Undergraduate Economic Review

Volume 8 | Issue 1 Article 14

2011

Shanghai as an International Financial Center - Aspiration, Reality and Implication

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Abstract

China's rapid economic development, especially in the financial sector, has ignited the discussion of the re-emergence of Shanghai as a leading international financial center (IFC). Much still remains to be done for Shanghai to catch up with established centers such as New York and London, including deepening its capital markets and opening itself up to cross-border capital flows. While Shanghai's current financial development has been made possible largely by China's past economic conditions and policies, recent reforms are also likely to guarantee Shanghai the position as a world-class onshore IFC in the near future. The rise of Shanghai will likely benefit China's economic structure, as well as that of Asia-Pacific region and the whole world.

Keywords

Shanghai, International Financial Center, China

I. Introduction

The financial history of pre-1949 China largely focuses on one city - Shanghai. It is located at the juncture of Huangpu and Yangtze River, right before the latter joins the Pacific Ocean. Opened up to foreign trade since 1841, Shanghai had developed itself into the largest and most prosperous financial center in the Far East by 1930. In the decade before the Second World War, Shanghai hosted 24 state banks, 33 foreign banks and over 200 private lenders, trust companies and other financial institutions[1]. Along with London and New York, Shanghai also housed one of the largest stock markets in the world.

Devastated during the Sino-Japanese War and consequently shut down for financial activities under communist rule until 1978, Shanghai restarted its economic reform in the year 1990, a decade after China's initial national economic reforms. Shanghai's economy has since been growing at a rate above 12% annually, and financial activities have started to regain solid status on the city's ground. Today, Shanghai is the largest financial center of mainland China and has been trying to become once again the leading international financial center (IFC) of Asia, a status it has lost to competitors: Tokyo, Hong Kong and Singapore. In March 2009, China's State Council formally stated that "Shanghai will be built into an international financial center in correspondence to the size of China's economy and RMB's international position in 2020."[2] The ambition goes as far as to make Shanghai a leading world-class IFC, competitor on par with London and New York.

It is clear that some gaps still exist between today's Shanghai and the established IFCs, however, such as London, New York and Tokyo. Some of the most apparent differences include Shanghai's relatively shallow capital markets and low level of cross-border capital flows. While some discussion has been initiated regarding Shanghai's IFC development, a more complete and empirical analysis has yet to be produced. The key question to be asked is: what are the fundamental factors that have driven Shanghai to its current IFC position, and how will they continue to impact its IFC ambition in the future? Building on

[1] *The Banker*, March 2003
[2] *People's Daily*, March 26, 2009

various literatures, this paper attempts to measure Shanghai's current IFC development situated in the interplay of China's politics and economy, and analyzes its future IFC potential based on recent changes in China's macroeconomic environment and development strategies.

After the second part of literature review, the third part of the paper presents Shanghai's general conditions in context to China's macro political-economy. The study finds that although Shanghai has already acquired the basic functions of a leading IFC, it is still relatively underdeveloped in two key areas: capital markets and cross-border financial activities. In particular, development for the latter is falling behind those of other centers by a large margin, mainly due to China's use of capital control.

The fourth part focuses on Shanghai's capital market development and discusses its future potential, based on various reforms China has initiated in the recent period. The third part studies China's capital control in its macroeconomic context since 1978, and gauges how recent changes in the exchange rate regime could benefit Shanghai as more international capital flows are welcomed.

It is concluded that Shanghai can improve its IFC status by building stronger capital markets and embracing financial openness, which will depend largely on the development of China's macro-economy. Given the current conditions and recent trends, Shanghai is likely to become a leading IFC in the near future, benefitting China's economy as well as that of the whole world.

II. Literature Review

Due to the multi-faceted nature of IFC development and its engaging relationship with various aspects of the economy, different theories have been proposed to study IFCs in different contexts. As pointed out by Jarvis (2007), at least four separate but related schools of research have been developed regarding IFCs, loosely classified as *Place Theory*, *World Cities*, *Scale Economies*, and *Endowed Capacities*.

While the existence of financial centers can be traced back to ancient times,

modern IFCs with global influence only emerged in the 1800s with rapid developments in intercontinental trade and commerce. *Place theory* employs spatial analysis and factors such as geographic clustering and hinterland proximity to study the formation and development of IFCs. Christaller (1966) theorized that goods and services have different "threshold" values, and the higher the value, the more willing consumers will be to travel for them. The location of cities is thus critical in deciding their importance in the economy, as ones with higher accessibility are more likely to become commercial and trading centers. Financial services such as trading in capital markets and banking activities are goods with high "threshold" value for which consumers are willing to travel long distances, which eventually leads to the formation of a popular and geographically accessible IFC against an "economic hinterland".

Sassen (2001) provided a theoretical framework of *World Cities* based on the *Place Theory* in her work, *The Global City: New York, London, Tokyo.* In this work, she popularized the terminology, *global city*, describing a city that conducts a disproportionate amount of international financial activities and thus serves as an important node in the global economic system. This term has since been used somewhat interchangeably with international financial center (IFC). It is *global cities*, Sassen argued, that hosted globalization through their role as "nodes of global activities". The social and economic activities of a host country, as well as their cultural influence, are first clustered in its *global cities*. They are then "exported" to *global cities* in other parts of the world, before eventually spreading to the "hinterland" of the rest of the world.

One notable empirical work in the field of *World Cities* was developed by Reed (1980), who studied the ascent of Tokyo as the leading IFC among 17 Asian centers in the period from 1900-1975. Reed paid much of his attention to cross-border financial linkages between centers and constructed an IFC evaluation index including variables such as bank links and banks' financial assets (Appendix II). While being overly simplistic as a complete ranking method for IFCs, Reed's research method did provide insights into the importance of international financial linkages in IFCs' development.

Scale Economies Theory interprets the formation of IFCs as the results of financial activities clustering. Due to efficiency-gains associated with economies

of scale, clustered financial activities tend to reduce transaction costs and create information symmetries as well as knowledge economies (Tschoegl, 2000). IFCs' city-level economic aspects such as capital market development, presence of large global companies and internationally influential banking institutions are thus the subject of this field of study.

Traditionally, *Place Theory*, *World Cities Theory and Scale Economies Theory* have held the dominant position in the IFC literature. Using factors proposed by them, a trend has been popular to measure cities' IFC status based on various financial measurements. Laurenceson, Tang & Wong (2003) conducted a case study of Shanghai, which used indicators on both macroeconomic and microeconomic levels to measure Shanghai's IFC development. Other works on Shanghai have focused more closely on the financial sector. McCauley & Chan (2005) compared Shanghai's financial development to that of Hong Kong in their working paper *Hong Kong and Shanghai: Yesterday, today and tomorrow*. They placed side by side the two cities' detailed capital market indicators and cross-border financial activities data. Like Laurenceson, Tang & Wong, they concluded that Shanghai's IFC development lagged behind those of competing centers such as Hong Kong and Singapore, with large margins in some key areas seemingly impossible to cover.

While comparison studies mentioned above can be informative and provocative, they have consistently been myopic and fell into simple tautology. More interesting to economists and more instructive to policy makers is the historical context of these statistics and macroeconomic reasons behind IFCs' current status (Kriz, 2007). They are particularly important to developing countries, where past economic conditions are constantly being replaced by new ones, and IFCs' development adjusts accordingly to new policies, trade opportunities and human capital flows. Recently, the fourth direction of study on IFCs, loosely termed as the *Endowed Capacities* theory, has focused on researching an IFC's development in its host country's macroeconomic and political context. Although this school of thought is still nascent, the rising status of developing countries has required more academic work to study their IFCs based on these countries' specific conditions.

Hong Kong and Shanghai as China's Window to Global Capital (Meyer, 2004)

discussed Shanghai's rise as an IFC based on the broader context of China's development in international capital flows. The study argued that Shanghai's re-emergence as an IFC has largely been due to China's rising global economic status, and Shanghai's future development will eventually depend on China's embrace of global financial integration. Similarly, other studies conducted on Shanghai have also argued that the lifting of capital control will determine its future IFC status, implying that Shanghai will need to become internationally open before being internationally dominant (Wong, 2004; Li, 2009). Cainey (2010), however, argued that only partial liberalization would be sufficient for Shanghai to achieve the objective set by China's state council to be the leading IFC by 2020. An increasing concentration of China's domestic financial activities, coupled with Shanghai's leading position in mainland China's capital markets, will boost the city's development as an influential IFC. Shanghai will retain much of its business on China's domestic needs, given the size of the country's growing economy and its dire need for financial diversity and depth.

The above literatures present distinct but related analyses on IFCs. They focus on different aspects of the complex nature of financial centers, implying that IFCs' development can be influenced by many factors. While *Place Theory* underlines the importance of location and access to hinterland market in IFC formation, *Scale Economies* stresses the role of financial markets' size and the diversity of their products. *Endowed Capacities* theory assumes, however, that intentional public policy and government support could create or improve the institutional and infrastructural environment critical to IFC development (Jarvis, 2007).

Shanghai's historical position as the leading IFC in the Far East and its current place as the dragon's head of China's financial activities have eclipsed the role of *Place Theory* and *Scale Economies Theory*. What is most notable in Shanghai's case is the change in its financial center status from the past, and its development potential for the future. The phoenix-like re-emergence of Shanghai is closely related to China's economic reforms, and subsequent changes in the macroeconomic environment and policy institutions. Thus, the focus of this paper lies primarily in the field of *Endowed Capacities* theory.

On one hand, previous research on Shanghai in the *Endowed Capacities* framework has been largely plagued by the lack of supporting empirical evidence.

On the other hand, statistical comparison studies have ignored Shanghai's historical background and thus fail to provide an understanding of reasons behind its current conditions. The method used in this research is dual-headed, both aiming to measure Shanghai's current performance in historical context and providing insights into its future potential.

III. Shanghai: Yesterday, Today and Tomorrow

Shanghai is currently the dominant commercial and financial center of mainland China. While before 1949 it was the undisputable leading IFC of Asia, its financial and commercial function was mostly disassembled from 1949 onwards. Many entrepreneurs and financiers fled from Shanghai to Hong Kong, Taiwan or overseas; those still operating in Shanghai were all nationalized by 1956. Shanghai Stock Exchange was shut down for speculation and FOREX trading in 1950.

