In particular, I suggest that NCCs and RCCs within China will be more attractive to technology intensive foreign investors than peripheral cities. This is

because technologically intensive foreign investment projects often flow to the most advanced locations (Jensen and Pederson, 2011). Furthermore, the increased complexity associated with performing technology intensive tasks (Larsen *et al.,* 2013) means that they require support from a range of advanced producer services which are often more abundant in core cities (Liu *et al.,* 2013). Finally, technologically intensive business activities require locations that are endowed with pools of highly educated and skilled employees (Graf and Mudambi, 2006). The higher levels of human capital in NCCs and RCCs, in comparison with peripheral cities are, therefore, more likely to attract technology intensive foreign investment projects (Liu, 2013). In this study, I examine technological intensity at two levels; (i) the MNEs industry and, (ii) the technological intensity of the business activities that the foreign affiliate performs. Thus:

Hypothesis 1a: *Subsidiaries from technology intensive industries will be more likely to locate in core (NCC and RCC) than in peripheral cities.*

Hypothesis 1b: *Foreign affiliates that perform business activities that are more technology intensive will be more likely to be located in core (NCC and RCC) than in peripheral cities.*

Next, I consider how the primary business activities performed by the foreign affiliate might affect locational preferences. Firstly, I suggest that research and development (R&D) and host-country headquarters (HCHQ) activities will be primarily performed in NCCs and RCCs cities. Research and development (R&D) concerns any activities based on product or process innovation or improvement. R&D activities require a certain set of location specific characteristics to optimise their performance (Enright, 2009). In particular, these activities require access to highly skilled graduates, scientists and engineers (Chung and Alcacer,

2002; Jensen and Pederson, 2011; Demirbag and Glaister, 2008). For example, Chung and Alcacer (2002) find that the R&D intensity of states in the U.S.A does not attract FDI in general, however, when the FDI is disaggregated into its constituent industries it becomes apparent that technology and research intensive industries (such as pharmaceuticals) specifically seek states that can support R&D activities. Therefore, cities that are endowed with high levels of human capital may not be attractive to FDI in general, but will be attractive to knowledge-seeking investments, such as R&D. Hence;

Hypothesis 2: *Foreign affiliates that perform research and development activities will be more likely to locate in NCCs and RCCs than in peripheral cities.*

In contrast, I argue that HCHQ activities will be mostly attracted to the NCCs of China, rather than RCCs or peripheral cities. There are two key characteristics of HCHQ activities that support this assertion. Firstly, HCHQs acts as a corporate ambassador to deal with host-country governments (Ma *et al.,* 2013). therefore, HCHQs should be strategically positioned in subnational locations that maximize their ability to liaise and engage with members of the host country's government. Four of China's NCCs s are controlled by the central government, with high ranking and powerful officials leading each municipality's administration (Canfei, 2006). Secondly, HCHQ activities are also highly information intensive (Benito *et al.,* 2011; Ma *et al.,* 2013), requiring access to key information channels (Goerzen *et al.,* 2010) and linkages to major international transport hubs (Bel and Fageda, 2008). Thus, MNEs are more likely to locate HQ activities in locations with a high level of international connectedness, such as NCCs cities (Goerzen *et al.,* 2013). Hence;

Hypothesis 3: *Subsidiaries that perform host-country headquarter activities will be much more likely to locate in NCCs than in RCCs or peripheral cities.*

I examine two types of manufacturing activity; *manufacturing for domestic market sales* (herein, MDS) and *manufacturing for export market sales* (herein, MES). I argue that these manufacturing activities have different antecedent motivations and, thus, will be attracted to different types of cities. Firstly, manufacturing activities of any kind will be more sensitive to costs of production than other types of foreign investment activities (Enright, 2009; Jensen and Pederson, 2011). Therefore, manufacturing activities are likely to be deterred from locating in NCCs where costs of production are typically much higher (Chadee *et al.,* 2003). However, I argue that MDS will be attracted to RCC cities, whereas MES will be attracted to peripheral cities. This is because MDS will be concerned with manufacturing costs *and* the potential size of the local market. In other words, these investments are both efficiency and market seeking (Dunning and Lundan, 2008). RCCs, given their larger market size and lower cost basis (in comparison to NCCs) can satisfy both of these conditions. In contrast, foreign investment in manufacturing activities in emerging economies which is to support sales in export markets is much more likely to be motivated by an efficiency-seeking logic. The consequence of this is that, for these activities, cost is likely to be a major factor in the FDI location decisions. Thus:

Hypothesis 4a: *Foreign affiliates that perform manufacturing activities for domestic market sales will be much more likely to locate in RCCs than in NCCs or peripheral cities.*

Hypothesis 4b: *Foreign affiliates that perform manufacturing activities for export market sales will be much more likely to be located in peripheral cities than in NCCs or RCCs.*

7.4 Methodology

7.4.1 Data compilation and sample characteristics

Data for this study is drawn from a *World Bank Enterprise Survey* (2012) (Herein *WB* survey). This survey collected primary firm-level data from a large sample of domestic and foreign owned firms across cities in China. The survey was conducted according to the principles of stratified random sampling of all non-agricultural firms and originally targeted 20,616 potential respondents. The final survey consisted of 2848 responses. From these responses, I identified 172 foreign owned firms. Thus, the final sample consists of 172 foreign owned firms.

7.4.2 Dependent variable

The key outcome of interest in this study is the location choice of foreign affiliates within China. The dependent variable is the reported city location of the subsidiary. Following, the theoretical discussion presented in Chapter 3 and empirically applied in the preceding chapters of the dissertation, I created three categories of cities: NCCs, RCCs and peripheral cities. Dummy variables were used to create these categories. For each location category a value of 1 indicated that the foreign affiliate was located there and was given a value of 0 if not.

7.4.3 Independent variables

Six independent variables were created to test the hypotheses (see table 18 for a summary description). All of these variables were created from self-report measures in the WB survey.

As mentioned previously, technological intensity is examined from both the industry and subsidiary level. Firms were asked what industry they operated in, with the industrial classifications corresponding to the NACE 2-digit level. I used the OECD's technological classification of industries to scale subsidiaries according to their technological intensity. The OECD classification categorises industries into four technology levels: High, medium-high, medium-low and low. Each of these categories was subsequently coded on a 4 point scale (i.e. high = 4 … low = 1).

The technological intensity of the foreign affiliate's business activities was constructed from a question in the World Bank 2012 survey that asked respondents to rate the extent to which information and communication technologies (computers, internet and software) were used to support key business activities across five functional areas: *partner relations, product and service enhancement, production and operations, marketing* and *sales and customer relations*. For each functional area the respondent was asked to indicate whether information and communication technologies were used *'never'*, *'rarely'*, *'sometimes'*, *'frequently'* or *'always'*. I subsequently coded these responses on a 5 point scale, (i.e. always = 5 … never = 1). Next, I checked the inter-item reliability across the five functional areas. The Crobachs's alpha score was .84, indicating a high level of internal reliability for the construct. While this construct does not capture the sophistication of the subsidiaries technological assets, it does provide an indication of how 'advanced' (Jensen and Pederson, 2011) its key business activities are and the level of technology that is involved in their performance. Therefore, it is not a reflection of tangible technological assets, but rather an indication of much the subsidiary relies on advanced technologies to perform key business activities, and thus in line with the ABV.

Table 18 Description of variables

Independent variables	Type	Description
Technological intensity (industry)	Scale	Industry technological intensity according to NACE 2-digit codes and OECD technology classifications
Technological intensity (business activities)	Scale	Question in WB survey: To what extent are information and communication technologies (computers, internet, and software) used to support key business activities in each of the following business processes: Partner relations, product and service enhancement, production and operations, marketing and sales, customer relations (Never = 1, Rarely = 2, Sometimes = 3, Frequently = 4, All the time = 5)
R&D	Binary	In the last three years, did this establishment spend on research and development activities within the establishment? (yes (1) / no (1))
HQ	Binary	Respondent asked to indicate if established was a HQ (yes 1 / no = 0)
Manufacturing type (MDS = 1)	Binary	Respondent asked to indicate if products from the establishment are mainly sold locally, nationally (MDS = 1) or internationally (MES = 0)
Control		
Size	Scale	Size in terms of employee numbers: Small = 5-19, medium 20-99, large 100+
Ownership	Binary	Wholly owned = 1, Joint venture = 0
Years established	Scale	Year of legal establishment

Respondents to the survey were also asked to indicate whether the subsidiary was a HCHQ, whether or not they had performed R&D activities within the previous three years and whether the firms products where sold locally, nationally (domestic sales) or internationally (export sales). Dummy variables were used to capture which activities were performed in each subsidiary. Therefore, if a foreign affiliate indicated that it performed HQ activities it was given a value of 1, whereas a foreign affiliate that did not perform HQ activities, it was given a value of 0. Similar procedures were followed for all other business activities.

The model also includes a number of control variables to ensure that the hypothesised relationships were robust to the inclusion of additional firm-specific attributes. The model

controls for firm size, ownership structure (JV or wholly foreign owned) and year of establishment. Correlation coefficients for all variables can be found in Table 19.

7.4.4 Model specification

In order to test the hypotheses, I ran a multinomial logistic (MNL) regression model. MNL regressions require one of the dependent variables to be specified as the base outcome. The base outcome effectively acts as the comparator against which the choice probabilities are estimated (Jensen and Pederson, 2011). I took peripheral cities as the base outcome. This means that the model estimates the probability of the independent variables explaining firm location choices in NCC and RCC cities *vis-à-vis* peripheral cities. In other words, the model estimates the probabilities of explanatory variables for NCC and RCC cities independently, but the calculation is based on a comparison with peripheral cities. Therefore, if an explanatory variable shows a positive and statistically significant result, we can infer that firms with this characteristic are more likely to be located in either NCC or RCC than they are in peripheral cities, and vice-versa.

7.5 Results

The results for the MNL regression can be seen in table 19. The results show the estimated coefficients of choosing either NCC or RCC cities in favour of peripheral cities in China. For all independent variables a positive coefficient means that the probability of this type of activity being located in either NCCs or RCCs in comparison to peripheral cities is more likely. The model has high overall explanatory power as indicated with a highly significant Chi-Square value (p<0.000).

Table 19 Variable correlations

	Variable	Mean	Std. Dev	1	2	3	4	5	6	7
1	Technological intensity (industry)	2.809	0.889	1						
2	Technological intensity (business activities)	3.580	1.068	0.3821	1					
3	R&D	0.659	0.474	0.2006	0.1294	1				
4	HQ	0.145	0.352	0.0255	0.0213	-0.1169	1			
5	Manufacturing type (MDS = 1)	0.584	0.494	0.2513	0.1614	-0.2718	0.0061	1		
6	Size	2.231	0.748	0.0398	0.2003	0.1132	0.0163	0.0683	1	
7	Ownership	0.601	0.490	0.0517	-0.1287	0.011	-0.1814	0.0383	0.1065	1
8	Years established	6.2342.	1.000	-0.0424	0.0362	-0.1212	0.0696	-0.0722	-0.173	-0.1709

The analysis shows a positive and statistically significant (0.3388**) relationship between industry technologically intensity and location in NCCs (Hypothesis 1a). This indicates that foreign affiliates that operate in industries that are more technology intensive are more likely to be located in NCCs than in RCCs or peripheral cities. The result for RCCs is positive, but not statistically significant (0.1355). This indicates that industry technological intensity is not a good predictor of location choice differentials between RCCs and peripheral cities.

Hypothesis 1b relating to the technological intensity of foreign affiliates' key business activities receives significant support for NCCs, but again, although this is positive for RCCs it is not statistically significant. This indicates that subsidiaries whose key business activities involve higher usage of advanced technologies are significantly more likely to locate in NCCs than in RCCs or peripheral cities. Thus, the results offer tentative support for hypothesis 1a and 1b.

