

China's Financial Integration with Asia

Haihong Gao

Institute of World Economies and Politics,
Chinese Academy of Social Sciences

Introduction

In the past decade, China's foreign trade has been the driving force to its rapid economic growth. China has become a large export-led economy in the world. China's trade openness, measured by the ratio of total goods and services trade to GDP, increased from 25.7% in 1990 to 72.9% in 2006, which was outperformed many other economies, including most of emerging Asian economies. Driven by vertical integration of production networks between China and the rest of Asian economies, China's trade with the rest of Asia increased significantly. China's export and import to and from Japan, Korea and the ASEAN countries accounted for 59.2% of China's overall trade with the world in 2004, which was far outperformed the share of 29.3% and 28.8% with the U.S. and the EU, respectively.

Meanwhile, China's financial integration with the world, spurred by both trend of financial globalization and the progress of China's financial liberalization and openness, has developed significantly as well. However, compared with highly integrated trade sectors, China's financial sectors' openness still remains at low level. China's cross-border capital flows are mainly in the form of FDI. Although some direct measures of stock market index co-movement between China and the rest of Asia appeared to be significant, China's financial link with the rest of Asia has been observed to be sluggish.

This paper discusses China's financial integration with the rest of Asia, from the perspective of quantity based facts and institutional arrangement. It is organized as the follows. An overview of the development of China's capital flows in the past decade is given in section one. Section two analyzes China's capital flows with the rest of Asia, based on facts and empirical studies. Section three discusses China's institutional involvement with Asian regional financial integration, with emphases on the role of Chinese currency, Renminbi. The paper concludes with constrains for China's further financial integration and potentials for China to play an important role in Asian financial cooperation.

1. An overview of China's cross-border capital flows

1.1 Sluggish financial openness

China's external sectors have been growing rapidly since the beginning of the 1990s. However, China's financial integration with the rest of the world has been more sluggish than China's trade integration. The total financial assets and liabilities as share of China's rapid growth of GDP was only 12% in 2006, which was far lower than that of the U.S. (22%) and of the Euro area (25%). The ratio is also below the average level in emerging and developing economies (19%) (Figure 1).

Figure 1: External financial assets and liabilities as share of GDP (percent)



Source: IMF, World Economic Outlook Database, April 2008; BOP.

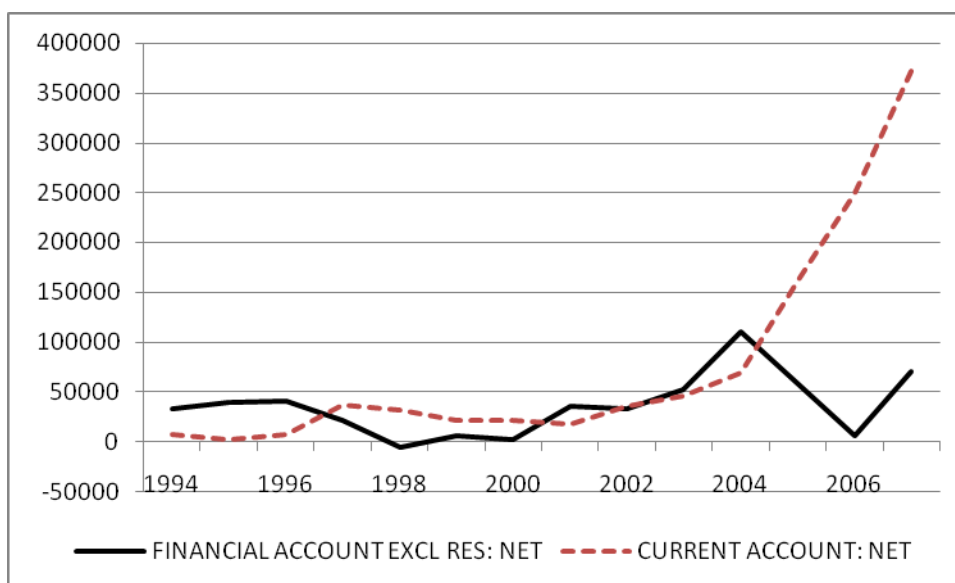
1.2 Twin surpluses

The most phenomenal development in China's external sectors has been so called "twin surpluses", i.e. surpluses in both current account and capital and financial account. As Figure 2 shows, both current and financial accounts in net value have appeared to be positive in most of the years since 1994.

Owing to a combination of factors, such as an increase of production capacity, relative lack of effective domestic demands, transfer of global manufacturing industry to China, the relative low costs of labor, the saving-investment gap, and the government's favorable policies, etc., China's current account surplus has been continuously registered surplus and become a driving force to China's high economic growth rate. The statistics show that China's surplus under the current account in 2007 totaled 371.8 billion US dollars. In the first half of 2008, China's export growth showed a sharp decline due to continuing currency appreciation, rising costs of labor, raw materials, land and environmental protection, the removal of favorable policies toward export, and unfolding U.S. subprime mortgage crisis and global economic slowdown. Although the

competitiveness of Chinese exporters has been eroding, China's current account balance is unlikely to turn into deficit any time soon.

Figure2: Twin surpluses in China (US dollar million, 1994-2007)



Source: BOP, IMF; China's Balance of Payments Report for 2007, SAFE.

Meanwhile, except for a slight reverse in 1998 and an abnormal sharp decline in 2006, China's capital and financial account has been in surplus for more than a decade. By the end of 2007, China's capital and financial surplus registered 73.5 billion dollars. In particular, the net inflows of direct investments and portfolio investments amounted to 121.4 billion dollars and 18.7 billion dollars, respectively, whereas the outflows of other investments reached 69.7 billion dollars. Furthermore, China's international reserves continued to grow. At the end of 2007, China registered a total of 1528.2 billion dollars in its foreign exchange reserves, an increase of 461.9 billion dollars over the end of 2006.

Running twin surpluses persistently reflects the fact that China has been increasingly integrated with the world economy. However, it also reflects the failure of translating capital inflows into trade deficits and of utilizing domestic savings for domestic investment. Moreover, as a creditor to the world, China has run negative investment incomes for many years before 2005 (Yu 2008). The resulting accumulation of foreign reserves is facing with continued devaluation and defaults of US dollar assets.

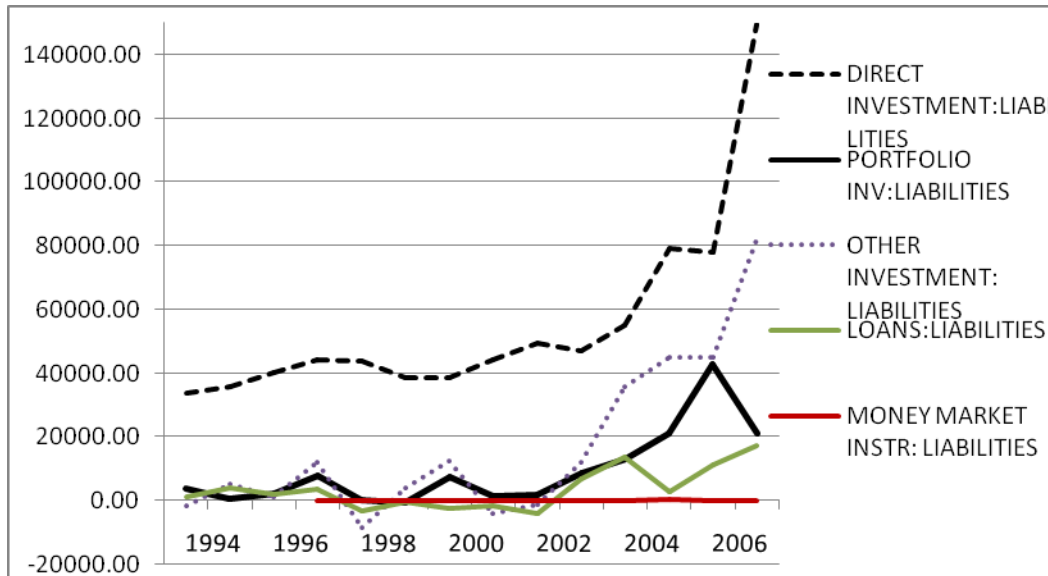
1.3 Patterns and determinant factors of China's capital flows

Dominant share of FDI inflows

The pattern of capital flows to China has remained relatively unchanged since the beginning of China's opening up its economy in the late 1970s. As Figure 3 shows, FDI inflows have been in excess of any other forms of cross-border investments and dominated China's cross-border capital movement in the past two decades. The inflows of FDI have been experiencing an upward trend

