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### «The Future of Exchange Rate Regime in China»

by L. He

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# The Future of the Exchange Rate Regime in China

(Revised moderately)

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## Abstract

The exchange rate regime in China underwent some important changes during the 1990s. These changes were associated with reforms in China's foreign exchange system as well as reforms in China's economic systems in general. Under the foregone planning economic system, exchange rates of the Chinese currency, *Renminbi*, against major international currencies, played little role in China's overall economic movements. Since the reform started in late 1970s, a series

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of readjustments in *Renminbi*'s exchange were made according to the price competitiveness of Chinese exporting goods. From 1994 on, the principle gave rise to that of market determination, which was also interfaced with monetary authorities' management of stable exchange rates.

The 1994 reform established institutional framework for *Renminbi*'s exchange rates to be a managed floating regime. In reality, the function of this regime seems to have been constrained by partial currency convertibility and under-maturity of China's domestic financial markets. As China is moving towards a more open economy, the need for the exchange rate regime to be more flexible is also growing. Several institutional improvements may be made for this objective. In addition, there are a few important options that China may, in the foreseeable future, choose from to upgrade its exchange rate management and operation. These options include widening the target band, selecting a basket of target currencies, conducting currency co-ordination on a regional basis, and switching to independent floating or domestic monetary targeting.

The exchange rate regime in China had undergone some important changes around 1994, and its future developments are under deliberation in line with China's continued transition to a market-based system. This article sets out to discuss the future direction and options for the exchange rate regime in China. It is organized as follows. Part I briefly reviews the past and present situation of the exchange rate regime in China. Part II discusses the policy motivation and institutional constraints for China's move towards a more flexible exchange rate regime. Part III describe several operational options for China to improve its exchange rate regime in the foreseeable future.

## **I. The Foreign Exchange Regime in China: Past and Present**

In the sense that a country's foreign exchange regime is usually associated with its formal currency system, China has a relatively short history of foreign exchange regime. To see the historical background, perhaps we may start with what happened in the first half of the twentieth century. During the early years of this century, China had no formal national currency, and no formal regulation of foreign exchanges either. In 1932, China's then central government announced a national movement of *feiliang-gaiyuan* (abolishing the silver *liang* and converting

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preparation of the article, but takes sole responsibility for any remaining error, omission or inaccuracy.

into silver *yuan*), attempting to standardize the currency unit and make transition to a fiduciary monetary system. When this measure was put into force, no target of exchange rates between the silver *yuan* and foreign currencies was published, leaving the silver *yuan* actually to be floating in the market. This coincided with turbulent events in the world financial markets during the first half of the 1930s, when prices of silver and gold went dramatic ups and downs, causing sharp monetary contraction in China's domestic economy. At the end of 1935, the central government undertook a more radical currency reform by establishing a truly fiduciary unit (called *Fabi*, the legal coin or note) and meanwhile fixing exchange rates between the *Fabi* and foreign currencies.

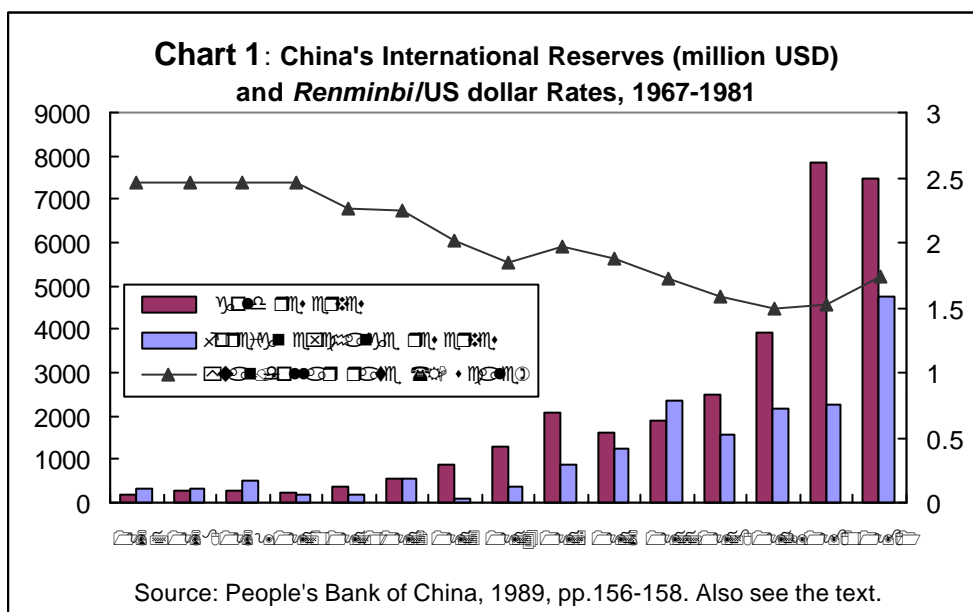
Initially, the *Fabi* was initially linked to sterling pounds, soon later switched to the US dollar. The band of target rates was also widened to accommodate market fluctuations. In essence, the *Fabi* system was still a kind of silver standard because of its heavy reliance on China's silver reserves. Until late 1930s, the government had the policy in effect that to maintain fixed exchange rates and to allow for unlimited transactions in foreign exchanges at the same time. However, in subsequent years, the convertibility of the *Fabi* was gradually withdrawn and fixed exchange rates went to break down.