Table 20 Multinomial Logit location choice model

	NCC vs. periphery		RCC vs. periphery	
	B	Std. Err	B	Std. Err
Independent variables				
Technological intensity (industry)	0.3388**	0.1729	0.1355	0.1647
Technological intensity (business activities)	0.3910***	0.1481	0.0969	0.1388
R&D	0.9401***	0.3560	0.5772**	0.3190
HQ	0.7350**	0.4260	0.2428	0.3952
Manufacturing type (MDS = 1)	0.7820*	0.3345	0.7902**	0.3140
Control				
Size	-0.1193	0.2152	0.2006	0.2030
Ownership	1.0547**	0.3240	0.8556	0.3049
Years established	-0.0972	0.1529	-0.2526	0.1422
Constant	-2.5717	0.8153		
Model				
N	172			
Log likelihood	184.9600			
Chi Sq	27.05**			

*** P = < 0.001, ** p = < 0.05, * p = < 0.10

Hypothesis 2 argued that foreign subsidiaries that perform R&D activities will locate in NCCs and RCCs to benefit from the advanced technical infrastructures and levels of human capital available in these cities. I find significant support for this hypothesis. The findings indicate that MNEs that locate subsidiaries in China with responsibility for R&D activities are significantly more likely to locate their investment projects in NCCs (0.9401***) and RCCs (0.5772**). The inverse is that these types of investment are significantly deterred from the conditions in peripheral cities. Hypothesis 3 argued that subsidiaries with HQ responsibilities would be much more likely to solely favour NCCs rather than RCCs or peripheral cities also receives significant support (0.7350**) – the result is positive but not significant for RCCs. This adds further support to the argument that the unique conditions of NCCs differentiate them from other cities and, thus, leads MNEs to place higher value added business activities in these locations.

In hypothesis 4a, I argued that the end purpose of a foreign affiliates' manufacturing output effects city location choice. Specifically, I argued that MDS activities will be attracted to core locations due to their larger markets (*market seeking*), whereas MES activities will be attracted to peripheral cities due to their lower costs (*efficiency seeking*). This hypothesis was tested by distinguishing between manufacturing activities that are intended for local (city) and national (country wide) sales and those that are destined for export markets. The findings suggest that MDS is significantly more likely to be located in NCCs and RCCs than it is in peripheral cities. Furthermore, because this is a dummy variable, the inference is that MES is much more likely to be located in peripheral cities that in either NCCs or RCCs. Thus, H4b is supported.

7.6 Discussion

The recognition of the neglect paid to the concept of location and its influence on the behaviour of MNEs has led to a resurgence of interest at the intersection of economic geography and international business studies (Meyer and Nguyen, 2005; Jensen and Pederson, 2011). A key aspect of this renewed interest in location is the attempt to offer greater geographical precision in the analysis of FDI location choice through examining foreign firms' location choices within countries (Beugelsdijk and Mudambi, 2013). A central component of these studies is the recognition that within emerging economics subnational variations can create significant disparities across alternative locations. Furthermore, while developing greater geographical precision into explanations of the MNE, it is also important to recognise that MNEs operate as disaggregated multi-location businesses, where activities are 'fine-sliced' to those locations that are most conducive for particular business activities (Buckley, 2009). In this study, I contribute to this literature through demonstrating that

differences between alternative types of cities within a country can affect the location strategies of MNEs.

This study makes several contributions to the literature on international management and location choice. Firstly, the findings clearly demonstrate that variations and heterogeneity across different types of cities within a country affect the location strategies of MNEs. This is one of the first studies in the international business and management tradition to explicitly consider how such differences between the 'core' and 'periphery' (Mariotti and Piscitello, 1995; He, 2002; Zhao *et al.,* 2005) impact upon the location strategies of MNEs. This is particularly important in an era when CP divergences are likely to grow further (Iammarino and McCann, 2013). Specifically, it seems that major core centres of economic activity attract more knowledge intensive investments, such as investments which use advanced technologies to perform key business activities as well as those that perform higher added value activities such as HCHQ and R&D activities. Our results suggest that MNEs do not at present consider peripheral cities to be conducive to technology intensive investment activities – at least in an emerging economy context. Interestingly, there are no significant differences between the RCC and peripheral cities in terms of the technological intensity of the business activities that they attract. This indicates that, in the Chinese context, the most technology intensive business activities are highly concentrated in just a small number of core cities. This is highly indicative of the substantial subnational disparities that characterise the Chinese economy and also demonstrates the importance of considering CP divergence in location choice analysis (McCann and Mudambi, 2005; Buegelsdijk *et al.,* 2010).

The results also make important contributions to the ABV to location choice analysis. The findings indicate that the activity basis of the investment is indeed an important determinant

of the location decision and, thus, should be incorporated into studies of relationships between MNEs and economic geography (Enright, 2009). Interestingly, the results demonstrate discernible preferences to place different types of business activity in different types of subnational location. Those business activities that require advanced inputs and infrastructures, but that are not overly sensitive to cost are much more likely to be located in core cities. Conversely, manufacturing activities will be much more likely to locate in peripheral cities. This provides novel evidence for the relationship between local context and MNEs. In particular, this shows that there are important interrelationships between the hierarchical position of cities within an economy, disparities across their key location characteristics and their attractiveness to particular MNE business activities.

Overall the findings suggest a *correspondence effect* between the types of business activities performed by subsidiaries and the characteristics of cities (Hymer, 1972). In other words, there is a clear relationship between the nature of business activities performed and the character of cities within a country. This further stresses the importance of examining the role of local context in shaping MNE strategies (Meyer *et al.,* 2011). The results clearly indicate that MNE investment managers consider the fit between investment activities and location at a highly disaggregated level. Therefore, while Jensen and Pederson (2011) demonstrate that different country characteristics affect the types of offshoring activity they receive, this study demonstrates that the relationship between business activities and locations is much more nuanced and that within country disparities further affect MNEs' location decisions for different corporate activities.

As in all empirical research, this study is not without its limitations. First and foremost, the sample size is relatively small and, whilst on a par with similar studies (Jensen and

Pederson, 2011; Meyer and Nguyen, 2005), arguably, the findings should be interpreted with caution.

Secondly, the survey on which the data is based did not ask for parent-firm information and there was no way that I could have identified who the parent company was from the data provided. The findings, therefore, lack an appreciation for how factors such as country of origin and degree of internationalisation may have influenced subnational location choice. On a related note, we do not know whether the subsidiaries were first or subsequent investments. Thus, this is acknowledged as a limitation but also a potential interesting point for future research to address. However, given that the focus of the study was specific investment projects and how subsidiary level characteristics affect location choice, the omission of parent level factors is not detrimental to the core focus of the study.

Finally, the data only allow us to examine four key value chain activities, two of which are manufacturing activities. Clearly, this is not truly representative of the complexity of modern value chains and the 'fine-slicing' of 'global factories' (Buckley and Ghuari, 2004). Future research should build on the notion of value chain analysis to more fully analyse correspondence effects between core and supporting activities and subnational location choices. Furthermore, future research would also benefit from moving beyond subnational locations within a country to a full analysis of the disaggregation of value chain activities across cities globally.

7.7 Chapter summary

The overall purpose of this study was to examine how CP disparities impact on the subnational location choices of MNEs. Specifically, I sought to develop a more nuanced understanding of the interplay between MNEs and locations by examining how location choices are affected by the nature and type of business activities performed by specific foreign investment projects. This study is timely considering the recent emphasis placed on understanding how subnational locations may impact upon MNEs location choice behaviour (Beugelsdijk *et al.,* 2010). The findings show that differences across cities within an emerging economy have a significant influence on the nature and type of business activities that MNEs will locate within them. The key contribution of this study is that it demonstrates how firms accommodate these subnational variations through tailoring their investment strategy to match the conditions of different local contexts.

Chapter 8: Conclusion

8.1 Chapter overview

This dissertation has presented the rationale for, and findings of, a comprehensive study into the interrelationships between subnational heterogeneity and the performance and FDI location decisions of MNEs in China. This chapter concludes and summarises the dissertation with a particular focus on discussing the contributions of the study. Each of the empirical chapters (Chapters 4 to 7) has generated a variety of new insights into how the features and characteristics of subnational locations, at the level of the city, impact on the performance and foreign investment behaviour of MNEs. Firstly, the research has demonstrated that Core-Periphery (CP) disparities and dynamics have a significant determinant effect on the performance and location decisions of MNEs. Secondly, this study has provided a more nuanced perspective on how the liabilities of foreignness (LoF) experienced by MNEs vary within a host country and the concomitant effects on business outcomes by investigating the relationship between local context, subnational heterogeneity and foreign affiliate performance. Thirdly, in this study I shed fresh light on *why* some foreign investors eschew what might be regarded as "privileged" locations (Goerzen *et al.,* 2013) for foreign investment in favour of peripheral cities (Tsui-Auch and Mollering, 2009). Finally, the study is able to demonstrate that MNEs accommodate CP disparities by strategically placing different types of corporate activities in national core, regional core and peripheral cities in order to exploit subnational variations in economic and social conditions more effectively. In this concluding chapter I discuss each of these contributions in more detail. I then go on to outline some of the limitations of the study, and suggest implications of the study for; (i) managers, (ii) host country policy makers, and (iii) scholarship.

8.2 The primary research question revisited

In this dissertation I began by outlining a shortcoming inherent in the existing international business (IB) literature. I have argued that there is a fundamental discord between established IB theory and emerging global economic developments, particularly the rapid urbanisation of emerging economies and the business opportunities this presents to foreign firms. These economic developments increase the importance of integrating considerations of subnational heterogeneity into explanations of MNE behaviour. Specifically, I assert that extant IB theory provides insufficient explanations for *why* MNEs establish operations in those locations that *prima facie* present more challenging operating conditions and greater LoF than the more traditional destinations for inbound FDI within a country. I further argued that this discord has arisen from the general neglect of 'location' in IB theorizing (Dunning, 1998, 2008). Part of this neglect can be attributed to *'methodological nationalism'*, or the idea that the concept of location in IB research has become synonymous with countries and nation states (Wimmer and Schiller, 2004). In order to redress this neglect, in the opening chapter I posed the following overarching research question: *How does subnational heterogeneity across cities impact upon the location decisions and performance of multinational enterprises within an emerging economy?*

In order to address this focal question the research was split into different sub-research questions (see section 1.4). This study clearly shows that spatial divisions (examined here as core-periphery or CP divisions) and subnational heterogeneity (across attributes of local context) have a significant determinant effect on both the performance of foreign affiliates and the intra-country location strategies of MNEs. In identifying and distinguishing between core and peripheral cities, the study was further able to form new insights into the important question of why some firms locate their foreign business operations in peripheral locations.

8.3 Key contributions of the study

The core contribution of the research presented in this dissertation is that it theorises and empirically demonstrates that both place (*cities*) and space (*distances and heterogeneity between cities*) affect both the performance of foreign affiliates and the location decision making of MNEs. Furthermore the research demonstrates that the city as a location environment is an important level of analysis for IB research. Whereas previous research has considered countries (Jensen and Pederson, 2011; Enright, 2009), regions (Galan *et al.*, 2007) or subnational administrative regions such as provinces (Shi *et al.*, 2011; Ma *et al.*, 2013) and states (Chan *et al.*, 2010; Chung and Alcacer, 2004) as representative of local context, this research demonstrates that the attributes of, and heterogeneity across, cities impacts on the performance and location decisions of MNEs.

When viewed collectively, there are four themes that stand out from the findings presented in the empirical chapters, namely; (i) *Subnational liabilities of foreignness and the importance of local context*; (ii) *Location decision making into the periphery*, (iii) *Foreign Direct Investment and Core-Periphery disparities* and; *(iv) Correspondence effects between corporate activities and subnational locations.* These four themes are now discussed in turn. Table 21 summarises the key findings and core contributions of the empirical chapters.

8.3.2 Subnational liabilities of foreignness and local context

The LoF concept has become a cornerstone of IB theorizing (Zaheer, 1995; Johanson and Vahlne, 2009; Buckley, 2013). As previously discussed (in Chapters 2 and 4 in particular) LoF can be generalised as the additional costs – both financial and non-financial (or social) – associated with operating a business operation outside of one's home market. In other words, the uncertainty and different 'rules of the game' (Kostova, 1999; Shenkar, 2002) in host

countries create added costs for foreign firms and can negatively affect their performance (Eden and Miller, 2004).