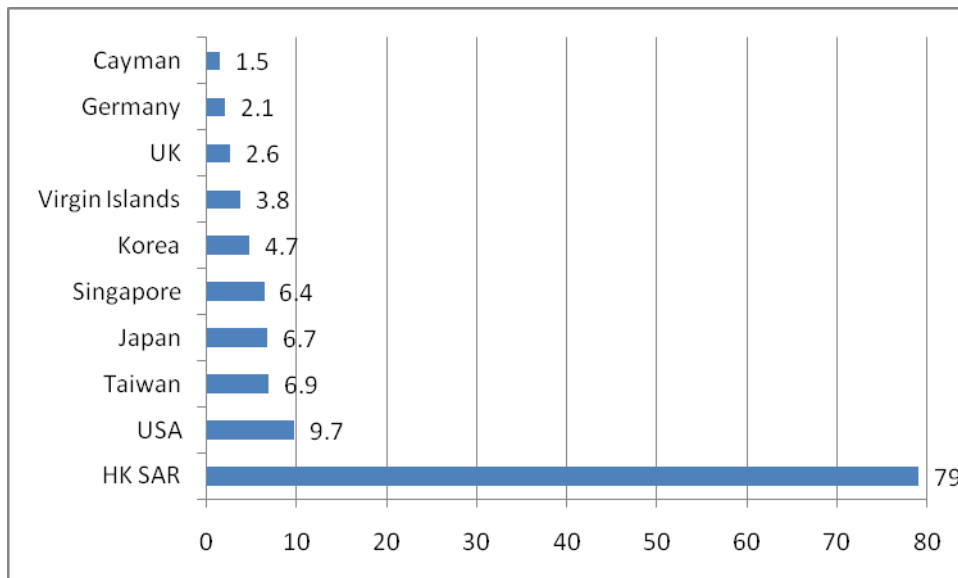
since the late 1990s. Such trend was even strengthened in 2007. As of the end of 2007, FDI inflows amounted to 149.6 billion dollars, increased by 73% yoy. Non-financial sectors absorbed 94.8% of the inflows with amount of 141.8 billion dollars; whilst financial sectors attracted only 9.8 billion dollars. The largest 10 partners of China's FDI inflows accounted for 90% of the total inflows, with the overwhelming share of 53% from HKSAR (Figure 4).

Figure 3: China's capital inflow structure (US dollar million)



Source: China's Balance of Payments Report for 2007, SAFE.

Figure 4: China's main FDI partners (year 2007) (US dollar billion)



Source: China's Balance of Payments Report for 2007, SAFE.

The persistent inflows of FDI has been encouraged mainly by the government favourable policies. Compared with the policies of liberalizing China's indirect capital flows, the policies of freeing FDI in China were started relatively earlier and the current controls over FDI are more liberalized than the controls over any other international financial transactions. Currently, China's

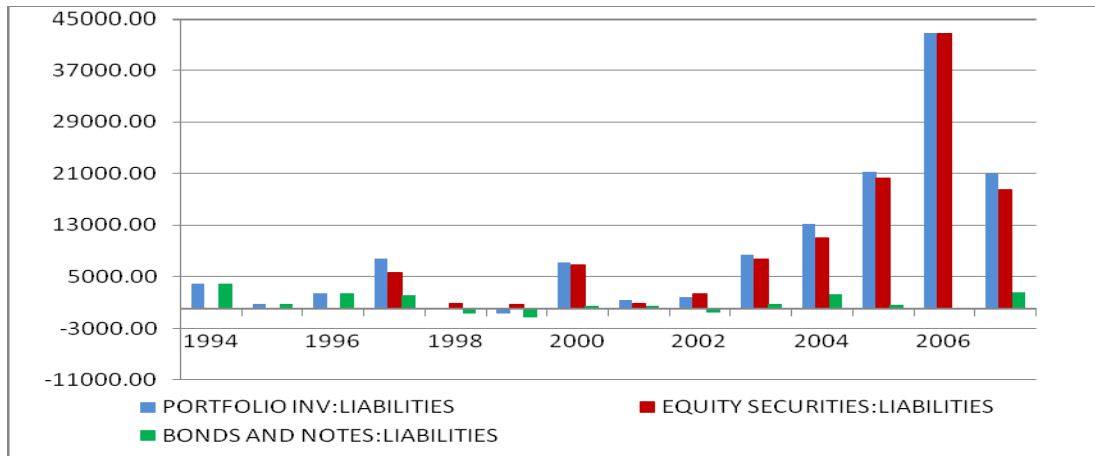
controls over the inward of direct investment are almost free. As long as nonresident meet requirements under Sino-foreign joint-venture laws and other relevant regulations, and are approved by Ministry of Commerce of China, nonresidents are free to invest in China. On the aspect of foreign exchange management, there is no restriction on the inward remittance of funds. For the outward direct investment, foreign exchange is provided for the investment after the State Administration of Foreign Exchange (SAFE) reviews sources of foreign exchange assets and an assessment of the investment risk involved. This legal framework combined with many policy-related incentives for inward direct investment reflects that China emphasizes its financial opening policy on attracting a high level of FDI and accelerating the transfer of technology and modern management skills, as well as at providing foreign exchange. As a result, the rapid growth of FDI became the most prominent factor in leading China to integrate with the global financial markets. Apart from policy factors, low-cost skilled labor, huge domestic market, relative good infrastructures and politic stability have also played important roles in attract FDI inflows.

Less diversified portfolio investment

China's securities flows have increased significantly in the past decade. Before the 1990s when China's securities market were completely closed, China barely had any forms of portfolio investment. Portfolio flows started emerging in 1991 when Shanghai Stock Exchange (SHSE) and Shenzhen Stock Exchange (SZSE) began to offer B shares, providing foreign investors with a legal channel to invest in China's equity markets. Another channel for foreign capital inflows to China's securities markets in the early age of capital market opening-up was the overseas issues including H share, American depository receipts (ADR), global depository receipts (GDR), convertible bonds, and dual-listed shares.

The most significant step forward in opening China's domestic capital market was the introduction of the Qualified Foreign Institutional Investors (QFII) in 2002. The implementation of the QFII aimed at utilizing QFII's international experience to standardizing various rules and regulations in the A-share market, introducing financial innovations into the domestic market, and allowing domestic financial institutions to learn from its foreign counterparts the leading theories and practices in the international financial markets and the "value investment" philosophy advocated by the QFIIs. The market capitalization of securities held by 49 QFIIs has reached nearly RMB 200 billion yuan, making them the main institutional investors in China's capital market. Meanwhile, China's bond market has been opened to non-residents to a very limited degree. As a result, bond securities inflows has remained at low level, whilst equity inflows become the single dominating form of China's portfolio inflows in the past decade (Figure 5).

Figure 5: China's portfolio inflows (US dollar million)



Source: BOP, IMF; China's Balance of Payments Report for 2007, SAFE.

In 2007, China implemented the theme of Qualified Domestic Institutional Investors (QDII), allowing domestic institutional investors to invest in overseas markets. QDII system enabled domestic investors to allocate their assets throughout the world. One of the driving forces behind the introduction of QDII was the huge amount of foreign reserves and the resulting inflationary pressure to the domestic economy. The government wished to channel outflow of capital orderly through QDII theme and to reduce the pressure of reserve accumulation. Currently, all qualified domestic commercial banks, insurance companies, fund companies and securities companies can conduct QDII business. By the end of June 2008, 13 QFII custodians were approved by the China Securities Regulatory Commission (CSRC).

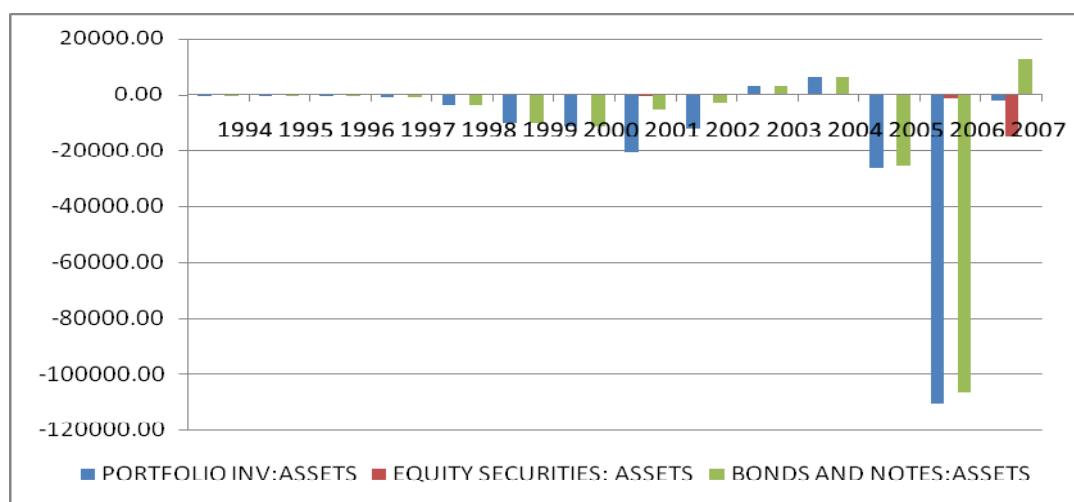
So far, B share market, H share market, QFII and QDII are the main channels of opening securities transactions under China's capital account. To deepen the opening up of China's capital market, the investment quota for QFII has been increased to 30 billion dollars in 2007 and the coverage of QDII members has also been enlarged significantly.