With the establishment of the People's Republic of China in 1949, a new national currency system came into effect, and foreign exchange affairs were put under a series of regulations in accordance with state control of foreign trade and centralized reallocation of resources. Whilst private transactions in foreign exchanges were gradually banned, a type of crawling peg system was put into use for a short period. The object of the peg was the US dollar, and the exchange rates between the new currency, *Renminbi*, and the US dollar were targeted and subsequently realigned repeatedly (Shang Min, 1989, p.406; Shang Min, 1998, p.54). In recognition of regional differences, there were three local centers in early 1950s that were allowed to set their own exchange rates, namely, in Tianjin, Shanghai, and Guangzhou. Parallel exchange rates were also applied to commodity trade and overseas Chinese remittance in foreign exchanges, which was aimed to encourage the inflow of foreign exchanges. However, by 1953, both of regional and sectoral differentials in exchange rates were uniformed, following China's adoption of a highly centralized system of foreign exchange regulation.

During the subsequent period of some twenty years, until the early 1970s, *Renminbi's* exchange rates vis-à-vis the US dollar exchange rates were maintained fixed, approximately at 2.46 yuan per dollar throughout. It is perhaps due to the fact that strict price control was in operation and inflation was virtually zero in China then, (the inflation rate was also low in the outside world, between 1950s and early 1970s), the fixed exchange rates were accompanied by little change in China's trade balance during that period. There was no significant and accumulated either deficit or surplus in China's external trade then.

In early 1970s, China actually reevaluated *Renminbi* as a response to changes in the world economy. Between late 1960s and 1975, China's trade with the outside world expanded, in both of exports and imports. To seek benefits of lowered costs of imports in an upcoming inflationary

international environment, China reevaluated the *Renminbi*/US dollar rates by something 25% between 1970 and 1974. In this process, China's gold reserves and soaring international prices of gold were believed to have played an important role. As shown in Chart 1, China's foreign exchange reserves had not seen any significant change until 1975, but its gold reserves evaluated at prevailing international prices augmented considerably<sup>1</sup>. Though the reevaluation of *Renminbi* did not lead a fall in China's international reserves, but it did cause China's trade to turn into deficit at some late years. Also shown in Chart 1, a devaluation of *Renminbi* took place in 1975, which just followed a large trade deficit in 1974.



This episode seems to suggest that even when China was under a centrally planing system, a degree of flexibility towards foreign exchange rate management did exist in the mind of central planners. Beginning in late 1970s when China entered the era of Reform and Opening-up, more flexibility was introduced into the foreign exchange regime.

Below are several measures concerning China's foreign exchange system and exchange rate management during the period between the late 1970s and 1993:

(1) Exporting enterprises were allowed to retain a portion of their foreign exchange earnings. Initially, the proportion of foreign exchange earnings retaining was small and variable from industry to industry. Stimulus given to exporters by these arrangements was soon felt inadequate, so that the proportion of retaining was increased, and a uniform rate was applied to all industries.

