The Increasing Competition of the Asian International Financial Centres

An analysis of the determinants building Shanghai and Seoul

Nicole Broers
Thesis Global Political Economy
Supervisor Rizal Shidiq
Student s2306263
Leiden University

Abstract

The Asian International Financial Centres (IFC) are growing in importance within the global economy. Increasingly they are becoming the control centres of financial flows and innovation. In particular, the aspiring IFCs of Shanghai and Seoul have remarkably increased in status and competitiveness. This research discusses a possible explanation for their increase in competitiveness. Both cities have large systemic differences from the well-established Western IFCs, as government control and policies have been predominant in the East-Asian region. Nevertheless, they are flourishing in the international financial system based on market mechanism. During the Asian Financial Crisis, Asian centres have undergone many changes and multiple government reform policies have been carried out to enhance the financial sectors. Within this research, the influence of the crisis and changes in the determining factors for competitiveness are scrutinized. The four main determinants constituting an IFC set the parameters for the two case studies of Shanghai and Seoul. The results suggest that the government focus on rapid technological and infrastructural developments have contributed the most to the increase in competitiveness. Moreover, these developments are a part of a shift towards high-end technology industries and services and the overarching government-driven transition towards a knowledge economy.

Table of Content

1. Introduction

When we think of the leading world cities no longer only London and New York come to mind, as the Asian cities are paving their way to the top. While Tokyo gained prominence in the global economy in the last century, now multiple Asian cities, such as Singapore, Shanghai and Seoul are following its footsteps. Each of the world cities are highly urbanized and populated regions driving an concentrated networks of interactions. But most of all, as Friedmann (1995) states, they have become a hub of finance grounded in communications, international transport and the global corporate sector. The Asian cities have started to navigate as crossroads and drivers for financial innovation in an increasingly dense network of the global economy (Castells, 1996). In other words, their competitiveness and status as International Financial Centres (IFCs) is growing.

North- and Southeast Asia's economic developments were happening in a rapid pace, manufacturing industries were booming and export industries growing during the nineties. This resulted in ongoing high economic growth rates throughout the region. The term "Asian miracle" was introduced by economists to characterize the development. The focus of governments on international economic integration had created the possibility for a great inflow of foreign investments and international businesses. Both elements have an assumed spill-over effects on the financial sectors and are ingredients for the development of international business hubs. In particular from 2005 onwards the financial centres in East-Asia started becoming increasingly competitive within the global economy. Considering that financial markets are a 'growing in importance as a source of profits in economies' according to Krippner (2011). It is essential to analyse the determinant drivers for the increase of this competitiveness of IFCs. For that reason this research will discuss: what explains the increasing competitiveness of the Asian IFCs?

It is evident that the political and economic systems within the Asian countries are rather different from the Western countries in which New York and London are situated. Yet, the financial centres in Asia able to compete on an international level among the top are increasing in number. An explanation based on solely economic reasoning, as following market mechanisms, would not suffice when it comes to the construction of international financial centres. The determinants driving the competition of an IFCs are entangled with one another and government policy can install or strengthen each of them. Still, not every aspiring financial centre will gain global importance. The Asian financial centres have in common that there is a great amount of government control and influence within their cities, e.g. Shanghai. When the Asian Financial Crisis of 1997 took hold of the East Asian region and caused a recession, it revealed the structural problems and lack of resilience to external shocks of the financial sectors. The crisis ushered a period of strict structural financial reforms programs and a focus on regional integration from the governments. Within a short period most of the Asian crisis affected countries regained their large economic growth rates and retained the confidence of foreign investors and businesses. Nowadays they are hosting the most rapidly growing financial centres in the global economy. In hindsight, are the financial reforms taken to recover from the effects of the Asian crisis a possible explanation for the Asian financial centres to flourish later onward? Gave the financial restructuring them a competitive advantage later onward? Was there a positive effect on the determinants for competitiveness of the financial centres?

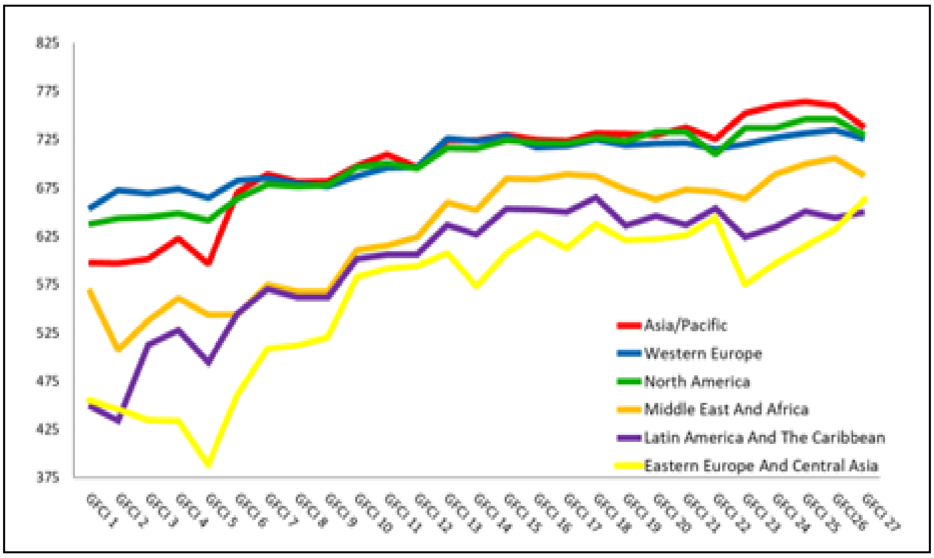
To formulate a potential explanation for the increase in the determinants of competitiveness of the Asian IFCs, two case studies will be carried out on the aspiring IFCs: Shanghai and Seoul. Prior to this, a background will be constructed on the Asian financial sector growth and the growing competitiveness. Followed by an analysis of the existing literature on the drivers of competition of a modern IFC. The determinants that drive the competition most will be uncovered and used as the guiding lines for the case studies. Shanghai and Seoul will be scrutinized in this alignment and the influence of the Asian financial crisis observed. In this sense, the research incorporates the internal focus on the development of the government policy and the impact of the crisis. Shanghai and Seoul will be examples to shed light on the developments and changes occurring during the nineties in the Asian financial centres, having encouraged the competitiveness of the Asian IFCs.

On balance, the analysis indicates that what explains the increasing competitiveness of Asian IFCs, in this case, Seoul and Shanghai are the extensive improvements in the infrastructure and the information facility during the 1990s, which is underpinned by substantial technological developments and the transition towards a knowledge economy.

2. Increasing Asia's IFC competitiveness and financial sector growth

In 2007 the Z/Yen group and the China Development Institute launched and initiative that compares and ranks the data of 108 major financial centres around the world in the Global Financial Centre Index (GFCI).[1] By doing this they are creating an overview based on the prevailing determinants of competitiveness among financial centres globally. Financial competition can be found in all parts of the world, in advanced, emerging, developing economies and East Asia in particular (GFCI, 2019). The ranking is reflecting a pattern of rising financial centres of East Asian countries, with rapidly developing economies, with the People Republic China (PRC) as its frontrunner in annual growth.

Figure 1: Average Ratings of The Top Five Centres in Each Region



Source: The Global Financial Centres Index 27, March 2020

Currently three of the top five most competitive IFCs in the GFCI are Asian and many more are increasing in the ranking. The report of the GFCI (2019) stated that 'The top Asian centres are leading the way at the moment', emphasizing the increasing development of the Asian financial centres (Yeandle & Wardle, 2019, p.7). Most notably is the rise in the charge of multiple Chinese cities led by

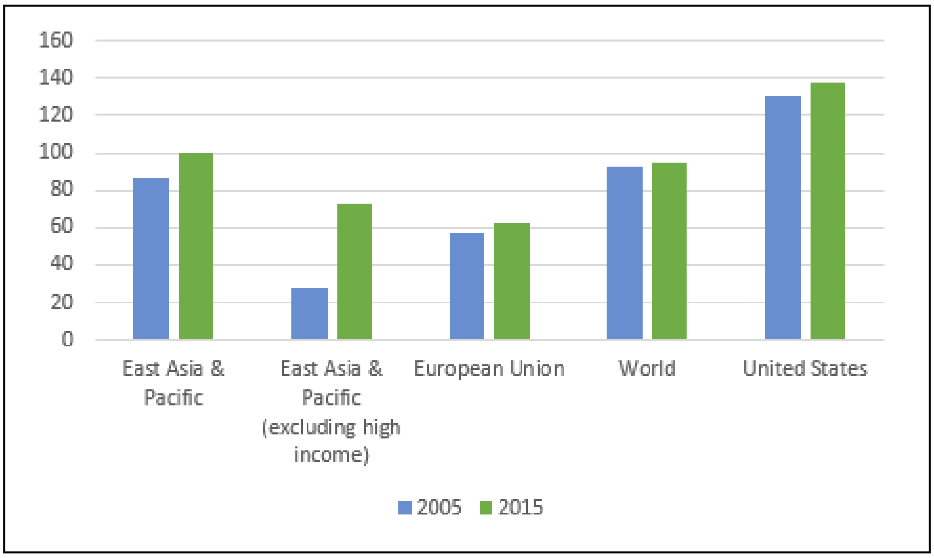
[1] The Z/Yen group combines the information on more than 100 statistical indicators of physical infrastructure and business environment.

the aspiring IFC Shanghai at the fourth position, ranking higher than Singapore (Wardle et al, 2020). For instance, the PRC went from having three financial centres in the ranking in 2007 to eleven in 2020.

To explain this increase in ranking of the Asian financial centres, the determinants for competitiveness of a financial centre need to be scrutinized in the East Asian context. In this manner a better understanding can be created on international financial centres and their integration in the global network. Before delving into the drivers for the increase in competitiveness, it is imperative to explore the context in which the major developments occurred. The GDP/capita within the East Asian economies have grown faster over the last two decades than the economies in any other region (Nayyar, 2019). Driven by rapid industrialisation, region has witnessed an economic transformation with the improvement of the living conditions of its population as a result. In fact, East Asia currently accounts for over 30 percent of the world's income GDP, 40 percent of the manufacturing income from production and for more than one-third of the merchandise trade. At present the income per capita in multiple East Asian countries are converging towards the world average per capita. In this respect, the income of the middle class is growing and has the potential to drive the future economic growth by domestic demand and consumption. Since the kickstart of their increasing development, five decades ago, the macroeconomic objectives had primarily been focussing on economic growth and employment creation, still these policy objectives are considered crucial (Nayyar, 2019). Together with the underlying factors of rising investments and education becoming more widespread, the Asian markets continue to expand and are getting increasingly more interconnected within the region and the world (Sahay et al., 2015).

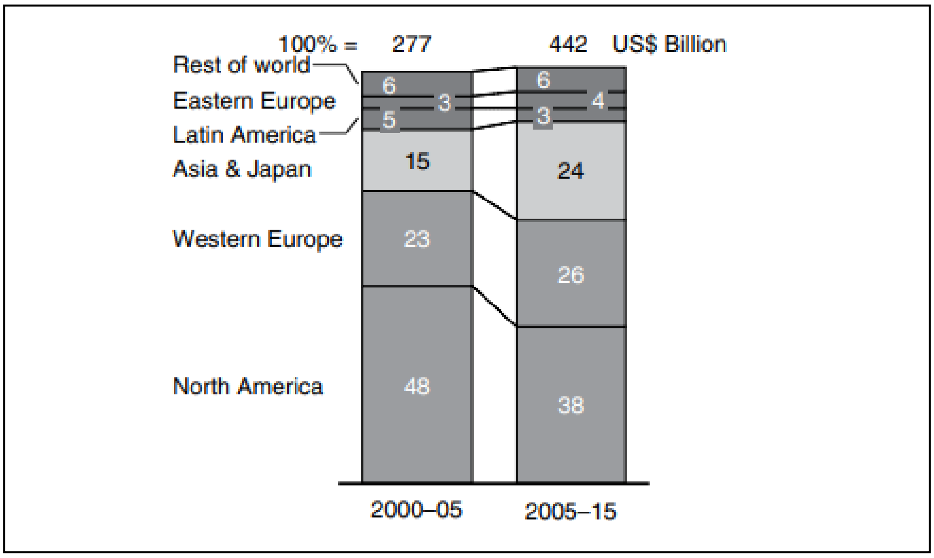
At the same time, their financial sectors are benefitting from the spill-over effects. 'At the end of 2012 the estimated sum of aggregate assets of financial institutions and outstanding values of bond and stock markets in Asia amounted to 580 percent of the region's GDP' (Sahay et al., 2015, p.10). Although the percentages are varying across Asia, it is substantially larger than other developing regions (Sahay et al., 2015). Figure 2 & 3 reflect the rapid growth of the financial markets in East Asian countries.