Capital control relaxation was the major driving force behind the growth of inward securities investment. At the same time, market force began exercising its influence on portfolio inflows. More specifically, since 2003, China's twin surpluses have been creating strong appreciation pressure on the Renminbi and hence to have strong influence on the rapid increase of portfolio inflows. Foreign loans and trade credits have increased significantly as well since 2003. Renminbi appreciation expectations played an important role in the increase of short-term borrowings for the purpose of hedging against exchange rate risks. By the end of 2006, portfolio inflows reached to the peak with amount of 42.86 billion dollars. However, in 2007, due to the outbreak of the US subprime crisis and subsequent international financial turmoil, inflows of portfolios in China, mainly in the form of equities, experienced a sharp decline. This decline was also because of the consideration of most foreign investors that China's equity prices were already too high and hence unwinded their long position.

Unlike stock markets, China's fixed-income securities markets remain tightly closed to

foreign investors. Nonresident investors are not allowed to conduct any transactions locally in China's bond and other yuan-denominated debt instruments in medium term. But China's overseas bond issues have grown fast since 2004. China's outbound capital flows have been mainly in the form of bonds and notes and other investment including credit loans in the past 5 years. More specifically, the large increase in the outflows of bond investment in 2006 was related to the measures taken by the PBoC to encourage outflows of funds. Since then, insurance companies and securities firms have been able to invest abroad by sale or issue of bond and other debt securities that meet rating requirements. However, due to the global financial turbulence and severe write-downs for many international financial institutions, China's portfolios outflows shank significantly in 2007(Figure 6).

Figure 6: China's portfolio outflows (US dollar million)



Source: BOP, IMF; China's Balance of Payments Report for 2007, SAFE.

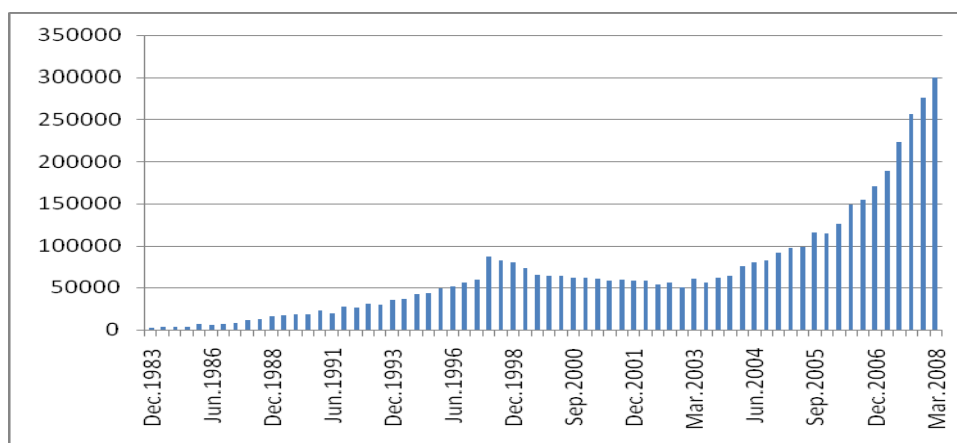
Banking sector's opening

China's control on the entry of foreign banks has been liberalized gradually since the first branch of foreign bank, Nan Yang Commercial Bank Shenzhen Branch, established in 1981. However, most of the regulations and laws on foreign financial institutions were set up beginning in 1994. The major and the highest law is People's Republic of China Regulations on Foreign Financial Institution which was implemented in 1994. Under the framework of regulations before 1996, the scope of foreign financial institutions' business was strictly limited. For example, the branches of foreign banks and joint venture banks in China couldn't operate RMB-based business, and their foreign exchange-based business was limited in certain types. This limit, however, began to be relaxed in 1996 when the foreign banks in China were allowed to engage in the business of sale and purchase of foreign exchange for Foreign Fund Entrepreneurs (FFE) and became the authorized banks dealing with foreign exchange. This was the first step to liberalize RMB-based business.

China's commitment to the entry of WTO has played an important role in China's banking

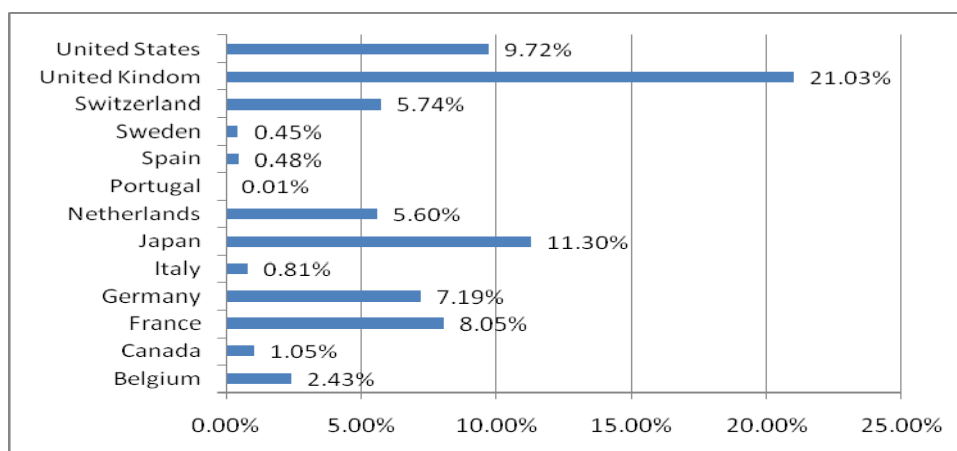
sector opening process. In 2001, China agreed to lift all the geographical restrictions and business restrictions for foreign banks in the following five years. The relaxation of banking business brought about a sharp increase of China's foreign banking claims since 2003 (Figure 7). At the end of March, 2008, China's top three foreign claims were from the banks in the UK, the US and Japan (Figure 8). By the end of 2007, 193 banks from 47 countries and regions had set up 242 representative offices in China. In addition, foreign banks in China included 24 wholly foreign-funded banks (with 119 branches), 2 joint venture banks (with 5 branches and 1 subsidiary), 3 wholly foreign-funded finance companies, and 117 branches set up by 71 foreign banks from 23 countries and regions. The assets of foreign banking institutions amounted to RMB1.25 trillion yuan that accounted for 2.4% of the total banking assets in China (Table 1). By the end of 2007, 25 locally incorporated foreign banks and 57 foreign bank branches were licensed to provide RMB business, and 50 foreign banking institutions were granted permission to engage in derivatives transactions.

Figure 7: China's banking foreign claims in total / Amounts outstanding / US dollar million



Sources: BIS

Figure 8: China's banking foreign claims (outstanding, US dollar million, end of March 2008)



Sources: BIS

Table 1: Business outlets and assets of foreign banks in China

	2003	2004	2005	2006	2007
Operational banking entities	192	211	254	312	440
Assets (RMB 10 million)	4159	5823	7155	9279	12525
Share of total banking assets in China (%)	1.50	1.84	1.91	2.11	2.38

Sources: China banking Regulatory Commission 2007 Annual Report.

1.4 Coping with hot money

The outbreak of the U.S. subprime crisis, the increasing uncertainty of international financial markets, the changing exchange rates of the major currencies and prices of international energy and grain have had an extensive effect on the direction and scale of international capital flows. China's efforts to avoid the impact of international short-term speculative capital and to safeguard the security of the national economy face greater challenges. Recently some economists in China argued that accumulation of foreign exchange reserves cannot be explained by increase of FDI inflows and trade surplus. This was especially evident in the year of 2007. One reason was perhaps the huge amount of inflows of so called unwanted money, invited by expectations for Renminbi exchange rate appreciation since 2003. Some believed that speculative capital flows were chasing Chinese asset prices in the equity and property markets in 2007. The huge amount of unwanted money inflows continue to fuel strong monetary growth and additional inflationary pressure. In the first half of 2008, given the rapid decline in the equity market and some signs of a slowdown in the property market, speculative capital flows appear to be ending up in Chinese banks, and in corporate accounts in particular.