<sup>1</sup> The International Monetary Fund's International Financial Statistics recorded that the yearly average market prices of gold rose from 36 dollar per ounce in 1970 to 161 dollar in 1975, and again to its peak at 613 dollar in 1980. These price changes added leverage to China's international reserves and readjustment in exchange rates. To see China's gold reserves in quantity terms, we may note that the total gold reserves remained intact at the 5 million ounce level until 1958, with 2 million ounce was sold between then and 1962 in order to finance increased imports, but new purchases were made several times in 1965, 1968, and 1974, resulted in a total amount of 12.8 million ounce (People's Bank of China, 1989, pp.156-157). This enlarged pool of gold reserves, together with soaring gold prices, enabled China to reevaluate its *Renminbi* without causing sharp decline in its total

(2) Establishment of markets for swap of retained foreign exchanges. This was a follow-up of the foreign exchange retaining system. Exporters earned and retained some foreign exchanges, but users of foreign exchanges were mostly importers many of whom would not be able to obtain foreign exchange allocation from planning authorities. This naturally led to formation of the supply of and demand for retained foreign exchanges among Chinese enterprises. Because most of retained foreign exchanges were in the form of quota, i.e., paper certificate of foreign exchange holding, transaction procedures were complicated and troublesome. Restriction had thus to be put on exchange rates initially in order to prevent differentials between official rates and market rates from becoming larger. With these measures, China's foreign exchange swap markets grew rather slowly during the most years of 1980s. Only until the price control being liberalized and the quota itself becoming a good of transaction, did the swap markets begin to flourish.

**Table 1. Volume of Foreign Exchange Transactions in China's Swap Markets (billion USD)**

	1987	1988	1989	1990	1991	1992
	4.2	6.3	8.5	13.2	20.4	25.1
<i>Memo: China's total merchandise trade</i>	82.7	102.8	111.7	115.4	135.6	165.5

Source: Shang Min, 1998, p.224.

(3) Formation of dual exchange rates. Officially, China's foreign exchange rates had been uniformed since 1953, which remained so throughout the 1980s. However, beginning in 1979 a major change was introduced to official exchange rates. Published official exchange rates were maintained but made applicable only to non-trade activities, such as tourism and foreign investments. For merchandise imports and exports, a special, so-called "trade-related foreign exchange internal settlement rate" was put into use for, mostly, state-owned enterprises. The former rates were related to a basket of foreign currencies<sup>2</sup>, and the latter rates were based on national average costs of commodity exports in terms of *Renminbi*-evaluated US dollar<sup>3</sup>. This arrangement aimed at increasing foreign exchange gains from services-exporting, but it led to parallel prices in foreign exchanges. Moreover, the implementation of "trade-related foreign exchange internal settlement rates" was linked to state subsidies to loss-making SOEs, causing enormous burdens (exporters with a cost level higher than the national average and importers with a selling price lower than the exchange rates were those made losses and required state subsidies).

In the years up to 1985, the published, non-trade exchange rates were gradually devaluated, realigned towards the internal settlement rates. By the first day of 1985, the two rates had been merged. Officially, China's foreign exchange rates became a single (US dollar-) based system since 1985. Nonetheless, the single official exchange rates were still significantly different from the rates prevailing in above-mentioned swap markets, so that China remained in a dual rate stage,

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international reserves over this period.

<sup>2</sup> There were total, invariably, 20 foreign currencies included in the basket between 1979 and 1985, see, People's Bank of China, 1987, pp.22-23. This basket practice effectively began to put into frequent use in 1973 when major international currencies started floating, see, Shang Min, 1989, p.423.

<sup>3</sup> "Trade-related foreign exchange internal settlement rates" were fixed at 2.8 yuan/USD based on 1978 data, which

until 1994.

At this stage, the government adopted some measures to encourage foreign exchanges inflow in the personal sector. Remittance from overseas Chinese had been regarded an important source of foreign exchange inflow for long. Before 1985, China's domestic resident were allowed to hold foreign currencies, but not to engage in any foreign exchange-related transaction except for selling their holdings to state banks. From 1985 on they could deposit their foreign monies at state banks, and no forced conversion into *Renminbi* was applicable to such a deposit account. This illustrates a feature of differentiated policy treatment towards the personal sector and the enterprise sector in China, which remains today.

Understandably, permitted personal holding of foreign exchanges, together with ever-increasing overseas visitors, led to actual circulation of foreign currencies inside China's mainland. In early years of Reform and Opening-up, trade was under tight state control and substantial international price margins existed for many imported goods. The foreign exchange certificate (FEC) was invented in 1980, which issued to all eligible persons at published official exchange rates. In accordance with regulations residual part of FEC might be converted back to foreign currencies, and FEC-holders also enjoyed some privilege of purchase of FEC-denominated imported goods at discounted rates. This made black markets for FEC to surface, and further complicated the government's management of exchange rates<sup>4</sup>.