Figure 2: Market Capitalization of listed domestic companies by region (% of GDP)



Source: World Development Indicators, Last Updated: 17-02-2021

Figure 3: Total banking profit growth, share by region (% 2006-15)

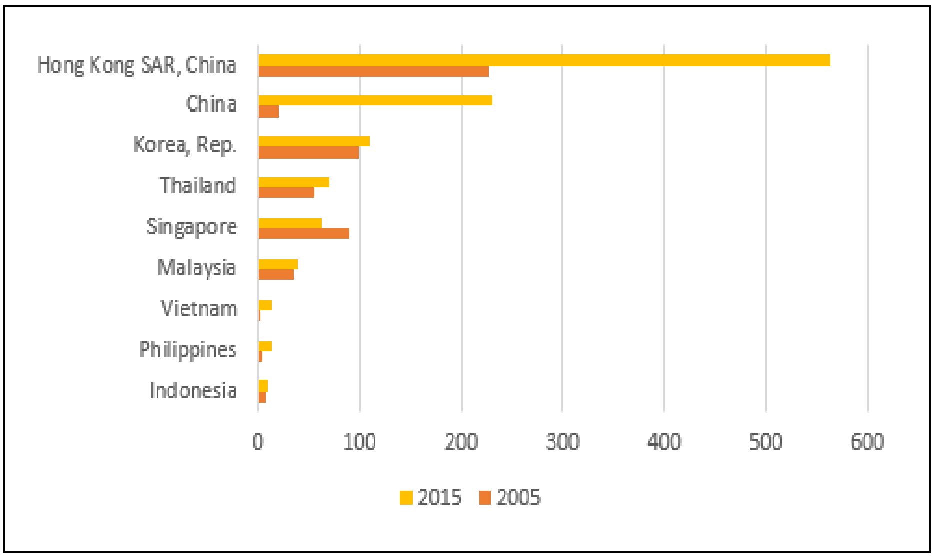


Source: Barton, McKinsey analysis (2009)

When analysing the Asian economies, it is important to take into account the size and diversity among them. This is not only reflected in their economies, but also in their financial systems which, according to the IMF (2015) 'range from low-income economies where few have access to financial services, to some of the world's most advanced global hubs'. Three main groups can be distinguished: 1) emerging markets and low-income economies. The banks play a dominant role within this group, but offer only basic products to a small group of the total population and its functions remain rather basic, with few having access to financial services. 2) more advanced economies. The banking sector is 'large and sophisticated, and capital markets are deep and well developed'. 3) Asia's flourishing international financial centres: Hong Kong SAR and Singapore. And both cities are well integrated into the regional network and the international financial system (IMF, 2015). In this respect, each group has a different stage of financial development which is closely linked to their level international economic integration. Figure 4 shows the size and growth of the stock markets in the largest countries in East Asia. For the region the differences create difficulties for operating and expanding business, as well as opportunities due to the increasing development.

Although, in general, the economies within the region are described by the IMF (2015) as being 'relatively conservative, simple and international linkages remained small', with the financial centres of Hong Kong and Singapore as an exception. Despite their differences the East Asian financial sectors can be characterized by the central banks having a dominant role, a rising importance of capital markets and a significant level of government influence.

Figure 4: Stock market total value traded to GDP % East-Asia



Source: World Bank Global Financial Development Database, last updated: 30-10-2019

During the 1990s, the East Asian economies were increasingly integrating within the international environment, this had made them increasingly vulnerable to external shocks. When the Asian financial crisis started to unfold in 1997, there was an extensive negative spill over effect throughout region. It had a severe impact on the investment capital inflow and caused a large economic slowdown. While a decade later, when the Global financial crisis of 2008 got a grip on the financial systems within the international economy, the Asian countries rapidly restored their financial equilibrium (Sahay et al., 2015). The former crisis having a pervasive impact and the latter being rather moderate. The explanations given are the improvements made on regional cooperation by the governments and within the central banks after the Asian financial crisis (Woo et al., 2014). In collaboration the countries started focussing on the improvement of resiliency of the financial markets by the bank building capital and regulators tightening rules on finance (IMF, 2015). On a national level, governments were undertaking multiple financial policies to reform their financial systems, attempting to make them less vulnerable to external shocks. Below in table 1, the Financial Development Index presents an extensive increase in financial development among the ASEAN5 countries, Republic of Korea (henceforth, Korea) and mainland China.

Table 1: Financial Development Index (FD) (2005 -2015)

	China, P.R.: Hong Kong	China, P.R.: Mainland	Indonesia	Korea, Republic of	Malaysia	Philippines	Singapore	Thailand	Vietnam
2005	0,73	0,44	0,30	0,80	0,58	0,33	0,71	0,53	0,22
2015	0,77	0,63	0,36	0,85	0,66	0,38	0,71	0,70	0,30

Source: IMF Financial Development Index Database, Last Updated: 03-07-2019

As global economic integration is continuing, more reforms in the financial system will be necessary for East Asia to maintain sustainable economic growth. There is a growing inequality between cities and rural areas due to a different rate in financial inclusion. For example, the PRC has on the one hand the fastest growing financial centres, and on the other a large share of its adults without a bank account or mobile money provider and cash is the most common method of payment (Desjardins, 2020). Another challenge is the shifting demography within countries in parts of Asia. Various countries are dealing with an aging population, for example Japan, while others, such as Indonesia, still benefit from a young one (Woo, et al,. 2014). Among the group with an aging population, the demand is growing for new financial products, whereas the younger countries are in need of investments in financial infrastructure, education and inclusion (IMF, 2015). This makes the region in need of financial investments and increasing financial integration. According to the IMF (2015): 'This kind of integration is particularly important in Southeast Asia, where financial connections have lagged trade linkages.' Deeper financial integration among the region can ease this challenge and stimulate internal consumption and domestic investment, making it less reliable on exports and foreign financial institutions. In other words, the complexity of the financial systems is increasing and innovation of new products will be necessary. Henceforth, the capital flows into East Asian economies, which are already substantial, is expected to grow further. Combining this with deeper financial integration and capital account liberalization, especially in the PRC, the financial sector growth can be maintained in the future (IMF, 2015).

Especially the role of international financial centres in the region will increase, considering that the cities operate as regulators and supervisors supporting Asia's financial development (IMF, 2015). The competition is intensifying among the East Asian IFCs, such as Hong Kong and Singapore, and newly developing financial centres becoming internationally integrated. Provided that not every financial centre can become an international top centre, as financial businesses and services will locate in the most accessible and efficient centre. Therefore policy strategies are becoming increasingly important. According to Jarvis (2011, p.1), in the East Asian context, 'The future shape and fortune of the individual financial centres will very much be the result of their policy efforts today'. Emerging economies are keen to identify the policy levers undergirding financial sector growth and having an aspiring IFC, like Shanghai or Seoul. While the well-established centres, like New York and London but also Tokyo and Singapore, try to maintain their international competitive position (Jarvis, 2011). To this end, it is an important public policy concern to understand the "why and how" financial clustering accelerates and what determines the location of a financial centre. In conjunction with the increasing importance of the financial sector as a provider of economic profit, more research is required to answer the question: what drives the rising competitiveness of Asian IFCs?

3. Methodology

3.1 Analytical framework

In the existing literature there is a general consensus on how IFCs are defined. In short, IFCs can be described as 'control centres of global financial flows', Poon (2003). Though, it is important to understand an IFC in a broader context and take into account the more comprehensive descriptions expressed in the literature. Jao (1997, p.3) incorporated the efficiency and innovation aspect, by explaining an international financial centre as a place where financial markets have the opportunity to exist and develop. Here, financial activities and transitions can be 'more efficiently than at any other locality'. This more elaborate definition is more sufficient to scrutinize the competitiveness of the Asian financial centres and will form the base on which this research will be conducted. The earlier work investigating the development of IFCs is often economic in nature with a strong focus on quantifiable characteristics. Attempts have been made by Jarvis et al. (2011) to incorporate institutional-political variables into the development and policy, with a particular need for this in the Asian context (Woo, 2015). In short, to increase the competitiveness of a financial centre, the literature suggests four main determinants that contribute: an appealing regulatory environment, well-established financial institutions, financial infrastructure applicable to the need of the clusters and the presence of a highly educated and flexible labour force. In the following paragraphs will be elaborated on each determinant and their potential to increase competitiveness.

3.1.1 Regulatory environment

In 1974 Kindleberger was one of the first economic historians, who conducted a research on international financial centres. He had an extensive contribution to the existing literature, many researcher departed from his analysis. Within his research he focused on historical narrative with concentrating on three key characteristics, namely a banking tradition, a strong central bank and a strong currency (Eichengreen & Shah, 2020). He placed considerable focus on the number, size, international experience and expertise of the banks within the financial centre (Liu et al., 2012). Contributing factors as favourable location or geography (in economic understandings associated with trade and financial opportunities) and representative government (in financial studies connected to checks and reliable contract enforcement) were added by other studies from among others Fratianni (2009), building upon the work of Kindleberger. Notably, these factors substantiate the importance of a reliable regulatory framework to contribute to the success of an IFC.

Financial centres situated in an accountable and consistent regulatory framework are more likely to attract foreign trade and investment flows. A strong central bank is decisive for maintaining standards and financial legislation by its supervision. Since a well-integrated regulatory environment increases the efficiency and the reliability in the legal system of financial firms and business services. The regulatory environment has the capability of strengthening the reputation of a financial centre within the international system. In particular when trade barriers and regulations to encourage economic International integration, i.e. financial liberalisation, are progressively removed. On top of that, the bank can play a role to increase accessibility to regulatory authority and government. As a result financial firms and business services derive a competitive advantage from their location, as opposed to a financial cluster situating on the outside (Mollan & Michie, 2012). Whereas this explains why financial clustering often takes place in the capital of a country, where the government is situated. An elaboration on the role of clusters in driving competitiveness will follow in the section on financial institutions. In other words, the openness and accessibility of the regulatory framework is contributing to an IFCs competitiveness.

With more countries developing expanding their economies constructing a regulatory framework, the level of economic integration into the international framework is becoming increasingly important. In addition, so did the improvements in the regulatory environment and legal protection of investor rights of their financial centres. The latter critical in the trend of globalization and sophistication of financial markets, as the competition among financial centres is increasing (Liu et al., 2012).

3.1.2 Financial institutions

An important key word in the related literature of international financial centres and is inseparable from financial institutions is “clustering”. Clarified by Porter (1998, p.15) ‘clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (e.g. trade associations or standards agencies) in a particular field that compete but also cooperate’. In this sense financial institutions play an critical role in financial clusters as they provide services as intermediaries of financial markets. Verdier (2002) points out that the agglomeration of financial institutions in financial centres is one of the main driving factors in the financial industry to expand internationally. A high concentration of financial services and supportive business enable firms to make use of shared services. The resulting spill over effects, such as reduction of transaction costs and efficiency gains, are a key component of financial agglomeration (Mollan & Michie, 2012). The density of financial firms, supportive business services and financial institutions cause firms ‘not only reduces barriers to transaction facilitation but creates information symmetries and knowledge economies that reduce operating and transaction costs’, Jarvis (2011, p.64). A high number of institutions is therefore an indication of competitiveness of a financial cluster, as it stimulates the integration of the soft financial infrastructure.

Together the components of clustering are part of a process described as economic integration. A process demonstrated in the so-called “new economic geography” developed by Krugman (1991). According to his research, increased clustering can lead to a dramatic increase in geographical concentration of manufacturing industry production. Resulting from a linkage-based agglomeration process which is self-reinforcing in nature (Liu et al., 2012). This theoretical underpinnings of the industrial location theory find often application in the financial service sector (Park 1982, Choi et al. 1986; Davis and Latter 1989; Davis 1990; Goldberg et al. 1991; Sassen 1991). A similar study in 2006 commissioned by the municipality government of New York, the conclusion was drawn ‘a high concentration of financial services providers tends to be correlated with a similarly high concentration of clients and providers of support services, which creates the potential for additional business opportunities and more efficient operation’ (Bloomberg & Schumer, 2007). According to the research, this is the principle driver that sustains the world’s leading financial centres. Also, the clustering of business tends to attract high skilled labourers, which is another key component for determining competitiveness of a financial centre and will be elaborated on in section 3.1.4.

Equally important it the presence of a underlaying network, i.e. the soft financial infrastructure, facilitating the linkages of the multiple components within the financial cluster. The significance of the network is directly related to how the financial businesses and institutions are embedded with or to each other. Networks in financial clusters can have multiple forms, varying from loose cooperative relationships between firms to memberships of formal exchanges. It links independent firms in specific manners and enables them to conduct business quickly and efficiently. A well-integrated network among financial institutions can provide better access to capital or faster communication or specialist expertise (Mollan & Michie, 2012). All things considered, the theory regarding financial institutions suggest that they make a great contribution to the increase the competitiveness of a financial cluster in a city, which is directly related to the competitiveness of an IFC.

3.1.3 Infrastructure and Finance

Apart from the construction of a regulatory framework and integrated financial institutions, the competitiveness of an IFC relies on the efficiency and sophistication of its present 'hard' financial infrastructure. The infrastructure supports the network of linkages which are described by Daniels (1985, p.73) as "the key to agglomeration economies". It provides for the network of internal, mentioned in 3.1.2, and external linkages of the financial cluster in the city. External linkages support financial activity and facilitating communication to link financial centres worldwide. In fact, the more external linkages a financial cluster has within the international financial system, the more likely it is to attract new financial firms and business services. For that reason, the external linkages of a cluster to the international financial network are of great importance for the durability of a financial centre.

Improving the hard infrastructure to match the needs of a cluster is often an early priority of the government to increase its competitiveness. Examples of enhancing the infrastructure are the construction of new airports or railways or specialized infrastructure such as port or satellite communication (Porter, 1998). By doing this the city is becoming more regionally integrated and ultimately better situated in the international network.

In relation to information infrastructure the financial trading notion of "end of geography" or "death of distance" is not applicable for financial centres (Mollan & Michie, 2012). Financial businesses and services have a competitive geographic advantage being inside the cluster to those outside the cluster. For instance, in the financial sector time and speed are of great importance when it comes to the response to sudden price changes and the needs of high-frequency trading. According to Mollan and Michie (2012, p. 575) 'for many financial firms, there has persisted a continuing need to be close to sensitive information flows, in particular to high-volume, high-volatility market data (e.g. in foreign exchange trading)'. As conglomerate of firms of financial and business services are involved in cross border activities (Wójcik et al., 2018). The reason for this, is that cross-border financial deals not only require many face-to-face interactions, but also long-distance connections, and complement one another described by Gaspar and Glaeser (1998). Today with high speed internet it has been made possible to access the conical infrastructure between cities, allowing people to also facilitate between intra-urban transport networks and airports more freely (Warf, 1989). Taking this into account, the innovation in telecommunication and information technology that facilitating fast and efficient global transmission of goods. Capital and information are crucial for cities accommodating a financial cluster. As it enables financial businesses and services to be more competitive, inherent to the dynamism of the markets and firms in the city. Therefore IFCs containing an information infrastructure that is efficient and sophisticated are more attractive for financial firms and additional services operating in the international economy.