Under the command economy, financial institutions were collectively reallocated to Beijing. From 1956 to 1978, Shanghai's development was directed to follow the Soviet mode of heavy industry. Impractical political and economic policies nationwide also severely impacted the city's economy and infrastructure. At the same time, Tokyo, Hong Kong, Singapore and other centers developed rapidly and secured their leading position in the global economy. When China's economic reform took place in 1978, Shanghai was "a mere shadow of its former self…the industrial cash cow of Beijing" (Lai, 2006). Due to its role as the heavy tax revenue contributor to the central government, Shanghai's economic reform did not take place until the 1990s. During this period, Shanghai's development largely lagged behind cities in the Pearl River Delta and other development zones in the southeast: Shenzhen, Zhuhai, Shantou and Xiamen, which had received special treatment and were granted semi-autonomous political and economic rule since 1978.

In 1990-1991, Shanghai was granted these privileges in China's second round of economic reforms, partially for political reasons, as the government wanted to show the outside world that it planned to continue reforms after the Tiananmen Square incident (Gold, 1991). Shanghai's economic growth rate surpassed the

national level in 1992 and has been growing 12% annually on average. Since 2009, Shanghai is the largest city-level economy in China and has one of the highest GDP per capita in mainland China. Through its presence in China's most important economic zone, the Yangtze River Delta, Shanghai also exerts influence on the national economy (Table 1).

Table 1: Context of Shanghai in China

	Nominal GDP (billion USD)	GDP Per Capita	Population (million)	Land Area (km^2)
Yangtze River Delta (YRD)	**1,051.2**	**7,116**	**147.7**	**210,740**
Shanghai	218.2	11,355.2	19.2	6,340
Zhejiang	334.3	6,491.2	51.5	101,800
Jiangsu	498.7	6,476.1	77.0	102,600
Pearl River Delta (PRD)	**808.5**	**7814.1**	**103.5**	**179,033**
Hong Kong	215.1	30,700.1	7.0	1,104
Macau	21.1	38,795.4	0.5	29
Shenzhen	120.1	13,590.0	8.9	2,050
Rest of Guangdong	452.1	5,966.0	86.0	175,850
Bohai Economic Rim (BER)	**766.0**	**5,740.4**	**133.4**	**273,878**
Beijing	173.7	9,899.3	17.6	16,808
Tianjian	109.8	9,136.6	12.0	11,920
Shandong	247.5	5,241.0	47.2	78,350
Hebei	124.6	3,555.3	35.1	93,850
China	**4,910**	**3,613.9**	**1,358.7**	**9,630,960**
Shanghai (as % of China)	4.4%	314%	1.41%	0.05%

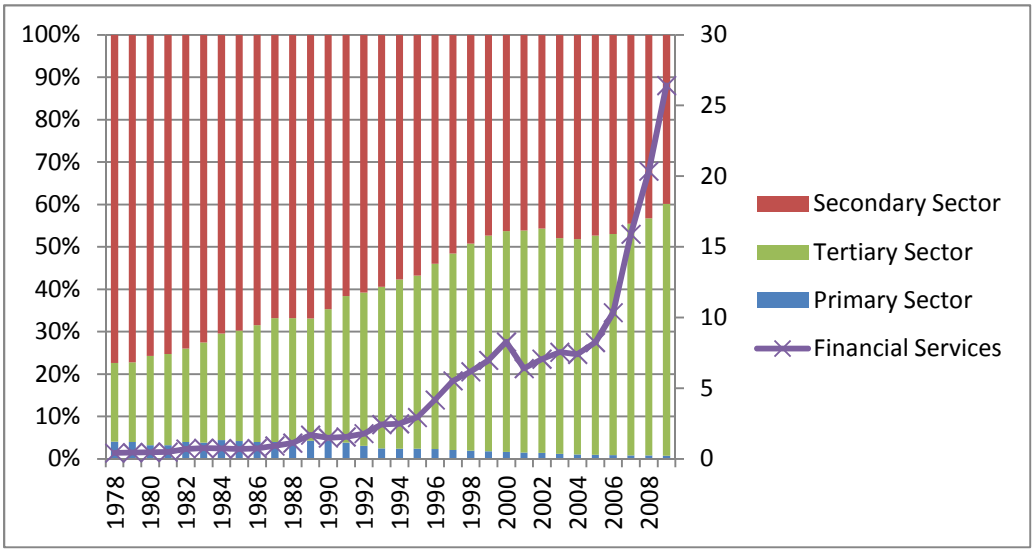
YRD (as % of China)	21.4%	197%	10.9%	2.2%
PRD (as % of China)	16.5%	216%	7.6%	1.9%
BER (as % of China)	15.6%	159%	9.8%	2.8%

Source: Eoyang, Lui & Koul (2010).

Shanghai Stock Exchange was re-founded in December 1990 as one of only two exchanges on the mainland, stimulating the growth of China's financial market (the other stock exchange is the smaller Shenzhen Stock Exchange). Foreign financial institutions in Shanghai were allowed to open branches in 1990 and to conduct local currency business since 1996. Financial activities gradually expanded their presence in Shanghai, especially in the sub-district Lujiazui in Pudong. In 2009, Shanghai is the largest commercial and financial hub of mainland China, hosting 133 banks, 307 insurance providers and 93 security firms. Among the total 787 financial institutions, 170 are foreign entities.

Shanghai's economic development has also been concentrated on a diversified tertiary/services sector and foreign trade. The tertiary sector has gained the dominant position in Shanghai's economy, accounting for 59% of the total GDP in 2010, compared with China's overall level of 39.1%. Commerce and financial services make the top two subsectors within the tertiary sector, with the latter's value reaching 26.41 billion USD in 2009 (Figure 1).

Figure 1: Shanghai's Tertiary Sector and Financial Services Development (in Billion USD)



Source: Shanghai Statistical Yearbook.

Being the largest port in the world in terms of total cargo transported, Shanghai has also been the most open part of China's economy. It is the recipient of the largest foreign direct investment (FDI) in China, with aggregate investment volume constantly surpassing that of external-focused centers such as Hong Kong and Singapore (Table 2). In contrast to more mature IFCs like London, Shanghai's advantage in attracting FDI also boosts its rapid economic development. It is noticeable that Shanghai has gradually started its outflow of FDI, which, despite its small size, shows the possibility of Shanghai to increase its international influence.

Table 2: Annual FDIs in billion USD/percentage share in city GDP

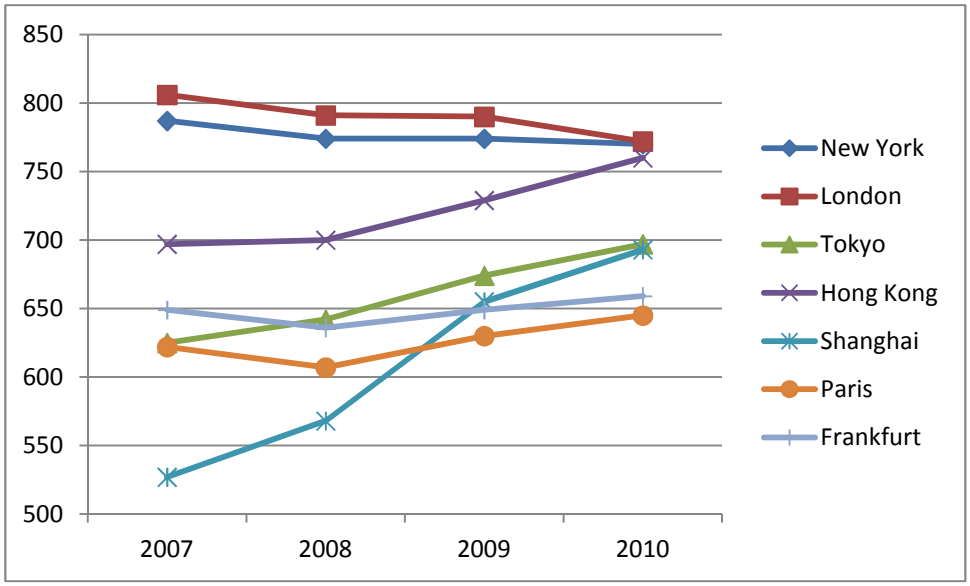
	2005	2007	2009	2005	2007	2009
		FDI Inflow			FDI Outflow	
Shanghai	13.8/12.2%	14.9/9.05%	13.3/6.04%	6.8/0.006%	6.5/0.004%	15/0.007%
Hong Kong	4.9/2.8%	7.8/3.78%	6.9/3.27%	3.95/2.22%	8.8/4.25%	7.4/3.53%
London	0.87/0.26%	0.9/0.23%	0.22/0.07%	0.4/0.12%	1.6/0.4%	0.09/0.03 %

Singapore	3.62/2.89%	7.97/4.51%	3.55/1.95%	2.63/2.1%	6.16/3.49%	1.26/0.69 %

Source: Shanghai Statistical Yearbook, Singapore Yearbook, Oxford Economics, UNCTAD Statistic Data, author's estimation.

In 2010, Shanghai ranked sixth on *Global Financial Centres Index* (GFIC) published by the City of London (Figure 2), and 8th on Xinhua-Dow Jones IFC Development Index (Appendix III). This ranking is highest among all IFCs in developing economies, limiting competitors in Shanghai's leading IFC ambition to a handful of cities: New York, London, Tokyo, Hong Kong, Singapore, Paris and Frankfurt. Shanghai's IFC potential, however, is far from being fully realized.

Figure 2: Shanghai's IFC Development



Source: *Global Financial Centres Index* 1-8.

Montes (1999) classified financial centers' functions into four categories according to the capital intermediation role they perform (Table 3). Type A is considered the least sophisticated, and for a center to be considered an "International" Financial Center, it must display at least some features relating to types B to D, which involve the exchange of capital flows between the domestic market and foreign market.

Table 3: Four types of financial centers' functions

Type A Center	Domestic to Domestic	Intermediaries between domestic providers of capital and domestic users of capital
Type B Center	Domestic to Foreign	Intermediaries between foreign providers of capital and domestic users of capital
Type C Center	Foreign to Domestic	Intermediaries between domestic providers of capital and foreign users of capital
Type D Center	Foreign to Foreign	Intermediaries between foreign providers of capital and foreign users of capital

Source: Montes (1999).

Leading IFCs listed above have generally established mature mechanisms of cross-border capital flows and perform well in B to D functions. While Hong Kong and Singapore's type D feature is strong (Yue, 2011; Huat et al, 2004), New York and Tokyo exhibit predominant powers in type B function (Bloomberg et al., 2007; International Bankers Association, 2007). London functions most diversely among all leading IFCs, serving as the base for constant capital flows between UK and other parts of the world (Z/Yen, 2005).

Shanghai, on the other side, functions primarily as a type A center, dealing with domestic suppliers and users of capital. While Shanghai does display some features of types B to D, they are relatively overshadowed by the size of its domestic transactions (Eoyang, Lui & Koul, 2010). Shanghai's weakness in international financial business is closely linked with China's current economic conditions and cannot be discussed separately from the country's exchange rate regime and long-term control on cross-border capital flows. On the other hand, China's recent plan to internationalize its currency Renminbi (RMB or *yuan*) has also initiated a series of regulatory reforms that imply liberalization of cross-border capital flows. As they make up one of the most critical part in cities' IFC status, the author has devoted section V to the analysis of China's exchange rate policy and capital control management.