Goerzen *et al.,* (2013) noted that the LoF-reducing characteristics of 'global cities' makes them more attractive to foreign investors than other 'major' or 'peripheral' locations within countries. However, the authors do not present evidence to support their assertion that LoF are reduced in global cities or, by extension, core centres of economic activity within countries. Effectively, there are two gaps in this literature. Firstly, there is no empirical evidence to suggest that core cities have reduced LoF. Secondly, there is little evidence of what attributes of local context exasperate LoF and affect foreign affiliate performance (Chan *et al.,* 2010; Ma *et al.,* 2013).

This research presented in this dissertation offers new insights into both of these research gaps. Firstly, the findings offer support for the role of CP disparities in increasing LoF outside of core cities. Thus, I find support for the work of Goerzen *et al.,* (2013). Specifically, by demonstrating that spatial distance from core centres of economy activity at a national and regional level impact negatively on foreign affiliate performance, this study shows that 'space' matters and that we should view firms not as static entities but as spatially interdependent with both their immediate local context as well as surrounding locations (Cookson *et al.,* 2012). This makes a strong contribution to the existing literature on the subnational heterogeneity-foreign affiliate performance literature, as thus far, it has solely considered the impact of 'place' only – i.e. the location in which the foreign affiliate is established (Chan *et al.,* 2010; Ma *et al.,* 2013). This finding directly extends the LoF concept to accommodate the existence of subnational heterogeneity. It also offers clear implications for future research conducted at the subnational level of analysis, in that it demonstrates the importance of considering spatial disparities between urban locations.

In chapter 4 of this study I build on existing theory to identify those factors embedded in a local context that have significant positive or negative effects on the performance of foreign affiliates (Meyer and Nguyen, 2005; Meyer *et al.,* 2011; Ma *et al.,* 2013). The findings suggested that a range of constituent factors in a firm's local context affect its performance. In particular the findings indicate that the following factors embedded in local contexts have a positive effect on the performance of foreign affiliates; *higher quality utilities infrastructure, higher levels of human capital, more foreign firms, more efficient local governments* and *more effective legal systems*. The findings extend the study of Chan *et al.,* (2010), by identifying and testing what attributes of local context and subnational heterogeneity matter most to foreign affiliate performance. These findings also contribute to our understanding of local context by theorising how different components of locally embedded factors or production, agglomeration economies and institutions impact on foreign affiliate performance (Meyer *et al.,* 2011). These findings will, therefore, be beneficial to future researchers when examining the role of local context on firm behaviour and performance.

8.3.3 Location decision making into the periphery

A key question that the findings of chapter 4 give rise to is; if foreign affiliates are more likely to experience increased LoF and negative performance effects in peripheral cities, why would MNEs locate their business operations in these cities in the first place? Building on the sense of place concept (Nachum and Zaheer, 2011), the research (presented in Chapter 5) demonstrates that the decision to establish operations in a peripheral city can be understood by focusing on idiosyncratic opportunity recognition within the MNE. The interviews and visual comparison tasks that were conducted with managers revealed that decision makers can form a distinct sense of place in relation to particular localities. This location specific sensemaking process centres on recognising opportunities in peripheral

cities that emerge from their unique characteristics. In particular, this interview data revealed that the decision to invest in peripheral locations rather than core cities, was driven by market logics (faster business growth and competition avoidance), resource logics (lower costs and less competition for human capital) and institutional logics (more government incentives and support).

These finding contribute to location choice theory in two ways. Firstly, it offers empirical support for the idea that sense of place determines idiosyncratic patterns of location choice. In doing this, I bridge a gap in existing internationalisation and location choice theory – discussed in section 5.3.1. More specifically, the findings reported in Chapter 5 provide insights into the rationale for firms investing in unfavourable business environments, where LoF are likely to be magnified. Not all managers, and by extension firms, evaluate locations in the same manner. The cognitive relationship between decision makers and locations is an area of research that requires more work (Buckley *et al.,* 2007; Devinney, 2010). However, this study provides new insights into the differing logics used by firms to self-select into peripheral locations. The inference is that qualitative nuances in the way that managers interpret location characteristics can directly influence major firm decisions, such as where to set up an operation, and what activities to conduct there. I also demonstrate how local government financial incentives and set-up support serve to reduce the costs of doing business abroad, LoF and 'outsidership' in these peripheral locations. Effectively, this contributes to the literature on subnational location choice by showing how local government institutions "court the multinational" (Monaghan *et al.,* 2013) through offering incentives that ameliorate the major concerns of MNEs, namely, uncertainty and outsidership (Johanson and Vahlne, 2009).

In this study I also extend the sense of place concept to include *sense of space.* A key empirical finding was that the decision to invest in a particular peripheral city was not solely based on its 'place' – i.e. the location attributes and characteristics embedded locally – but also about its proximity to other locations, particularly to core cities. I identified two underlying logics to sense of space; economies of scale and location arbitrage. The introduction of this concept to the IB literature makes an important contribution to our understanding of how managers make FDI location decisions.

8.3.3 Foreign direct investment and core-periphery disparities

Chapter 5 reveals interesting insights, drawn from qualitative research, into the rationale for investment into peripheral cities. However, in order to form a better understanding of the subnational heterogeneity and FDI relationship it is necessary to take a broader view of this dynamic. By directly examining the determinants of FDI between the core and periphery of a host country this study addresses an important gap in the IB literature, namely identifying the conditions under which firms locate in core or peripheral areas of an economy (McCann and Mudambi, 2005; Mans, 2014) and why they might eschew seemingly more advantageous subnational locations such as core cities, in favour of those localities where they might experience greater LoF (Goerzen *et al.,* 2013; Zaheer and Nachum, 2011).

This study is one of the first pieces of research in IB to directly examine the conditions under which MNEs locate in core or peripheral city locations. As demonstrated in Chapter 7, some of the factors that attract firms to peripheral cities are consistent with the existing literature on FDI in China (and other economies) (Cheng *et al.,* 2006; Kang and Lee, 2007; Shapiro *et al.,* 2007; Filatotchev *et al.,* 2008). For example, large populations, large local economies (as indicated by GDP) and well developed markets (as indicated by GDP per capita) are attractive to foreign investors across both core and peripheral cities. However,

significant differences can be observed across factors that are representative of 'local context' (Meyer *et al.,* 2011). I argue that these differences represent special conditions that increase the attractiveness of peripheral cities to MNEs, despite some of the additional challenges and liabilities these localities can present. Firstly, the findings suggest that FDI is attracted to cities with higher levels of foreign firms, this effect is consistent across core and peripheral cities and adheres to existing theory (Head and Ries, 1996; Belderbos *et al.,* 2011). However, the results indicate that the role of domestic firm agglomeration significantly differs between core and peripheral cities. Mariotti *et al.,* (2010) found support for the negative role of domestic firms on new FDI across Italian regions. However, this study shows that, in the Chinese context, MNEs aversion to domestic firms differs significantly between core and peripheral cities. I argue that this is a reflection of differences in the fundamental characteristics of these cities. In particular, MNEs entering peripheral cities are likely to feel more uncertain, and perhaps fearing outsidership from local business networks(Johanson and Vahlne, 2009) avoid those locations with larger presences of domestic Chinese firms.

Furthermore, one particularly unexpected finding that was reported in Chapter 7 was the relationship between FDI and institutions in peripheral cities. Institutions are recognised as important determinants of firm behaviour in emerging economy environments (Hoskisson *et al.,* 2003; Wright *et al.,* 2005; Peng *et al.,* 2008). Existing theory suggests that in underdeveloped locations, certain institutional characteristics, such as local government efficiency and effectiveness, are typically less advanced. Furthermore, it is suggested that foreign firms will face greater institutional voids in such locations (Shi *et al.,* 2013; Tan and Meyer, 2004).The findings presented in this dissertation concur with existing literature on the importance of subnational institutions in affecting FDI location decisions (Meyer and Nguyen, 2005; Du *et al.,* 2008), but also find an interesting nuance to this. Government and

legal institutions, in particular, are much more important determinants of FDI into peripheral cities than they are to core cities. I suggested that this may reflect several factors; (i) it may be that peripheral cities concentrate on developing institutions that are attractive to foreign firms as a means of competing with core cities. By improving these aspects of the local context, governments in peripheral cities create an 'institutional advantage' for those firms that undertake their FDI in a peripheral city of China and, (ii) perhaps unburdened from the administrative and political demands associated with core cities, peripheral cities can devote more attention to efficiently regulating and supporting foreign investors (in the case of government institutions) and treating them with judicial fairness and offering protection and enforcing their rights under the law (in the case of legal institutions). We can also observe how these findings relate to Chapter 4. As mentioned, many managers reported that their firm had received much more government help and support when setting up in peripheral cities than in core cities. It is arguable, therefore, that an 'institutional' logic – the rationale that the firm will receive more support from local institutions - is propelling foreign investors into peripheral cities.

In identifying nuanced determinants of FDI between core and peripheral locations the study makes a further contribution to location theory (McCann and Mudambi, 2005; Ma and Delios, 2013). Namely, locational heterogeneity seems to operate on two levels. On the first level we can observe differences across the characteristics of different cities and regions. However, on the second level, we can observe subsets of locations that differ markedly from each other. In this study, I predetermined what these subsets (i.e. core-periphery) were to examine questions of theoretical interest. However, in identifying that the determinants of FDI differ significantly across different subsets of subnational locations, this research points to the importance of identifying heterogeneity that exists on both levels, i.e. heterogeneity that affects all locations and heterogeneity between subsets of locations that share similar

characteristics – even if they are difficult to empirically observe. This finding contributes to location theory by demonstrating that we cannot assume that location attributes have homogenous effects on FDI across all subnational contexts. In certain local contexts (e.g. peripheral cities) foreign investors will evaluate the location environment, including the composition of its attributes (e.g. presence of domestic firms) differently.

Therefore, one of the key contributions of the study is in theorising, operationalising and empirically demonstrating how subnational location heterogeneity interacts with CP spatial divisions to influence the determinants of FDI across cities within a large, emerging economy. Whilst this is a contribution in itself, the study goes further by also focussing specific attention on CP dynamics and the role of spatial dependence. This study is not the first to suggest that distances matter; indeed, cultural, institutional, geographic and administrative distances have all been discussed and investigated in previous work (e.g. Kostova, 1996; Ghemawat, 2004). This study is novel in that it empirically demonstrates the critical role played by CP distances between cities on the location decisions and performance of MNEs at a subnational level. An interesting finding in relation to this is that foreign investment is more likely to gravitate towards a peripheral city when the city is geographically closer to a regional core city. Previous research (e.g. Mariotti and Piscitello, 1995; He, 2003; Zhao *et al.,* 2005, Goerzen *et al.,* 2013) has not considered the impact that regional cores within countries may have on location choice. However, in very large countries, such as China, it is likely that foreign investors perceive proximity to regional cores to be more important than proximity to national cores when they decide to set up operations in a peripheral city. Furthermore, perhaps the 'local density' – the number of organisations vying for scarce resources in a location (Eden and Miller, 2006) - of national cores creates diseconomies of scale that deter foreign investors from setting up in these locations (Krugman, 1998).

8.3.4 Corporate activities and subnational locations.

In chapter 6, I demonstrate that spatial variations between the core and the periphery impact on the locational determinants of FDI. But, how do MNEs accommodate these spatial variations in their location strategies for differing corporate activities? The study presented in Chapter 7 demonstrates a correspondence effect between these spatial variations and location choices for different types of business activity. More specifically, MNEs are much more likely to locate technologically intensive and higher value added business activities in core cities of China than in peripheral ones. I suggest that these cities, being more developed than other cities in China, possess the necessary infrastructures, human capital and advanced producer services that are most conducive to technology intensive business activities.

The research presented in Chapter 7 builds on the emerging activity-based-view of the firm (Buckley and Ghauri, 2004; Enright, 2009; Jensen and Pederson, 2011). In doing so it offers insights into the subnational disaggregation of different value chain activities. This research, however, is differentiated from existing studies (Galan *et al.,* 2007; Jensen and Pederson, 2011) in this area in that it examines location choice at a much more geographically fine grained level of analysis. In doing so, the study is able to determine which types of corporate activities are most likely to be located in core or peripheral cities within an emerging economy. The results indicate the technology and information intensive corporate activities are significantly more likely to be located in national core cities than in other cities. In contrast, manufacturing activities are more likely to be located in regional core and peripheral cities.