3.1.4 Availability of a Highly Skilled Labour Force

The last determinant of competition suggested by the literature is the presence of a skilled workforce. It is of great importance that there is a large pool of highly educated and qualified labourers, having expertise in the local cluster, from which the financial centre can draw from. Highly skilled labours have the potential to stimulate innovations and competition within the financial markets and increase efficiency within the networks. Their level of expertise and international experience in foreign markets is evident for international firms and additional business in the financial cluster (Beaverstock & Smith, 1996). In essence, the availability of highly skilled labourers is a key component of a competitive financial centre operating internationally.

To attain a high skilled local workforce and attract international financial professionals (bank, stockbroker, insurer etc.) regulation most be in place and environment created to facilitate a well-integrated, flexible and open labour market (Ellison et al., 2010). To accommodate high skilled local workforce, the access to institutions of higher education by the population is a key factor as well are the investments made in research and development facilities. As a result, it enables businesses to recruit locally trained high skilled employees and gain advice of experts in the local markets, so costs can be saved or eliminated on internal training (Porter, 1998). Regarding attracting international financial professionals, the city can improve its appeal by providing more shared urban spaces or social venues, where client and counterparties can connect. In other words, the business district in which the financial sector clusters not only provides benefits to firms and business services in terms of facilitating the integration of financial institutions or the sophistication of the soft infrastructure, but also increases the international reputation of the IFC (Mollan & Michie, 2012).

While financial capital can come from abroad, local human resources and its quality is critical for the prosperity of a city. In a research conducted on cross-border investment banking within IFCs in 2018, a positive correlation has been found between size, institutional environment, labour market flexibility and the concentration of financial advisors. In particular the research suggests that the size of a city is important and necessary to provide the financial sector with the required large, deep labour market (Wójcik et al., 2018). According to the research, for every one percent increase in city population an estimated increase of 5,80 percent in cross-border fees. The cross-border fees being an indicator for IFC activity.[2] When combined with an integrated market of labour and financial services, the increase in cross-border fees could rise even more quickly. In addition, the labour market has to be flexible and allow easy hiring and firing to contribute to the needs of the velocity and changeability of the financial sector. For the labour force to be an determinant of IFC development, it is important that openness and flexibility are undergirding institutions that are capable of enforcing the rule of law. Wójcik et al. (2018, p.2) conclude ‘it is nearly impossible to become a top IFC without effective and efficient enforcement of contracts’.

In summary, the determinants ‘increase productivity, drive innovation and stimulate new business creation within a financial centre’ (Mollan & Michie, 2012, p.577). In the context of the Asian International Centres, a major transformation, can be detected after the Asian Financial Crisis in 1997. The crisis created a political and economic basis for the Asian governments and policymakers to concert actions and improve supervision in their financial markets (Batten, 2011). Policy efforts of the East-Asian governments contained a major focus on strengthening their regulatory frameworks and improving financial institutions within their financial sectors, contributed to a more stable, resilient and regionally integrated financial sectors. While, at the same time, stimulating the ongoing technological innovation and combating the unemployment (Batten, 2011). Giving these observations, the reforms had a positive influence on the four determinants of the international financial centres in the East-Asian region. In other words, it laid the basis for the increasing competitiveness of the Asian IFCs.

[2] Obtained from data on gross cross-border fees of 150 cities worldwide and over 40 explanatory variables.

3.2 Empirical strategy

The subject of International Financial Centre is embedded in both politics and economics. Especially in the context of the Asian IFCs where government policy is predominant. Within this research an economic, institutional and political approach will be combined to address both aspects and create a more comprehensive understanding of the development and to surpass the focus on merely quantitative data of the financial sector. In studies on Western IFCs the emphasis is often on quantitative economic variables reflecting the competitive advantage of an IFC. Exploring the competition in Asia, Jarvis (2011) and other researchers in the field used existing literature on theories on the parameters necessary to become an IFC. They took into account the economic, institutional and political contexts that facilitate the concentration of international financial services (Jarvis, 2011). Similarly, in this research, the focus will not be on quantitative, but primarily on qualitative data.

To research the increase in the development of the Asian international financial centre, the analysis will scrutinize the salient changes within the four determining factors for competitiveness. Here the focus will be on government reform policies and measures taken and developments within the financial sectors. The time frame of the research will be the ten years of 1990-2000. The period of ten years is a sufficient time frame considering researching the developments before, during and after the Asian Financial Crisis. This will be supported by data on the financial sector in the same period to strengthen the analysis.

The content analysis of the changes in policy and financial sector data will be limited to the four general causal factors leading to the increase in the competition of an financial centre. The four determinants: regulatory environment, financial institutions, infrastructure and finance, and a highly skilled labour force, set the dependent variables for the research and will be systematically examined. The government policies and reforms will be selected on the factors identified important for influencing each determinant, as presented in table 2. By making the subheadings the data will be narrowed down to the scope of the research and contribute to facilitate the formulation of an answer to the research question.

Table 2: Overview case study determinants

Regulatory environment	• regulation and business environment • strengthening the central bank
Financial institutions	• increase financial institutions • soft financial infrastructure
Infrastructure and Finance	• investment and transport • information facility
High skilled labour force	• labour market development • knowledge economy and expats

To research the influence of the government reform policies after the Asian Financial crisis on the development of the Asian IFCs, the analysis will comprising of two within-case studies. This research method lends itself to be suitable due to the possibility of the usage of both quantitative and qualitative data. Considering that the arguments in debates on policy and growth both have combined ‘cross-national regression evidence with in-depth (quantitative and qualitative) case analyses‘ (Gerring, 2006, as cited in Srinivasan and Bhagwati, 1999; Stiglitz, 2002, 2005; Vreeland, 2003). The method is applicable to give a more comprehensive understanding of the mechanisms in financial sectors of the host countries of the Asian IFCs. The case study method will be an in-depth examination of the determinants for competitiveness of an IFC. The dependent variables, identified for each determinant of development in the literature review, will be researched within the data by using the method of ‘process tracing’. Regarding that every determinant is relevant to the hypothesis, they cannot be directly compared. Additionally, they contain different independent variables and cannot be analysed in a unified sample. Described by Gerring (2006, p. 173), ‘sometimes, in-depth knowledge of an individual example is more helpful than fleeting knowledge about a larger number of examples. We gain better understanding of the whole by focusing on a key part’. In the context of the research “the whole” meaning the increase in the competitiveness of multiple financial centres in Asia.

To identify suitable case studies it must be considered that within East Asia several financial centres that qualify as important for the region. Described in the literature on international financial centres these are Tokyo, Hong Kong, Singapore, Shanghai and Seoul. The last two cities are relevant for this research considering their rapid increase in competitiveness shown since the existence of the GFCI and currently have nearly the same rating. Both were affected by the Asian Financial Crisis in their own way and are subjected to extensive government influence. However, the cities have different government policy strategies and level of international economic integration, which makes them internally heterogenous cases. Another important difference is the level of development at the time of the recovery and restructuring of the East-Asian region after the crisis. This is pertinent to investigate the influence of the Asian Financial Crisis on policy strategies to the success of the financial centres.

The data sources for the case studies will be collected from scholarly literature, official documents (government and multilateral institutions), archives and government statements. To strengthen the analysis, supportive data correlations will be presented of the dependent variables described in the analytical framework per determinant. Not to mention the data serves as a practical tool to compare the case studies. Especially government archives and databases and the Organisation for Economic Co-operation and Development reports provide suitable data to this end.

4. Empirical Analysis

Shanghai was the largest city operating international trade and finance during the 1930s in East-Asia. On Deng Xiaoping inspection tour in the city in 1990s, he concluded future Shanghai should be the same (Young et al., 2009). The next year, the Communist Party of China (CPC) 14th Congress emphasized the national strategy to transform Shanghai into a modern international financial centre. Similar aspirations can be found in Korea, where ‘Seoul decided to pursue its own international economic strategy in addition to national orientations in 1997’ (OECD, 2005, p.52). The Seoul Metropolitan Government (SMG) would transform the city into an aspiring global centre functioning as a Northeast Asian hub. In both cities many changes were happening, whether directly related to the crisis or brought about by internal developments. The following empirical analysis will explore these changes and investigate their relation to the increase in competitiveness of the aspiring IFCs.

4.1 Regulatory environment

In the regulatory environment of an IFC openness and accessibility are considered eminent for international finance to flourish. Together with the a reliable regulatory system and a strong central bank, it forms a key determinant for increasing competition. Between the case studies a major difference is observed in regard to the financial liberalization after the Asian Financial Crisis. While Shanghai operated in a system which remained secluded from international finance, the regulatory environment in Seoul was eased to a great extent. Attracting foreign investors in the wake of the crisis and accommodating a more foreign friendly environment became the objective.

<u>Study Case 1 - The International Financial Centre Shanghai</u>

Regulation and business environment

The crisis response program of the PRC, announced in March 1998, mainly concentrated on reviving the economic growth and stabilizing the unemployment rate. The government installed short term measures to sustain domestic demand and exports. The focus was to maintain ongoing the high economic growth at eight percent (Nasution, 2000). Long term measures were instigated in the to improve the regulatory environment within the financial sector. As political support emerged within the PRC government for enhancing the structural problems (Wang, 2000). In July 1999, the among analysts and brokers, long awaited National Securities Law came into force, which was of major importance to strengthen the securities market with legal mechanisms (Geng, 1999). The security law clarified the regulatory framework and to ensure compliance with the regulations (Nam et al., 1999). The ADB report underlines the expectation that it would “improve regulatory transparency and effectiveness”. Until then, the PRC government had played a substantial role and executed ad hoc interventions in business to regulate the corporate environment (Nam et al., 1999). The law was part of a series of initiatives implemented by the China Securities Regulation Commission (CSRC), which had the task to reduce the potential negative spill over effects of the crisis. The commission had been established not only overtake the functions of the former Securities Commission of the State Council, but also various of regulatory functions of the People’s bank of China (Geng, 1999).

While the Asian crisis stimulated the sentiment for long term financial reforms, it interrupted the PRC governments plans to liberalize foreign transactions on the capital account (Yusuf & Wu, 2001). Before the crisis, the government had been well aware of the high potential of its financial markets, as it would encourage economic growth (ADB, 2000a). But the crisis made the PRC refrain from reducing trade barriers or eliminating exchange restrictions. Whereas large capital outflows deteriorated the financial sectors of neighbouring countries, e.g. Korea. For the PRC, the Asian crisis emphasized that an adequate supervisory should be installed to control the inflowing capital on short term and within portfolio’s. The general sentiment prevailed that deregulation should be postponed when an effective regulatory system had not been yet properly established (ADB, 2000c).

Strengthening the Central bank

‘Strengthening the autonomy and efficiency of the central bank, restructuring of the People's Bank of China internal organisation, and reducing the number of bureaus and offices as well as personnel’. This became the core focus of the reform plan for the banking sector after the crisis (CNS, 1998). In the next three years the government of the PRC would build a financial structure similar to the US Federal Reserve System. By 1999, the government claimed that the implementation of the new structure had been successful. For instance, the central bank had gained more autonomy as inference of local governments in bank lending had become more difficult according to the PRC government (People's Daily, 1998). Additionally, Huaicheng (1999), governor of the Peoples Bank of China and former finance minister, stated that the central bank's 'macroeconomic regulation and financial supervision had grown and the state commercial banks have set up asset management companies respectively to process their non-performing loans'. This is contradicted by the Asian Development Bank, which declared China's progress on its structural reform agenda in 1998 rather limited.

Mainly the financial reforms implementation contained the adaptation of prudential rules and regulations of the Bank for International Settlements (BIS) together with a new loan classification scheme introduced for commercial banks (Nasution, 2000). During this process, the PRC government had considered international organisations and foreign companies to be an asset in encountering the systemic financial problems (South China Morning Post, 1998). By adhering to the regulations of the BIS, the PRC government enhanced the process of cleaning up the balance sheets of the State-owned banks (SEOs) starting in 1997. A process very much needed as non-performing loans (NPLs) within SOEs had been accumulating in a rapid pace since the 1980s, disrupting the financial sector. This makes the sector increasingly vulnerable to small changes in economic circumstances occurring in more market-based economy (Stiglitz, 1998). In comparison to the Asian countries severest affected by the crisis, it is the PRC that had the highest accumulation of NPLs. The total amount estimated over 20 percent of the loan portfolios of state banks, as shown in the table 3 (Economist, 1998 as cited in Lardy, 1998).