The last point to address is Shanghai's ongoing development in infrastructure, both on the "hard-side" of physical infrastructure and on the "soft-side" of institutions and human capital. Shanghai has focused its development on the

"hard-side" since 1990s, and much of the infrastructure had already been built by 2010, especially in advance of the World Exposition. Shanghai now has two world-class international airports, the world's busiest port and longest metro network, which includes the world's first maglev train. Hosting two "super tall" skyscrapers: Shanghai World Financial Center (492m) and Jin Mao Tower (421m), Shanghai also has one of the largest number of office buildings among all IFCs.

However, Shanghai still needs to improve its "soft-side", including general legal and financial institutions, as well as human capital. Currently, 3.3% of Shanghai's population works in the financial services industry, half the percentage of that in New York, Tokyo, London and Hong Kong (Eoyang, Lui & Koul). While this may seem to be a large margin, experience from the European Union does tell that human capital moves quickly with globalization (Heinz & Ward-Warmedinger, 2006). In fact, the number of foreign financial services employees in Shanghai has doubled during 2003-2009, reaching 150,000.

China's legal and financial institutions are generally underdeveloped. Shanghai, however, has amended 22 laws and regulations since 1998 and enjoys a certain level of political and economic autonomy[3]. The research has also shown that institutions do tend to improve with the growth in the market, given the right political and economic situations.

IV. Capital Markets in Shanghai

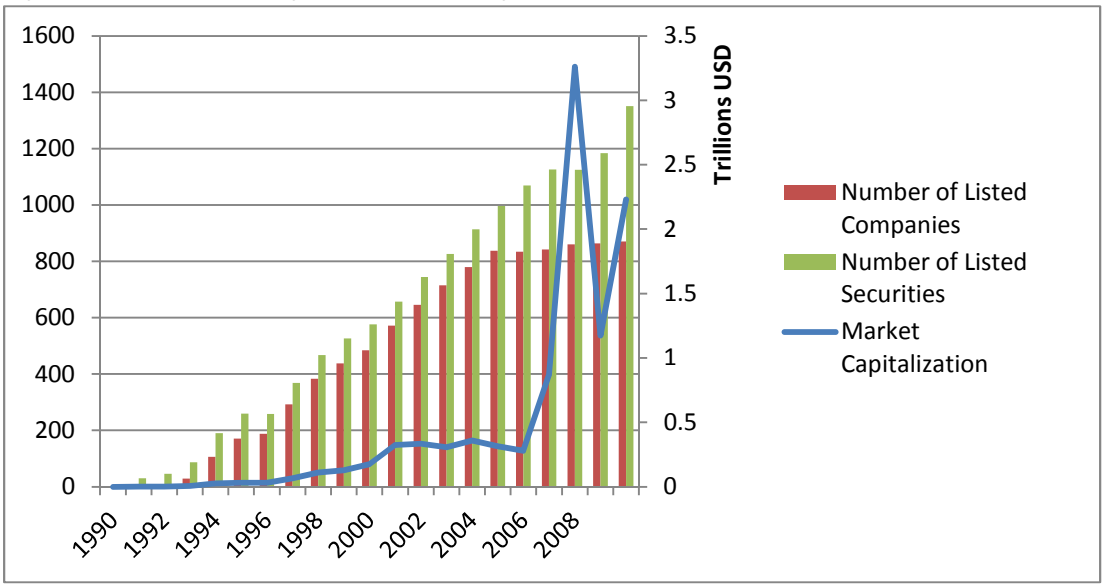
In the following section I outline the current status of three major capital markets in Shanghai, as well as analyze the reasons behind their current situation and discuss space for improvements. I begin with the stock exchange, as it is often regarded as one of the most important aspect of a city's IFC function (Z/Yen, 2007-2010). Bond market plays a less significant role in Shanghai's capital markets, as the majority of China's bond trading takes place on China's Interbank market. Last I discuss Shanghai's derivatives market and aim to connect the discussion with that of China's cross-border capital flow in Part V.

Shanghai Stock Exchange

[3] *People's Daily*, August 20, 2010

The original Shanghai Stock Exchange (SSE) was founded in 1891, first known as the "Shanghai Sharebrokers' Association". In 1930s, it reached a dominant position in Asian financial markets, topping competitors such as Tokyo and Hong Kong by a large margin. From 1950-1990, however, SSE was shut down under communist rule. In December 1990, SSE was reopened and has since experienced exponential growth. Figure 3 shows the growth of SSE in terms of number of firms listed, number of securities listed in SSE, and its market capitalization.

Figure 3: Growth of Shanghai Stock Exchange



Source: Annual Report 2009, Shanghai Stock Exchange.

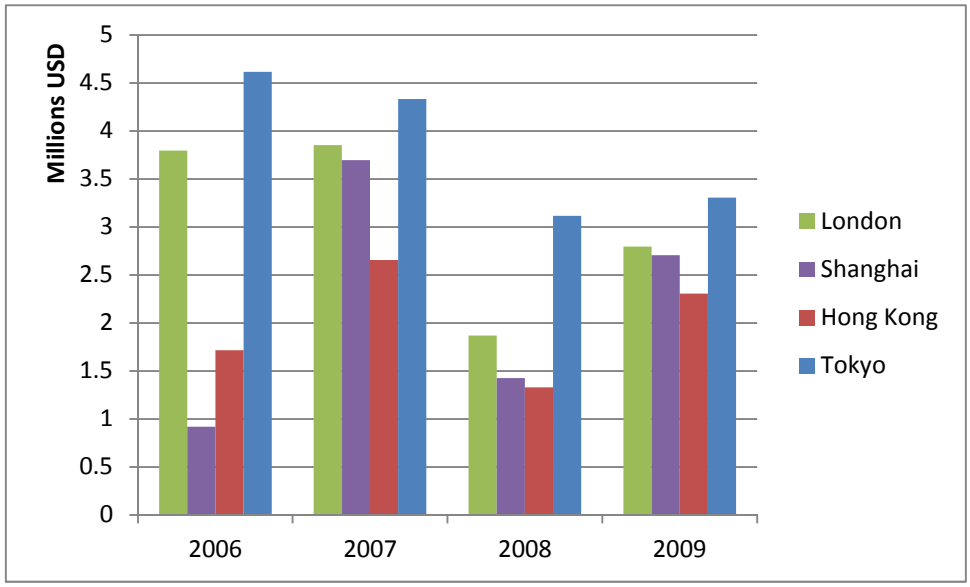
In 1990, there were 8 companies on Shanghai Stock Exchange. By the end of 2009, there were 870 companies and 1351 securities listed. Among them are some of the world's largest corporations (numbers in brackets are their *Financial Times* global rankings by market capitalization in December 2010): PetroChina (2), Industrial and Commercial Bank of China (5), Bank of China (33) and Sinopec (49). In July 2010, together with Hong Kong Stock Exchange (HKSE), SSE hosted the largest IPO in world history: Agricultural Bank of China at $22.1 billion.

The average growth rate of SSE's market capitalization has been 162% over the

past twenty years. While the growth rate was extremely high in the mid-1990s, it gradually slowed down by the early 2000s. In 2006-2007, Chinese investors flocked to SSE under over-optimism and its market capitalization grew over 277% in one year, only to fall by 64% in the global financial crisis in 2008. In 2009, however, SSE again showed strong growth momentum of 90%.

In 2009, SSE makes Shanghai host to the fourth largest stock market in the world, both in terms of market capitalization and trading volume. Figure 4 shows four largest stock exchanges in 2009 after New York. While SSE's size was relatively insignificant compared with other three centers in 2006, it grew to surpass HKSE's position to become the fourth largest after New York, Tokyo and London in 2007.

Figure 4: Comparison of four major stock exchanges



Source: World Federation of Exchanges.

While SSE is quickly catching up with the London Stock Exchange (LSE) and Tokyo Stock Exchange (TSE) in term of market capitalization, other market indicators also demonstrate its significant growth over recent years. Daily turnover on SSE increased more than twenty times in 2005-2009, from 1/18 that of TSE to 14% larger. At the same time, funds raised in SSE increased by 15

times, making it one of the most profitable exchanges worldwide (Table 4).

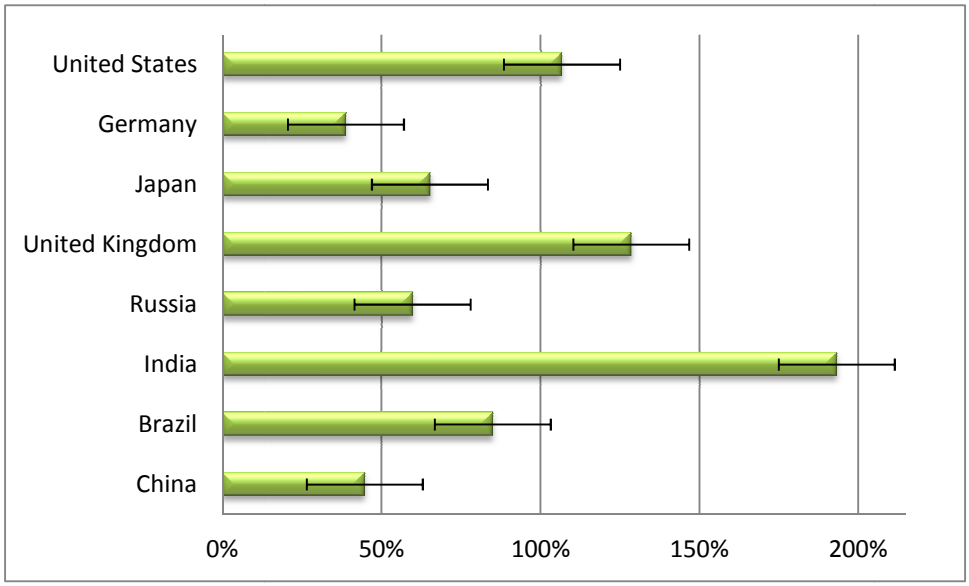
Table 4: Comparison of Stock Market Indicators

US$ Billion	Hong Kong		Shanghai		Tokyo		London	
	2005	2009	2005	2009	2005	2009	2005	2009
Capitalization	1051.7	2305.1	34.0501	2704.8	4901.8	3306.1	3242.9	2796.4
Daily Turnover	2.3415	7.9993	0.9704	20.790	18.229	16.419	22.536	13.403
Funds Raised	38.401	82.273	3.6586	48.943	28.096	66.889	24.731	115.84
Listed firms #	934	1145	834	870	2351	2334	1358	1121
Domestic	925	-	834	870	2323	2319	-	-
Foreign	9	-	0	0	28	15	-	-

Source: World Federation of Exchange, Hong Kong Stock Exchange Fact Book; Shanghai Stock Exchange Fact Book; Tokyo Stock Exchange Fact Book; London Stock Exchange Monthly Statistics.