This evidence presented in Chapter 7 complements the findings of Chapters 5 and 6. Firstly, as acknowledged in Chapter 5, the conclusions drawn from the findings are somewhat limited due to the aggregated nature of the FDI data. The result is that the analysis was

unable to determine how location attribute preferences between core and peripheral locations might be affected by firm- and investment-specific factors. Chapter 7, to some extent, redresses this limitation. For example, the preference for high levels of human capital in core cities is likely to be related to the decision to invest technology intensive and high-value added corporate activities in core cities. Furthermore, these findings complement Chapter 6, by contributing to our understanding of the subnational decision making process. I argued in Chapter 6 that the subnational location decision could be explained by considering the idiosyncratic sensemaking processes used by managers to evaluate opportunities present in particular cities. In Chapter 6 there was also evidence to suggest that investment-specific factors also impacted on this decision. Specifically, firms with host-country HQ responsibilities and those concerned with selling to the local market desired to locate in (or geographically close to) core cities due their larger and more developed markets. The findings presented in Chapter 7 complement this perspective by showing that core cities are more likely to attract those firms that perform domestic sales activities and HQ activities.

Table 21 Summary of empirical chapters

Empirical chapter	Sub-research question addressed	Key findings	Theoretical contribution
Ch4: "Subnational heterogeneity, spatial distance and foreign affiliate performance across cities"	To what extent do subnational disparities and spatial distances affect the performance of foreign affiliates across cities?	* A significant proportion of foreign affiliate performance is explicable by variations across the characteristics of local context.	* The subnational location-performance relationship is much more localised than previous research has suggested (or shown). This research demonstrates that variations across cities are so pronounced that there is a significant effect on firm performance. The contribution is that this research unpackage local context into several components and tests their relative effects on performance.
		*The following factors embedded in local contexts have a positive effect on the performance of foreign affiliates; higher quality utilities infrastructure, higher levels of human capital, more foreign firms, more efficient local governments and more effective legal systems. Corruption has a negative impact on performance	* Foreign affiliate performance in spatially dependent. This research demonstrates that 'space' matters by showing that increased spatial distance from core cities at national and regional levels impact on the performance of foreign affiliates.
		* Spatial distance from core centres of economic activity at regional and national levels impact negatively upon the performance of foreign affiliates. This suggests a subnational liability of foreignness that is spatially dependent.	
Ch5: "Foreign direct investment location choice in unfavourable environments"	Why do some foreign investors eschew core city locations in favour of peripheral cities within an emerging economy?	* The subnational location decision is affected by a range of firm and location specific factors, however, I also find that idiosyncratic opportunity recognition plays an important role during the decision process .	* 'Sense of place' and idiosyncratic opportunity recognition play a significant role in the decision to eschew core centres of economic activity.
		* Managers (firms) opportunity recognition in non-hub cities is primarily driven by their perceptions of the market and competitive environment, the cost structure and local density and local government financial incentives and support.	* This chapter Identifies three strategic logics that form a key role in sense of place - market, resource and institutional logics. Furthermore, the chapter contributes to location decision making theory by demonstrating how firms experience and make sense of locational characteristics manifest in the choice of location.
			*This chapter introduces the concept of *sense of space* and explicates its underlying logics

Ch6: "Urban-disparities and the locational determinants of foreign direct investment across Chinese cities	To what extent are the determinants of FDI different between core and peripheral cities of an emerging market?	* The determinants of FDI significantly differ between the core and periphery.	* The characteristics of alternative subnational contexts affect foreign firms' responsiveness to different sets of location attributes (e.g. human capital, domestic firm agglomeration, government and legal institutions) - in other words, the determinants of subnational location choice are context dependent.
		* FDI is more likely to locate in those peripheral cities that have an existing high stock of foreign firms, a low stock of domestic firms, effective local governments and effective local courts.	* The decision to invest in a peripheral city is spatial dependent. This suggests that in lieu of traditional location advantages, the decision to undertake FDI in a peripheral city is significantly affected by how close that city is to a regional core city. This evidence of CP spatial dependence contributes to IB theory by highlighting an critical subnational 'distance' effect.
		* FDI is more likely to go to those peripheral cities that are geographically closer to regional cores.	
Ch7: "The spatial disaggregation of MNE corporate activities and core-periphery disparities"	How do foreign investors accommodate subnational variations in their location choice decision making for different business activities?	* MNEs are more likely to locate technology intensive foreign investment projects in core cities, rather than peripheral cities	* The chapter demonstrates a correspondence effect between technological intensity, high-value added business activities and propensity to locate in core locations.
		* MNEs are more likely to locate HQ and R&D activities in national core cities, whereas, marketing seeking manufacturing activities are more likely to go to regional cores and efficiency seeking manufacturing is more likely to go to peripheral cities.	* This study demonstrates that core-periphery dynamics play an important role in affecting the strategic fit between firms and locations.

8.4 Managerial implications

The findings of this research have significant managerial implications. Indeed, the value of this study to a managerial audience has already been recognised through the publication of a report via UK Trade & Investment (UKTI) that directly builds on the research and findings of this study, *"China Regional Cities Business Guide 2013"*. The key managerial implications arising from this study are as follows:

- Rapid rates of urbanisation mean that peripheral cities in emerging economies, such as China, offer attractive business opportunities given their rapid pace of growth. Additionally, some of the more established core conurbations in such countries are beginning to exhibit unattractive characteristics, such as hyper competition for markets and resources and rapidly rising cost structures. Therefore, peripheral cities are offering increasingly attractive business environments for foreign firms to locate in. The implication of this is that MNEs should increasingly attempt to factor in peripheral city business opportunities into their current portfolio of international operations.

- However, peripheral cities in an emerging economy, such as China, may still be characterised by unfavourable characteristics that may magnify the general difficulties of doing business in these countries. These problems may be particular severe for firms that intend on establishing their operations in those cities that are geographically more distant from core cities. Firms considering these locations should be prepared to adopt management systems that militate against this geographical disadvantage. For example, in order to avoid underperformance in these foreign affiliate (due to their increased isolation from core cities), MNE managers should pay closer attention to the resource and information needs of these foreign affiliates and ensure that they are adequately supported. For example, by taking measures to reduce local 'resource dependency' by

ensuring they are fully supported by the MNE's capabilities and resources, firms may be able to mitigate the exposure to increased LoF faced by these affiliates. Furthermore, managers should seek to mitigate exposure to risk and uncertainty in peripheral cities in emerging economy countries by identifying those cities that already have a high share of foreign investment. In doing so they can benefit from a support network of "friends" in these often difficult local contexts. Furthermore, managers should also attempt to identify which peripheral city governments can offer them the 'best deal' – the evidence presented in this dissertation suggests that by 'shopping around' firms can receive favourable financial and non-financial incentives to invest in particular cities from local governments in China. Furthermore, being located in cities in which local government officials are prepared to offer set up assistance and support can help MNEs to overcome some of the additional liabilities (such as 'outsidership' and increase costs of doing business) that they may face in these locations.

- When investing in cities within emerging economies, managers should attempt to gather and compile as much information as possible in order to make an informed decision. Furthermore, managers should attempt to optimise the strategic fit between the characteristics of the investment project and the characteristics of specific locations. For example, managers could perform a value chain analysis by identifying the factors that will make particular aspects of the value chain more efficient and subsequently locating that stage in the value chain to the most optimal city based on this analysis. However. managers will also have to bear in mind the costs associated with coordinating value chain activities across wide geographical space and the associated costs of moving the output of each stage to different parts of a country. However, if managers can disaggregate the value chain in this way, the firm will be in a much better position to *exploit subnational heterogeneity to their advantage* rather than be challenged by it.

8.5. Recommendations for policy makers

Although the focus of the research presented in this dissertation is on better understanding factors influencing the performance and location decisions of MNEs, the findings also offer insights that could help inform inward investment policy in China and perhaps also in other large heterogeneous emerging economies. These recommendations are targeted at national, provincial and city-level governments of China.

- **National level policy makers:** In the first instance, the central government of China should include the urbanisation and economic development of peripheral cities as key matter of importance in the next five year plan. In particular, ensuring that the development of these cities is managed in a manner that counter balances the need for economic growth with environmental sustainability will be of increasing importance. Although this is not a topic that is specifically addressed in this dissertation, the increasing environmental demands created by a growing global economy necessitate the creation of development policies that foster sustainable growth. In addition, more investment should be targeted at creating high-speed railway linkages between core and peripheral cities of China. This may make those cities that are not currently well connected seem less 'distant' to prospective foreign investors. Thirdly, the central government should consider creating special incentive policies for those firms willing to locate in peripheral cities. While there are already special policies for MNEs that set up affiliates in Inland and Western regions of China, these policies to not differentiate between provincial capitals, sub-provincial cities and all other prefectural cities (peripheral cities). Arguably, the attractiveness of these cities could be increased further if there were greater special incentives for investing in these locations.

- **Provincial level policy makers:** At the provincial level, policy makers should begin to think about the linkages between all cities within the province, particularly the linkages

between the regional core and peripheral cities. Furthermore, an important area for provincial policy makers to work on is city marketing. A useful starting point would be to develop informative brochures for all cities within a province that clearly outline their key advantages. This could include detailed information on which cities are best for specific types of industries and corporate activities. In doing so particular provinces could attract multi-plant foreign investments that are spread across different cities with different advantages.

- **City level policy makers:** Policy makers and officials at the city level should focus on augmenting characteristics of the local context that are most attractive to foreign investors. There are several aspects to this: (1) Improving the efficiency of the local government and the services that are provided by these institutions. Local governments in peripheral cities should focus on providing services that enable foreign investors to set up and establish their operations quickly with limited bureaucracy and 'red-tape'. This should extend into support in terms of facilitating the development of networks with key industry insiders and other relevant business networks. In essence, local officials should help firms to develop 'social capital' and 'insidership' in these localities. This may also include efficient provision of practical support to help expatriates and their families to relocate to peripheral cities; (2) officials in cities should exert pressure on courts to enforce the intellectual property and contract rights of foreign investors. As the results presented in the dissertation show, the legal effectiveness of cities affects both performance and FDI location decisions of MNEs. Therefore, legal institutions are clearly a matter of importance to MNEs and increasing investor confidence in the efficacy of these institutions may help to attract more FDI; (3) the utilities infrastructure of cities can have a bearing on the performance of foreign affiliates. This is an aspect of the city infrastructure that can be directly controlled by city officials. As such, the provision of critical utilities within the city should be as efficient as possible. This may help to increase investor confidence when investing in peripheral city locations; (4)

peripheral cities should attempt to attract high skilled domestic Chinese citizens to live and work in these locations, thereby increasing the level of human capital in these locations. This may help to attract more technology intensive FDI; (5) More generally, these cities should provide detailed information in order to market themselves to foreign investors. As mentioned in this dissertation 'information costs' can be a significant deterrent to FDI. Therefore, by providing detailed and high quality information, the informations costs associated with peripheral cities could be reduced which may help to further stimulate FDI.

8.5 Research limitations and future research directions

As with all empirical research, this study is not without its limitations. Firstly, this is a single country study and, thus, one might question the degree to which the results are generalizable across different country contexts. However, as others have demonstrated, China presents an excellent natural laboratory in which to investigate firm-location interactions (Shi *et al.,* 2011. Ma *et al.,* 2013) that can be used to make theoretical generalisations about firm behaviour and performance in emerging markets (Belderbos *et al.,* 2011). Therefore, although different countries will present their own unique characteristics and local contexts, it is arguable that the research findings presented in this study are generalizable to other geographically large, heterogeneous emerging economies such as Brazil, Russia and India. However, this also gives rise to an interesting future research direction. Pertinent questions include, what national differences affect the subnational performance and location decision making of MNEs? And, do core-periphery dynamics materialise in the same way across different national contexts? The unique contexts of these country environments will provide interesting natural laboratories in which to extend and build on the insights of this study. Future research would also greatly benefit from taking a more connected approach to the role of rapidly urbanising peripheral cities. Relevant questions to begin with are: How do

peripheral cities fit within the wider context of interconnected 'global cities'? How to peripheral cities contribute to globalisation processes? And, how do firms accommodate the varying advantages of these peripheral locations across the entire portfolio of their global value chains? In this respect social network methods of analysis may prove useful for exploring the arrangements of MNE global networks across cities in different countries.