Table 3: Non-performing loans in portfolios of state banks: Asian crisis hit countries 1998

	China, P.R.: Mainland	**Korea, Republic of**	**Thailand**	**Indonesia**	**Malaysia**
%	>20	16	15	11	7.5

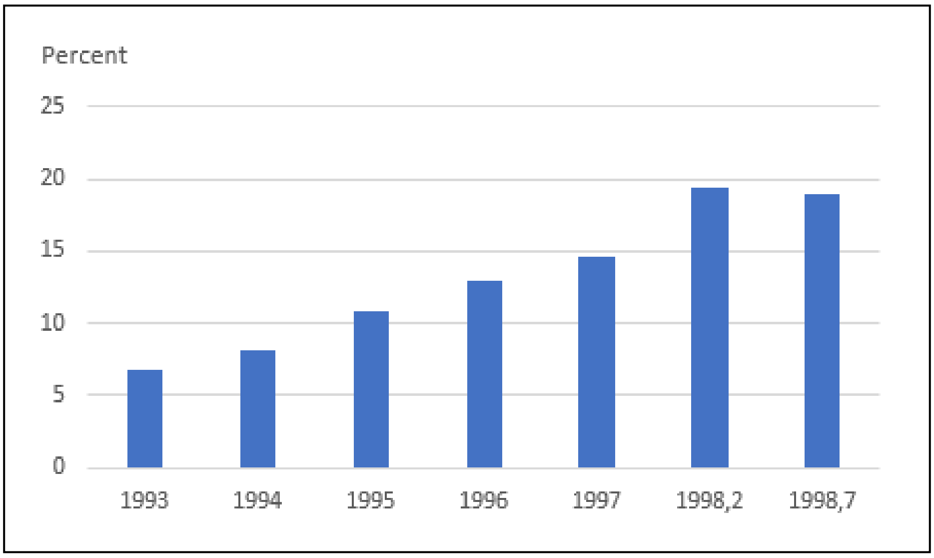
Source: Noland et al., (1998)

Study Case 2 - The International Financial Centre Seoul

Regulation and business environment

President Kim Dae-jung, elected in 1997, emphasized that the strategy in the post-crisis period should be embedded in 'the parallel pursuit of democracy and a market economy' (Lim, 2001, p.23). As a first response to the crisis, a package of 13 financial reforms was passed by the National Assembly in December 1997. The reforms were instigated to overcome the immediate effects of the crisis. Although, according to a ADB study, these long-awaited reforms had the underlying intension to 'facilitate financial restructuring, improve prudential regulation, and accelerate capital market liberalization' in the long term (Ji & Park, 1999, p.38). The government became convinced that competition in the capital market would be stimulated by enabling foreign investors to increase their businesses or institutions and reverse the negative effects of the crisis (Nam et al., 1998).

Figure 5: Shareholding by Foreign Investors in the Domestic Stock Market, %



Source: Korean Stock Exchange Website

To start, the domestic bond market and the opening of the stock and capital markets were accelerated to attract foreign funds in 1997. (See figure 5) Then, the revised financial policy included the elimination of many restrictions and exchange regulations for foreign entities. In particular, the Foreign Investment Promotion Act (FIPA) of November 1998 had a major impact for foreign investors doing business in Korea. The law comprehensively reorganised the systems related to foreign investments by easing many regulations and restrictions. It became easier to make investments and tax incentives were expanded. Busines areas in which FDI was restricted or prohibited now became accessible. According to the OECD survey (1999b), this impacted the legal framework in Korea to a great extent, considering FDI formed the basis for an equal level playing field. Moreover, administrative procedures were enhanced for foreign investors to increase attractiveness (Korean Ministry of Legislation, 1998). Another important change was made by the Foreign Exchange Transactions Act (FETA) of April 1999. The FETA revised the legal basis for the conduct of foreign exchange and facilitated the expanding financial liberalization. It simplified the procedure for Korean firms and financial institutions to carry out offshore issuance of securities or foreign borrowing (Kim, 2002). Not to mention, Korea started implementing the General Agreement on Trade in Services (GATS) regulations, the international framework for the liberalization of capital flows in the financial service market. International financial agencies, and in particular the OECD, had pressured Korea for this as it had become a member in 1996 (Kim, 2002). As a result of the financial liberalisation, induced FDI flow into the financial service sector. FDI increased to 27 percent, which estimates at an amount of 8.9 billon USD, a record in 1998. In particular Seoul's competitive position as financial hub was strengthened, as it received approximately 60 percent of this (OECD, 2005).

At the same time, supervisory was enhanced after the crisis. Under the Financial Reform Law of 1997 the Financial Supervisory Commission (FSC) was installed. Together with four newly establish supervisory agencies they would supervising the entire financial sector: banks, securities markets and insurance industry included (Nam et al., 1998). Even thought, the government no longer carried out supervision, it remained heavily involved in the sector. As did the chaebols, although their stake in the crisis did not go unnoticed as banks reassessed their risk factor (Lim, 2001).

Strengthening the Central bank

During the financial crisis it was apparent that the banking sector in particular needed to be reformed. Therefore improving the position of the central bank became one of the main objective of the 13 reform package. Along these lines, the new Bank of Korea Act of April 1998 was established, aiming at strengthening it as an independent institution. From then onwards its primary objective would solely be focussing on maintaining price stability. Before, the monetary board was also in charge of supervising the stability of the currency value of the credit and the banking system. The supervision became the responsibility of the FCS. Due to this restructuring, supervisory became more autonomous and the role of the central bank more forward. In the long run the financial sector restructuring aimed at decreasing the monopoly position of the Ministry of Finance and Economy (MOFE) and improving a decentralized governing structure with a underlying check-and-balance system (Ji & Park, 1999). However, despite the reforms banks and commerce remained intertwined, so much that Kim Dae-jung in August 1999 again urged for separating banking and commerce addressed. No concrete action was undertaken, as no program was drafted for privatizing the banks (Lim, 2001).

Another important undertaking of the financial restructuring policy was the reduction of NLPs as they were amplified by bankruptcies during the crisis. In March 1998, to deal with the problem swiftly, the government injected 100 trillion won into the disposal of NPLs. Followed by a restructuring program for financial institutions approved by the FSC (Ji & Park, 1999). Additionally, it became the task of the FCS to avoid a return of the large accumulation of \ NPLs. The remedy of the non-performing loans proved effective, as much of the debt was resolved rapidly after the crisis.

Regulatory environment as driver of competition

For Shanghai the role of the national regulatory framework as determinant increasing competitiveness remains nuanced. Measures were undertaken to improve transparency and effectiveness within the regulatory environment. For instance, the establishment of the commission and the national security law, although described as an attempt by the PRC to show its capital market development and progress in regulatory environment to the international environment (ADB, 2002). At the same time, the local financial sector remains sheltered from the international market, more than in any other aspiring Asian IFC. Moreover, the crisis caused a deterrence from liberalizing foreign transactions on the capital account and the elimination of restrictions in the financial sector. This is crucial, according to the theory in the analytical framework, for Shanghai to integrate into international financial sector.

In contrast, in Korea financial liberalisation accelerated the most directly after the crisis in comparison with any other East Asian country (Kim, 2002). The focus of the government was to create more favourable conditions for foreigners to invest and strengthening the supervision within its regulatory environment. As a result, trade barriers were progressively removed and the government dealt swiftly with the large NLP problem. By doing this the reputation of the Korean financial sector, and by this Seoul, was quickly restored. Economic growth returned the fastest in Korea of all Asian countries severely affected by the crisis. However, similar to Shanghai, the government remained heavily involved in banks and businesses. And in 2004, the OECD stated that the competitive environment in the financial sector in Seoul was still low compared to other financial centres in OECD countries, this was mainly due to stringent regulations and corporate governance problems.

4.2 Financial institutions

In a competitive IFC there is often a large cluster of financial institutions. The expansion of the network stimulates financial integration and creates an attractive geographic location for businesses and institutions. Considering the other Asian countries affected by the crisis, the financial institutions in the PRC had been less integrated into the network of foreign borrowing and lending. Due to this aspect together with its large foreign exchange reserve, the PRC was able to avoid most consequences of the Asian crisis (Cho, 1999). In contrast, the Korean financial institutions had acquired large debts by foreign lenders and were severely affected. In 1997, the IMF received a request from the Korean government for a bailout program. A program requiring major changes in the financial sector.

<u>Study Case 1 - The International Financial Centre Shanghai</u>

Increase financial institutions

Even though, foreign financial liberalisation was postponed, a minor opening of the banking sector can be detected. From April 1997 onwards it became possible to conduct business in local currency on a small scale. Within that year, nine foreign banks became permitted to do so in Pudong, the business centre of Shanghai, and eight of them entered the local market (Cho, 1999). For foreign financial institutions it signalled that the large domestic market of the PRC was becoming more accessible.

During the 1980s the manufacturing industry had increased the role of the financial markets significantly. Financial intermediaries became a fast growing segment apart from the four state-owned banks. It included not only trust and investment companies (TICs), but also leasing, securities, finance, and insurance companies (Nasution, 2000). Networks of Urban and Rural Credit Cooperatives and Special Economic Zones (SEZs) on the basis of regional banks were set up (Allen et al., 2012). In 1992 a SEZ was designated in Pudong, making it the only area in the PRC where foreigners were able to make investments based on free market principles and operate regular business. Before that, the stock exchange of Shanghai (SHSE) had been established in the business district. Together with Shenzhen (SZSE), it became one of the first domestic modern stock exchanges. In other words, Shanghai was successfully turning from a city based on traditional manufacturing to a modern business centre during the nineties (WTO, 2002).

The Shanghai stock exchange instigated an acceleration in the settlement of many, in particular, domestic and foreign banks and financial institutions (Yusuf & Wu, 2001). By 1998, 52 foreign banks had established offices and were operating in the city. However, their role had remained relatively small throughout the decade and did not came close to the scale and importance of the four state-owned banks, dominating the sector. In fact, financial intermediation between savers and investors was still for 90 percent carried out by banks (Lardy, 1998). As the PRC government continued to restrict activities involving retail banking, securities trading, and insurance. On balance, supportive institutions and legal framework lagged behind the market developments and reforms were implemented rather slow (Allen et al., 2012).

Soft Financial infrastructure

In the beginning of 1998, the 15th Communist Party Congress resolution allowed the possibility for private shareholders to buy existing government shares and to privatize SOEs (Nam et al., 1999). In addition, the congress approved a plan for 10.000 SEO's to be publicly traded, a follow up on the reforms for the NLP problem in 1997. In effect, private or Sino-Foreign owned firms started making up a higher proportion of the stock market listings. Resulting in a growing group of companies more responsive to shareholders, an attempt to make the economy more transparent and based on market mechanisms. According to the Nam et al. (1999), more aspects of the market were gradually welcomed. This had the potential to positively impact the efficiency of the financial clusters infrastructure.

Besides the overdependence on banks threatening the competition in the financial sector, the soft infrastructure among its financial institutions had remained weak. In the report on the financial markets by the ADB (2000b), the lack of transparency within the accounting and legal system is attributed as limiting abilities for enforcing loan contracts and installing effective bankruptcy regulations. This forms an obstacle within the information facility for financial institutions and businesses. Additionally, the managers and customers of the banks often appeared to be selected on other terms that economic ones and implicitly guaranteed and protected by the government. This demonstrates an underdeveloped internal market infrastructure, having a negative effect on legal, accounting, regulatory and supervisory institutions during the nineties (Nasution, 2000).

Study Case 2 - The International Financial Centre Seoul

Increase of financial institutions

After the financial crisis, it was predicted that the share of foreign institutions would grow progressively in Seoul. The progressive relaxation in regulations and removal of barriers would attract multiple foreign investors and business (Kim, 2002). However, similar as their shareholding in the stock market, this stabilized after the crisis. Prior to the crisis the market share of foreign banks, estimated at 6-7 percent, had remained rather small in Korea (Kim, 2002, p.17). Even though, the General Banking Act, established in 1991, gave single foreign banks the opportunity to have multiple branches. An attempt to increase their flexibility of doing business. The act had been the first step towards a more market orientated financial sector as the manufacturing industry had started to stagnate. Moreover, a more equal level playing field needed to be created among domestic and foreign banks and institutions. Discriminatory restrictions started to be abolished and foreign banks started losing special privileges (Yoon, 2000). The role of foreign banks changed, as the importance of their role as investors in the manufacturing industries further declined by the end of the 1990s. The government envisioned that their presence would encourage competition in the capital market, introduce advanced banking techniques and link Korean companies with new clients as they were expanding foreign trade (Kim, 2002).

At the same time, the domestic banking sector was growing as they managed the financial resources for corporations (Ji & Park, 1999). Efforts were undertaken by the Korean government to diversify the sources of funding and to organize the arisen chaotic financial market. Multiple nonbanking financial institutions (NBFIs) were installed, among which investment, savings and insurance institutions. By 1997, nonbanking financial institutions made up a larger share than the banks, almost 63 percent to 20.4 percent in the capital market (Ji & Park, 1999). This financial clustering happened mainly in Seoul considering that the headquarters of the manufacturing businesses were located in the city. Additionally, close proximity to the capital was a great advantage considering the extensive influence of the government in the sector and corporate culture (Ji & Park, 1999).

Soft Financial infrastructure

In 1998, The Korean government decided that the stabilization of the financial sector should be executed fast, resolute and within the framework of a financial restructuring program (MOFE, 1998). The framework for restructuring was divided in two sections: first part focussed on recapitalizing financial institutions and restoring economic growth, while the second contained more structural measures for improving corporate governance and the financial infrastructure (Ji & Park, 1999). The specific goal of the second part was to improve 'the corporate governance, the accounting system, and minority shareholder protection in the long term' (Nam et al., 1998, p.56). Reforms were necessary as the market infrastructure had "outgrown its own institutional capacity" since the increasing integration into the international economy throughout the 1990s. It had grown inefficient as the domestic policies for competition, the internal corporate governance structure and the regulations for banks had not been updated. As a result, the financial sector had been more susceptible for external shocks created by the international environment, like the Asian crisis (Yoon, 2000).

In short, the first part of the financial restructuring program of recapitalizing and stabilizing the sector had proven to be sufficient. The second part, containing fundamental restructuring measures for financial institutions to lead corporate restructuring and resource allocation based on market principles, were not as effectively implemented (Lim, 2001). Many financial institutions remained to be influenced by the government or chaebol related branches. Correspondingly the measures had been languished as the urgence decreased after the IMF bailout program had finished and economic growth returned (Nam et al., 1998).