However, SSE's market capitalization is still relatively shallow while measured against its share of the national economy compared with some other major economies of the world. While taking into consideration the fluctuation of the stock market's capitalization during the financial crisis, the percentage share of U.S. and U.K. exchanges constantly exceed 60% of the GDP. In comparison, SSE's market capitalization, despite its relatively large size among the group, was overshadowed when measured against the size of China's economy (Figure 5).

Figure 5: Major Stock Markets percentage share of national GDP, 2009



Notes: Floating bars indicate standard variation calculated based on Stock Market Capitalization to GDP ratio. U.S. figure includes NYSE Euronext (US) and NASDAQ. India figure includes Mumbai SE and National Stock Exchange India. *Source*: World Federation of Exchanges.

On one hand, SSE's small share in China's GDP recalls the fact that Chinese companies, along with their counterparts in Germany, rely on bank lending as their most important financing source. On the other hand, it implies that that SSE has yet to develop to its full potential by diversifying its market mechanisms and attracting potential listings, as China continues to diversify its financial market away from one dominated by the banking industry (See Part V).

One piece of evidence supporting the above argument comes from the fact that SSE is under stricter market control and has a relatively limited number of financial instruments. This makes it difficult for investors to raise funds more efficiently through multiple channels. Stock loans and short selling are largely prohibited on SSE, while day trading is not yet legalized. Most Asia-Pacific markets have authorized these two operations. Freefloat percentage of SSE is 30%, the lowest in all major Asia-Pacific markets (Eoyang, Lui & Koul, 2010). Authorities have been reluctant in granting SSE larger freedom, mainly because China's stock market remains relatively immature and authorities are do not want to allow large volatilities to affect the general economy. However, as China is

currently seeking to open and deepen its capital market, more instruments have been pipelined for the near future. (See ***Derivatives Market in Shanghai*** section.)

Another piece of evidence comes from that fact that the number of firms listed on SSE only increased slightly from 2006 to 2009. During the same period, the listing increase on HKSE was three times larger, most of which were companies based in mainland China. The major cause behind this drastic difference is that SSE is still mostly isolated from global investors, and companies preferring foreign capital and subsequent benefits in overseas markets look to raise capital in other markets.

From one side, SSE has not yet fully opened itself up to foreign investment. In the past, SSE shares were divided between A-shares and B-shares, where A shares were open to domestic investors and B shares designated to limited foreign investors. The B-share market became open to domestic investors in March 2001, and its previous function was largely replaced by the Qualified Foreign Institutional Investor scheme (QFII) in 2002. QFII has allowed foreign investors to invest in A-share market directly, but under a fixed quota and more strict CSRC supervision. As of 2009, a total of 79 foreign institutional investors have been allowed access to SSE. However, the total quota of QFIIs is only $30 billion, a mere 1.1% of SSE's market capitalization. The major reason for such a small share is that China is still on its way to lifting its capital control (see Part V). As a result, domestic firms who are more internationally oriented hesitate to list on SSE, as it is much more difficult to be accessed by its overseas investors: for companies that list on both HKSE and SSE, their HKSE listing prices constantly enjoy a premium over those on SSE.

From the other side, SSE is still dominated by domestic companies, especially large state-owned enterprises (SOEs). Foreign listing remains absent (Table 4). Shanghai municipal government is currently working with central authorities to initiate SSE's International Board in 2011, which it hopes will attract the listing of large and internationally known companies. Blue-chip Chinese companies that have been listed on foreign exchanges, as well as Red-chip SOEs listed on HKSE, are also expected to return to SSE's international board, as the premium between the two closes and China favors listing on domestic exchanges. HSBC, Wal-Mart, Siemens and other firms have expressed keen interest in SSE's international

board[4], which will directly define Shanghai's function as a Type C financial center, conducting domestic credit to foreign users of capital via its financial institutions.

Bond Market in Shanghai

SSE also hosts an order-driven bond market, which is governed directly by the Chinese Securities Regulatory Commission (CSRC). In 2009, the total value of bond instruments listed on SSE amounted to $ 267.31 billion and a trading value 56.73 $ billion, accounting for around 3% of China's total bond trading activities. Major investors in SSE's bond market are small and medium participants via brokerage services providers. China's quote-driven OTC market, Interbank Market, hosted the dominant 97% share of bond trading (Zeng, 2009).

Among bonds issued, Government Bonds, Central Bank Bills and Policy Bank Bonds account for the largest majority, reflecting the weak position of China's corporate bonds. Historically, issuance of corporate bonds was rampant from mid-1980s when SOEs were first allowed to raise funds through bonds issuance. However, the subsequent market-economy reforms drove many uncompetitive SOEs to bankruptcy and created a few waves of bond defaults in the early 1990s (Zeng, 2009). The issuance of corporate bonds has since declined sharply and been tightly regulated. It was not until 2006 that the first corporate credit bond re-emerged without a bank guarantee. However, corporate bonds have seen strong growth in the recent years as CSRC gradually alleviates the control in face of their better performances. As seen in Table 5, the amount of bonds traded on SSE increased five times between 2005 and 2009.

Table 5: Comparison of Bond Markets

US$ Billion	**Hong Kong**		**Shanghai**		**Tokyo**		**London**	
	2005	2009	2005	2009	2005	2009	2005	2009
Value Listed	55.46	50.54	181.59	267.31	4730.8	6346.5	2574.3	4841.5
Value Traded	0.0014	0.0005	39.3465	56.731	6.0756	5.0667	3008.7	6943.3
Public Sector	0	NA	33.889	30.148	0.006	0.0003	2946.8	6883.5

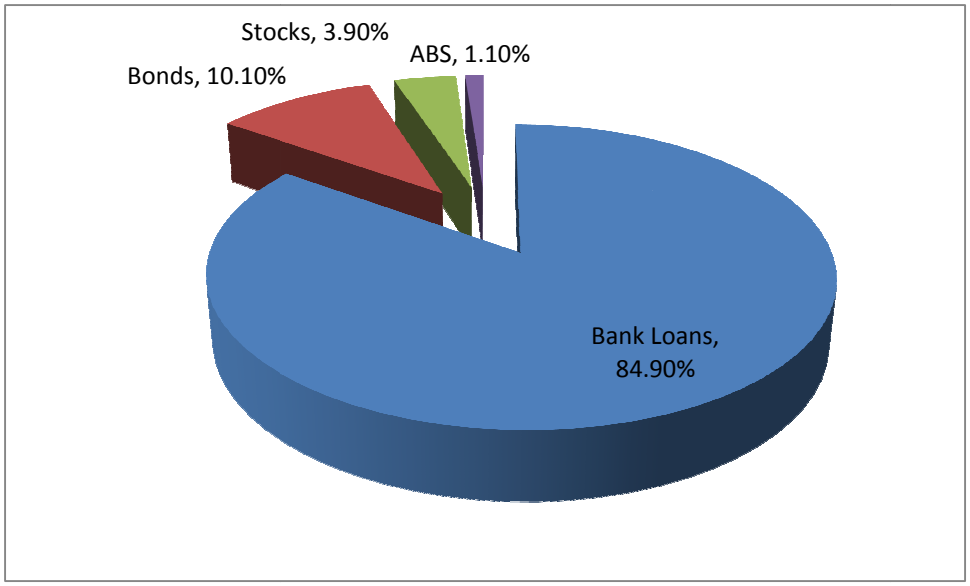
[4] *People's Daily*, June 10, 2010

Private Sector	0.0014	NA	5.458	26.583	6.069	5.066	30.808	35.003
Foreign Sector	0	NA	0	0	0	0	31.028	24.833

Source: World Federation of Exchange, Hong Kong Stock Exchange Fact Book; Shanghai Stock Exchange Fact Book; Tokyo Stock Exchange Fact Book; London Stock Exchange Monthly Statistics.

While Shanghai has surpassed Hong Kong by a large margin both in terms of bond value listed and traded, it is still less when compared with Tokyo and London. Part of this reason is due to China's bond market structure where 97% of the total bond trading is concentrated in the Interbank Market. It is also because China's bond market is still not fully developed due to only the recent emergence of corporate bonds. Along with the equity market, China's bond market is largely overshadowed by bank loans and companies' external financing options (Figure 6).

Figure 6: External financing for Chinese companies



Source: *China Capital Markets Development Report*, CSRC. 2008

Improvements in Shanghai's bond market need to focus on increasing the number of corporations that raise funds through bond issuance. On one hand, 70% of firms listed on the bond market are large SOEs, which prefer their established ties with banks and only raise 10.1% of their funds through the bond market. On the other hand, small and medium enterprises (SMEs) in China generally have

neither banking nor bond market access due to limiting credit policies (Aziz & Cui, 2010). As they account for more than 60% of the total economy, SMEs' financing demand implies a huge potential for China's bond market and consequent benefits for Shanghai.

In 2009, the authorities announced that one of its core economic policies in the near future would be supplying SMEs with easier channels to raise funds.[5] Recent advancements have been largely focused on the construction of credit institutions, such as a national social credit system. Emergence of domestic rating agencies is also likely to facilitate the integration of SMEs into the financial market. In addition, the State Council has also proposed that Shanghai enhance the linkage between SSE bond market and the Interbank Bond Market, as well as attract foreign corporations to issue debt in China's bond market.

Derivatives Markets in Shanghai

Shanghai hosts one of the three major commodity exchange markets in China: Shanghai Futures Exchange (SFE). SFE was formed from the amalgamation of three previous exchanges in 1999, and engages primarily in commodity futures trading (gold, copper, aluminum, rubber, steel rebar etc.).The other two major commodity exchanges are Zhengzhou Commodity Exchange (ZCE) and Dalian Commodity Exchange (DCE), which focus on agricultural commodities (soybeans, corn, sugar, cotton etc.). In 2006, China Financial Futures Exchange (CFFE) was also established as a joint venture of the three exchanges.

In 2009, the total number of contracts traded on SFE reached 400 million, ranking seventh out of 45 global financial centers (Table 6). However, the total trade size of SFE is still relatively small. Derivatives trading volume in Shanghai is only one-seventh that in New York and one-half that of London, even lagging behind those of centers from developing economies such as Mumbai and Sao Paulo.