Different estimations reached difference results with regard to the size of hot money in China. According to Zhang and Xu (2008)'s computation, the size of hot money in China reached to 191.5 and 138.9 billion dollars in 2005 and 2006, respectively. In 2007, the figure peaked at 541 billion dollars, which accounted for 72% of China's total reserves (Table 2). The findings of the study, among other studies based on different measurement, raised severe concern about the effectiveness of current capital control and its negative impact on stability of China's domestic market.

Table 2: Estimation of hot money in China (US dollar billion)

	2003	2004	2005	2006	2007	2008Q1
Adjusted change of reserves	135.2	181.2	225.6	192.9	631.6	133.3
--Trade surplus	25.5	31.9	101.7	177.6	262.0	41.5
-- FDI	54.4	60.6	60.3	69.5	82.7	27.4
+ non remitted profit	0	0	60.1	121.5	183.5	13.0
+ hot money from trade surplus	40.3	51.1	67.8	71.6	70.6	19.0
Hot money	95.6	139.8	191.5	138.9	541.0	96.4

Source: Zhang and Xu (2008)

The instant response of the SAFE in the mid-2008 was to tighten its supervision and

investigations on foreign exchange transactions under both current and capital account, and to carry out actions against illegal channels of capital flows. Hu Xiaolian, Deputy Governor of the SAFE carried out onsite investigations on the current foreign exchange situation. The major measures of strengthening the management of cross-border capital flows were to prevent speculative money from being transferred across borders through trade, commercial credits, and other channels, to improve verification of the authenticity and consistency of foreign exchange receipts and expenditures under the current account and actual trade deals, and to focus on enhancing control and management over short-term external debt by improving management of trade-related foreign exchange collection and sales and trade credits.

The concern about huge speculative capital flows also sparked a new round of debate about the pace of China's capital account liberalization. The majority of Chinese officials and scholars shared the view that the capital controls now in place in China are not effective, as is shown by the inability to stem or even identify hot money inflows. In fact the PBoC started realizing that partial capital controls have only limited effect in an open economy and complete capital controls are not only cost too much but also unsustainable. Some argued that experience shows that the way to cope successfully with such a problem is to loosen capital outflow instead of trying to restrain capital inflow and tightening capital controls. Meanwhile, some scholars, including Yu (2008), suggested what China should maintain its tight capital control. From a long-term perspective China's monetary authority needs to show greater concern on large-scale hot money outflows over short periods. Now that China attracts so much hot money, the ineffectiveness of China's capital control regime and the ever-loosening restriction on capital moving out will not only facilitate normal capital outflows, but will also dangerously enable hot money flows. However, in practice, due to the lack of precise figures of the size and directions, it is difficult for the authority to cope with hot money effectively.

2. China's financial links with the rest of Asia

In the past two decades, both China's holding of foreign assets and domestic liabilities held by China's non-residents have risen dramatically. Increasing flows with the rest of Asian economies has contributed much to the growth of China's overall cross-border financial flows. More specifically, China's financial link with the rest of Asia is to a large degree related to China's special placement in Asian production chains and intra-regional trade patterns. Correspondingly, FDI flows between China and the rest of Asia have played an important role in China's overall capital flows within the region. Although China's holdings of U.S. portfolio securities increased dramatically in recent years, reflecting a large accumulation of international reserves placed in U.S. treasuries, China's portfolio investment with the rest of Asia has remained the dominant portion in

China's overall cross-border portfolio flows.

2.1 China's special placement in Asian production chains

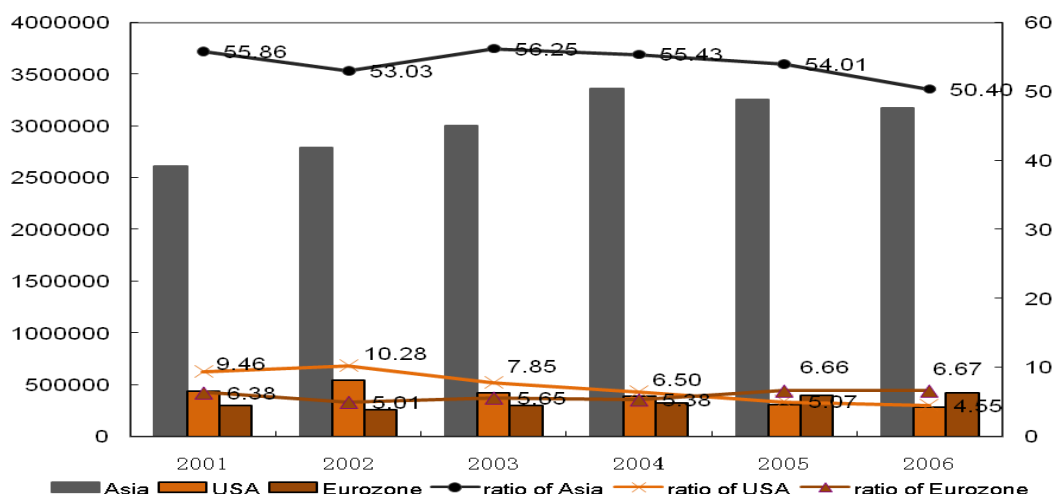
China's trade growth has contributed much to the growth of Asian intraregional trade over the past two decades. Almost 60 percent of intraregional trade growth attributed to China (IMF 2008). However, most intraregional trade in Asia is occurring within vertically integrated regional supply chains that are assembled in China into final goods for export to industrial countries. China holds a special place in the geographical distribution of global current account balances: running huge current account surplus with the world biggest debtor country (the U.S.) and at the same time running current account deficit with many other big creditors in East Asia. Such special place is characterized by China's role of being a hub in regional production networks: China buys capital and technological equipment, hi-tech parts and components from Japan, Korea and Taiwan, primary goods, natural resources and resources-based products from ASEAN and Australia, and financial, commercial and legal services from Hong Kong and Singapore. China uses the imports to produce manufacturing, processing, assembling goods and thus turns the products Made in Asia into Made in China. China then exports them to the U.S., Europe and the rest of the world. This type of processing trade leads to current account surplus by definition, and in China's total exports, processing trade accounted for as high as 54.6%.

More important, China's financial link with the rest of Asian economies is to a large degree subject to this type of production chains and intra-regional trade patterns in Asia.

2.2 China's reliance on FDI inflows from Asia

FDI is particularly relevant with regard to the production networks. Driven both by MNCs and favorable policies, FDI has been regarded as the main channel for China to tap foreign capital and advanced technology, enhance its international competition, and absorb excessive labor supply for decades. Because of China's intermediate role in developing Asia's vertical production chains, China has played the role of assembly hub, by inviting foreign ownerships with capital and technology and exporting final goods to the rest of the world with relatively low domestic value added. Asia has been the major source of China's FDI inflows. For instance, in recent years, over 50% of China's FDI inflows came from Asia, which was far in excess of that from the US and from the Euro area (Figure 9). HKSAR has been the major source of China's FDI inflows in recent years. In 2006, FDI flows from HKSAR accounted for 63.7% of China's total FDI inflows from Asia (Table 3).

Figure 9: Origins of FDI inflows to China (0.01 million US dollar, % of total)



Source: China statistical yearbook.

Table 3: Source of China's FDI inflows in Asia (percent of China's total inflows from Asia)

	2001	2002	2003	2004	2005	2006
HKSAR	63.84	63.85	58.81	56.53	55.08	63.71
Japan	16.61	14.98	16.79	16.22	20.04	14.48
Korea	8.22	9.73	14.91	18.59	15.86	12.26
Singapore	8.19	8.36	6.84	5.98	6.77	7.12
ASEAN 4	3.16	3.09	2.64	2.68	2.25	2.43

Source: China Statistical Yearbook.