Financial institutions as driver of competition

The domestic financial market in Shanghai had been rapidly growing due to present large manufacturing industries, the largest in East Asia. Although, it was the establishment of the Shanghai Stock Exchange and the designation of the SEZ in Pudong, that made the financial clustering increase significantly. Shanghai developed into the most prominent national financial centre. International businesses and institutions were attracted by the growing domestic market. As the PRC experienced the highest economic growth of al East Asian countries during the nineties (ADB, 1999). Foreign businesses were able to enter in small measures the domestic market, but their role remaining limited. Restrictive regulations and enter barriers prevented foreign investors from integrating in the financial infrastructure. No major financial reforms in the PRC's institutions were carried out directly related to indicators for increasing competitiveness of Shanghai as an IFC.

Different to Shanghai, the financial institutions in Seoul had been increasingly expanding their network within the international economy due to the accelerating financial liberalisation. The government encouraged foreign financial institutions as instigator of financial innovation and mediator for Korean financial businesses and services to expand internationally. The role of foreign financial institutions had changed from supplier of capital into a driver of competitiveness. After the crisis, the understanding of the government grew that a vivid and dynamic capital market had the potential to increase economic resilience (Kim, 2009). The reform program's focus on the integration a the capital market was extensive in Seoul in regard to other aspiring Asian IFCs. However, an applicable soft financial infrastructure still needed to be installed and market mechanism had to increase for the cluster to reduce costs and gain efficiency (Nam et al., 1998).

4.3 Infrastructure and Finance

Efficiency and sophistication of the underlying networks strongly relate to the competitiveness of an IFC. The network supports financial activity by facilitating transportation and information to other financial centres. The strength of the network is not only determined by the significance of its hard infrastructure, notably airports and railways, but also by telecommunication and information technology such as mobile phone use and internet connections. Both Shanghai and Seoul have a geographic advantageous location, which resulted in economically important positions within their regional networks. Rapid developments have taken place which increased internal and external linkages. Especially the technological progress underpinning these developments had positive effects on the efficiency of transportation, speed of communication, and ultimately financial activity.

Study Case 1 - The International Financial Centre Shanghai

Investment and Transport

In February 1998, the government of PRC announced an budget expenditures of '1 trillion USD on new infrastructure projects, housing and high-tech industries over the next three years' (Renmin Ribao, 1998). The Infrastructure investments were part of the short term measures to counter the effects of the Asian crisis. After that, the government implemented two additional fiscal stimulus packages (Y100 billion in 1998 and Y60 billion in 1999) for increasing investments in infrastructure and growth in the long term (ADB, 2000b). According to Huaicheng (1999), former finance minister of the PRC, did the 'measures succeeded in expanding the domestic demand and stimulating investment, particularly in infrastructure'.

From the 1990s onward, the PRC government had started highly prioritizing investments in infrastructure (telecommunications, transportation, and energy), and services (health, education, banking, and insurance) (Nasuation, 1999). In particular, Shanghai was receiving special attention from the government in terms of support and incentives. It was meant to promote the city's development and to counter balance the rapidly advancing South-eastern region (Ochi, 1997). Many investments were directed at the development of the, earlier mentioned, Pudong business district. Correspondingly, the district was part of the long term ambitions of municipality of Shanghai to 'house a variety of business activities and, most importantly, financial and business services that are the backbone of other major world cities' (Yusuf & Wu, 2001, p.22). A full-fledged infrastructure was established in Pudong, which supported a great amount of commercial and industrial space. Various headquarters of multinational corporations started to settle here at the beginning of the 2000s, attracted by the new business opportunities and the sufficient infrastructure. In effect, Pudong evolved into a centre of commercial and started developing into a hub for cultural activities (Wu, 2000). The latter, a result of the ambitious efforts of the Shanghai government to renew the image of the city on capturing the glamour of "old Shanghai" by an architectural make-over during the 1990s (Yusuf & Nabeshima, 2006).

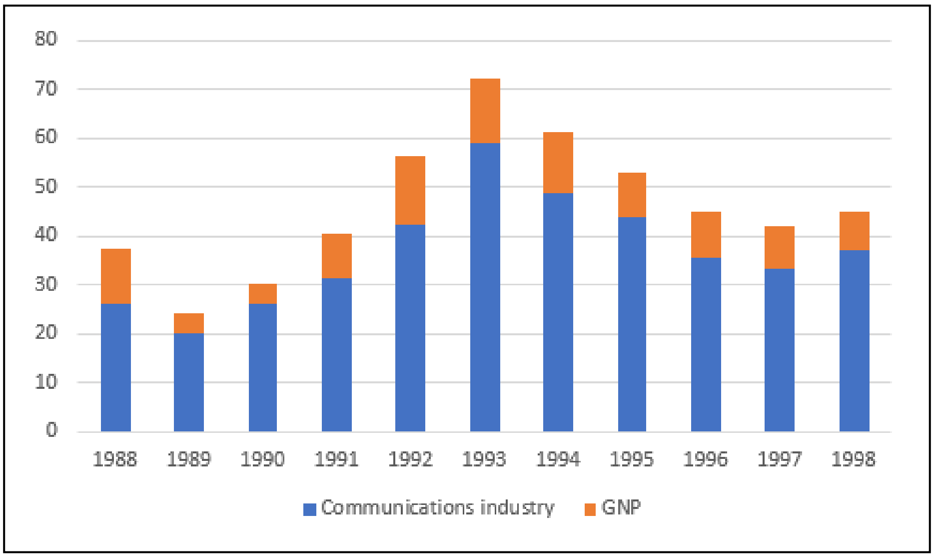
Not to mention, one of the most important infrastructural development was the opening of the Shanghai Pudong International Airport in September 1999, complementing the much smaller Shanghai Hongqiao International Airport. By becoming an aviation hub its importance as a business centre within the Asia and Pacific region grew increasingly (Yusuf & Nabeshima, 2006). Furthermore, would the new highspeed railway, connecting Shanghai and Beijing, and the additional high-speed ferries to the nearby port in the Zhejiang province expand the regional network (Shanghai Star, 1999).

Information Facility

At the same time, significant changes were happening in the information technology and telecommunications (ICT) sectors. Telephone and mobile usage had become more common, and internet connections were expanding during the 1990s. The charges on internet access and telecommunication rapidly declined. By 1997, the value of telecommunication service in the PRC was estimated at 19.9 billion USD. These developments can be dedicated to the large investments of the PRC government (figure 6), which was resulting from the increase in importance of the sector.

Before 1999, China Telecom had a monopolistic position in the sector, until the government decided to split the enterprise into different providers to stimulate competition. In order to facilitate an orderly development of the sector, the PRC separated the operational from regulatory functions in early 1999 (ADB, 2000b). It became the responsibility of the newly created Ministry of Information Industry (MII). However, the ministry had a financial stake in China Telecom which complicated competition in the sector. Recognizing this imperative the government started working on a comprehensive telecommunications law, but this would not be implemented for years (ADB, 2000b).

Figure 6: Growth of China's Gross National Product and communications industry, 1988-98, %



Source: Chinese Ministry of Information Industry (1999)

In 1998, the capacity of the fixed telephone net had become the second largest in the world and with 25 million mobile telephone users it was the third country (OECD, 2001). At the time, the municipality of Shanghai heavily invested in transport and the latest fibre optics based on communications technology. The improvement in quality of telecom facilities and accelerating internet usage combined were benefitting the export enterprises. Local services producers in Shanghai, for example, saw their business grow and were becoming more integrated into the international business community (Wu & Wong, 1997).

Study Case 2 - The International Financial Centre Seoul

Investment and Transport

For Seoul to become an IFC able to compete with the other global cities in the region, like Tokyo and Singapore, sufficient infrastructure must be in place (OECD, 2005). Towards the end of the 1990s, the Korean Government was allocating a high percentages of the national budget to the development of infrastructure. Large sums were directed at the transport and mobility infrastructure of the capital region (OECD, 1999). Already, in 1992, the build had start of Incheon International Airport (IIA), which would become the principal international airport. Incheon, a neighbouring city of Seoul aspiring to become the main transportation hub within the Northeast-Asian region. It is the host of the international harbour and logistic platforms within Korea, operating as the transportation gateway of the capital region (Yusuf & Nabeshima, 2006).

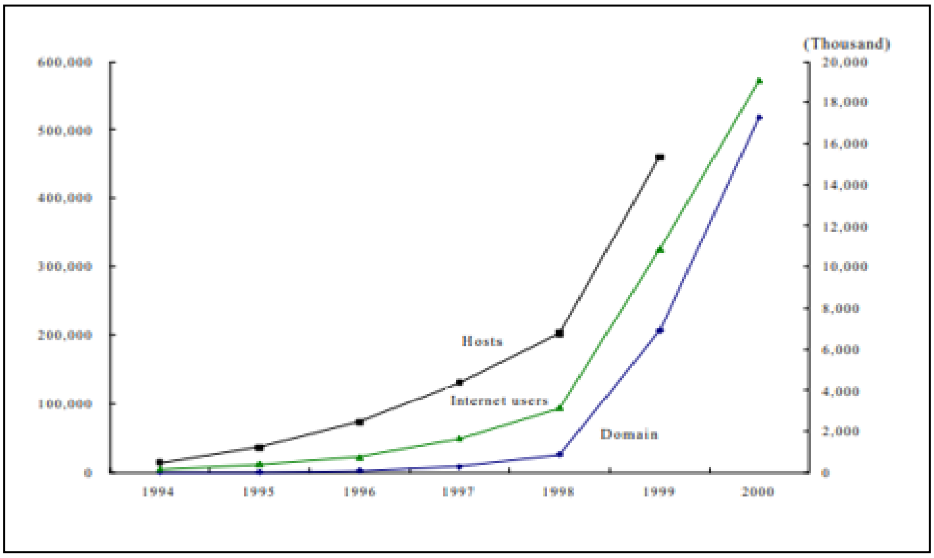
In addition, the Seoul Cosmopolitan Government intensifyed its urban development plans to become an leading IFC. To accommodate the increasing international trade with corporate headquarters and to attract FDI, plans were made in early 2000s for the build of Songdo New City's business district near Incheon. The goal of the Songdo project was to build an international business hub, functioning as a gateway as the PRC is rising nearby. Songdo was to become one of the world's first smart cities, as technology would be revoked in every aspect and fifteen minutes traveling from Incheon airport (OECD, 2005).

On a city level, the Seoul Metropolitan government gave high priority to the development of the infrastructure and the business environment. In 1997, the Seoul Master Plan was revised as the Seoul Metropolitan Government declared to become an aspiring IFC. It contained programs on improving the urban environment and quality of its citizens lives (The Seoul Institute Kim In-hee, 2014). Two factors that are considered important not only for national, but also for international businesses for determining their business locations (OECD, 2005). Before the Asian crisis, the city had been focussing on rapid economic development and had paid less attention to balancing spatial development, investing in infrastructure and adapting to it the cities expansion. Transport demand had grown substantially, whereas corresponding investments had not been made (OECD, 2005). As a result, transport congestion and air pollution occurred and became an increasing problem. Taking into consideration that congestion and pollution are heavily intertwined with a city's business environment and attractiveness, the Seoul Master Plan focussed on enhancing these socio-economic problems and improving the international image (OECD, 2005).

Information Facility

An important change in legislation, was the improved openness through the revised Basic Telecommunications and Information Technology Agreement (ITA) and Business Act in 1999. Together they formed the sectors' structure of competition (OECD, 2001). Until 1990, Korea Telecom had a monopoly position in the telecom services sector. From then onwards gradually market liberalisation was introduced, which led to a competitive market (OECD,2000b). In addition, the government invested in technological improvement such as broadband connections, and later wireless connections (figure 7). Proficient broadband internet became widely distributed to the population. According to Yusuf and Nabeshima (2006) "Asia's most wired cities" were to be found in Korea, as three quarter of the people used the internet. Compared to one-third in Beijing and Shanghai households being regularly online, and considerably less in rural areas.

Figure 7: The Internet Boom in Korea



Source: Seoul Development Institute and Nomura Research Institute (2003) as cited in Sung (p.126, 2001)

In combination with the already rapidly growing high-tech industry during the 1990s, technological innovation was boosting. Innovation was in particular driven by the developing services within the IT, digital content, multimedia and financial industries (National Computerization Agency, 2001). This was accelerated by the active promotion and large investments in IT hardware by the Korean government. Below in table 4, the IT investments are compared with other technologically advanced countries. Venture firms came flocking to the country investing in internet-related industries, instigating the "IT-revolution". In fact, an increase was observed from 1.514 venture businesses in 1998 to 6.004 in 2000, a growth of nearly 400 percent mostly situated in the Seoul region (Sung, 2001).

Table 4: IT investment contribution in GDP Per Capita Growth, 1990-2000, %

Country	1990-95	1996-2000
Japan	0.1-0.2	0.4-0.5
Korea	1.4	1.2
United States	0.4-0.5	0.9-1.0

Source: OECD (2004)

Seoul experiences increased competition from other cities regarding the export of high-tech products and IT-services in Northeast Asia, as these industries are becoming increasingly footloose services. For this reason, the Korean government engaged in an extensive urban industrial strategy with a similar magnitude as Beijing, Shanghai and Singapore's urban development plans. Also, Seoul started focussing on its multimedia industries. Projects as Guro Digital Valley or Digital Media City were developed and the video games and moviemaking industries stimulated. In particular, the movie industries rapidly developed and caught the attention of the international audience, characterizing Seoul's reputation (Yusuf & Nabeshima, 2006).

Financial Infrastructure as driver of competition

During the 1990s, in both Shanghai and Seoul, large infrastructure development can be detected, which increased during and after the Asian financial crisis. Large budgets were allocated by the national government for the development focussed on the infrastructure. As the theory suggests, the increase in external linkages is important for their competitive position and durability as IFCs. It connects the cities to other important centres in the international financial system and increases the integration within the Northeast Asian regional network. In addition, both cities greatly enhanced their business districts by improving the internal urban transport network, creating shared urban spaces and social venues. This has a positive effect on the attractiveness for international businesses as it provides a location for client and counterparties to connect. Besides, it improves the reputation of the cities in the international environment.