At the end of 1993, China undertook a radical reform in foreign exchange-related arrangement and exchange rate regime. The broad background to this event was a Party plenary held in November 1993 when it passed a resolution on the establishment of Socialist Market Economic System. The State Council followed shortly afterwards with announcements on the reform of China's financial system and foreign exchange administration system. With regard to the foreign exchange administration system, several major breakthroughs were implemented from the first day of 1994:

(1) Official exchange rates merged with swap market rates, with the former realigned from 5.7 yuan/USD to 8.7 yuan/USD. This official realignment was equivalent about a 33% devaluation, but it has been interpreted as a much-less-than-so-drastic depreciation as *de facto* exchange rates prevailing in swap markets were more higher than the 8.7 level (Fernald, *et al*, 1999)<sup>5</sup>. To make the new rates workable, authorities largely withdrew restrictions on the supply of foreign exchanges to importers.

(2) Compulsory foreign exchange selling and settlement. Under the new regulation, exporters were required to sell all of their foreign exchange earnings to designated state banks, with minor exceptions. This was also meant to terminate the enterprise foreign exchange retaining system. State banks used to have unlimited ability to obtain funds from the People's Bank of China (the

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remained effective until the end of 1984, see, Shang Min, 1998, p.213.

<sup>4</sup> The issue of FEC was suspended from 1<sup>st</sup> January 1994, and it lost its legal tender status from 1<sup>st</sup> January 1995 (Shang Min, 1998, p.219).

<sup>5</sup> Prior to the end-of 1993 reform 80% of China's foreign exchange transactions were believed to have been linked to exchange rates prevailing in the swap markets (Chen Yuan, 1994, p.141; Fernald, *et al*, 1999).

central banker) in purchasing foreign exchanges from enterprises and the public, but the new system required those banks to use their own funds in conducting such transactions in the first instance, with the central bank acting as a wholesale dealer only in inter-bank foreign exchange markets.

(3) Establishment of inter-bank foreign exchange markets and withdrawal of enterprise swap markets. As indicated earlier, before the reform a large proportion of exporters' foreign exchange receipts was required to hand over to authorities with the remaining going to swap markets. These arrangements represented a half-planning- and half-market-based mechanism of foreign exchanges reallocation, leaving little room for financial intermediation. The new system introduced, therefore, an inter-bank foreign exchange market by abandoning fiscal (planning) distribution of foreign exchanges and suspending the enterprise foreign exchange retaining scheme<sup>6</sup>. The establishment of inter-bank foreign exchange markets was aimed to let exchange rates of *Renminbi* to be floating through the interaction of supply of and demand for foreign exchanges in the markets.

China Foreign Exchange Dealing Center, located in Shanghai, was an organizational body responsible for the operation of inter-bank foreign exchange transactions. By the end of 1996, it had 396 institutional members, including 131 foreign banks and 36 non-bank financial institutions (Dai Xionglong, 1998, p.225). The center has been also linked to the People's Bank of China's open-market operation window, which represented the central bank to engage in day-to-day transactions in accordance with the central bank's reserve and exchange rate policy.

It may be noted that China State Administration of Foreign Exchanges (SAFE), established in 1979, has been in fact a regulatory body of foreign exchange transactions, which was not necessarily responsible for exchange rate management on the behalf of the central bank. The SAFE has set up its own network of office nationwide to monitor foreign exchange transactions in institutional and personal sectors, and had power to formulate and/or interpret relevant regulations. Since 1994, a series of measures have been announced by the SAFE towards liberalization of foreign exchange transactions in both of institutional and personal sectors (Li Fuxiang, 1998).

China announced at the end of 1996 that *Renminbi*'s convertibility with current account transactions had been realized. This announcement was made upon progress made since early 1994. Liberalization of institutional trade-related purchases of foreign exchanges was first completed in early 1994, which extended to all foreign-funded enterprises in mid-1996, and followed by suspension of restrictions on non-trade (services-related) foreign exchange transactions (Li Fuxiang, 1998). For personal requests of foreign exchanges, various restrictions effective remained but more allowance has been given. For this sector, there is at present no unlimited supply of foreign exchanges, nor compulsory selling of personal foreign exchange holding.

To summarize for China's current system of foreign exchange regulation and exchange rate

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<sup>6</sup> Between October and December 1998, all remaining transactions in swap markets were terminated, which

regime, we may say that China has laid out foundations of institutional framework for currency convertibility and managed floating exchange rates, though at the moment the convertibility was partial and the flexibility of *Renminbi*'s exchange rates had some gaps with market expectations<sup>7</sup>.