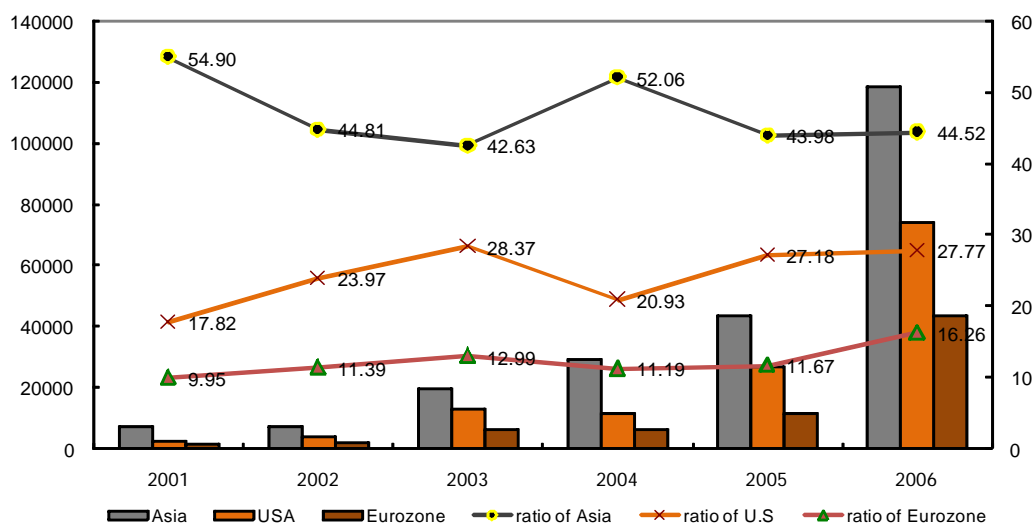
It is noticeably that the fears of negative “China effect” of diverting FDI from other Asian economies have little evidence. Chantasawat et al. (2005) found that, controlling for other factors, FDI flows to China are positively correlated with those to other Asian countries—a 10% increase in the former leads to a 2–3% rise in the latter. Athukorala (2007) shows that China's integration into cross-border production networks has created new opportunities for other East Asian economies to specialize in parts and components production and assembly. Eichengreen and Tong (2007) found that China's rapid growth and attractions as a destination for FDI encourages FDI flows to other Asian countries. In fact, in order to remain in supply chains where China serves as the regional hub, other Asian economies have been seeking further integration with China by way of establishing the FTAs, such as the FTA between ASEAN-China.

2.3 China's portfolio investment with the rest of Asia

Although China's financial openness remains at low level, China's cross-border portfolio investment including equity and debt securities with the rest of Asian economies is relatively high, compared with the investment with the developed economies, such as the U.S. and the Euro area. From 2001 through 2006, China's portfolio flows with the rest of Asian economies remained above 40% to its total liabilities, which was much higher than that with the U.S. and the Euro area (Figure 10). For instance, Asia's portfolio liabilities to other Asian countries amounted to 54.9% of

China's total liabilities in 2001, more than three times the liabilities to the U.S. and four times to the Euro area. In 2006, China's portfolio liabilities with the rest of Asia accounted for 44.5% of its total portfolio liabilities, whilst the ratio to the U.S. and the Euro area were only 27.8% and 16.3%, respectively.

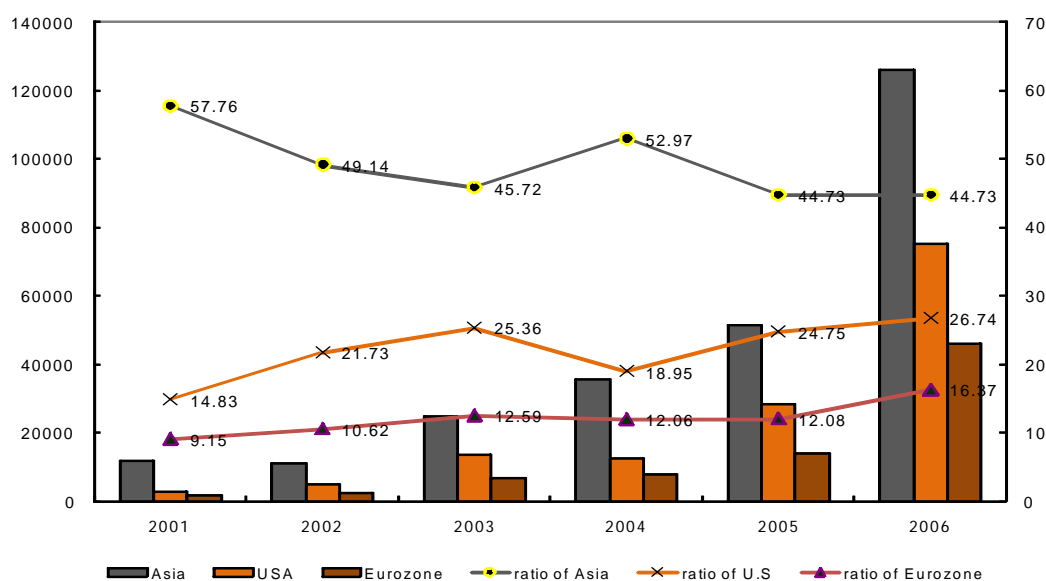
Figure 10: Origins of portfolio investment in China (inflows, US dollar million, % of total)



Source: IMF, CPIS.

The patterns of China's portfolio flows were largely shaped by the equity flows during the time. As shown in Figure 11, the rest of Asia has been the main source of China's equity investment, whilst the U.S. has been the second largest source of equity inflows and the Euro area stayed in the third place.

Figure 11: Origins of equity investment in China (US dollar million, % of total)



Source: IMF, CPIS.

A further breakdown of Asian origins of China's equity liabilities shows that HKSAR has

played the dominant role in China's equity liabilities (Table 4). In 2006, China's equity liabilities with HKSAR accounted for 84.4% of China's total equity liabilities with Asia, being far ahead of the second largest origin, Japan, which only had a share of 8.3%. China's equity flows with ASEAN 5 countries had only a small ratio of 5.8% in China's total liabilities with Asia, of which the flows with Singapore took the overwhelming lead.

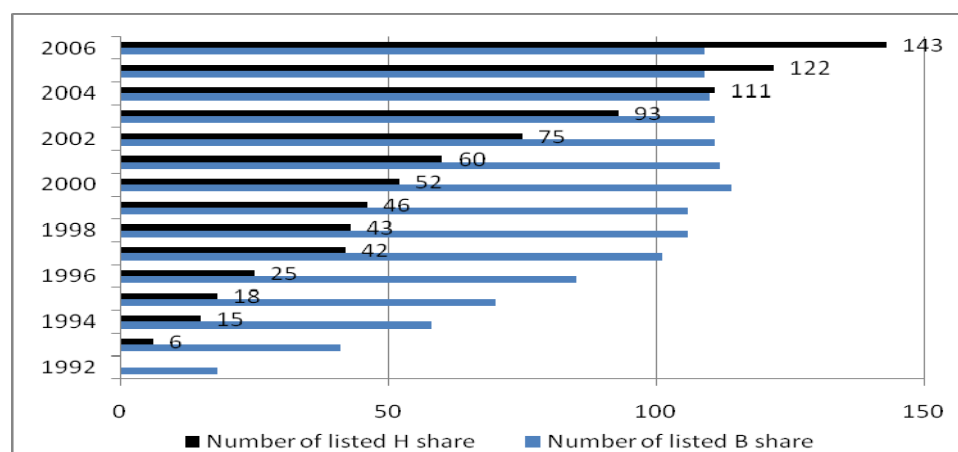
Table 4: Geographic distribution of China's equity liabilities within Asia (percent of China's total from Asia)

	2001	2002	2003	2004	2005	2006
HKSAR	74.64	73.06	79.72	78.34	79.96	84.41
Japan	10.81	11.92	10.67	14.48	8.39	8.32
ASEAN 5	14.34	14.97	9.41	6.99	11.62	5.85
Singapore	14.18	14.86	9.18	6.95	11.59	5.83
Korea	0.11	0.02	0.07	0.10	0.02	0.63

Source: IMF, CPIS.

The essential role of HKSAR in China's equity flows is to a large degree formed by China's overseas listing policy. The overseas listing is an important policy for the reform of Chinese enterprises, especially the reform of State-owned enterprises (SOEs), and for liberalizing foreign capital flows. In 1993, Chinese companies began to list shares abroad, mainly in HKSAR, New York, London and Singapore. Overseas listing is an important policy for the reform of Chinese enterprises, especially the reform of State-owned enterprises (SOE), and for liberalizing foreign capital flows in China. The listed companies with H share issuances in HKSAR have been the majority of China's overseas listed companies (Figure 12). By the end of 2006, 143 Chinese companies issued H shares in HKSAR, which became the main source of China's equity inflows.