Equally important are the investments in telecommunications and information technologies for the competitive position of the IFCs. Telephone usages increased significantly and broadband internet became widely distributed. In general, the information infrastructures improved to a great extent in terms of efficiency and sophistication. The technological developments especially had a positive effect on the innovation in the city's operating transportation networks and airports. The main difference between the two cities is the possibilities for foreign investments and businesses to get involved. While competition in the PRC was complicated by regulations and government involvement, Korea simplified regulations for FDI and implemented legislation to make the telecom industry more competitive.

4.4 Availability of a High skilled labour force

Essential to an IFC is the presence of a skilled labour force within the city to drive innovation and efficiency. The size of the population, flexibility of contracts and labour mobility are factors influencing this determinant for competitiveness. Not to forget, the local expertise and experience within the international environment of financial professionals is of great importance. Shanghai and Seoul host a population of over 10 million, making them part of the megacities in Asia. Similar to cities as Tokyo and Taipei, employees had been gravitating towards the large metropolitan area's for education and employment.

<u>Study Case 1 - The International Financial Centre Shanghai</u>

Labour market development

The Asian Financial Crisis caused an increase in unemployment rates in many East-Asian countries. In the PRC the demand for new employees plunged from 13.7 million in 1995 to 1.4 in 1996/97 (Rawski, 1999). This aggravated the already rising unemployment rate caused by the financial reform policy. The policy meant to reorganize and downsize of the SEO's, including the state banks. As a result, 10 million redundant employees were being laid off in 1997. Until the reform policy, they had been difficult to discharge by the institutions (World Bank, 1996). In combination with the unemployment due to the crisis, the PRC government became wary of mass unemployment. Therefore the crisis respond program of March 1998, was not only to revive economic growth and sustain domestic demand, but also to retain the unemployment rate. Budget expenditure expanded and infrastructure projects were instigated to prevent a high unemployment rate, while the long term economic reforms were stalled (Nasution, 2000).

The SOE reforms had mainly affected employees in the industrial sector, specifically the urban areas, for Shanghai this meant that the redundancy problem amplified by the crisis. Already before the crisis this problem, often concerning lower educated rural migrants, had led to a new policy by the municipality government for laying off workers more easily. The policy enabled employers not to have contracts and responsibilities regarding their workers and enabled them to reduce pay. This practise manifested itself in especially in Shanghai, due to the shifting focus from manufacturing industry towards service and high-end technology sectors, as these sectors demanded more higher skilled labourer (Nasution, 2000).

Similar to the infrastructural development of the city, the municipality of Shanghai influenced the labour market and education system to a great extent. The goal of the municipality was to enhance competitiveness and liveability not only for national, but also for international financial professionals. During the nineties, the ignited economic surge in exports had resulted in a rise in wages and land costs (Yusuf & Wu, 2001). The city was becoming more expensive as the newly Pudong area started filling with new residents and offices. In this respect, efforts were undertaken by the municipality to preserve jobs for urban residents. However, the rising housing prices and administrative or economic barriers as imposing fees for employing non-resident labour per year were making it more difficult for migrants to settle (Shanghai, 1998).

Knowledge-based economy and expats

In 1998, the PRC government addressed the necessity of a knowledge-based economy by initiating a promotion campaign, following the example of Japan and Singapore. The knowledge-based economy comprises of high-tech industries, which are 'prominently based on information and communication technologies (ICT)' (Zang & Andersson, 2000, p.11). The government's motivation was driven by the urgence to collect information, studies issued by Chinese research institutes and the newly distributed information on the topic. During the conference *The Knowledge Economy and China's Development* in July 1999, it became evident that the PRC government had a special position in mind for Shanghai.

The municipality of Shanghai had already started developing ambitious plans and detailed sector-level assessments (OECD, 2001). Together with the shift towards service and high-tech industries, the demand for high skilled labour force grew in Shanghai. The strategy for expanding the high skilled workforce was focussed on PRC nationals being trained abroad a returning after their studies, referred to as "returnees" (Farrer, 2019). This was becoming a distinguishing characteristic of PRC government policy on education, from which leading Chinese cities are benefiting. At the same time, two measures were taken to address the educational gap of the needed professional and technical personnel in Shanghai. University and college enrolment for local student increased to a large extend, so did for vocational schools. And restrictions were relaxed for businesses to hire employees higher education from other regions in the PRC (Shanghai Academy, 1997). Moreover, the education system in Shanghai greatly improved and had become a pioneer of the national education reform movement and its universities growing in reputation within the international environment (OECD, 2001).

In the meantime, the expatriate community had been expanding and dominating managerial roles in the multinational corporations (MNC), operating in the manufacturing and export sector. In the aftermath of the financial crisis, the management of MNCs became focussed on "localizing" the management of firms by hiring more Chinese nationals. Considering that it reduces costs and make the corporation more adaptive to the local market (Farrer 2019 as cited in Hsieh et al. 1999; Law et al. 2007; Selmer 2004). Farrer (2019) describes that competition for jobs became in favour of PRC nationals. Nevertheless, Shanghai remained an increasingly popular destination for the international expat community (Farrer, 2019 as cited in Farrer, 2008, 2012; Hollingsworth, 2016).

Study Case 2 - The International Financial Centre Seoul

Labour market development

Korea experienced a rise in unemployment, of which disproportionally in Seoul, due to the Asian financial Crisis. Unemployment grew with a rate of almost 8 percent, especially affecting the manufacturing and construction sectors. During a short period 120.000 employees lost their jobs and another 260.000 settled for an early retirement (together more than 3 percent of the labour force). As a response, public expenditure on unemployment rose in 1998 to more than 10 trillion Korean Won (OECD, 1999). Sustaining domestic demand by supporting laid off workers became a high priority of the government. At the same time, the government aimed to relief firms by revision the Labour Standard Act in February 1998. Labour costs in firms needed to be reduced by lowering the number of employees, the wages or working hours. The law revision made discharging redundant employees for managerial reasons possible and eased legislation concerning mergers and acquisitions. Additionally, the government started allowing temporary work agencies within 26 occupations later that year (OECD, 1999). These developments had a positive effect on labour flexibility, as the pre-crisis system consisted of a strict security provision of employment.

The large group newly unemployed workers together with government policies stimulated the growth of the start-ups scene in Seoul. Prior to the crisis there had already been a high rate of start-up businesses in the city. Though, the number of start-ups had been gradually increasing from 1995 onward, with an average of 100.000 new established firms (OECD, 2005). The growth can be designated to the rise in popularity of self-employment to produce an income. During the crisis, multiple entrepreneurs started their business in the service sector, of whom various high skilled government officials and highly educated students (OECD, 2005). In addition, government policies stimulated start-ups via “venture firms” operating IT and high-end manufacturing sector. For instance, the Guro Digital Valley, launched in 1997, enabled start-ups to have access to venture capital (Yusuf & Nabeshima, 2006). Despite the reforms and changes after 1997, however, the restrictive environment regarding labour mobility mostly continued. For both foreign and domestic investors, this was a reason to be reluctant from investing in developing industries (OECD, 2005).

Knowledge-based economy and expats

The concentration of high-end manufacturing and the thriving telecommunications services in Seoul encouraged the transformation in both sectors to a knowledge-based industries. Whereas this is a key component for future economic growth, the pace at which it takes place might be more crucial. A fast development will increase the competitive position of Seoul, especially taking into account the other competing cities in the region (OECD, 2005). To stimulate the transition to a knowledge economy, a national plan of three years was launched in 2000. The Seoul Metropolitan Government initiated a complementing program by selecting focus industries and constructing a five-year development plan (OECD, 2000a). Table 5 shows the steady growth of the knowledge-based economic activities, in particular within the service industries.

Table 5: Share of knowledge-based industries in Seoul, 1996-2002, %

	Firms				Employees			
	1996	**1998**	**2000**	**2002**	**1996**	**1998**	**2000**	**2002**
Knowledge-based manufacturing industries	0.5	0.4	0.5	0.5	2.6	2.3	2.8	2.4
Knowledge-based service industries	11.2	11.8	12.4	13.0	24.6	26.6	26.9	30.4
Total	11.7	12.1	12.9	13.6	27.2	28.9	29.7	32.7

Source: OECD 2005 as cited in Byeong-Soon Jeong (2004)

Seoul had started investing large sums in research and development (R&D) and education. In fact, Seoul became the second biggest investor in R&D, after Beijing, among the cities in Northeast Asia in 2001 (OECD, 2005). The investments were essential for supporting the growth of a knowledge economy and attaining a large group of highly educated labourers. The latter, being closely related to the quality and quantity of the education system and research facilities. The universities and research facilities had clustered in the capital region. In effect, Seoul had become the national city containing the most universities and was attracting students from all over the country. Table 6 demonstrates the number of universities per city in the region, which is growing in each East Asian city.

Table 6: Number of Universities in East Asian Cities, 1990-2003[3]

City	1990	1995	2000	2003
Bangkok	-	78	80	-
Beijing	67	65	59	46
Seoul	34	35	39	38
Shanghai	50	45	37	57
Singapore	5	6	6	-
Tokyo	105	107	113	116

Source: Bangkok: Report on Educational Statistics various years, Beijing: National Bureau of Statistics of China (2001), Seoul: Seoul Metropolitan Government (2004): Shanghai: National Bureau of Statistics of China (2001), Tokyo: Ministry of Education, Culture, Sports, and Science (2004).

A high performing education system is attractive for international financial professionals. Nevertheless, the OECD (2003) reports that Seoul has a low level of diversity and lack of openness for foreigners in the system, two factors that have negative effect on the migration of expats. The OECD study shows that Korea has the lowest rate of foreign population of the Asian competing cities, measuring 0.2 percent in 1995 and 0.5 in 2002 (Seoul Metropolitan Government, 1998). After the crisis, apart from temporary labour programmes, Korea had remained relatively closed to foreign employees (Park, 2004).

High skilled labour force as driver of competition

For highly skilled workers to drive innovation of financial products and efficiency of an IFC, multiple factors need to be in place. In Shanghai as well as Seoul the Asian Financial Crisis stimulated contract flexibility. In both cities, labour mobility increased, however the long-established restrictive environment regarding professional services remained. Correspondingly, the lack of openness of the system for foreigners continued migration continued to be bureaucratic and difficult. In the case of

[3] The two cities in which the number of universities, e.g. Shanghai, is declining experienced restructuring of public research institutes in this period.

Seoul, the crisis instigated a shift among higher-skilled labourers towards employment in the private sector, inspired by labour mobility due to personal effort. While in Shanghai unemployment resulting from the reforms of the SOE's and the shift towards high-tech and service industries created a new challenge.

In correlation with the developing high-tech and service industries, both cities launched campaigns and programs, complementing the national strategy, to promote the knowledge economy. Not only does the knowledge economy has the potential to stimulate efficiency among financial institutions, but also it is the main driver for the development of information and communication technologies. Therefore it is fundamental for the competitiveness of Shanghai and Seoul as aspiring IFCs. In particular, in Seoul, there an urgence occurred for accelerating the pace of the development as other nearby megacities are increasingly active on the topic. For both Asian cities, the focus tends to be on developing a locally trained high skilled workforce, considering the small amount of foreigners and restrictive and bureaucratic environment regarding migration. However, the improving education system and an increasing number of high ranking universities are appealing to expats. Similar to the earlier mentioned developments of the urban spaces and social venues. These factors increase the attractiveness and the international reputation of the Asian IFCs.

4.5. Key finding: discussion on the most important determinant

From the empirical analysis above, the key findings are summarized in the table 7 below. The table presents an overview of the main changes related to the four determining factors building and IFC in Shanghai and Seoul. The changes resulting from government reforms are evaluated on the indicators determining the increased development of an IFC. Subsequently, the assessment of the indicators reveals the importance of each determining factor for the increased growth of the Asian financial centres.