Secondly, there are several data limitations. Subnational data, particularly for cities, are not widely available for most countries. Moreover, the study reported in Chapter 4 is limited by the fact the locational data is cross sectional. A panel data investigation would have been preferable. However, the data used were not collected continuously and there are no alternative data sets for the type of variables under investigation. However, the nature of the data does not prevent sufficient testing of the theoretical hypotheses. Furthermore, other studies have relied on non-panel statistical data investigations to examine relationships between locations and performance (e.g. Child *et al.,* 2003). Similarly, the study presented in Chapter 6 is limited by the fact that the dependent variable is aggregate utilized FDI flows and therefore, it is impossible to disaggregate the investment by origin of investor, type of industry and motivation for investment. Therefore, the findings presented in Chapter 6 are limited by the inability to detect whether firms from different countries favour particular location attributes or if other factors such as industry and firm size moderate the attractiveness of particular location attributes. While a clear limitation, others have previous argued that aggregate FDI flows are arguably better for exploring the direct effects of location on MNEs (Cookson *et al.,* 2012). Furthermore, as previously mentioned this limitation is somewhat addresses by the complementary perspective presented in Chapter 7. However, a clear avenue for future research is to explore the contingent effects of firm-location relationships on the choice and determinants of subnational location decisions between the core and periphery.

The analysis in Chapter 5, which is based on qualitative data, also suffers from empirical limitations. The key one is that the interviews (for the majority of the sample) were conducted with only one representative per firm. While it would have been preferable to interview multiple decision makers in each firm, levels of access prevented this. It should be noted, however, that similar studies have relied on the views or responses of only one manager or decision makers in firms (Orr and Scott, 2007). Secondly, many of the managers interviewed were local operations managers in China. Arguably, these managers were not part of the initial decision to invest in China. However, these managers were selected for interview because of their senior position in China and their strong knowledge of the firm's local operations, rationale for selecting a particular location and the firm's decision making processes more generally. Furthermore, in many instances, the local manager was directly involved in the final stages of the firm's subnational location decision within China.

A final limitation of the research is that it does not fully consider the role of firm-level characteristics in determining foreign affiliate performance differentials and location decision making. While Chapter 4 controls for firm-level factors (such as size, age, industry and ownership), the study does not consider some pertinent firm-level determinants of performance. Most notably, resource based considerations (such as marketing, managerial and financial resources), (Wan and Hoskisson, 2003) managerial teams (Ganotakis and Love, 2012) and relational assets (such as connections with local officials or *'guanxi'*) are not considered (Peng and Luo, 2000). However, while clearly a limitation, the focus of this study was to develop more fine grained insights into the impact of location on the MNE. The findings of this study that relate to location offer new insights into foreign affiliate performance that can be built upon by future research to extend our knowledge on the MNE-location relationship.

In particular, more insight into managerial decision making in the context of subnational location choice and coordination of value chains across cities is needed (Buckley *et al.,* 2007). How do managers make decisions when coordinating the dispersion of their business operations across cities? What types of information do they rely on? How does the firms' existing portfolio of subnational operations affect its future location decisions? Fourthly, future research would benefit from integrating ownership advantages and resource based considerations into exploring MNEs' subnational location decisions and performance. Pertinent questions include, to what extent does the strength of the firms ownership advantages (e.g. technology and marketing capabilities) moderate its location decision making? Can firms with stronger ownership advantages overcome subnational LoF? Do firms with greater sense of space benefit more from core-periphery disparities?

Overall, this research opens the door for a new research agenda that fully embraces the changing nature and structure of the global economy. Further integration of IB with other disciplines including economic geography, regional science, sociology and institutional economics will be critical to realising the full potential of this research agenda.

8.7 Closing remarks

This dissertation began by arguing that rapid rates of urbanisation within emerging economies will create a new set of theoretical considerations for international business scholars. Most notably, the trend toward urbanisation will place greater emphasis on understanding the role of subnational heterogeneity on the location strategies of MNEs. This dissertation makes several important contributions to existing knowledge and theory in the field of international business. Most notably, this dissertation offers empirical evidence that demonstrates the effects of subnational heterogeneity and core-periphery disparities on FDI

location decisions and the performance of foreign affiliates. The research clearly demonstrates that international business research needs to engage much more thoroughly, using much greater geographical precision, with the various locational influences on the MNE and its affiliates. In doing so, the international business literature can move away from criticisms of neglecting location to, instead, developing a more complete understanding of multinational enterprises in geographic space.

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List of Abbreviations

MNE Multinational enterprise

IB International Business

NEG New Economic Geography

CP Core-Periphery

LoF Liabilities of Foreignness

LoO Liabilities of Outsidership

CDBA Costs of Doing Business Abroad

FDI Foreign Direct Investment

WB World Bank

RE Random Effects

USA United States of America

PRC Peoples Republic of China

UNCTAD United Nations Conference on Trade and Development

UNDESA United Nations Department of Economic and Social affairs

GDP Gross Domestic Product

MGI McKinsey Global Institute

RO Research Objective

RQ Research Question

SRQ Sub-research Question

WTO World Trade Organisation

EJV Equity Joint Venture

R&D Research & Development

HQ Headquarters

MDS Manufacturing for Domestic Sales

MES Manufacturing for Export Sales

TFP Total Factor Productivity

RCC Regional Core City

NCC National Core City

Appendix A Key findings of subnational location choice studies

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
China (provincial level)	Belderbos and Carree (2002, *JJIE*)	Japanese investments in China - agglomeration, keiretsu and firm heterogeneity.	229 entries between 1990-95 from the electronics industry	Location choice differentials between SMEs (dummy) and larger firms, and between local market oriented and export oriented investments (local sales ratio)	Industry agglomeration, Country of origin agglomeration and *Keirestsu* agglomeration Provincial GDP GDP per capita Wage level Infrastructure (seaports and telecommunications) SEZs and OCCs share in regions GDP	~ Significant effect found for agglomeration effects, even after controlling for provincial characteristics ~ Significant differentials in location choice based on firm size and market orientation. SMEs have a greater propensity to locate in Japanese agglomerations and in regions closer to Japan ~ Export oriented firms are more likely to locate close to seaports than their local market oriented counterparts

| China (provincial level) | Belderbos, Van Olffen and Zou (2011, *SMJ*) | Examining the interrelationships between economic and institutional theories of agglomeration of FDI location decisions. | 692 Japanese electronics firms entries at the provincial level between 1979-2001 | Mechanisms of social learning (broad assessment learning) and Social modelling (bandwagon effects - similarity in terms of size and industry niche) | Recentness of prior entries
Firm experience in China
Similarly sized firms
Age of similarly sized firms
High status firms
Age of high status firms
Existing non-Japanese electronics investors in the region
Keiretsu affiliations
GDP
GDP per cap
Wage costs
Seaport (dummy)
Past colonial ties
Provincial economic policies (existence of SEZ/OCC) | ~ Broad support found for hypothesis - however, the extent to which the variables under consideration can be statistically modelled using secondary data is limited
~ Social learning and social modelling, although in theory carry different benefits, operate simultaneously in the decision process (both proxies significant)
~ Propensity to agglomerate is moderated by experience
~ Agglomeration has an inverted U shaped effect on location choice
~ Recentness of prior entries into a location has a positive effect on propensity of new entrants to agglomerate (modelling)
~ Social modelling is moderated by experience |

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
China (provincial level)	Cheng and Stough (2006, *ARS*)	Location choice of Japanese new manufacturing plants in China.	764 new Japanese entries between 1997-2002	Market size (GDP) Infrastructure (transportation density) Costs (labour cost, land cost, energy cost) Labour quality (% of population with high school education) Policy incentives (SEZs/OCCs/ETDZs) Agglomeration (country of origin agglomeration and agglomeration with domestic Chinese enterprises)	Regional dummy variables (provinces allocated into six regions - consistent with traditional regional divisions in China)	~ National policy incentives are more effective than provincial incentives at attracting FDI ~ Agglomeration logics exact a positive and significant influence on provincial location choice, the result for agglomeration with domestic Chinese businesses is not significant ~ Japanese investors avoid high cost provinces, however, rather counter intuitively they have a proclivity to locate in high wage provinces (reasoned to be as a function of the relationship between wage costs and labour quality)
China (provincial level)	Cheng and Kwan (2000, JIE)	China specific determinants of FDI.	FDI stock per year for 29 provinces between 1985-1995	Provincial GDP per cap Infrastructure ~ Road length ~ High grade roads ~ Railway density Real wage Education ~ Primary education ~ Junior high education ~ Senior high education	Provincial policy ~ SEZs ~ OCCs ~ ETDZs Unobserved region specific and time specific effects	~ FDI has a strong reinforcing effect - which is consistent with agglomeration theories ~ Infrastructure is generally found to be significant. ~ Provincial GDP per capita had a positive effect on FDI ~ Wage costs have a negative effect on FDI ~ Level of education registered no significant effect on influencing FDI choice. The authors aver that this is because FDI wasn't initially attracted to China for the quality of labour. The increasingly heterogeneous motivations, and economic development of China, would call into question this finding

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
China (within Guangdong province)	Ng and Tuan (2003, *JAE*)	Implications of China's WTO accession on location choice of manufacturing FDI. The effect of the core city-periphery location relationship on the locatio of FDI within Guangdong province.	8985 joint ventures (SMEs) in Guangdong in 1998	Firm size (SME vs. Large firm) Core city -periphery location relationship Transaction costs (trade constraints e.g. Quoto constraints) Natural geography	Agglomeration economies in the core and periphery Region of investors origin FDI activities by industry Firm location (East/west) SEZs location	~ Firm size plays a critical role in determining FDI location choice ~ SMEs exhibit a greater proclivity to agglomerate in order to benefit from the industry clusters within the core-periphery nexus ~ SMEs location choice displays a preference for being closer to the core, so as to take advantage of the lower transaction and information costs associated with this proximity
China (City level)	Chadee, Qiu and Rose (2003, *JBR*)	Relating business characteristics to locational traits. Focusing on investment at the City level within China.	6430 equity joint ventures (EJVs)in China during the period 1984-1996	Origin of FDI (Country) Business activity (manufacturing vs. Service) City location ~LOC1: SEZs or OCCs ~LOC2: Beijing, Shanghai, Tianjin ~LOC3: Other coastal cities ~LOC4: Inland regions	Share of equity in EJV Contractual duration of EJV Size of investment Year of EJV approval	~ Significant differences between location of service and manufacturing EJVs, with service sector EJVs more likely to be located in large metropolitan cities ~ Country of origin is also significant, i.e. European (UK, France and Germany) and North American firms (U.S.A and Canada) are more likely to invest in China's large metropolitan cities such as Beijing, Shanghai and Tianjin, than counter parts from Hong Kong, Macau and Taiwan. The authors attribute this to 'Western' investor's preference for large, well developed consumer markets ~ Higher foreign ownership of the EJV results in a greater likelihood that the investment will be located in a SEZ or OCC - this is associated with the lower levels or relative risk in these environments, which increase investor confidence, and thus, the size of the investment

| China (City level) | Canfei (2003, *AEJ*) | Investigates the location choice of foreign manufacturers, with a focus on the role and interplay of agglomeration and country of origin. | All manufacturing FDI established between 1992-1995 from businesses originating from the USA, Japan, Hong kong and Japan | Agglomeration effects Country of orgin effects Industry effects City location ~ Port cities ~ Policy zone cities (SEZs, OCCs and ETDZs) | Market potential % of employment in tertiary activities Effective wage rate (cost adjusted for productivity) | ~ Agglomeration economies have a strong and significant effect on the location of foreign manufacturers, this is also related to locations which provide access to large markets ~ Manufacturing FDI is attracted to cities with incentive policies, however, this is offset by their tendency to avoid cities with high wage costs ~ Country of origin also exerts an impact on location choice, with firms from the USA, HK and Taiwan tending to locate in Cities with large markets, while Japanese have a greater tendency to locate in Cities with ports |