Figure 12: China's listed companies in HK

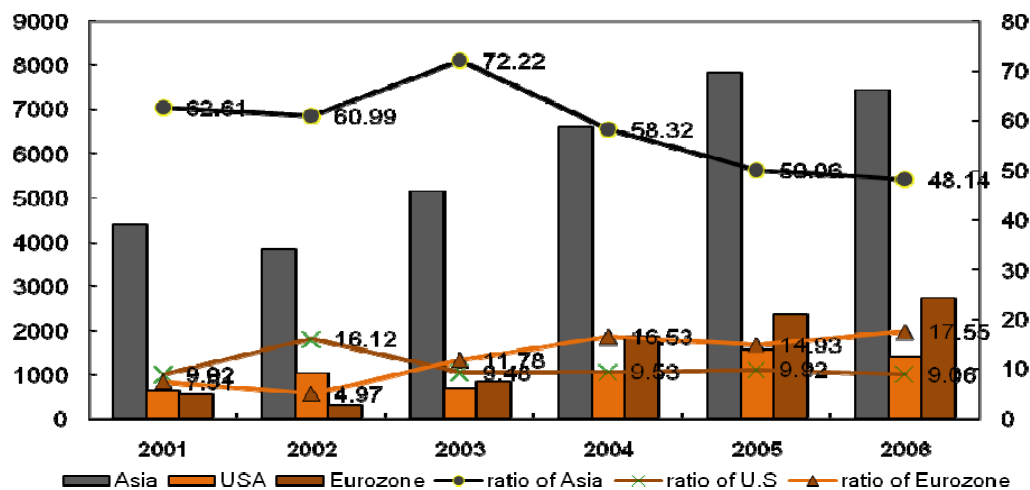


Source: China's Securities and Futures Statistic Year Book, 2007.

China's fixed-income securities markets remain relatively closed to foreign investors. Issuing bonds and notes for non-residents is subject to prior approval by the PBoC and the SAFE. Issuing bonds abroad must be incorporated into the State external debt plan. With regard to the distribution of the origins of inflows, the share of Asia has been dominant in China's debt

liabilities with a slight declining trend since 2004 (Figure 13). Inflows from the Euro area have become the second largest source starting in 2003. By the end of 2006, flows from Euro area to China accounted for 17.6%, leaving the U.S. with only 9%, of China's overall debt securities inflows. Inflows from HKSAR dominated the share of total liabilities, with up to 84.4% of China's total inflows from Asia, reflecting that HKSAR is well serving as an international financial center for both China and for the region of Asia (Table5).

Figure 13: Origins of debt securities investment in China (US dollar million, % of total)



Source: IMF, CPIS.

Table 5: Geographic distribution of China's debt liabilities within Asia (percent of China's total from Asia)

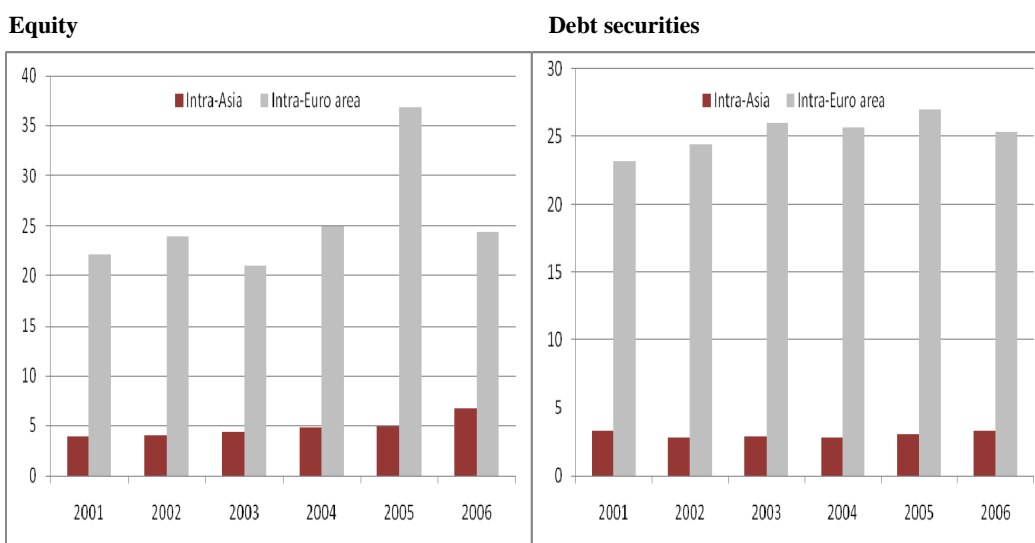
	2001	2002	2003	2004	2005	2006
HKSAR	71.93	73.0	79.45	79.18	80.46	84.35
ASEAN 5	9.36	11.02	12.66	8.58	10.51	10.25
Singapore	9.36	11.02	12.46	8.51	9.15	10.21
Japan	14.36	13.09	10.27	13.38	7.93	8.25
Korea	1.34	0.47	0.39	0.34	0.2	1.56

Source: IMF, CPIS.

2.4 China's empirical link with the rest of Asia

At a regional level, there are three approaches to examine the degree of financial integration: quantity facts, empirical tests on prices and institutional arrangement. With regard to quantity based facts of Asia's financial integration, standard measures show that Asia's intra-regional cross-border financial flows have increased as a share of GDP in the past decade. However, compared with inter-regional flows with the EU and North America, Asian intra-regional capital flows are relatively small and inter-regional integration in Asia continues to dominate intraregional integration (Cowen et al 2006). Moreover, Asia's intra-regional capital flows are far lower than that of the Euro area, meaning that at a regional level, the degree of Asia's financial integration is much lower than that of the Euro area (Figure 14).

Figure 14: Intra-Asia VS intra-Euro area (% total inflows and outflows of each region)



Source: IMF, CPIS.

Other studies are based on prices to examine co-movements of interest rates, bond yields and stock prices. According to Cowen et al (2006), co-movements in Asian interest rates and bond yields have increased in recent years, suggesting that the level of integration in stock and money and bond markets has been raised. However, global factors and improving fundamentals also play an important part in the co-movement of prices. Kim and Lee (2008) found that since 1997-98 crisis, interest rates in Asian countries have increasingly converged. ADB (2007) also found that cross-country money market rate and bond yield differentials have fallen dramatically over the past decade. The standard deviation of cross-country variation of overnight money market rate differentials from the US rates dropped considerably since 1999. The standard deviation of the absolute average cross-market long-term government bond yield spread over benchmark US Treasury bonds has been falling during the same sample period of time. However, there were other evidences showing the weak convergence. For instance, Carcia-Herrero and Wooldrudge (2007) found the covered interest parity was rejected, meaning that Asian financial market hasn't yet been integrated for the past decade.

In terms of bilateral correlation of equity-price indexes across-markets, Asian markets showed a greater integration than a decade ago. However, this also reflected the close link with the markets in the US and Europe. According to ADB (2007), bilateral correlations between China's equity index and the indexes of other Asian countries were generally negative during 1990-1996. But all of them turned into positive in the post-crisis period of 2000-2007. Moreover, bilateral correlation between China and other Asian countries became higher than decade ago, meaning that co-movements of equity prices between China and other Asian countries became more significant than before. Empirical studies on consumption correlations generally show a weak link among Asian countries. Mercereau (2005) finds that consumption growth in most Asian countries remains

uncorrelated.

Ideally, the comprehensive set of indicators reflecting degree of financial integration should cover the money market, bond markets, equity markets and banking markets, and indicators related to market infrastructures. Unfortunately, apart from banking sectors, due to China's capital control, money market in China is completely closed to non-residents and bond and equity markets are only partially opened to non-residents. Therefore, an overall assessment of degree of China's integration with the rest of Asia is unlikely to carry out based on market price indicators.

Empirical test on common trend of prices in terms of real exchange rates reflects a broad fundamental link. In this regard, the theory of Optimal Currency Area (OCA) provides with a well-established analytical framework for examining the degree of regional integration in terms of real exchange rates determined by the fundamental macroeconomic variables, including income, terms of trade and government consumption, etc. Liang (1999) conducted an empirical test on long-term real exchange rate relationship between China mainland and HKSAR. The result shows the relationship is weak, suggesting that the Mainland and HKSAR have less supportive evidence to form an OCA. Gao (2007) also conducted a test on co-movement of the real exchange rates between China and the other Asian economies. The study was based on monthly data between 1994 and 2003 for the following sample countries: China, Japan, Korea and ASEAN countries including Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. Japan is as the base country. The countries of ASEAN, China, Japan and Korea are divided into two groups: (1) China, Japan, Korea and ASEAN; (2) China, Japan and Korea. The study finds that both groups of countries' real exchange rates share common trend. This is partly due to their interrelated underlying fundamental variables and their similar nominal exchange rate regimes where more or less the dollar plays as a *de facto* anchor.