Table 7: Overview key research findings

Determinants for IFC development	Shanghai		Seoul	
	Assessment	**Key Evidence**	**Assessment**	**Key Evidence**
4.1 Regulatory environment	The reforms improve the stability and supervision in the financial sector by abating the NLP problem and setting up the CSRC. International examples are introduced, which is a small sign of increasing international economic integration. However, the banking sector regulations remain opaque and erratic. In addition, the local markets regulatory environment keeps restraining international financial activity.	Reform on: * 1997, addressing the NLP problem by implementing BIS rules and regulations & a new loan classification scheme * 1998, restructuring plan of the banking sector * 1999, National Securities Law & China Securities Regulation Commission (CSRC)	Extensive financial liberalisation eases access for foreign investors and financial institutions. The reforms strengthen the position of the central bank and efforts are undertaken after the crisis to increase supervision within the regulatory environment. This restored the international reputation of the city's financial sector. Also, adherence with international standards proceeds, a sign of increased international economic integration. In practise, however, the government	Reform on: * 1996, start implementation GATS agreement * 1997, the Financial Reform Law & Financial Supervisory Commission (FSC) *April 1998, New Bank of Korea Act *November 1998, the Foreign Investment Promotion Act (FIPA) * 1999, the domestic bond market and the opening of the stock and capital markets & Foreign Exchange Transactions Act (FETA)

		* High indicators of: potentially improving regulatory effectiveness and compliance, the central bank becoming potentially more autonomous and efficient. Additionally, adhering to international standards set by the BIS	remains heavily involved in the banking sector. Despite the reforms, commerce and banking continues to be entangled which negatively affects the openness of the regulatory framework.	* High indicators of: adoption of international regulatory framework, progressively liberalising legislation and removing trade barriers on foreign transactions and capital account control, increase supervisory mechanisms and independence of the central bank
4.2 Financial institutions	Growth of the local financial clusters, as diversification of financial institutions arises. Market mechanisms moderately increase and competition is growing in Pudong area, due to the SEZ. Moreover, no positive changes in soft financial infrastructure occur. Lacking transparency, inefficient and underdeveloped still characterizes the financial market. Making it difficult for foreign institutions to integrate and operate.	Reform on: * 1990, Shanghai Stock Exchange established * 1992, designation SEZ Pudong * 1997, small local market access foreign banks in Pudong * 1998, resolution allowing private shareholders to buy existing government shares and to privatize SOEs High indicators of: growing number financial institutions and financial services and businesses, which enhances trade facilitation and complementarity of business activities. Small opening of the local capital market to foreigners and encouragement of market mechanisms	Small growth of foreign financial institutions and competition throughout the 1990s. But the financial clusters remain rather small. The reforms increase stability and accountability after the crisis, displaying an efficient financial policy to foreign investors and businesses. However, accountability and transparency remain weak in the soft financial infrastructure, which is necessary to become a full functioning international financial centre	Reform on: * 1991, General Banking Act * 1998, framework financial restructuring program established in conjunction with the IMF bailout program High indicators of: increased liberalisation for foreign institutions, enhanced competition in the financial sector, stabilization of the financial sector after the crisis, potential increase in efficiency and corporate governance
4.3 Infrastructure and finance	Not only the regional network linkages are growing due to investments in infrastructure, but also external ones with other financial centres. In combination with the growing ICT and high-tech sectors, the networks are becoming more efficient and sophisticated. Moreover, the mobility of people in and to the city in the region is expanding. The usage of internet in the city grows and speed of financial trading increases. Important to realize is that	Reform on: * 1998, government fiscal stimulus packages infrastructure, housing and high-tech industries * September 1999, opening Shanghai Pudong International Airport * April 1999, split Telecom China into four parts * 1999, establishment Ministry of Information Industry (MII) High indicators of: growth of internal and external network, enlargement of the information facility, restructuring and	The city's international linkages increase by building the airport hub. The internal hard infrastructure is enhanced and made more attractive for international businesses. Also, the internet usages is becoming widespread in the country, which augments the information facility for the financial sector in the city. In the similar fashion this benefits the hard infrastructure, making it more efficient and sophisticated. Additionally, competition is stimulated and regulated in the ICT	Reform on: * November 1992, start build Incheon International Airport (IIA) * 1997, revision Seoul Master Plan * 1997, Launch Guro Digital City *August 1998, Digital Media city * March 1999, Basic Telecommunications and Information Technology Agreement (ITA) and Business Act High indicators of: growth of internal and external network, enhancing the international image of Seoul, installation of

	international trading remains only possible in designated areas.	elucidating the legal framework of the information technology and telecommunications (ICT) sectors	sectors, and foreign investors are allowed to enter.	regulation encouraging competition in the high-tech and ICT sector and government stimulation, especially in multimedia domain
4.4 High-skilled labor force	Small increase in flexibility and openness in the labour market. The government has start focussing on skill and knowledge incentive industries. On the one hand this leads to the improvement of the education level of the population and slightly more integration of the regional labour market for high skilled professionals. On the other, a preference can be detected for local over foreign professional. Nonetheless, Shanghai is increasingly popular among expats.	Reform on: *March 1998, crisis respond program * 1998, launch Knowledge Economy Promotion Campaign *1998, Localisation policy by the Multinationals Corporations (MNCs) in Shanghai *1996-2000, Enlargement student enrolment and relaxation restrictions hiring higher educated employees from a different region in Shanghai * High indicators of: large restructuring the labour market, easing legislation on hiring and firing, growing importance of the presence of a high skilled labour force and increasing the education rate	Due to the externalities of the crisis labour mobility is increased. Temporary labour are more acceptable. Already Seoul had been the city containing the most universities and research facilities in the country. This is essential for the increased focus on knowledge based industries and the development of the high-tech sectors. Yet, Seoul is the aspiring IFC in East Asia with the lowest level of foreign migrants and remains having strict rules of migration. The city's labour lacks openness for foreigners. which is a disadvantage for operating as a financial centre in an international environment.	Reform on: *February 1998, revision Labour Standard Act * July 1998, temporary work agencies allowed in 26 occupations * * 2000, launch National Plan Knowledge Economy and complementing program in Seoul and complementing program by the Seoul Metropolitan Government * High indicators of: Government easing legislation on hiring and firing employees, contracts becoming more flexible, stimulation of knowledge-based industries, increased need for high skilled professionals

Discussion

For this research, multiple reports are used of the ADB, OECD, government institutions and experts in the field. By using the within-case studies research method, formulated by Gerring (2006), the documents are analysed on the changes in the determinants influencing the competitiveness of an IFC. The research developed to be rather qualitative than quantitative, as economic data to compare both cases was not always within reach. (This was especially the case with Shanghai.) Despite the absence of quantitative data, the qualitative aspect of the research still delivers plenty of insights on the increasing status of Asian IFCs, which is the purpose of this research.

Reviewing the key findings the most profound changes occurred in the determining factor of Infrastructure and Finance. The government action concerning this determinant appears to have created the foundation for the later increasing development of their cities as IFCs. Due to the large investments in the infrastructure and the information facility, both Shanghai and Seoul were able the integrate deeper into the national and regional networks. Combining this with government policies targeted on future growth industries within the high-tech and services sector, their competitiveness was bound to increase within the international economy.

The expectation of economic government policies targeting determinants of IFC development proves, within the frame of this research, indeed to have a great influence. In particular when executed by a resolute and ambitious government. Also, the timing of the policies, during the transition from a manufacturing-driven towards a high-tech and service economy, seems to be a key factor for the increase in competitiveness of both cities. Another possible explanation for this can be the government increasingly allowing more market mechanisms in industries related to IFC activity.

Future research on the increasing integration within the regional network of the Asian IFCs or the expanding market mechanisms within sectors relevant for IFCs might supplement the explanation for the increase in the determinants for competitiveness. Similar to this research, it has the potential to shed light on the relationship between government policies strategies and the growth of financial centres.

5. Conclusion

To formulate an answer to the research question: what explains the increasing competitiveness of the Asian IFCs between 2005 and 2015, an elaboration will be given on the findings of the analysis. The results of the research indicates that in both case studies of the IFCs of Shanghai and Seoul the most substantial changes occurred in hard infrastructure and information facility. Regarding the four main determinants for competition: regulatory framework, financial institutions, financial infrastructure and availability of a high skilled labour force, the financial infrastructure has undergone the most developments related to constituting an IFC. Although, this determinant appears to be the least affected by the Asian Financial Crisis. In both Shanghai and Seoul, large investments were made by the governments in building regional infrastructure and urban development as well as in telecommunications and broadband internet connections. By doing this, the efficiency and sophistication of internal urban network and external linkages were greatly enhanced, which is a key determinant for increasing competitiveness of an IFC. At the same time, a shift in both the Shanghai and Seoul economy was instigated from large manufacturing industries towards service and high-end technology sectors. Incentives and special attention were given by the governments to the develop these sectors. These undertakings are in close conjunction with the transition towards a knowledge-based economy, instigated by the governments after the financial crisis. The goal of this policy strategy was to increase competitiveness of businesses and is a major ingredient for future growth industries. These industries undergird the technological innovations related to the infrastructure and information facility, making this determinant the most likely driver of Asian IFC competitiveness.

Although, these developments contributed to a great extent to increasing competitiveness as an IFC, to compete with the global top financial centres an open and accessible regulatory framework supporting the business environment is evident. The emphasis is on the necessity to progressively liberalise the capital accounts and international transaction. In the PRC, the Asian Financial Crisis caused a reluctance regarding opening the capital account and liberalising regulation concerning foreign transactions. This is in stark contrast with Korea, where financial liberalisation was broadly expanded after the crisis. Here, many trade barriers and regulations related to foreign investments were removed, with special incentives for foreign businesses in the high tech sectors. As a result, the attractiveness of Seoul’s financial centre grew significantly for foreign investors and businesses, especially in the high-end technology sectors. However, taking into account the discrepancy between the two case studies, it becomes a less likely explanation for the increase in competitiveness of the Asian IFCs later onwards.

Another imperative factor to become a full-fledged internationally active and competitive financial centre, is a reliable and stable regulatory environment and well-established financial institutions. In this regard large steps still need to be taken in developing the soft infrastructure to increase the importance of the financial centres as a supervisor and regulator within the international economy. In the case studies, less significant changes have been detected on improving these aspects of soft financial infrastructure. The financial crisis brought many urgent structural problems in the financial institutions to the surface in both the PRC and Korea. In the case of Shanghai, long term reforms in the financial sector were implemented, but measures did not contribute directly to the determining factor that would make the sector more competitive. Moreover, implementation of structural reforms policies was rather neglected and the externalities of the crisis did not create an urgent need for reforms. Meanwhile in Seoul, whose financial sector was greatly affected by the crisis, Korean businesses quickly regained access to foreign capital as a more friendly investment climate for foreigners was established during the crisis. This resulted in a reduce of incentives for extensive reforms involving more transparency and due diligence in corporate governance within the financial institutions, similar to Shanghai. Without improving the soft infrastructure, operating as the regulator and supervisory international financial centre in rapidly economic growing Asia will be less achievable.

Regarding the availability of a highly skilled labour force, nuanced and limited changes influenced Shanghai and Seoul's competitiveness as an IFC. In both cities the labour market was changing due to the shift toward high-end technology and service industries. In Shanghai this led to more flexibility regarding labour contracts, but also to localizing the management international corporations to improve the connection with the local market. After the crisis, in Seoul contract flexibility also increased and inserted a shift towards more employment in the private sector. These factors indirectly contribute to increasing competitiveness, both cities were still reluctant to have large foreign presence and stringent immigration laws remained. In comparison to the top Western IFCs they are containing a very small community of international financial professionals. Yet both cities have a population over 10 million, which are becoming more educated and gaining more purchasing power than before. This creates the potential for attaining a local trained high skilled workforce, however this is beyond the scope of the research to regard as factor increased competitiveness.

On balance, the competitiveness of the Asian International Financial Centres increased due to the focus of government policy on rapid technological and infrastructural developments in the region during the 1990s. In effect, they have developed into hubs of financial activity in the East-Asian region with a flourishing economy attracting international investors and businesses. The cities' international reputation is created of being modern and technologically advanced business centres. In potential this attracts new international businesses searching for financial opportunities. Regarding the competitive aspiring Asian IFCs, the influence of the Asian crisis on the financial centres was not as extensive as expected, but it did create more awareness to the importance of market mechanisms and reliance of the regulatory environment and institutions among the governments. In this respect, the next step in the process to become not only a regional leading financial centre, but also a leading world city, still needed to be taken.

Bibliography

Asian Development Bank (1999). Asian Development Outlook 1999: *Economic Openness - Growth and Recovery in Asia*.

Asian Development Bank (2000a). Asia Recovery Report 2000, May Update.

Asian Development Bank (2000b). Country Economic Review, People's Republic of China, CER:PRC 2000-09

Asian Development Bank of Economics & Development Resource Centre Staff. (2000c). *Asian Development Outlook 2000*.

Asian Development Bank (2002). Regional Economic Monitoring Unit, *Asia Economic Monitor October 2002*.

Allen, F., Qian, J., Zhang, C., & Zhao, M. (2012). *China's financial system: Opportunities and challenges* (No. w17828). National Bureau of Economic Research

Batten, J. A. (2011). Financial sector reform and regulation in the Asia-Pacific region: a perspective. *Journal of the Asia Pacific Economy*, *16*(3), 285-293.

Barton, D. (2009). Keynote Address. International Financial Centres: The Terms of Competition and Prospects for the Asia-Pacific Region. In *Competition among Financial Centres in Asia-Pacific* (pp. xxxvii-lxiv). ISEAS Publishing.

Beaverstock, J. V., & Smith, J. (1996). Lending jobs to global cities: skilled international labour migration, Investment banking and the City of London. *Urban studies*, *33*(8), 1377-1394.

Byeong-Soon Jeong (2004), Seoul Economic Brief (vol. 29)

Bloomberg, M. R., & Schumer, C. E. (2007). Sustaining New York's and the US' global financial services leadership. City of New York and the US Senate

Business China, 11 September 2000

Castells, Manuel. (1996). *The Rise of Network Society*. Malden, MA: Blackwell Publishers.

Chandra, V., Osorio-Rodarte, I., & Braga, C. P. (2009). *Korea and the BICs (Brazil, India and China): catching up experiences*. The World Bank.

Child Hill, R., & Kim, J. W. (2000). Global cities and developmental states: New York, Tokyo and Seoul. *Urban Studies*, *37*(12), 2167-2195.

China News Service [CNS], 29 September 1998

Cho, Y. J. (1999). The banking system of the People's Republic of China. *Rising to the Challenge in Asia: A Study of Financial Markets*, *35*.

Choi, S. R., Tschoegl, A. E., & Yu, C. M. (1986). Banks and the world's major financial centers, 1970–1980. *Weltwirtschaftliches Archiv*, *122*(1), 48-64.

Chowdhury, N. (2000). Can Citibank crack the China market?. *Fortune*, *142*(6), 222-226.

Collins, F. (2014). Globalising higher education in and through urban spaces: Higher education projects, international student mobilities and trans-local connections in Seoul. *Asia Pacific Viewpoint*, *55*(2), 242-257.

Daniels, P. W. (1985). *Service industries: a geographical appraisal*. Routledge.

Daniels, P. W. (1993). *Service industries in the world economy*. Blackwell.

Davis, E.P. and Latter, A.R., (1989). London as an international financial centre. *Bank of England quarterly bulletin*, 29 (4), 516–528.

Davis, E.P., (1990). *International financial centres – an industrial analysis*. Discussion paper no. 51, London: Bank of England.