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
China (firm level data)	Jean, Tan and Sinkovics (2011, *IBR*)	Examines the relationship between ethic ties, location choice and firm performance in a sample of 98 Taiwanese business groups.	98 Taiwanese business groups profiled in two separate instances (1998 & 2001) in a secondary dataset published by the China Credit information Service	Ethnic ties of top managers Foreign affiliate performance - (China sales ratio) Location choice	R&D intensity Core industry growth Business group size (c) Product diversification (c) Service oriented group (c)	~ Contrary to expectations, ethnic ties do not influence firm performance, which indicates that these relationships, whilst influencing location choice, are not sufficient to effect firm performance ~ Furthermore, the relationship between FDI, ethic ties and performance is moderated by the firms technological capabilities (as assessed by R&D intensity)
China (provincial level)	Zhou, Delios and Yang (*APJM*)	A temporal effects examination of the role that China's FDI policy incentives have had in determining the location of Japanese FDI location choice.	2,933 cases of Japanese FDI IN 27 provinces	Location specific FDI policy ~ SEZs (Special economic zone) ~ OCCs (Open coastal city) ~ NTZ (Economic development zone) ~ ETDZ (Trade development zone) ~ FTZ (Tax incentive area) Temporal effects	Subsidiaries formed in region per year Subsidiary employment Land area Regional development Market size Transportation infrastructure Agglomeration	~ The results indicate that, in general policy measures aimed at attracting FDI have exerted a positive gravitational pull on Japanese FDI in China ~ SEZs and OCCs, created first and second respectively, were found to have had a strong influences on the direction of Japanese FDI during the 1980's, however, the influence of these zones decreased during the 1990's as new policy zones opened up ~ The general 'quality', (i.e. regional development, education, infrastructure) of the location also has a positive effect on the direction of Japanese FDI ~ Japanese FDI in China also exhibits strong tendencies towards agglomeration. The authors reason that the historical uncertainty in the relationship between China and Japan, may have increased the proclivity of Japanese businesses to cluster. This also carries lower information costs, in terms of, searching 'factually opaque' environments in China ~ Market size does not show as significant. This indicates than many Japanese subsidiaries in China were not serving the local market, but rather exporting back to Japan or other international markets

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
China (City level)	Blanc-Brude, Cookson, Piesse, and Strange (2011)	Explores the role of spatial effects between Cities as a determinant of FDI location choice in China.	Inward FDI data for 224 prefecture level cities from the period 2004-2007	FDI (annual inflow as % of GDP) Spatial effects ~ Economic distance between cities (KM between cities) ~ Geographic distance between cities (GDO differentials) ~ Administrative distance between cities (Govt. Spending on City admin.)	Agglomeration (industrial output of foreign invested enterprises) Human capital (govt. Expenditure on science) Infrastructure (major port) Trade openness (exports) Mean wage level	~ Geographic, economic and administrative distance between cities all influence the spatial dispersion of FDI in China, and furthermore, these effects are interrelated, with moderating relationships between them ~ Cities which are geographically close are likely to experience spillover effects from other cities close by. This is essentially the effect of city 'clustering' and also indicative of a core-periphery relationship. This may be the result of FDI locating near a core city because of the large market there, but avoiding locating in the core itself because of high input costs ~ The geographic relationship between cities is moderated by both their economic and administrative similarity, i.e. when Cities share a similar geographic distance, FDI is more likely to locate in Cities which are economically and administratively close to a 'core city'. ~The study has highlighted that FDI location research cannot ignore spatial relationships between locations. These locations are often treated independently from one another, which makes the simplifying assumption that they are distinct places in 'space'. The study has demonstrated that spatial relationships matter when examining location choice. ~ Furthermore, the study looks at the city level, and makes the important point that when examining FDI location in a country as large and as diverse as China, looking a FDI location above the level of City may lead to skewed results, as provinces in China cover vast and heterogeneous areas

| China (City level) | He (2010, *RS*) | The study theorises that information costs and asymmetries place foreign investors at a disadvantage when investing in a foreign country. The panacea to these informational disadvantages is reasoned to be the economies resulting from agglomeration. This theory is tested in the China at the city level. | FDI in 200 prefecture, provincial and semi-provincial level cities between 1996-1997 | FDI (realised value) Agglomeration (number of foreign funded enterprises in a city) City location (dummies for prefecture, provincial level cities) Policy zones (SEZs and OCCs and provincial capitals) | Urban population density Number of industrial enterprises Number of telephones per 100 people Port cities vs. Non port Effective wage rate (wages adjusted for productivity) | ~ The study finds support for the theory that the location decisions of foreign investors are determined by information costs, with the tendency to locate in existing agglomerations being a remedy for this liability. ~ The information costs argument can be extended to explain the proclivity of foreign investors in locate in (a) costal cities; (b) regional agglomerations of foreign investors; (c) Cities with favourable FDI policies / incentives; (d) Cities with better infrastructure |

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
China (Selected Cities)	Zhao, Cai and Zhang (2005, *CER*)	The study specifically looks at the location choice of MNE headquarters, taking an information cost / asymmetries argument to explain the differentials in location choice between headquarters and regular FDI.	Survey of 2498 foreign corporate HQ in China foreign affiliates across 7 industrial categories in five cities (Hong kong, Beijing, Shanghai, Guangzhou and Shenzhen)	HQ vs. Regular FDI Realised FDI FDI as % of national total Location factors ~ Proximity to central govt. unit ~ Govt. Preferential policies ~ Superior business environment ~ Superior urban infrastructure	Industry	~ Foreign affiliate HQs demonstrate a high propensity to locate in either Shanghai or Beijing, particularly the latter. The authors evaluate this finding as a reflection of the need for investors to be close to central government decision makers, which is verified by the survey. Furthermore, these locations represent hotbeds for knowledge and information - which is critical currency for corporate HQs. ~ Furthermore, the study finds that firms locate in different cities based on different factors. The authors found that foreign affiliates located in different cities based on different rationales.
China (City level)	Hong (2008, *JCEFTS*)	Examines the impact of China's accession to the WTO on the location behaviour of FDI.	FDI inflows to 253 Cities over an 11 year period (1995-2005)	Pre- and post-WTO accession effects	GDP per capita Agglomeration ~ Foreign specific ~ Service specific Labour cost Infrastructure Labour quality Preferential policy zones	~ The research suggests that China's accession to the WTO had had the effect of decreasing, albeit still significant effect, on FDI flows to preferential policy zones. ~ Furthermore, both forms of agglomeration exerted a positive effect, as did higher infrastructure and labour quality ~ The findings indicate that the location of FDI in China may be changing following China's accession to the WTO. The declining tendency to locate in preferential policy zones may suggest that investors are growing more confident with respect to China and no longer feel 'bound' to the locate in Cities previously designated by central government ~ However, the continuing trend toward agglomeration indicates a certain level of path dependency in foreign investor decision making, and furthermore, hints at the continued uncertainty investors face when entering the Chinese market

| China (provincial level) | Gao (2005, *CER*) | Focuses on the role of labour quality as a determinant of FDI location choice in China. Specifically, this study is intended to address a debate concerning the role and more importantly, the directionality, of labour quality as a determinant of FDI in China. | Realised bi-lateral FDI between 1996-1999 | Labour quality ~ primary education ~ Junior ~ Senior ~ College | Provincial GDP Real wage Infrastructure Special Economic Zones | ~ The study finds strong support for labour quality as a positive and significant determinant of FDI location choice in China ~ Furthermore, through dividing the source countries into developing and developed, the study finds that the latter are more inclined to locate in provinces with higher labour quality ~ Therefore, through taking a more considered approach to inward FDI, the study finds that the factors influencing the location decision are not homogenous for all investors, and that the level of development in the country of origin may skew the locational preferences of firms |

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
Vietnam (provincial level)	Tan and Meyer (2011, *JIBS*)	Examines two forms of agglomeration, country of origin and industry agglomeration. The paper argues that the two forms of location strategy carry different benefits. This is moderated by the firms assessment of the institutional environment and their experience within the country.	(1) Survey data of 147 firms in 20 provinces (2) Secondary data on country of origin investment and industry investment for each of the 20 provinces from Vietnamese statistical yearbooks	Country of origin agglomeration Same industry agglomeration Perceived institutional voids	Experience WFOE vs. JV Regional characteristics (dummy) Local firm activity	~ Both country of origin and same industry agglomeration have significantly positive effects on the location strategy of FDI in Vietnam ~ When institutions are perceived to be weak, foreign affiliates exhibit a greater tendency to locate in country of origin agglomerations. This is explained as a result of the type of local environment knowledge flows and trust which develops in country of origin agglomerations. ~ The study proxies a firms outsidership based on whether or not they are established via a JV or not. The findings indicate that firms with JVs (thus insidership) are not significantly drawn toward country of origin or same industry FDI. ~ For firms with high levels of outsidership (no prior experience, WFOE), both country of origin agglomerations and industry agglomerations significantly influence location choice

France	Crozet, Mayer and Mucchielli (2004, RSUE)	The study examines subnational location choice across 92 location in France, with a particular focus on country of origin and industry agglomerations, as well as the role of geographical distance from the home country as a determinant of location choice differentials.	4000 FDIs between 1985-1995	Country of origin agglomerations Industry agglomerations Geographic proximity of locations in France to the foreign firms home country Regional investment policies	Market potential (demand function) Wage costs	~ The propensity for firms to agglomerate is contingent on both the firms country of origin and its industry affiliation ~ Firms in industries such as computers, car parts, machine tools and office machinery. Other industries characterised by 'low skill work' are less prone to agglomeration and are more likely to seek locations with lower input costs ~ While many firms locate close to other firms from the same country of origin, this is not true for all countries, for example firms from the Netherlands and Italy are less prone to locate in same country clusters ~ The location patterns of FDI in France also experienced temporal effects. For example, it was observed that the initial location patterns (in the dataset) of firms from Germany, The Netherlands, Belgium and Switzerland tended to reflect geographical proximity to their respective countries of origin. However, however time this effect erodes, with FDI location reflecting market demand. This suggests a learning effect to location behaviour over time, i.e. the decisions become more economically rational.

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
Italy (provincial)	Mariotti and Piscitello (1995, *JIBS*)	The study examines the differential impact of 'foreignness' on location choice within Italy. The study posits that foreign firms experience 'information costs and asymmetries' relative to foreign firms and that these liabilities manifest in location decisions which attempt to mitigate the informational disadvantages of the foreign firm.	625 acquisitions between 1986-1991	**Information cost variables** Distance from the country core - proxied as road distance from a given provincial capital to Milan and Rome, respectively the economic and political centres of Italy Age of first FDI - number of years between the provinces first FDI and the beginning of the data set (1985) Presence of the 'Top 500 MNEs' Border effect - testing propensity to locate in provinces geographically closer to country of origins border.	**Traditional location factors** Unemployment Quality of labour force Unionization of the work force Land availability Market demand **Infrastructure, services and intangible asset factors** Population density Physical communication networks Shipping capacity Business services Banking services Banking and financial services Scientific infrastructures **Environment and social context factors** Social degradation (crime rate) Economic instability (bankruptcies)	~ Strong support is found for the information costs argument. The results, therefore, suggest that the inherent foreignness of decision makers and the information costs and asymmetries this foreignness creates, manifests in a location choices which are both a reaction to a lack of information about potential investment opportunities, and a rationalised attempt to minimise the disadvantages created by informational deficits. Firms attempt to overcome information costs through locating in existing and well established agglomerations and through locating in close proximity to the country core. ~ In contrast, the study did not find strong support for traditional location factors as set forth in theories of industrial location.
China (Provincial)	Amiti and Javorcik (2008)	The study focuses on market and supplier access within the province of entry, as well as production and trade costs. In particular the study is concerned with unravelling the interrelationships between the above variables as there can often be tensions and trade-offs concerned.	FDI into 515 Chinese industries between 1998-2001	Market potential Supplier access Trade costs (distance)	Wages Input factor costs Population size	~ The study finds that access to market and suppliers within the province of entry is the strongest influence on firm location choice ~ Trade costs, while significant as a determinant of the location of FDI are not as prominent as market and supplier access ~ This study adds value to previous research on location choice in China as it utilises data on all Chinese industries and by doing so, demonstrates the role that industry clusters within provinces have on FDI location choice. ~ The prominence of supplier and customer access in the estimation model suggests that these considerations are at the forefront of the decision makers choice models