## II. Transition to a More Flexible Regime: Motivations and Constraints

In the preparation for the 1994 reform, a policy position had been made clear that the long-term objective of foreign exchange system reforms in China has been *Renminbi*'s convertibility and internationalization (Chen Yuan, 1994, p.132). Furthermore, stable exchange rates of *Renminbi* were stated as one of necessary and important conditions for China to move towards currency convertibility and internationalization (*op.cit*, pp.133-4). Meanwhile, it has been repeatedly reiterated that *Renminbi*'s exchange rate regime should not be construed as that of a fixed system, nor a floating system. As in many other countries, the current exchange rate regime in China is called a managed floating system.

A question arises as to how this type of exchange rate regime should work, especially with regarding to the degree of floating (flexibility) and principles under which monetary authorities conduct intervention (management). It is understood that there are two underlying aspects of this issue, which concerns policy motivation and institutional constraints, respectively.

### 1.1 Policy motivation for transition

During the period of 1979-1994, adjustments of *Renminbi*'s exchange rates were made in most cases according to so-called principle of "average cost of exporting goods". This policy guideline was to set the exchange rates (yuan/USD) to a level at which an average Chinese exporter would be able to make no loss when exporting. With this policy the government was said to be able to reduce its financial subsidies to exporters, or at least restrict such subsidies to a relatively small number of exporters. Logically, under this exchange rate-setting principle, it is domestic inflation relative to inflation in the world economy that decides exchange rate adjustments in China. In essence, this type of exchange rate adjustment policy could be regarded as part of trade policy because its policy intention focuses on price competitiveness of exporting goods, which makes it hardly distinguishable from other trade promotion policy measures.

The 1994 reform formally renounced the policy that linked exchange rate adjustments with the average cost of exporting goods, thereby enabled China to conduct an exchange rate policy conceptually independent of trade promotion. An official position has been made repeatedly that exchange rates of *Renminbi* should be determined by the interaction between supply and demand

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included those of foreign-funded enterprises.

<sup>7</sup> Officially, Article 33 of China's Regulation of Foreign Exchange Management, erected in January 1996, and revised in 1997, stipulated that the exchange rate of *Renminbi* is a single, managed floating arrangement based on the supply and demand in the market, and the People's Bank of China is responsible for publishing quotations of *Renminbi* against major foreign currencies which are formed in inter-bank foreign exchange markets.

in the foreign exchange market, which implies that it should be relative forces of supply and demand in China's foreign exchange markets that to predict depreciation or appreciation in *Renminbi's* exchange rates.

This reform has important implications for China's monetary policy. It may be indeed argued that post-1994 exchange rates readjustments have been more or less used as a means of China's monetary policy operation, though not in a full scale. Let me make this point by highlighting China's post-1994 macroeconomic experience (selected data of which are summarized in Table 2).

Before 1994, market expectations of inflation and exchange rate devaluation had appeared in China, which called for the government to take action to combat. Tightening up credit control had been put into use since the second half of 1992, but achieved little effects. Domestic inflation and currency depreciation were also mutually reinforced when trade became a large sector in China's national economy. A sensible option for the government was, therefore, to single out a target upon which expectations could be stabilized in the first instance. Exchange rate readjustments and foreign exchange system reform were thus being chosen.

As indicated earlier, the 1994 reform made realignment in yuan/USD exchange rates but not to a so drastic extent as shown by a jump from 5.7 to 8.7 yuan/USD. However, subsequent changes in China's trade balance clearly show the realignment worked quite well. In 1993, China had a trade deficit of \$12.2 billion, but in 1994 it turned out to be a surplus of \$5.5 billion (together with the import growth rate of 11.2% and export growth rate of 31.9%). Had market expectations of the *Renminbi's* exchange rates not been stabilized, this achievement would have been unlikely, with the hindsight that the *de facto* devaluation in 1993-94 was relatively small.