Table 6: IFCs' derivatives trading volume, 2006-2009. Number of contracts in million

Centers	2006	2007	2008	2009

[5] Xinhua, 24, December, 2009

Chicago	2885.895	4079.613	4475.769	3603.454
Seoul	2593.61	2777.42	2867.28	3102.89
New York	1293.73	1791.76	2179.34	2239.66
Mumbai	0.533	385.923	707.098	1304.101
Sao Paulo	561.823	746.261	714.303	883.775
London	909.977	1180.411	834.889	883.762
Shanghai	58.106	85.564	140.263	434.864

Sources: World Federation of Exchange.

The large gap between SFE's overall trading volume and those of leading derivatives market is due to the fact that Shanghai lacks many other derivatives instruments, which have yet to be authorized by regulators. Currently, there is only one major product traded on SFE: commodity futures. As a matter of fact, SFE is the third largest commodities exchange by trading volume in the world (after ZCE and DCE), and its increasing volume in metal trading has successfully challenged London's global dominance in setting future prices for zinc, as well as significant influenced global copper and aluminum prices (Wu, 2009). As China's appetite for commodities continues to grow due to its ongoing infrastructure construction, the trading volume of commodities futures on SFE is also expected to continue growing strongly.

Thus, while the gap between overall derivatives markets in Shanghai and in other centers such as London and Tokyo seems to be large, it is mainly because Shanghai has only recently started testing other derivatives products (Table 7). For example, one of the most importantly traded derivatives worldwide is Stock Index Futures, which emerged in North America, and gained subsequent footing in Europe and Asia. They account for a large portion of total derivatives traded in many Asian IFCs (94.1% in Seoul, for example). However, China's Stock Index Futures development had been stagnant before 2005, mainly due to the fact that only 1/3 of shares from listed companies were freely tradable. The remaining 2/3 were either held by government or by related entities and thus not in market circulation. The reforms of untradeable shares, aimed to release the untradeable shares into secondary market, started in 2005. During the following years, the

majority of listed companies finished the reform process and provided platform for Stock Index Futures. Consequently, it was launched on Shanghai's CFFE in April 2010.

Another important component of the derivatives market is warrant and option. While the first warrant in China was introduced by SSE as early as 1992, heavy speculation and manipulation of the warrant market led to its demise in 1996. In 2005, warrants emerged again following reforms in untradeable shares. Currently, China's warrant market has been growing rapidly, even though it lags behind those of mature markets in terms of volume, diversity and issuance of covered warrants. In some areas, warrants are also interchangeable with options, whose development in China also lag due to macroeconomic reasons: the first option in China was only created in April 2011, formed as RMB-to-FOREX option and served as part of China's plan to internationalize its currency RMB (see Part V).

Table 7: Comparison of availability of derivatives. "Y" indicates availability

	Hong Kong	London	New York	Tokyo	Singapore	Shanghai
Single Stock Options	**Y**	**Y**	**Y**	**Y**	**-**	**Warrants**
Single Stock Futures	**Y**	**Y**	**-**	**-**	**-**	**-**
Stock Index Options	**Y**	**Y**	**Y**	**Y**	**Y**	**-**
Stock Index Futures	**Y**	**Y**	**-**	**Y**	**Y**	**Launched April 2010**
ETF Options	**Y**	**Y**	**Y**	**Y**	**-**	**Launched November 2011**
ST Interest Rate Option	**-**	**Y**	**Pipelined in 2011**	**Y**	**Y**	**Pipelined in 2011**
ST Interest Rate Futures	**Y**	**Y**	**-**	**Y**	**Y**	**-**
LT Interest Rate Option	**-**	**Y**	**Pipelined in 2011**	**Y**	**-**	**Pipelined in 2011**

ST Interest Rate Futures	**-**	**Y**	**-**	**Y**	**Y**	**-**
Currency Option	**-**	**Y**	**-**	**-**	**-**	**Launched April 2011**
Currency Futures	**-**	**Y**	**-**	**Y**	**-**	**-**
Commodity Options	**-**	**Y**	**-**	**-**	**-**	**-**
Commodity Futures	**Y**	**Y**	**-**	**Y**	**-**	**Y**

Source: World Federation of Exchange. SSE. SFE. CFFE. CSRC. Bank of China.

Following the call from State Council to build Shanghai into a world-class IFC, China Securities Regulatory Commission (CSRC) has recently taken very aggressive steps to expand the categories of derivatives available in Shanghai. This trend is expected to continue as China's market further matures and China continues to internationalize its currency and alleviate capital control.

Summary

In general, the capital market in Shanghai has the past stage of initial development and is on its way to achieve full maturity. However, it is still relatively shallow and offers insufficient channels for domestic and foreign investment. While much of this has been due to historical reasons, recent reforms in different areas have been taking place to enable more diversified instruments and boost capital market's growth in Shanghai. Companies and investors will become more willing to participate in Shanghai's capital market as it becomes more mature and more open, augmenting Shanghai's global financial center status.

V. Cross-Border Capital Flow, Capital Control and Fixed Exchange Rate Regime: Story of the Past and Changes for the Future

Comparison research done by McCauley & Chan (2007) on Shanghai and Hong Kong in 2005 found that the majority of cross-border capital flow indicators on Shanghai are virtually zero. This picture still holds true today, as Shanghai's ability to conduct cross-border financial activities remains largely handicapped by

China's fixed exchange rate regime and use of capital control, officially referred to as the *Foreign Exchange Management Regime* (Table 8).

Regarding its external banking position, both absolute value and percentage measure for China fall behind those of advanced countries by a large margin. While China's economy surpassed that of Japan in 2010, the latter's total external banking position is three times that of China. Together with the U.S., U.K. hosts a large amount of banking assets and liabilities due to its strong international banking business, which is almost 21 times that of China. In addition, China's daily turnover in FOREX transaction is minimal compared with that of other economies and was almost nonexistence before 2007.

Table 8: External banking positions and FOREX markets vis-à-vis individual countries

	United States	**Japan**	**United Kingdom**	**Germany**	**Russia**	**South Africa**	**China**
Assets	5100.807	688.74	4704.592	1671.152	126.034	32.798	241.59
Liabilities	4481.316	572.33	4608.187	1783.62	97.822	40.321	189.55
Total	9582.123	1261.1	9312.779	3454.772	223.856	73.119	431.14
% of GDP	65.5%	23.4%	426.6%	104.5%	15.2%	25.5%	7.3%
FOREX	904.4	312.3	1853.6	108.6	41.7	14.4	19.8
% of GDP	6.18%	5.79%	84.91%	3.29%	2.82%	5.01%	0.34%

Notes: In US $ billion. External Banking Positions as in June 2010. FOREX data as daily average in April, 2010. China figure does not include Hong Kong and Macau. *Source*: BIS.

China's positions in external banking and FOREX are also overshadowed by other developing countries in terms of the percentage share in GDP. While China's economy is more than three times that of Russia, the latter's percentage share of external banking asset is twice that of China, and its daily FOREX trading volume is eight times greater. Even South Africa, which imposes capital controls through market operations such as investment tax, also has more than three times the share of external banking assets and fourteen times FOREX trading volume as China as percentage against GDP.

Scholars have generally agreed that China's extremely low level of cross-border financial activities is caused largely by its use of capital control (Xiao & Kimball, 2004; Ma & McCauley, 2007). On one side, capital control helps countries to achieve various policy goals such as stability of financial market and fixed exchange rate; on the other, it impedes international capital flow and prevents global financial integration. In IFC discussions, the presence of international capital flow is one of the most important aspects of center development (Montes, 1999; Reed, 1980; Leung & Yim, 2009). As indicated by Hilgers (2009) and Overholt (2004), Shanghai's IFC position can be significantly boosted if China alleviates its capital control and allows freer cross-border capital flow.

This is indeed what is taking place. China has recently started reforms in its fixed exchange rate regime and consequently lessened its capital control: in 2005, Chinese currency started appreciating against the U.S. dollar; since 2006, Chinese residents are allowed to buy foreign equities via the Qualified Domestic Institutional Investors (QDII) scheme. Because understanding the trend of reforms in capital control is critical in gauging Shanghai's IFC potential, it is necessary to study what has caused China to adopt capital control in the first place, and what changes have taken place for reforms to happen.

In the following section, I map out China's historical economic conditions and its reasoning for adopting capital control under a fixed-exchange rate regime. The discussion is divided into two parts, as China's focus on exports growth and protection of its financial system both play major roles in influencing the policy choices. I also present how changes have occurred in the recent years, enabling China to adopt a freer exchange rate and less capital control. To conclude, I discuss the impact of the recent debut of RMB internationalization and draw implications for Shanghai's future IFC status.

Exports, Fixed Exchange Rate Regime and Capital Control

China has long been under a fixed exchange regime. Its currency, Renminbi (literally *people's currency*, short as RMB or *yuan*) was pegged to the U.S. dollar before the breakdown of the Bretton-Woods System and remained a hard pegged to the U.S. dollar from 1994 to 2005. Even though China has become the world's

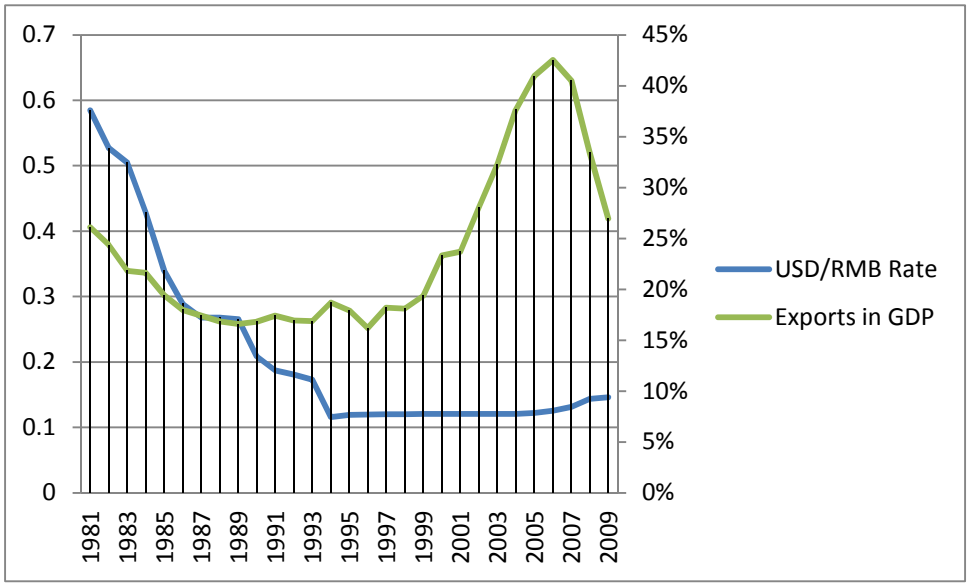
largest exporter, RMB was largely not circulating freely outside China, and the country's international trade has mainly been conducted in foreign currencies such as the U.S. dollar, the Japanese *yen* and recently the Euro.