Country context	Authors	Study	Sample size and unit of analysis	Variables of primary interest	Secondary variables	Key findings
USA (State)	Chung and Alcacer (2002, *MS*)	The study investigates the role of knowledge seeking as a motivation for FDI in the USA and relates this to state level R&D capabilities.	1784 FDIs between 1987-1993 from OECD nations - primarily manufacturers	State R&D intensity Doctorates EARNED in Science and Engineering degrees Count of Doctorates in Science and Engineering degrees Patents awarded	Population density States land area Per capita income Tax per capita Airports per capita Highway miles per capita % of population in manufacturing % Unemployment Average weekly wage % Unions Tax as % of income	~ In aggregate state R&D intensity does not register as a significant determinant of FDI in the USA. However, when the sample is split between firms in lower tech industries and those in higher-tech industries the results become more nuanced. Lower-tech firms show little proclivity to locate in states with high levels of R&D intensity. In contrast, firms in higher tech industries are more likely to locate in states with high R&D intensity. ~ Knowledge seeking theory is typically employed to explain the location choices of firms from countries who lag in technological development, however, the results also suggest that firms from technologically advanced nations are also attracted to states with high R&D intensity. This finding suggests that despite these firms having no need to 'catch-up', they are attracted by the potential of increasing their technological diversity
USA (State)	Shaver (1998, *JIBS*)	The study investigates whether or not location choice differentials exist between foreign owned and domestic firms	The state-level location of all foreign owned and US owned manufacturing facilities in 1987	Coastal states Unionisation Corporation tax Agglomeration effects Wage rates Unemployment State budget for international activities		~ The study finds that the location of foreign owned manufacturing FDI is significantly different from the location choice of domestic US owned establishments. ~ The location choice of FDI tends to prefer coastal states with low wages and low unionisation ~ Both foreign and domestic firms are attracted by the level of economic activity in a state (gross state product)

| USA (State) | Chung and Alcacer (2002, *MS*) | The study investigates the role of knowledge seeking as a motivation for FDI in the USA and relates this to state level R&D capabilities. | 1784 FDIs between 1987-1993 from OECD nations - primarily manufacturers | State R&D intensity
Doctorates EARNED in Science and Engineering degrees
Count of Doctorates in Science and Engineering degrees
Patents awarded | Population density
States land area
Per capita income
Tax per capita
Airports per capita
Highway miles per capita
% of population in manufacturing
% Unemployment
Average weekly wage
% Unions
Tax as % of income | ~ In aggregate state R&D intensity does not register as a significant determinant of FDI in the USA. However, when the sample is split between firms in lower tech industries and those in higher-tech industries the results become more nuanced. Lower-tech firms show little proclivity to locate in states with high levels of R&D intensity. In contrast, firms in higher tech industries are more likely to locate in states with high R&D intensity.
~ Knowledge seeking theory is typically employed to explain the location choices of firms from countries who lag in technological development, however, the results also suggest that firms from technologically advanced nations are also attracted to states with high R&D intensity. This finding suggests that despite these firms having no need to 'catch-up', they are attracted by the potential of increasing their technological diversity |

Appendix B
Case company vignettes

Company name	ID No.	Key sequence of events preceding the choice of location
Apollo	1	Apollo design and manufacture interactive products and devices for the education sector. The company's operations director came to China in 2003 with the intention of setting up a supply chain for components and other intermediary parts. However, after consideration they decided that it would be more cost effective to assemble and manufacture their products in China rather than just sourcing parts for their assembly line in the UK. After making this decision the company shortlisted three cities that they would consider for the location of their facility, these were; Bejing, Yantai, Shandong province and Shenzhen, Guangdong province. The company eventually decided on Shenzhen. Beijing was discarded as they found that the government there were not offering much support and it was also much more expensive than the other cities. Furthermore, as the company would be exporting much of their product they wanted to be closer to the coast to minimise logistics costs. In Yantai, factor conditions, including labour and land costs were attractive, however, they were not impressed by the quality of local suppliers in the region. The high level of industrial concentration in Shenzhen however, and the quality of suppliers as well as the higher standard of living there ultimately persuaded the company to locate their operations there.
Belpack	2	Belpack produce packaging products for the fast food, telecommunications and apparel industries. An existing customer engaged in an extensive cost-cutting programme requested that the company relocate their operations to China to save on costs. The company subsequently engaged in an extensive feasibility study taking a total of one year before they would fully commit to the customer's request. Their customers assembly plant was located in Tianjin, however, the company wanted to ensure that costs were kept to a minimum and felt that costs in Tianjin were too high. They ultimately decided to locate their packaging facility in Tangshan, Hebei Province. Labour costs and availability of 'low-end' labour was much more readily available in Tangshan.
Pharmapack	3	Pharmapack produce packaging products primarily for the Pharmaceuticals industry. The company established their first manufacturing facility in China in 2002. The company's primary line of business is the provision of packaging solutions for customers in the pharmaceuticals industry. The company's primary motivation for investing in China was to develop their market in China and, therefore, when selecting a location, it was essential to first identify where potential customers were located. Having found that many of the foreign owned pharmaceutical companies were clustering in and around the Shanghai area, they decided that they should also set up in this region. They decided, therefore, that they wanted to be close to Shanghai but not in Shanghai itself. They considered several options, including, Suzhou and Nanjing, however they ultimately decided on Kunshan, Jiangsu province. This was based on a comparison of costs between the alternatives they had generated. The company also thought that competition for skilled labour would be less in Kunshan, compared to the more developed cities of Suzhou and Nanjing.
Pompeii	4	Pompeii design, engineer and manufacture metallurgical solutions. The company supplied their products and solutions in China since 1996, however, they did not set up their own manufacturing plant until 2002. The company looked at several different cities around Shanghai and in Guangdong Province and finally decided to locate in Suzhou, Jiangsu Province. They selected Suzhou after being impressed by the professionalism and support of the local government, especially the administration of Suzhou Industrial Park.

Buhler	5	Micount design and manufacture optical sorting equipment predominantly for the food industry. They first entered China in 2005 with intention of expanding into the domestic market while also saving costs. The company shortlisted two cities; Wuxi and Shenzhen. Two factors were critical to their investment; (1) The ability to employ talented engineers and (2) the presence of support industries, particular electronic components. After conducting some market research they were confident that both Wuxi and Shenzhen satisfied these needs. They eventually decided to locate in Shenzhen because, despite having higher labour costs, the local government was offering a lot of support to help them set up quickly and efficiently.
Gooddesign	6	Gooddesign is a architectural design and engineering company. The company established in Hong Kong in 1985, however, despite working on several projects in China during the 1990's they did not officially establish in mainland China until 2001. The company simultaneously set up an office in Beijing and soon after established a second office in Beijing. The Shanghai office was established on the back of existing customer relationships and the desire to be closer to customers during the implementation phase of their projects. When Beijing was elected as the host of the 2008 Olympic Games in 2001, the company decided to set up in Beijing strengthen their bids for projects related to the games. The company has since set up additional offices in Shenzhen (2003) and Wuhan (2008), with small satellite offices in Guangzhou, Tianjin and Chonqing. The company's location decisions are based primarily on customer presence and economic development.
Oceanspace	7	Oceanspace design and manufacture components for the aerospace industry. The company initially intended to source components from China as part of an cost-reduction initiative following global economic downturn in 2007. However, they soon decided that finding suppliers and managing the relationships at a distance would be too difficult and, therefore, they put together a business plan for establishing their own operations in China. The choice of location was considered a critical element of the company's China strategy and they engaged in a six month evaluation of alternative locations. They shortlisted three cities; Chengdu, Sichuan Province, Suzhou, Jiangsu Province and Tianjin. To aid their decision, the top management team developed a 'rate and weight' scale, composed of 21 location factors that they considered relevant to the choice. The factors were weighted based according to their perceived importance and the team assigned scores to each factor for each of the three cities based on their visits to the cities, their meetings with local officials and investment advisors, desk research and their own subjective evaluations. Chengdu eventually had the highest score and the company established a manufacturing facility there in 2007.
Flickdisplay	8	Flickdisplay design, manufacture and install bespoke display cases. The company first entered China in 2003 as a joint venture with a domestic Chinese company based in Shenzhen. After experiencing major difficulties with their partner the company decided to break away from them and to set up in China as a WFOE. However, having already set up in Shenzhen and developed a customer base in the south of China (which was retained by the JV partner), the company decided to distance themselves from their ex-JV partner by moving out to Western China. They decided established their operations in Chengdu because they had previously worked in the city and had favourable impressions of the location environment. It was also seen as a good base for servicing the China market because Chengdu is a major transport hub and, therefore, they can easily reach South, East or North China. Furthermore at that time the national government was offering incentives for firms to *'go west'*. The company initially set up a sales office in Chengdu and have been servicing the China market from this office ever since . In 2012 they established a manufacturing facility in Chengdu with intention on increasing the autonomy of their China operations - at present their work relies on imported product from the UK.

OEM-Link	9	OEM-Link is an original equipment manufacturer. The company first came to China in 2004. At the time the Chairman and CEO decided to lead the investment himself, however, having no previous experience of China and being very unsure about the market in there, he decided to set up a JV with a domestic Chinese company in Dongguan, Guangdong Province. However, after a series of problems with the JV partner, the company decided to set up as a WFOE. Many of the company's previous suppliers were located in Guangdong Province and the CEO was able to buy land of an existing supplier in Provincial capital, Guangzhou. In essence, therefore, there was no 'location decision', however, in 2011, facing rising costs and other operational difficulties in Guangzhou the company decided to relocate parts of their operations to less expensive areas of China. CBL are currently in the process of establishing a new facility in Wuhan. The company was also considering locating the new investing in Chongqing, however, they ultimately selected Wuhan because both government incentives and support was better.
CAI	10	CAI began sourcing products from China in 2004. During this time they had been working with a subcontractor located in Dongguan, Guangdong Province. In 2008 they decided that they needed more control over these operations and, therefore, decided acquire the subcontractor in Dongguan. In conjunction with this the company also decided to set up an office in Shenzhen for the purposes of administrating their Chinese operations. While they considered setting up the office in Dongguan with the manufacturing unit, they ultimately decided that Shenzhen was the better choice as it is easier to attract talented staff in Shenzhen and is generally more commercially advanced that Dongguan. The company is currently in the process of looking for a new city in the Shanghai area to locate in.
EnSav	11	EnSav established operations in China ni 2006. There investment motivations were two fold, they wanted to develop their business locally and also export product back to the UK and other international markets. They therefore decided that locations along the East coast of China would be best for them. The company considered Shenzhen, Tianjin, Shanghai and Guangzhou. They eventually decided that Shenzhen presented the best overall location environment for their business based on the volume of potential customers, the availability of talented people, the openness of the local government and the business environment more generally and the logistics advantages (e.g. close to major sea ports). EnSav are not considering any further investments at this time.
Pan-lazer	12	Pan-lazer established in China in 2002. The company was initially considering Shanghai because of the high level of education and skills in the workforce which was considered essential for manufacture of the company's hi-tech products. However, the founder of the company was a close personal friend of the Chairman of the British Chamber of Commerce for South West China at the time, which is located in Chengdu. He was persuaded by him to locate in Chengdu, because of the cost advantage, the good universities and the quality of life. The company also have also established a sales office in Shanghai.