3. China's financial institutional integration with Asia

The outbreak of Asian financial crisis in 1997 sparked tremendous concern about regional monetary cooperation for East Asian economies. Since the crisis, many attempts and proposals for establishing regional financial architecture and monetary arrangements have been made by both of policy makers and scholars, aimed at building a safeguard against the volatile global markets and a platform for regional financial cooperation. Important initiatives, including the Chiang Mai Initiative (CMI), the Asian Bond Markets Initiative (ABMI) established by ASEAN+3, and the Asian Bond Fund (ABF) initiative set up by the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP), have been made since 2000. There are also various proposals regarding regional collective exchange rate arrangements.

China has been actively involved with the regional monetary arrangement since the

outbreak of the financial crisis in 1997-98. For instance, China has become an important fund supplier of the Bilateral Swap Arrangements (BSAs) under the CMI framework and engaged in multiple policy dialogue and economic surveillance mechanisms in the region. The involvement of the Renminbi in the regional monetary arrangement, such as being as a payment currency in the BSAs and the denominating currency in bond issuance, has been strengthened. Moreover, the circulation of the Renminbi in the neighboring countries has increased significantly.

3.1 China's policy response to the financial crisis of 1997-98

During the financial crisis of 1997-98 in Asia, China was praised as a big country with complete responsible reaction to region-wide currency depreciation by keeping its currency stable. No matter to what degree that such responsible policy prevented Asia from crisis deterioration, Asian economies started realizing that China's policy choices would have a strong regional effect.

The Chinese government also started reflecting its preference in the formation of external financial policies. China used to prefer global financial organizations and considered them as an optimal solution to international and regional financial instability. China's initial "mute" response to Japan's proposal of Asian Monetary Fund put forward immediately after the crisis reflected China's worry about possible minimization of the role of the IMF in the region. However, China's attitude towards regional financial cooperation turned to be positive when China, as well as many other Asian countries, realized that financial stability cannot remain within the national borders of the country of the origin and the spillover effects in the region are more likely to be insidious. More important, Asian financial crisis revealed serious problems that the international organizations have had in dealing with contagious effects of financial crisis. There has been a common view between China and other Asian economies on the need of a solid regional financial architecture that can provide a shelter from severe external shocks and be a supplement to existing global financial institutions.

The motivations behind the change of attitudes, apart from the reflections of financial crisis of 1997-98, lie in China's increasing financial integration with the rest of Asia. Whilst market forces play an important role, China's regional financial policy orientation became another major driving force for China's regional financial involvement. China now became an active player in various regional financial arrangements.

3.2 China and the CMI

As for the proposals for institutional arrangements for monetary cooperation, the first attempt was made by Japan by putting forward the proposal of the "Asian Monetary Fund (AMF)" in 1997. Unfortunately, the idea of the AMF was aborted due to lack of support from other relevant countries. The failure of the AMF proposal, however, did not bring an end to the efforts of binding the economies of the region within a suitable cooperative format. One of the successful

achievements has been made in the field of regional monetary cooperative arrangement was the establishment of the CMI. In May 2000, the finance ministers from ASEAN countries, China, Japan and Korea (ASEAN+3) decided to establish a regional financial cooperative arrangement within the ASEAN+3 framework, which is known as the Chiang Mai Initiative (CMI). The ministers agreed on four principal areas of cooperation through the CMI: network of currency swaps, capital flow monitoring, regional surveillance and personnel training. The successful launch of the CMI has been regarded as a milestone in the effort of strengthening financial architecture in East Asia. However, an increasing concern over the direction of future evolution of the CMI arose from its symbolic feature and the problems in its structure and operation. After one year long reviewing from 2004 through 2005, the finance ministers of ASEAN+3 at the 8th AFMM+3 in Istanbul, Turkey, in May 2005, announced several changes of the CMI, which was regarded as a firm step to move the CMI into an institutionalized financial cooperative arrangement. However, with the goals of providing financial assistance and supplement to the IMF, the CMI, as a regional liquidity support arrangement, has come across a number of obstacles and difficulties in its effectiveness of operational functions and the thus the unclear direction that the CMI heads for.

Currently, the CMI is the most important regional arrangement in monetary sphere in East Asia. China is the second biggest contributor to the BSAs under the CMI. By the end of July 2007, China has signed the BSAs with Japan, Korea, Thailand, Malaysia, the Philippines and Indonesia, respectively, totally up to US\$ 23.5 billion (Table 6).¹

However, the major currency used in the arrangements has been dominated by the US dollar. The Renminbi has been involved with only few contacts, including the ones of China-Japan, China-Korea and China-the Philippines. The limited usage of local currencies in the BSAs brings about extra risks facing both the fund providers and receivers. The ongoing discussion on multilateralization of the BSAs and the undertaking of a reserve pooling program will enable the CMI to become a more effective mechanism with enlargement of the swap funding availability, coupled with a collective prompt activation and joint decision-making process. Chinese currency is hopefully to be one of the key currencies in the new multilateral swap arrangement.

Table 6: BSAs between China and other ASEAN+3 countries as of July 2007

China-Thailand	One-way	USD/Baht	USD 2 billion	Concluded: 6 Dec. 2001 Expired: 5 Dec. 2004
China-Japan	Two-way	Renminbi/Yen Yen/Renminbi	USD 6 billion	Concluded: 28 Mar. 2002
China-Korea	Two-way	Renminbi/Won Won/Renminbi	USD 8 billion	Concluded 24 Jun. 2002

¹ Comparatively, Japan signed up the BSAs with its partners totaled of US\$ 75 billion.

China-Malaysia	One-way	USD/Ringgit	USD 1.5 billion	Concluded: 9 Oct. 2002
China-Philippines	One-way	Renminbi/ Peso	USD 2 billion	Concluded: 29 Aug. 2003 Amended: 30 Apr. 2007
China-Indonesia	One-way	USD/Rupiah	USD 4 billion	Concluded: 30 Dec. 2003 Amended: 17 Oct. 2006

*The two-way BSA is the bilateral swap arrangements where each party can request the other party to enter into the swap transaction to provide liquidity support when necessary to overcome balance of payments difficulties in the specified currency up to the agree amount. The one-way BSA is the one where, for instance, Indonesia proposes a short-term loan to China through the swap mechanism between Indonesia Rupiah against US dollar, up to US\$ 4 billion, in case Indonesia requires a short-term liquidity assistance.

Source: Bank of Japan.

In May 2007, the finance ministers of ASEAN+3 decided to establish a self-managed reserve pooling mechanism, which means each participating country would continue managing reserves whilst committing them for the pooling arrangement. The reserve pooling proposal led to another aggressive step taken by ASEAM+3 countries in 2008. Finance ministers of ASEAN+3 declared to multilateralize the BSAs and establish common reserve fund with amount of US\$ 80 billion, shared by the ratio of 80:20 between “+3” and ASEAN. A large amount of foreign reserves in the region makes it possible to set up this type of pooling arrangement and the need from member countries to have access to enlarged fund for crisis bailout becomes a major push behind it.

3.3 China and Asian Bond Fund

Another regional arrangement in financial area is the development of the regional bond market. The Asian Bond Fund (ABF) has been launched at its second stage (ABF2) in June 2005, with the amount of seed money up to US\$ 2 billions. Moreover, whilst the bonds issued by sovereign and quasi-sovereign issuers under the ABF1 was only denominated in US dollar, the ABF2 allows local currencies to denominate bond issuances in the eight markets, including China, Hong Kong, Indonesia, Korea, Malaysia, Philippines, Singapore and Thailand (EMEAP 2006). The Renminbi is correspondingly used in the China Fund issuance.

Given the limited size and immaturity of the Chinese domestic bond market, Chinese mainland should fully take the advantage of the well-developed market in Hong Kong in order to promote China’s involvement in the regional bond market development. The recent issuance of government bonds denominated in Renminbi in Hong Kong should be seen as the first step of promoting the Renminbi’s involvement in the bond market outside China’s mainland.

3.4 China and regional collective currency arrangements

China’s exchange rate regime shifted from dollar peg to the managed floating in July 2005 and the Renminbi began to be adjusted with reference to a basket currencies ever since, This was regarded as a breakthrough in China’s move to an intermediate exchange rate regime. Meanwhile,

As Kawai (2002) argues, Korea and Thailand have shifted to a de facto currency basket arrangement whilst Singapore maintained its managed floating since the crisis. Malaysia has adopted a basket regime as well. The currencies of Indonesia and the Philippines also showed a link to a basket of major currencies. Apart from the yen that remains an independent floating currency, all the emerging economies in East Asia now show a similar exchange rate policy framework. The policy authorities of these economies, including China, will adjust their dollar exchange rates with changes in the bilateral exchange rates of currencies in their baskets comprising the dollar, euro, and yen to keep their nominal or real effective exchange rates stable. This incurs the need for them to coordinate their exchange rate policies so as to avoid competitive devaluation among themselves. With a new regime in place, and its growing economic influence, China is placed in a position to initiate the discussion of coordination of exchange rate policy (Park 2005). In fact there are several proposals regarding regional currency arrangement for East Asia.