Desmarchelier, B., Djellal, F., & Gallouj, F. (2013). Knowledge intensive business services and long term growth. *Structural Change and Economic Dynamics*, *25*, 188-205.

Desjardins, J., https://www.visualcapitalist.com/7-major-flaws-global-financial-system/, visited on 10-06-2020.

Eichengreen, B., & Shah, N. (2020). The correlates of international financial-center status. *Review of International Economics*, *28*(1), 62-81.

Economist, 2 May 1998: 65-7

Ellison, G., Glaeser, E. L., & Kerr, W. R. (2010). What causes industry agglomeration? Evidence from co-agglomeration patterns. *American Economic Review*, *100*(3), 1195-1213.

Farrer, J. (2008). From “passports” to “joint ventures”: Intermarriage between Chinese nationals and Western expatriates residing in Shanghai. *Asian Studies Review*, *32*(1), 7-29.

Farrer, J. (2019). *International Migrants in China's Global City: The New Shanghailanders*. Routledge.

Fratianni, M. (2009). The evolutionary chain of international financial centers. In *The changing geography of banking and finance* (pp. 251-276). Springer, Boston, MA.

Friedmann, J., (1995). Where We Stand: A Decade of World City Research. *World cities in a world-system*, 21-47.

Gaspar, J., & Glaeser, E. L. (1998). Information technology and the future of cities. *Journal of urban economics*, *43*(1), 136-156.

Geng, L., Vice Chairman (1999). China Securities Regulatory Commission presentation, *Round Table on Securities Market Reforms in the face of the Asian Financial Crisis*, Tokyo, Asian Development Bank summary proceedings.

Gerring, J. (2006). *Case study research: Principles and practices*. Cambridge university press.

GFCI, https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/gfci-25-explore-data/gfci-25-rank/, visited on 24-06-2019.

Goldberg, M.A., Helsley, R.W., and Levi, M.D., (1991). The growth of international financial services and the evolution of international financial centres: a regional and urban economic approach. In: P.W. Daniels, ed. *Services and metropolitan development: international perspectives*. London: Routledge, 44–65.

Government of Shanghai (2018). Shanghai Statistical Yearbook

Government of Shanghai (1999). Shanghai Statistical Bureau

Harner, S. M. (2000). Financial Services and WTO: Opportunities Knock. *China Business Review*, *27*(2), 10-13.

Hsieh, T. Y., Lavoie, J., & Samek, R. A. (1999). Think global, hire local. *The McKinsey Quarterly*, 92-92.

Hollingsworth, J. (2016). Locals come first: the end of the golden era for expats in China?. *South China Morning Post*, 23 Oct 2016. Online at: www.scmp.com/news/china/society/article/2039288/ locals-come-first-end-golden-era-expats-china (accessed 20 Aug 2018).

Huaicheng, X., (1999). Statement by the Hon. Governor of the Bank for the People's Republic of China at the Joint Annual Discussion, *World Bank Group Annual meeting in Washington D.C.*, September 28–30.

Hugo, G. (2009). *Labour migration for development: best practices in Asia and the Pacific* (No. 994318613402676). International Labour Organization.

IMF (2015). Press Release/Statement: IMF Survey: Financial Sector Reform—*an Investment in Asia's Future.*

Ji, D., & Park, J. (1999). The Korean banking sector: Current issues and future direction. *Rising to the Challenge in Asia: A Study of Financial Markets*, *7*, 27-54.

Khan, M. Z. (1998). Rising to the challenge in Asia: a study of financial markets. *Asia Development Bank Publication*, *9*, 37-70.

Kim, H. (2009). Seoul as an International Financial Centre: Roadmap, Progress and Challenges. *Competition among Financial Centres in Asia-Pacific: Prospects, Benefits, Risks and Policy Challenges. Eds. Soogil Young, Dosoung Choi, Jesus Seade and Sayuri Shirai. Singapore: ISEAS Publishing*.

Kim, J. and CHOE, S. (1997). Seoul: The Making of a Metropolis. New York: John Wiley & Sons.

Kim, Y. H. (2002). Financial opening under the WTO agreement in selected Asian countries: progress and issues.

Krugman, P. (1991). Increasing returns and economic geography. *Journal of political economy*, *99*(3), 483-499.

Lardy, N. R. (1998). China and the Asian contagion. *Foreign Affairs*, 78-88.

Law, K., Wong C. & Wang K. (2007). An empirical test of the model on managing the localization of human resources in the people's republic of China. *The International Journal of Human Resource Management*, 15(4–5): pp. 635–48.

Li, C. L., & Zhao, S. X. (2018). The rise of international financial centres in bank-based and market-based financial systems. *Banks & bank systems*, (13, Iss. 4), 161-172.

Liang, X., Kidwai, H., & Zhang, M. (2016). *How Shanghai does it: Insights and lessons from the highest-ranking education system in the world*. The World Bank.

Liu, Y. C., Yang, W., & Mai, C. C. (2012). The competitive position of Shanghai in the Asia-Pacific region: a comparative study. *Asia-Pacific Journal of Accounting & Economics*, *19*(2), 198-209.

Jao, Y. C. (1997). *Hong Kong as an international financial centre: Evolution, prospects and policies*. City University of Hong Kong Press.

Jarvis, D. S. (2011). Race for the money: international financial centres in Asia. *Journal of International Relations and Development*, *14*(1), 60-95.

Joo, Y. M. (2018). *Megacity Seoul: Urbanization and the development of modern South Korea*: *Chapter 5 Globalization and the making of "global cities",* Routledge.

Korean Ministry of Legislation (1998). Foreign Investment Promotion Act (Republic of Korea), https://legal.un.org/avl/pdf/ls/Shin_RelDocs.pdf.

Krippner, G. R. (2011). *Capitalizing on crisis: The political origins of the rise of finance*. Harvard University Press.

Lim, P. W. (2001). *The Evolution of Korea's Development Paradigm: Old Legacies and Emerging Trends in the Post-Crisis Era* (No. 21). ADBI Research Paper Series.

Ministry of Finance and Economy. 1998. *Reference Information for the Korean Forum*.

MOFE, (1998). press release on the 4th National Economic Council Meeting (14 April 1998) *Ministry of Finance and Economy*. Reference Information for the Korean Forum.

Mollan, S., & Michie, R. (2012). The city of London as an international commercial and financial centre since 1900. *Enterprise & Society*, *13*(3), 538-587.

Nam, S. K., Park, K. S., & Kim, Y. K. (1998). Korean Securities Market in Transition. *Study commissioned by the Asian Development Bank*.

Nam, S. K., Park, K. S., & Kim, Y. K. (1999). Agenda for Capital Market Reforms in the People's Republic of China. *Rising to the Challenge in Asia: A Study of Financial Markets*, *4*, 65-99.

Nasution, A. (2000). Recent Issues in the Management of Macroeconomic Policies The People's Republic of China. *Rising to the Challenge in Asia: A Study of Financial Markets*, 1.

National Computerization Agency. (2001). Korea Internet White Paper. *Seoul: Ministry of Information and Communication*.

Nayyar, D. (2019). Resurgent Asia: Diversity in Development (p. 320). Oxford University Press.

Noland, M., Liu, L. G., Robinson, S., & Wang, Z. (1998). *Global economic effects of the Asian currency devaluations*. Peterson Institute, Washington DC: Institute for International Economics, Policy Analysis in International Economics No. 56,July.

Ochi, H. (1997). *The Environment for Locating Business Operations in Major East Asian Cities* (No. 65). Japan Development Bank.

OECD (1999). Economic Survey 1998-1999: Korea *Financial Sector Reform Corporate Restructuring The Labour Market*, OECD Publications, Paris.

OECD (2000a). OECD Economic Survey of Korea, OECD Publications, Paris.

OECD (2000b). Reviews of Regulatory Reform: Regulatory Reform in Korea 2000

OECD (2001). *Knowledge-based Industries in Asia*, Science Technology Industry STI, Jun 09.

OECD (2003). Trends in International Migration, OECD Publications, Paris

OECD (2004). Understanding Economic Growth. Paris: OECD.

OECD (2005). Territorial Reviews: Seoul, Korea, OECD Publications, Paris

OECD (2008). Review of Innovation Policy: China, OECD Publications, Paris

Park, Y. S. (1982). The economics of offshore financial centers. *Columbia Journal of World Business*, *17*(4), 31-35.

Park, Y. (2004). South Korea: Balancing Labor Demand with Strict Controls, *Migration Information Source*. Available at http://www.migrationinformation.org/Profiles/print.cfm?ID=272.

People's Daily, 8 March 1998: 3.

Poon, J. P. (2003). Hierarchical tendencies of capital markets among international financial centers. *Growth and change*, *34*(2), 135-156.

Porter, M. E. (1998). *Clusters and the new economics of competition* (Vol. 76, No. 6, pp. 77-90). Boston: Harvard Business Review.

Rawski, T. G. (1999). *China: prospects for full employment*. ILO.

Renmin Ribao, 2 March 1998: 10.

Sahay, M. R., Lim, C. H., Sumi, M. C., Walsh, M. J. P., & Schiff, M. J. A. (2015). *The Future of Asian Finance*. International Monetary Fund.

Sassen, S., (1991). *The global city: NY, London and Tokyo*. Princeton: Princeton University Press

Selmer, J. (2004). "Expatriates' hesitation and the localization of Western business operations in China" *The International Journal of Human Resource Management*, 15(6): pp. 1094–107

Seoul Development Institute and Nomura Research Institute (2003). *Can Seoul Become a World City? Comparison and Analysis of Northeast Asia's Six Cities: Seoul, Tokyo, Hong Kong, Beijing, Shanghai, and Singapore*, Seoul.

Seoul Metropolitan Government (1998). http:// www.metro.seoul.kr.

Shanghai, (1998). Shanghai: Segmentation and Integration Between Urban and Rural Workers. *Gaige* [Reform], no. 4, pp. 99-110.

Shanghai Academy Of Social Sciences. (1997). Shanghai Entering the New Century: Issues in Social Development.

Shanghai Star, 19 March 1999.

Shin, K. H., & Timberlake, M. (2000). World cities in Asia: cliques, centrality and connectedness. *Urban studies*, *37*(12), 2257-2285.

Shirai, S. (2001). Overview of Financial Market Structures in Asia—Cases of the Republic of Korea, Malaysia, Thailand and Indonesia—.

South China Morning Post, 11 April 1998: 1.

Srinivasan, T. N., & Bhagwati, J. (2001). Outward-orientation and development: are revisionists right?. In *Trade, development and political economy* (pp. 3-26). Palgrave Macmillan, London.

Stiglitz, J. (1998). Second-generation strategies for reform for China. *Address given at Beijing University, Beijing*, China, 20.

Stiglitz, J. E. (2002). *Globalization and its Discontents* (Vol. 500). Norton: New York.

Stiglitz, J. E., & Weinstein, M. M. (2005). Globalization: What's New.

Sung, S. (2001). Venture Business in Korea [in Korean](Seoul.

The Banker (2008). Financial Intelligence Guide: *International Financial Centres Seoul*, Financial Times Limited: London.

The Seoul Institute Kim In-hee (2014). 2030 Seoul Plan, Seoul City.

Verdier, D. (2002). *Moving money: Banking and finance in the industrialized world*. Cambridge University Press.

Wall Street Journal, 30 April 1998: R16.

Wang, H. (2000). Dangers and opportunities: The implications of the Asian financial crisis for China. *The Asian financial crisis and the architecture of global finance*, 152-169.

Wardle, M., Morris, H., Mainelli, M., (2020). The Global Financial Centres Index 27.

Warf, B. (1989). Telecommunications and the globalization of financial services. *The Professional Geographer*, 41(3), 257-271

Wójcik, D., Knight, E., & Pažitka, V. (2018). What turns cities into international financial centres? Analysis of cross-border investment banking 2000–2014. *Journal of Economic Geography*, *18*(1), 1-33.

Woo, J. J. (2015). Beyond the neoliberal orthodoxy: alternative financial policy regimes in Asia's financial centres. *Critical Policy Studies*, *9*(3), 297-316.

Woo, W. T., Pan, Y., Sachs, J. D., & Qian, J. (Eds.). (2014). *Financial systems at the crossroads: lessons for China*. World Scientific.

World Bank. (1996). *China Reform of State-Owned Enterprises*. Report No. 14924-CHA. China and Mongolia Department, World Bank, Washington, D.C. 21 June.

WTO (2002). *China Economic Environment Report*, Hong Kong: Dec 18, WT/TPR/109.

Wu, F. (2000). The global and local dimensions of place-making: remaking Shanghai as a world city. *Urban Studies*, *37*(8), 1359-1377.

Wu, F., & Wong, J. (1997). China's Financial Powerhouse: Shanghai's future as a regional financial center seems a sure thing. *China Business Review*, *24*, 14-20.

Yeandle, M., & Wardle, M. (2019). The Global Financial Centres Index 25.

Yeung, Y. M., & Li, X. (1999. Bargaining with transnational corporations: the case of Shanghai. *International Journal of Urban and Regional Research*, *23*(3), 513-533.

Yoon, J. C. (2000). *The Financial Crisis in Korea: Causes and Challenges* (No. 79). Working Paper.

Young, S., Choi, D., Seade, J., & Shirai, S. (Eds.). (2009). *Competition among financial centres in Asia-Pacific: prospects, benefits, risks and policy challenges*. Institute of Southeast Asian Studies.

Yusuf, S., & Nabeshima, K. (2006). *Postindustrial East Asian cities: innovation for growth*. The World Bank.

Yusuf, S., & Wu, W. (2001). *Shanghai rising in a globalizing world*. The World Bank.

Zhang, G. & T. Andersson. (eds.) (2000). *Knowledge-based Industries in Asia* OECD publishing.