Sunhealth	13	Sunhealth established in China in 2009. The company considered several cities before finally deciding to locate their operations in Suzhou. The main factor here was the support of the local government in Suzhou. What they were willing to offer in terms of getting the company set up quickly, introducing them to important contacts in hospitals and the wider healthcare industry and generally facilitating the development of their business in Suzhou. The company is currently looking at expansion opportunities in Beijing, Shanghai and Chengdu.
Inmotion	14	Inmotion provide advanced measuring and motion control equipment. They entered China in 2003, initially setting up a sales office in Shanghai. The company has expanded rapidly since then and now has offices in Beijing, Guangzhou, Shenyang and Chengdu. The company's research, design and development centres have remained in the UK, therefore, their location decisions in China are largely based on market potential and customer presence. The cities they have located in so far have been selected because of their ability to act as hubs for different regions of China.
Ronix	15	Ronix deisgn and manufacture semi-conductors. They initially entered China in 2000 via a joint venture with a domestic Chinese business located in Dongguan, Guangdong Province. However, after discovering that the JV partner did not have a licence to sell domestically (the license they did have was for exports only) and as a consequence had no selling infrastructure established in China, the company decided to end the JV arrangement and to relocate somewhere else in China. The learned that some of their biggest potential customers were located in Tianjin and having felt that they had already wasted enough time in money in China with the failed JV, quickly decided to locate their plant in Tianjin and to focus on customers within that vicinity.
Moneyware	16	Moneyware develop software to enable complex financial transactions. They first entered China in 2007 with the intention of penetrating the financial services market. However, due to strict government control on the financial services industry the company has had to change their business model in China. Their China operations now offer IT support for transactions in other international markets. The company decided to the office in Chengdu, Sichuan province. This was motivated by three key factors; Chengdu's cost advantage over other cities in China, the quality of universities in Chengdu and the higher rates of labour retention in Chengdu. The company will retain their presence in China and are hoping that the restrictions on the Financial services market will relax in the near future.

Sonchip	17	Sonchip are a designer of bespoke silicon chips. The company entered China in 2008 after growth stalled in the UK. They also wanted to engage in further expansion but in a cost effective way. The company considered was considering locating in Beijing, Shanghai or Xi'an. They eventually decided to set up their design centre in Xi'an because it was their perception that attracting and retaining labour there would be easier than in either Beijing or Shanghai. Furthermore, the cost of labour was also lower in Xi'an. The company has since set up a design and administrative office in Shanghai and a sales office in Shenzhen.
Vendesign	18	Vendesign are an architectural, engineering and construction firm. Despite acting as consultants on projects in China for the past 15 years, they did not establish an office until 2003. There first office was located in Shanghai as this was seen as the best city in which to attract talented architects and engineers. The company initially serviced projects all over China from this office, however, the pace of development in South West China, particularly in Chongqing and Chengdu, saw their commissions in this region grow rapidly. Therefore, in 2009 they decided to establish a new office in Chengdu to serve clients in Sichuan Province and Chongqing.
Radiodesign	19	Radiowave is a designer and manufacturer of remote radio equipment. in 2011 n existing customer requested that the company expand to China to service their local operations there. Despite the MD having previous experience of working in China, they were initially quite hesitant about setting up their own entity, fearing local issues and particularly theft of intellectual property. However, the company decided that this would be a great opportunity, not only to service their existing customer, but to begin to expand their market there. For practical reasons it was important to be close to the customer, who was located in Suzhou, Jiangsu Province. However, they were reluctant to just blindly follow the customer and instead decided to search for the 'best deal'. They narrowed down their options to three cities located close to Shanghai; Wuxi, Suzhou and Hangzhou. The company eventually decided to locate in Wuxi in 2012, feeling that the local government there offered the best set-up support as well as support for the business going forward in China.
Wu-Detune	20	Wu-Detune is a provider of advanced engineering solutions and other heavy industrial goods. They entered China in 2008 after realising that there was huge market potential for their products. They initially set up a sales office, however, from the beginning they had the intention of establishing a manufacturing base also and with this in mind they were diligent in regards to the positioning of the investment. Given the nature of their products and the high costs associated with transporting them to customers, they wanted a location which could act as a hub while providing the most efficient access to all areas of China. They ultimately decided to locate their office in Wuhan, Hubei Province which is in Central China, thus, providing efficient access to North, South, East and West China. Many of the company's competitors had also previously located in Wuhan which signalled to them that this would be a good choice for them. The company is currently in the process of developing a manufacturing facility in Wuhan.

Wu-Steel	21	Wu-Steel is a provider of advanced metallurgical solutions, focusing on the energy industries. The company entered China in 2004 as a representative office. This was rescinded in 2008 and the company established as a WOFE. The company had concerns about intellectual property and also lacked sufficient investment funds to set up a manufacturing base in China and, therefore, they decided to focus on market development. Given that the company's focus was generating sales and market presence, they decided that it was important for them to be close to their customers. They commissioned market research and found that company's in similar lines of business had located in Wuhan. They further identified that the large industrial presence in and around Wuhan would provide a good basis from which to start developing their market in China. Wuhan also had the additional benefit of having excellent transport links with other major cities in China. The company is not currently planning any additional investments in China.
Safenest	22	Safenest design, manufacture and fit holistic safety solutions for industries which work with oil and gas. At present they are focusing on market development in China, while retaining their design and manufacturing facilities in the UK. When setting up they considered Beijing, Shanghai and Nanjing. Beijing was discarded because it was deemed to far North, which would distance them from customers in central-east and south-east China, as well as Hong Kong. The choice was therefore between Nanjing and Shanghai. Nanjing was selected because while it was close to Shanghai, it had a cost advantage in terms of both labour and office rental. The company has no immediate or long term plans for further investment in China.
MSE	23	MSE develops electrostatic control equipment and compressed air technology. They set up a WOFE in China in 2005 which is focused on generating domestic sales and providing customer service - research and development remains in the UK. In mainland China they considered Beijing, Shenzhen, Guangzhou and Shenzhen. They also considered setting up in HK, however, this idea was soon dropped after deciding that a location in mainland China would provide a better platform for their business. The company's CEO visited the four cities they were considering and met with advisors and government officials. Neither Shenzhen or Guangzhou impressed him and after visiting Beijing he decided that the location was too far away from other major areas of China. The company, therefore, set up in Shanghai due to it's 'international vibe' and good transport links to other major cities along the East coast of China and Hong Kong.
App-physics	24	App-Physics designs, builds, markets and sells ultra violet molecular spectrometers. The company entered China in 2008 as a representative office and subsequently re-established as a WOFE in 2012. The company located their office in Shanghai, almost purely as a matter of convenience. When entering the market they wanted to recruit someone with strong commercial skills who also had a good understanding of the niche market the company operated in. The company headhunted a person who was working in Shanghai and on this basis set up their office there.

Lockwood	25	Simware provide software for the gaming industry. The company established a software design studio in China in 2012. Their motivations for expanding to China are two-fold. They wanted to expand the business but found it increasingly difficult to find talented employees in the UK due to the scarcity of people with the skills required for the niche service they provide. However, they also want to become more cost effective. Therefore, when looking at countries were both of these needs could be met, China seemed to be the best choice due to the size of the labour market and the quality of universities there. The company quickly decided to set up their studio in Rizhao, Shandong Province. The key basis for this was due to the fact that the director of the company has an in-law relative who holds a high position in the Rizhao government. This relative was able to arrange a substantial support for the company in Rizhao, including links with local universities and financial assistance during the set up. While this was the key factor, the firm also indicated that had they not have had this connection they would not have located in Rizhao, and perhaps would have located in Shanghai. However, having this strong local connection gave them the confidence to locate in Rizhao, were they can take advantage of the much lower cost of labour.

Appendix C Exploratory interview questions

Background details

Company name

Interviewee name

Position

Experience in China

Total turnover:

% of this in China:

Total employee numbers

Total employee numbers in China

1. Why did you decide to locate your investment in city? – (did you consider any other cities). Is this the company's first investment in China or have there been others?

2. At the time of making the investment in [......] - What were the key strategic purposes or objectives which you, as an organisation, wished to achieve?

3. Were there any difficulties experienced by the firm when you were setting up?

4. Was the local government here supportive of your investment?

5. What are the advantages of being in city, and are you happy with the decision to go there?

6. What is your view of the investment environment in city x? – How does this compare with other cities in China?

7. Are there any downsides to being in city x?

8. What are the greatest difficulties you have experienced here? How have you overcome them?

9. Do you think there is enough information about investment opportunities and investment environments in China?

10. Do you think the location of the investment significantly matters in the Chinese context?

11. Are you satisfied with the performance of your operations in city?

12. What are your immediate and long-term plans for your business in China?

13. What is your favourite thing about city?

14. Do you have any tips for companies who might want to invest in City?

Appendix D: Robustness checks

Variance inflation results

Variable	VIF	1/VIF
Government effectiveness	2.15	0.464315
Foreign agglomeration	1.93	0.517029
Legal effectiveness	1.93	0.519315
Human capital	1.84	0.543394
Coastal	1.58	0.631854
GDP	1.57	0.636328
Corruption	1.44	0.693849
Output losses	1.31	0.764488
Regional core distance	1.3	0.768398
Administrative efficiency	1.21	0.828828
Ownership	1.15	0.867407
National core distance	1.12	0.890385
Firm size	1.05	0.950742
Year established	1.04	0.959738
Mean VIF	1.47	

Robustness check of local context on foreign affiliate performance (Chapter 4)

	B	S.E	B	S.E		B	S.E	B	S.E
Factors of production									
Utilities infrastructure						0.0420**	0.0128	0.0398**	0.0130
Human capital						0.1085***	0.0133	0.1039***	0.0147
Agglomerative conditions									
Domestic agglomeration						0.0261	0.0315	0.0316**	0.0311
Foreign agglomeration						0.0803***	0.0309	0.0798	0.0317
Institutional conditions									
Administrative efficiency						0.0246*	0.0122	0.0208	0.0125
Corruption						-0.0251*	0.0152	-0.0243*	0.0152
Government effectiveness						0.1474**	0.0164	0.1443***	0.0165
Legal effectiveness						0.0311**	0.0135	0.0321**	0.0136
Spatial dependence									
Distance from regional core cities	-0.0179**	0.0105	-0.0287**	0.0107	-0.0256**	0.0105	-0.0254**	0.0106
Distance from national cores	-0.0001***	0.0000	-0.0002***	0.0000	-0.0001**	0.0001	-0.0001**	0.0000
Control factors									
GDP per capita	0.0226**	0.0096						-0.0032594	0.0106
Coastal	0.2185***	0.0429							
Inland	-0.0270	0.0464							
Industry	0.0011***	0.0002	0.0014***	0.0002				0.0004**	0.0002
Year established	-0.0057**	0.0019	-0.0077***	0.0020				-0.0046**	0.0018
Ownership	0.028534	0.0205	0.0543*	0.0210				-0.0007	0.0203
Size	0.0086747	0.0101	0.0207*	0.0103				0.00169	0.0097
Model									
Constant	11.5692**	3.8208	15.6446***	3.9231	0.1002**	0.0437	9.4068**	3.650292
F	32.61		26.19		47.91		32.58	
R2	0.1692		0.1121		25.12		0.2532	
N	1397		1397		1397		1397	

Robustness check of determinants of FDI into peripheral Chinese cities (Chapter 6)

	B	S.E	B	S.E	B	S.E	B	S.E	B	S.E
Agglomeration economies										
Foreign	0.1621***	0.0244							0.1448***	0.0258
Domestic	-0.1374***	0.0309							-0.1585***	0.0297
Factors of production										
Human capital			0.1252**	0.0492					0.0372	0.0470
Institutional conditions										
Government effectiveness					0.0841**	.0296			0.0729**	0.0300
Legal effectiveness					0.1348**	.0287			0.0973**	0.0286
Corruption					-0.0261	.0254			-0.0378	0.0244
Spatial distance										
Distance from RCCs							-0.0798**	0.0255	-0.0401**	0.0228
Distance from NCCs							-0.0399	0.0264	-0.0193	0.0247
Comparative advantages (control)										
Population	0.1537***	.0290896	0.2163***	.0289	0.1965***	0.0277	0.2084***	0.0302		
Labour cost	0.1247*	.0716333	0.1706**	.0773	0.2243**	0.0735	0.1784**	0.0771		
GDP	-.0045	.0207763	-0.0073	.0220	.0002	0.0208	-.0234	0.0226		
GDP per capita	0.4459***	.0522148	0.5730***	.0515	0.5779***	0.0467	0.5922***	0.0506		
Coastal	0.0282	0.0555	0.0730	0.0583	-0.0316	0.0558	0.0858	0.0580		
N	344		344		344		344		344	
R2	0.62		0.60		0.61		0.57		0.49	