In the meantime, as the fastest growing major economy in the world, China needs to possess monetary autonomy. To maintain its fixed exchange regime, China has adopted capital controls on cross-border capital flows as the major policy tool among exchange regime policies options. China's capital control is one of the most effective in the world (Xiao & Kimball, 2004), and complementary interventions in the FOREX market by its central bank, People's Bank of China (PBoC), only serve in the case of urgent need.

Under the fixed exchange rate regime, RMB has experienced several different exchange rates against the U.S. dollar. Following the breakdown of the Bretton-Woods System, RMB was briefly pegged to a "basket of currencies" from 1978 to 1980. From 1981 to1984, two valuation channels existed for RMB: the fixed official exchange rate and the internal exchange rate for companies conducting foreign trade. The exchange rate was set by the official channel and foreigners could not use RMB in China. In 1985, the exchange regime was switched back to the single channel of government rate, and RMB experienced continuous nominal devaluations under government intervention, until it became pegged at 8.2 RMB=1 USD in 1994 (Figure 7). It is widely believed that RMB is undervalued by a large margin at this rate (IMF, 2010; Goldstein & Lardy, 2005).

The continuous devaluations of RMB from 1978 to1994 and its long-lasting undervalued rate with U.S. Dollar since 1994 has boosted China's exports to the rest of the world, as policy makers in China have intentionally chosen to do so (Funke, 2004; Plasschaert, 2011). The exports sector experienced enormous expansion during this period, growing from 18.69% in 2004 to 40.97% of China's total GDP in 2005: an annual real growth rate of 18.8%. Along with investment, exports also became China's main engine for economic growth (Yu, 2009).

Figure 7: RMB/USD Exchange Rate and Exports' Share in China's GDP



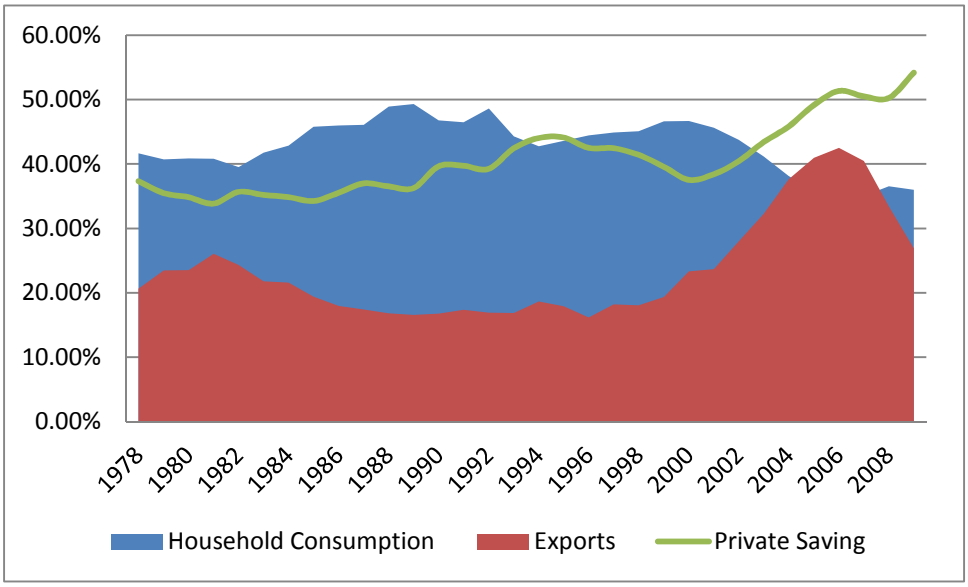
Source: Federal Reserve Bank of St. Louis. China Bureau of Statistics.

The reason for policy makers to favor exports was historical. When the country's economic reforms first took place in 1980s, China had two main political and economic objectives at hand: improve people's income and living conditions and update its backward production technology to catch up with other advanced economies. The most apparent comparative advantage China had in that time was the large amount of human labor. The manufacturing industry, which was favored by foreign consumers and required relatively little specialized skills, started to gain dominance in China's economy, shifting focus away from heavy industries in the command economy era. At the same time, exports also attracted capital inflow from foreign entities and technology spillover, driving high levels of economic growth and boosting the employment rate. Measuring these benefits, the government has attempted to increase the competitiveness of Chinese exports by undervaluing RMB through capital control.

In the past thirty years, China has grown to be the world's largest exporter. However, problems have emerged. The extremely large volume of Chinese exports not only created an imbalance in global trade, but also formed an extremely imbalanced economic structure in China, characterized by low household consumption and a high savings rate (Blanchard & Giavazzi, 2005). Household consumption's share in China's GDP has stayed constantly between 40%

and 50%, not only much lower than Western economies' rate of over 60% (for example, 74% in U.S., 66% in U.K.), but also below that of other East Asian economies with high-saving rates (54% of South Korea, 59% of Japan) (Aziz & Cui, 2007). The share has fallen even lower since 2000, accompanied by a growing share of saving, which surpassed 50% of GDP in 2006 (Figure 8).

Figure 8: Percentage share of Exports, Consumption and Saving in China's economy



Source: China Bureau of Statistics.

As a consequence, China has faced both internal and external pressures to reevaluate its currency. International trading partners have long called for a higher valued RMB to correct their current accounts, and domestic economy presents an urgent demand for a more balanced structure. In 2005, the government allowed RMB to appreciate by an instant 2.1% against U.S. dollar, with PBoC announcing that RMB would no longer be pegged solely to the US dollar. RMB has since started a gradual but decisive appreciation against the U.S. dollar.

The financial crisis that struck in 2007 further solidified China's decision to move away from an export-heavy economy. As export volume slumped by 17% and swept thousands of exporters into bankruptcy, the sustainability of export-driven growth was highly questioned. In 2010, China's National People's Congress passed the country's twelfth Five-Year Plan, which announced a new

model for China's development: the focus of economic development would be shifted to improving domestic income and consumption level. The Plan also announced that "diluted attention" should be paid to GDP growth, which implies lower dependence on investment.

The new model of economic development has had a huge impact on China's currency regime. With China's dependency on exports alleviated, movements in the exchange rate have become possible, allowing more freedom for RMB appreciation. On the other hand, in order to increase the level of consumption, an appreciation of RMB will also boost domestic consumers' purchasing power of foreign goods. The current move of RMB appreciation is gradual, but it is aimed at approaching its real exchange rate and eventually a floating exchange rate in the foreseeable future, thus decreasing the need for capital control (Leung & Yim, 2009).

China's Financial System and Capital Control

While China has long been under a fixed exchange regime, it could have done so through the intervention of PBoC. The disadvantage of this policy choice would be the sacrifice of monetary policy autonomy and the cost associated with keeping large amount of foreign exchange reserve. China has instead adopted capital control at the cost of disfavoring international capital flows.

However, capital control may well have been beneficial for China during the past years of its initial economic development. International capital flows can be harmful for a country's development when its financial system is weak (Reisen & Soto). Thus, the prevention of capital mobility across its border protects China's financial system (Gu & Sheng, 2005), as it has been underdeveloped due to historical and political reasons. While the unclear definition of property rights and China's current fiscal regime also contribute at some level to the necessity of capital control (Yu, 2009), two critical conditions consistently dominate China's financial system: the lack of diversified financial services, and the dominance of state banks in the banking sector. In the following section, I detail the past condition of China's financial sector and discuss how capital control has protected it against external shocks, as well as how recent improvements have been made so less dependence on capital control is present.

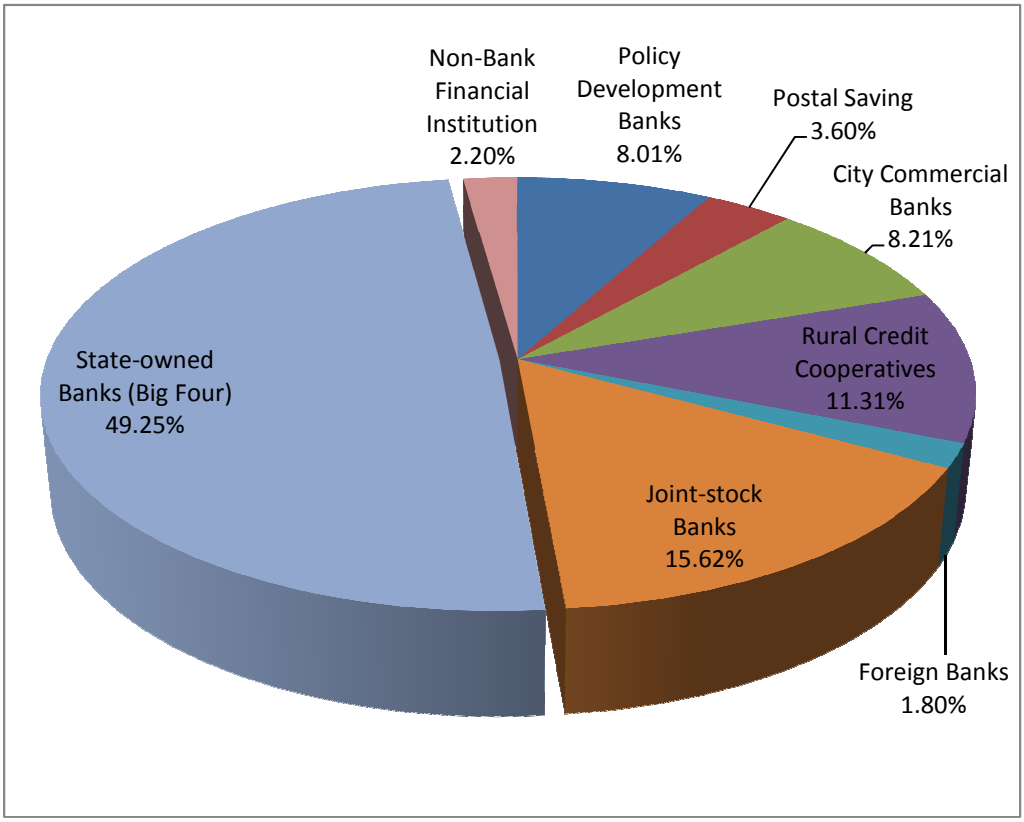
Before 1949, China's financial system was well developed. While traditional forms of capitalism can be traced back as early as the Song Dynasty (11th century). Contact with the West brought modern capitalism to China in the late 19th century, and financial activities boomed in the coastal region (Jarvis, 2007). It was during this period that Shanghai transformed itself from an agricultural town into a full-fledged IFC of the Far East. In 1936, China possessed a large number of banks, trust companies and private lenders, concentrated in a few centers such as Shanghai and Tianjin. Merchants in Shanghai used up to eleven currencies in transaction, and the need for hedging against risk also spawned a large insurance industry.