The proposal of Common Basket, as known as the BBC proposed by Williamson (2005), requires Asian countries to peg their currencies to a common basket of currencies comprising USD, Euro and Yen. All the member currencies have a common set of weights based on regional trade shares, and they have a common central parity and have a common band. This proposal, however, is often regarded as a transitional form of currency arrangement, because it neglects the roles of local currencies.

The proposal of AERM (Asian Exchange Rate Mechanism) goes further than the BBC. It suggests that Asian economies should set up an Asian Currency Unit (ACU) and should establish Asian Monetary Institute to manage the AERM and implement surveillance policies. Although it has an obvious disadvantage of lacking flexibility when major currencies fluctuate fiercely as the AERM calls for closer policy coordination, it has stronger convergence effect than the BBC.

The G-3 Basket proposal suggests that Asian currencies peg to a G-3 currency basket (the US dollar, the Euro and the Japanese yen) with the optimal weights so that the real exchange rates would be more stable and large shocks to trade balance can be avoid (Ito, Ogawa and Sasaki 1998). Although this proposal was formally written in the report submitting to the study group under the ASEAN+3 for the purpose of the CMI review, it has not attracted serious consideration from other member countries, partly due to the fact that the benefits of this new arrangement are not apparent enough for the policy makers of concerning countries, and partly due to the cooperation failure described by Ogawa and Ito (2002).

The Asian Monetary Unit (AMU) proposed by Ogawa and Shimizu (2005), or the Asian Currency Unit (ACU) proposed by the ADB, allows the AMU/ACU to serve as an index of measuring volatility of concerning countries' exchange rates. This type of basket arrangement

actually follows in the footsteps of European monetary integration. Instead of creating a basket of outside currencies, the participating countries create the ACU, a numeraire, which will only consist of the currencies of their own. The difficult part of the proposal is the determination of weights for each currency in the basket, such as what elements should be used to determine the weights of individual currencies in the basket. As far as the trade share and GDP are concerned, the Renminbi and the Japanese yen would dominate the basket. However, if the financial transaction and some institutional elements, such as capital account liberalization, are taken into account, the Japanese yen would occupy the share in the ACU. Since there has been no consensus on the solutions to the technical difficulties with the ACU, its launch in May 2006 planned by the ADB was postponed. Nevertheless, the acceptance of the idea of the ACU will be largely up to the agreement among major players, such as China and Japan, on various details regarding the creation of the ACU. Dynamically speaking, as long as China's growth is sustainable and China's capital account continues to be liberalized, the likelihood of the Renminbi's growing share in the regional currency arrangement is very high.

Conclusion

Compared with rapid development of trade and production integration, China's financial integration with Asia remains relatively sluggish. One reason is that, while China has realized its current account convertibility in 1996, China has maintained capital control for longer periods. Apart from relaxation of long-term capital flows in the form of FDI and other limited scope of direct and indirect capital transactions, China's capital account remains unconvertible. The existence of capital control to a large degree prohibits the availability of domestic assets held and transacted by non-residents and foreign assets held and transacted by residents.

Another reason is that China's domestic financial market is still underdeveloped and financial sector is generally less-competitive weak. The weakness of financial system is not limited to China. Apart from Hong Kong and Singapore, Asian emerging economies are generally subject to immaturity of domestic financial markets. As a result, Asia is far less home-biased in its capital flows and has to rely on external financial market to invest and raise funds. The consequence, as far as current global imbalance is concerned, Asia has become creditors to the rest of world. China has, of course, become one of the creditors, running current account surplus and at the same time lending to the rest of the world.

Nevertheless, China has potentials to strengthen its financial integration with the rest of Asia. China also has motivations to be actively involved with regional financial and monetary cooperation. A peaceful rise of China will certainly be a positive factor in this matter, both of economically and politically. A sustainable economic growth in the foreseeable coming years will

continue to be a fundamental factor to support China's attraction to financial flows from and to the economies in the region of Asia. More importantly, the success of China's economic reform and opening up strategy has become one of the key driving forces behind China's increasing financial integration with the rest of Asia. This process will continue, although it is anticipated to proceed in a gradual pattern.

Reference

- ADB (2007) "Emerging Asian Regionalism: A Partnership for Shared Prosperity," ADB.
- Athukorala, P.C. (2007) "The Rise of China and East Asian Export Performance: Is the Crowding-out Fear Warranted? Australia National University: Trade and Development Discussion Paper: 07/2007.
- Carcia-Herrero, Alicia and Philip Wooldrudge (2007) "Global and regional financial integration: progress in emerging markets" BIS Quarterly Review, September 2007.
- Chantasawat, Busakorn, K. C. Fung, Hitomi Iizak and Alan Siu. (2005) "The Giant Sucking Sound: Is China Diverting Foreign Direct Investment from Other Asian Countries?" Asian Economic Papers, Fall 2004, Vol. 3, No. 3, Pages 122-140
- Cowen, David, Ranil Salgado, Hemant Shah, Leslie Teo, and Alessandro Zanello (2006), "Financial Integration in Asia: Recent Developments and Next Steps" IMF Working Paper, WP/06/196.
- Eichengreen, Barry and Hui Tong (2007), "Is China's FDI coming at the expense of other countries?" Journal of the Japanese and International Economies, Volume 21, Issue 2, June 2007, Pages 153-172.
- EMEAP (2006) "Working Group on Financial Market: Review of the Asian Bond Fund 2 Initiative, June 2006" (<http://www.emeap.org/ABF/ABF2ReviewReport.pdf>)
- Gao, Haihong (2007) "Optimal Currency Area" An Empirical Study on Selected East Asian Economics" the Journal of World Economy, Vol.30. No. 6, June 2007 (Chinese). Frontiers of Economics in China, Volume 2 Number 4 2007 (English).
- IMF (2008), Regional Economic Outlook World Economic and Financial Surveys: Regional Economic Outlook, April 2008, IMF
- Ito, Takatoshi, Eiji Ogawa, and Yuri Sasaki (1998) "How Did the Dollar Peg Fail in Asia," Journal of the Japanese and International Economies, 12, 256-304.
- Liang, Hong (1999) "Do Hong Kong SAR and China Constitute An Optimal Currency Area? An Empirical Test of the Generalized Purchasing Power Parity Hypothesis." IMF Working Paper, No.WP/99/79, June 1999.
- Kawai, Masahiro (2002) "Exchange Rate Arrangements in East Asia: Lessons from the 1997-98 Currency Crisis," 10th International Bank of Japan Conference, "Exchange Rate Regimes in the 21st Century," Institute for Monetary and Economic Studies, Bank of Japan, Tokyo, July 1-2.
- Kim, Soyoung and Jong-Wha Lee (2008) "Real and Financial Integration in East Asia," ADB

Working Paper Series on Regional Cooperation and Integration No.17.

Mercereau, Benoît, (2005), “Financial Integration in Asia: The Risk-Sharing Gains for Australia and Other Countries,” Australia: Selected Issues, IMF Country Report 05/330, pages 26–40.

Ogawa, Eiji and Junko Shimizu (2005) "A Deviation Measurement for Coordinated Exchange Rate Policies in East Asia", RIETI Discussion Paper Series, 05-E-017

Ogawa, Eiji and Takatoshi Ito (2002) “On the Desirability of a Regional Basket Currency Arrangement,” Journal of the Japanese and International Economies, 16, 317-334.

Park, Yung Chul (2005) “Whither Regional Financial and Monetary Integration in East Asia? Prepared for presentation at the conference on East Asian Economic Integration: Reality and Vision organized by the KIEP on September 1-2, 2005, Seoul.

Williamson, John (2005) “A currency Basket for East Asia”, Policy Briefs in International Economics, Institute for International Economics, July 2005, Number PB05-1.

Yu, Yongding (2008), Managing Capital Flows: the Case of China, Research Center for International Finance Working Paper No. 0816.

Zhang, Ming and Yisheng Xu (2008) 全口径测算中国当前的热钱规模, 中国社科院国际金融研究中心 Research Center for International Finance Working Paper No. 0814.