All financial institutions were nationalized in 1949 following the communist takeover to form the People's Bank of China (PBoC), a government entity under the Ministry of Finance that served both as the central bank and the sole commercial bank. Under the command economy, PBoC disbursed investments and operating funds according to centralized government fiat. It was not until 1978 that the economic reforms took place regarding the financial sector. PBoC departed the Ministry of Finance to become a separate entity in 1979, and three spinoffs were created for commercial banking purposes: Agricultural Bank of China (ABC), which was in charge of banking in all rural areas; Bank of China (BOC), which conducted foreign related banking services; China Construction Bank (CCB), which financed investments in infrastructure construction. PBoC was also mandated to serve the sole function of the country's central bank. In 1984, PBoC created another spin-off for commercial transaction services: Industrial and Commercial Bank of China (ICBC). ABC, BOC, CCB and ICBC thus form the Big Four banks of China, which inherited PBOC's monolithic presence from the era of a centrally-planned economy, and have been in the dominant position in the financial system since their creation.

The decade of 1980 has seen rapid development in joint-stock and city commercial banks, as well as rural credit cooperatives (RCCs). Foreign banks also made their re-entrance to China and started operating in 1990. Insurance companies and asset management companies also emerged in waves along with development in the financial services industry. All these developments toward a diversified financial system, however, have not been able to challenge the Big

Four's dominant position (Figure 9).

Figure 9: Composition of China's Financial System by asset in 2010



Source: China Banking Regulatory Commission.

In 2010, there were 3,796 banking institutions in China, 70.2% being RCC. However, the total banking assets of RMB 15.8 trillion (USD 2.43 trillion) were divided unevenly between institutions: non-bank institution (trust companies, financial leasing companies & money brokerage firms etc.) owned a mere 2.2% of total financial assets. RCC, despite its large number, accounted for only 11% of the asset. City Commercial Banks and Foreign Banks count for 8.21% and just above 1%. The largest fraction of 49.25% belonged to the Big Four. China's financial system is dominated by the banking sector, which in turn, is dominated by the Big Four state owned banks (SOBs). While they account for close to half of the total financial assets, SOBs' share in banking assets has in fact been slowly declining over the years, which was as high as 90% in the early stage of economic

reform.

Wielding their dominant position in the banking sector, SOBs caused the most critical problem in China's financial system--the large amount of non-performing loans (NPLs). After their spin-off from PBoC, the Big Four SOBs were still managed under the influence of command economy, and continued their lending practice to inefficient SOEs. They disbursed credit loans outlined by the central authorities, much of which went to SOEs who were facing severe structural problems and fierce market competition during 1980s-1990s. Starting from 1992, the reforms of SOEs lost them government support, putting the last straw on many SOEs' bankruptcy. This period created an astonishing level of NPLs on the Big Four's balance sheet, and in the whole financial system due to their dominant position (Table 9). While official data reported a NPL level of 25%, scholars estimated it could be as high as 60% of total loans before the Asian financial crisis (Shirai, 2001).

Table 9: Size of NPLs (billion USD) and their percentage in GDP (in brackets) by country.

Year	China	United States	South Korea	India	Indonesia
1997	--	66.9 (0.8%)	16.2 (3.1%)	--	19.6 (6.5%)
1998	20.5 (2%)	71.3 (0.8%)	23.2 (6.7%)	12.7 (3.1%)	21.8 (7.9%)
1999	105.1 (9.7%)	72.2 (0.8%)	54.4 (12.2%)	14 (3.2%)	27.2 (9.1%)
2000	269.3 (22.5%)	90.1 (0.9%)	35.5 (6.9%)	12.9 (2.8%)	33.2 (10.3%)
2001	265.3 (20.0%)	108.4 (1.1%)	12.2 (2.5%)	13.2 (2.8%)	37.9 (13%)
2002	188.4 (13%)	107.8 (1.0%)	9.9 (1.8%)	14.8 (3%)	30.7 (10.4%)
2003	181.2 (11%)	95.9 (1.0%)	11.7 (1.9%)	14.6 (2.5%)	23.1 (7.7%)
2004	207.4 (10.7%)	81.3 (0.9%)	10.0 (1.5%)	14.4 (2.2%)	16.4 (5.1%)
2005	164.2 (7.3%)	84.6 (0.7%)	7.6 (1%)	13.4 (1.7%)	11.2 (3.2%)
2006	160.3 (6.3%)	88.8 (0.7%)	7.4 (0.8%)	11.8 (1.4%)	--

Source: Allen et al. (2008).

It is commonly accepted that NPL level should be kept below 15% of total loans, otherwise systemic crisis can result in the financial system. In 1997, Thailand and South Korea faced major banking crises when investors realized their high level of NPLs (Yu, 2009; Yoon, 1998), which caused the two countries 35% and 28% of GDP (Caprio & Klingebiel, 2003). China's NPL level was much higher than the two countries above. The only reason it escaped the crisis largely unscathed was due to heavy capital control: in October 1998, China's Supreme Court called for a major crackdown on FOREX activities, and hundreds of underground FOREX traders were prosecuted. The government also tracked down and recovered capital flight for enterprises and financial institutions, bring FOREX exchange reserves to normal levels under capital control.

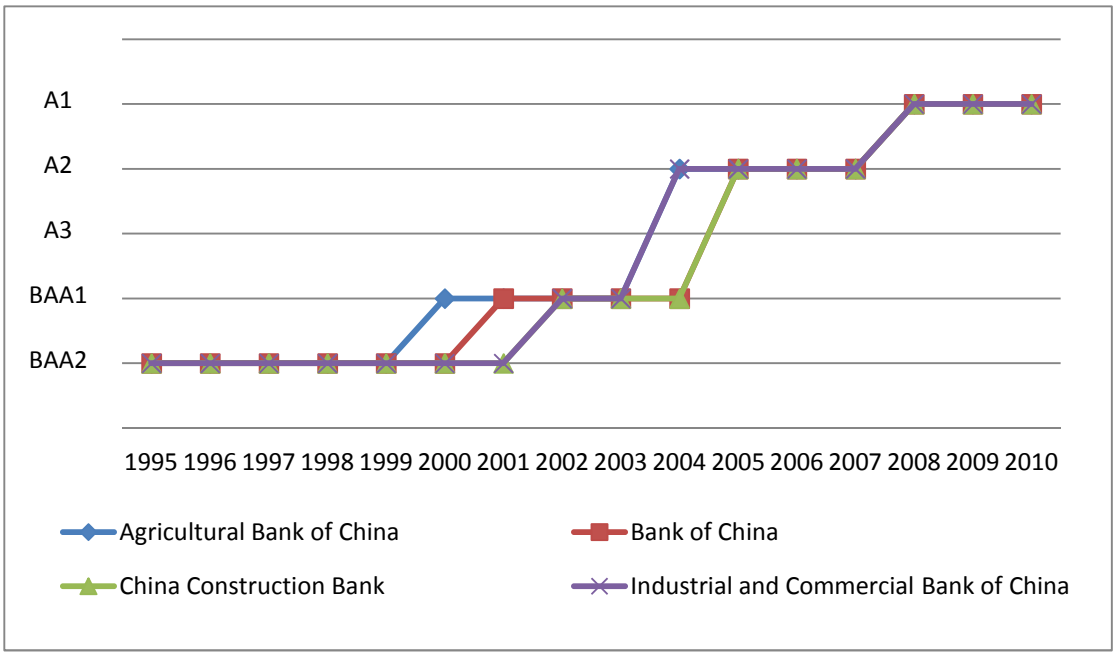
However, even though its financial system escaped the Asian financial crisis, the government, alarmed, decided to take steps to reform the banking sector. In 1999, the government led the establishment of four asset management companies (AMCs) to securitize the Big Four's NPLs. In the following years, AMCs absorbed $ 169 billion of NPLs and disposed of them by debt-equity swaps, sale to investors and other market instruments. NPL growth slowed down, but its value and ratio remained large. The authorities realized that NPL problem within SOBs were not only purely functional, but were also reflecting their structural problems, such as continuation of government-directed lending and lack of efficient supervision.

In 2003, the China Banking Regulatory Commission (CBRC) was formed to take over the responsibility from PBoC of overseeing the banking industry, while the latter established its second headquarter in Shanghai. In addition, the Big Four SOBs were transformed into joint-stock banks to become internationally competitive. In order to clean up the NPL problem and their low capital adequacy finally, the government injected $ 45 billion that went in equal portion into CCB and BOC in 2003. In 2005, a $40 billion and $35 billion injection went into ICBC and ABC. After ten years of continuing efforts, China's Banking System has eventually obtained an acceptable level of NPLs and attained adequate capital adequacy ratio.

Further steps were taken to attract global partners into the Big Four and

increase their management performance. In 2005, CCB became listed on SSE and HKS, and ICBC and BOC also became public in 2006. ABC, the last of the four, became simultaneously listed on HKS and SSE in 2010, and topped the record set by ICBC to become the largest IPO in the world. With foreign and public ownership, the performance of Big Four has improved with updated management structure (Figure 10).

Figure 10: Moody's Long-Term Bank Deposit Rating of China's Big Four SOBs. 1995-2010.



Source: Moody's.

With the rest of China's financial system enjoying relatively healthier growth, Big Four's improvement in performance has put the entire banking sector on a new track for development. Chinese banks have become eager to expand their business overseas, and their capacities in cross-border transaction increased along with acquisitions of foreign financial institutions[6]. While problems such as nepotism and susceptibility to government intervention still exist in SOBs, their performance has been largely satisfactory. While it may still exist, the need for capital control to protect China's financial sector has been gradually fading away.

[6] *Wall Street Journal*, June 29, 2010

RMB Internationalization and Current Situation in Capital Control

Authorities have taken a cautious step-by-step approach in alleviating China's capital control. In 2002, the Qualified Foreign Institutional Investor (QFII) Scheme allowed foreign investors to invest in the domestic equity market. Its counterpart, Qualified Domestic Institutional Investor (QDII) Scheme was introduced in 2006. In May 2005, PBoC allowed a gradual "managed" float of RMB vis-à-vis USD, which is actually a crawling peg of RMB to a basket of currencies: U.S. dollar, Euro, Japanese yen, South Korean won, and small portions of other currencies. RMB has since started appreciating against the US dollar, Euro and other major currencies. In the wake of the 2008 global financial crisis and the decline of confidence in U.S. dollar's value, China has increasingly felt the need to improve the status of its own currency.

In July 2009, PBoC, CBRC, China Ministry of Finance, China Ministry of Commerce, China General Administration of Customs, China State Administration of Tax jointly announced the *Administrative Rules on Pilot Program of Renminbi Settlement of Cross-border of Trade Transactions ("Rules")*. Hong Kong, Macau and countries in Association of Southeast Asian Nations (ASEAN) can participate in China's pilot scheme for RMB cross-border transaction as offshore regions. Shanghai, and four cities in Guangdong province (Shenzhen, Guangzhou, Zhuhai and Dongguan) are designated to be the onshore pilot cities. On July 6th, Bank of China (Hong Kong) and Bank of China's Shanghai branch completed the first cross-border trade settlement denominated in RMB, marking the initial step of reforms in the internationalization of China's currency.

Authorities expanded the designated cities and provinces in RMB cross-border transaction to 20 in 2010. That same year, the volume of trade settled in RMB reached $58 billion USD, representing 2% of China's total trade. RMB deposit in Hong Kong expanded 378%, and is expected to rise to 15% of Hong Kong's total deposit by end of 2011 (Ulrich et al., 2011). While the initial plan was to internationalize RMB through three stages--currency of trade settlement, currency of pricing and currency of reserves--the rapid growth in RMB demand has made Malaysia the first to purchase RMB bond as its FOREX reserve in 2010.

Under the broad context of RMB internationalization, the strength of capital control has again been weakening. According to State Administration of Foreign Exchange (SAFE), among 40 items of capital account, 5 have been completely liberalized, 17 partially liberalized, 8 under moderate restriction, while only 10 are completely prohibited. Early calculations based on IMF's formula showed that more than 80% of China's capital account has been at least partially liberalized (Yu, 2009). However, because China is the only country that internationalizes its currency without fully lifting the capital control, the RMB's internationalization has been separated between the offshore and onshore markets, making RMB difficult to flow back into China. The change came in mid-2010, when PBoC authorized foreign institutions to enter the China's onshore Interbank Bond Market. Shortly after, PBoC Shanghai and Shanghai Municipal Government authorized experimental RMB cross-border settlement in capital account.

As pointed out by Jaccard & Neoh (2009), the long waited move to RMB internationalization may proceed far more quickly than expected. The consequent alleviation of capital control and increased international capital flows will impact enormously China's financial system, as well as Shanghai's IFC status. As the largest financial center in China and a host of central bank's headquarters, Shanghai is on its way to become the onshore center of RMB settlement.

VI. Conclusion

Having gone through falls and rises in history, Shanghai today stands as the dominant financial center of China and is perched to realize its ambition of re-emerging as the leading IFC of the world in the near future. Much of its current achievement has been based on China's growth and consequent advancement in political and economic institutions. While China continues growing strongly into the near future, Shanghai will enjoy the benefits disproportionately due to its position in the economy, which will eventually transform it into the future's leading IFC.

While Shanghai's position in the national economy has already been secured, and hard infrastructure constructions largely completed, the two most important aspects of its IFC development are still underway: capital market and cross-border

capital flow. Currently, the capital market in Shanghai has passed the initial level of development after twenty years of high growth and presents itself as a significant challenge to those on other leading IFCs such as Tokyo and London. However, it is still relatively immature in terms of its capital depth, international openness, and diversity of mechanisms and instruments. Changes in China's economy have enabled its further development into the future, and recent progress made in the capital market will help Shanghai become a direct competitor with established centers.

Shanghai's cross-border capital flow is nascent compared to centers in developed economies, and even less mature in regards to its capital market development. The reason is largely due to China's capital control regime that found the need to keep exchange rates fixed and protect the weak financial system. Recent changes in China's political economy have alleviated its need for an export-driven economy, and the long-term reforms in the banking sector have successfully improved the financial system's health. The need for capital control is further weakened as China gradually appreciates its currency, RMB, toward a floating exchange rate and starts its internationalization process. While cross-border capital flow is expected to increase in China, Shanghai will benefit directly as the onshore RMB center and claim larger importance in the global economy.

In summary, Shanghai is currently heading in the right direction of becoming one of the world's leading IFCs. In the future, Shanghai will likely become an IFC that concentrates on domestic capital need, while exerting influence in global market through its large capital market and status as onshore center for Chinese currency. This development will depend largely on China's macro-economic policies, which in general look promising.

Appendix I. Historical Events and Financial Sector Evolution in Shanghai

Year	Event	Note	Year	Event	Note
1842	Shanghai becomes an open port	Under the *Treaty of Nanjing*.	1994	Establishment of FOREX Trading Center in	

		Guangzhou, Xiamen, Fuzhou, Ningbo became open port, Hong Kong ceded to Britain		Shanghai	
1847	First Foreign Bank in Shanghai	"Oriental Banking Corporation"	1997	Establishment of National Interbank Bond Market	
1891	Establishment of Shanghai Stock Exchange	Known as "Shanghai Sharebrokers' Association"	1999	Establishment of Shanghai Futures Exchange	
1897	First Domestic Bank in Shanghai	"Imperial Bank of China"	2001	China joins World Trade Organization	
1921	Establishment of Communist Party of China in Shanghai		2002	Establishment of Shanghai Gold Exchange	
1937	Battle of Shanghai and consequent Japanese occupation		2002	Qualified Foreign Institutional Investors (QFII) scheme	
1945	Surrender of Japan and liberalization of Shanghai		2003	Establishment of China Banking Regulatory Commission	Spinoff from PBoC
1948	Establishment of People's	Based on consolidation	2005	Reforms in non-tradable	Completed in

	Bank of China (PBoC)	of Huabei Bank, Beihai Bank and Xibei Farmers' Bank		shares	2007-2008
1949	Shanghai overtaken by communist army		2005	Renminbi abandons U.S. Dollar peg	"Managed floating peg" to a basket of currencies
1978	Beginning of China's Economic Reforms		2005	Establishment of second headquarters of PBoC in Shanghai	
1979	Reform of PBoC: Agricultural Bank of China (ABC) and Bank of China (BOC)	Two PBoC spinoffs	2006	IPO of BOC and ICBC	
1983	Establishment of China Construction Bank (CCB)	PBoC spinoff	Jun, 2006	Qualified Domestic Institutional Investors (QDII) scheme	
1984	Establishment of Industrial and Commercial Bank of China (ICBC)	PBoC spinoff	2006	Establishment of China Financial Futures Exchange	
Apr, 1990	Shanghai starts Economic Reforms		2009	State Council announces plan to build Shanghai into International Financial and	

				Shipping Center	
Dec. 1990	Shanghai Stock Exchange Reestablished		2009	First RMB cross-border settlement	Shanghai as one of five onshore pilot cities
1990	Foreign Banks allowed commercial operations in Shanghai		April, 2010	Stock Index Futures launched	
Jun, 1992	FOREX futures trading	Ended 1993	May, 2010	Shanghai hosts World Exposition	
Jun, 1992	Warrant trading	Ended 1996	Jun, 2010	IPO of ABC	Largest IPO in world history
1992	Establishment of China Securities Regulatory Commission	Responsibilities takeover from PBoC completed in 1997	Aug, 2010	Foreign financial institutions allowed to invest in Interbank RMB market	

Appendix II. Reed's IFC Evaluation Variables

Stage 1: Banking Variables

LBHDQ : Local Bank Headquarters: Large internationally active commercial

banks headquartered in the international financial center.

LBDIL: Local Bank Direct Links: Foreign international financial centers with direct links to the international financial center through the large internationally active local banks headquartered in the international financial center.

PB: Private Bank: Private (merchant or investment) banks with an office in the international financial center.

FBO: Foreign Bank Office: Large internationally active foreign commercial banks with an office in the international financial center.

FBDIL: Foreign Bank Direct Links: Foreign international financial centers with direct links to the international financial center through the large internationally active foreign banks with an office in the financial international center.

Stage 2: Financial/Banking Variables

FFA: Foreign Financial Assets: The total amount of foreign financial assets of the international financial center (allocated on the basis of the total assets of the center's LBHDQs).

FFL: Foreign Financial Liabilities: The total amount of foreign financial liabilities held in the international financial center (allocated on the basis of the total liabilities of the center's LBHDQs).

LBR/DIL: Local Bank Representative/Branch Direct Links: Foreign international financial centers with direct links (that is, branches and representative offices) to the international financial center through local banks (head-quartered there).

FB/RO: Foreign Bank Representative Office: Large internationally active foreign commercial banks with branches or representative offices in the international financial center.

Appendix III. Top 45 IFCs ranked by Global Financial Centres Index (GFIC) and Xinhua-Dow Jones IFC Development Index

Centers	2007	2008	2009	2010	Xinhua-Dow Jones Index
New York	787	774	774	770	88.4
London	806	791	790	772	87.7
Tokyo	625	642	674	697	85.6
Hong Kong	697	700	729	760	81.0
Paris	622	607	630	645	72.8
Singapore	673	701	719	728	70.1
Frankfurt	649	636	649	659	64.4
Shanghai	527	568	655	693	63.8
Washington D.C.	589	600	630	649	61.1
Sydney	636	630	651	660	59.5
Zurich	666	676	676	669	59.4
Chicago	639	641	661	678	56.8
Beijing	482	509	613	653	55.9
Dubai	575	597	617	607	53.6
Amsterdam	599	590	586	595	53.0
Geneva	645	645	660	661	52.3
San Francisco	608	620	634	654	49.6
Toronto	613	624	647	656	46.5
Boston	621	625	634	655	45.2
Copenhagen	488	548	560	573	41.0
Munich	535	578	588	610	40.9
Brussels	546	559	568	582	40.5
Shenzhen	-	-	695	654	40.5
Vancouver	525	580	589	627	40.0
Stockholm	554	569	569	587	39.3
Luxembourg	596	622	637	634	37.2
Vienna	515	530	555	571	37.1
Helsinki	518	534	533	549	37.1
Oslo	500	534	538	557	36.0
Melbourne	588	586	584	622	35.5
Seoul	464	502	576	621	35.0

Madrid	516	525	560	584	34.8
Montreal	538	579	586	617	34.5
Rome	479	467	537	563	34.5
Moscow	-	414	462	506	34.2
Milan	519	541	554	577	34.0
Dublin	605	622	613	605	33.5
Osaka	502	493	565	601	33.0
Sao Paulo	434	471	560	573	32.2
Mumbai	470	497	542	550	31.5
Taipei	-	-	609	639	31.0
Buenos Aires	-	-	507	528	25.6
Budapest	-	374	425	467	25.5
Lisbon	422	430	477	534	24.1
Johannesburg	463	525	550	555	22.5

Source: GFIC 1-8, Xinhua – Dow Jones

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