**Table 2: Inflation, Exchange Rates and Selected Monetary Indicators in China 1992-1998**

	1992	1993	1994	1995	1996	1997	1998
Inflation rate (%)	5.4	13.2	21.7	14.8	6.1	0.8	-2.6
Official exchange rates (yuan/USD)	5.5149	5.7619	8.6187	8.3507	8.3142	8.2898	8.2791
Increase in foreign exchange reserves (billion yuan)	-12.62	-22.64	338.84	224.75	281.86	331.93	43.86
Increase in central bank's lending to domestic financial institutions (billion yuan)	98.95	291.72	82.24	97.1	294.42	179.41	-40.94
Combined increases in foreign exchange reserves and central bank's lending to domestic financial	86.33	269.08	421.08	321.85	576.28	511.34	2.92

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institutions (billion yuan)							
<i>Memo:</i>							
Interest rate for “re-lending” (%)	7.20	10.62	10.62	11.16	10.62	9.36	5.13
Trade balance (billion USD)	4.35	-12.22	5.49	16.7	12.22	40.42	43.59

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**Source and note:** People’s Bank of China: Quarterly Survey Statistics, various issues; “inflation rate” is annual change in retail price index; “exchange rates” are of period average; “increase in foreign exchange reserves” is evaluated in terms of *Renminbi*, which is equivalent to the use of *Renminbi*-denominated assets by the central bank to purchase foreign exchanges in net terms; “increase in central bank’s lending to domestic financial institutions” are derived from PBC’s claims on domestic financial institutions (deposit-taking banks and non-deposit-taking financial institutions); the “interest rate for re-lending” is that applies to the lending from the central bank to financial institutions in annual terms at year-end.

A by-product of the successful exchange rate realignment and associated increases in China trade surplus (together with huge inflow of foreign capital) were the increased requirement for the central bank to increase its foreign exchange reserves, especially when it did not wish to see currency appreciation that would have been otherwise completely driven by market forces. China’s central bank did increase its foreign exchange reserves considerably from 1994 on. Evaluated in *Renminbi*’s terms, China’s foreign exchange reserves decreased by 22.6 billion yuan in 1993, but turned to increase by 338.8 billion yuan in 1994 (these figures mean that such amount of *Renminbi* yuan was used to purchase foreign exchanges). With these changes, the money supply in China went to increase actually in proportion to the central bank’s increases in foreign exchange reserves. Perhaps it is at least partly for this reason that China’s inflation rate climbed to 21.7% in 1994, substantially higher its 1993 level.

To counterbalance the money-supply-inducing effect of exchange rate realignment and reserve increase, China’s central bank undertook measures to slow down the money supply expansion. One of the measures was to reduce the lending from the central bank to domestic financial institutions, including deposit money banks and non-deposit financial institutions. The lending, which is called “re-lending” in Chinese, has been an important channel of monetary expansion in China. The amount of the increase in the lending was 82.2 billion yuan in 1994, down from previous year’s 291.7 billion yuan. This was also followed by similar contraction in 1995 (Table 2). As a result, combined increases in foreign exchange reserves and the “re-lending” were falling from 421.1 to 321.9 billion yuan between 1994 and 1995, with China’s inflation rate being brought down to 14.8% in 1995 and 6.1% in 1996.

Partial withdrawal of or tightening up the “re-lending” by the central bank while facing rapid increases in foreign exchange reserves was regarded as a monetary policy measure of sterilization. Sterilization has been used widely in many emerging market economies during the first half of 1990s, characterized by rising interest rates when facing huge foreign capital inflow whilst keeping exchange rates unchanged (see, for example, Frankel and Okongwu, 1996). What differs China from other emerging market economies in this regard seems to be that China’s central bank was somehow reluctant to use interest rate instruments then, and this is perhaps due to the concern that interest rates were already high in China and further hikes would reduce enterprises’

profitability which was already low.

In short, China's exchange rate policy from 1994 aimed at stabilizing market expectations of currency initially and preventing the currency from sharp appreciation afterwards. This policy, accompanied by other monetary measures, served to bring down domestic inflation successfully between 1994 and 1996.

The story does not end here as China began to face a new environment from 1997. After the outburst of the Asian financial crisis, market expectations of the *Renminbi's* exchange rates turned out to be devaluation as some reckoned that China's trade and foreign investment flows would be negatively affected by the crisis, thus making it difficult for China to continue to maintain stable exchange rates. As figures in Table 3 show, whilst China's trade and current account balances remained virtually unchanged in 1998<sup>8</sup>, compared to that in 1997, China's overall balance in capital and financial account was severely affected, which changed from a net inflow of \$23 billion in 1997 to a net outflow of \$6.3 billion in 1998. Again in this period, the central bank turned its focus on stabilizing market expectations of the currency. One of the measures it undertook was to reduce its absorbing of foreign exchange reserves in 1998 (from \$35.7 billion in 1997 down to \$6.4 billion in 1998).

**Table 3: China's balance of payments 1993-1998** (billion USD)

	1993	1994	1995	1996	1997	1998
Current account balance	-11.90	7.66	1.62	7.24	29.71	29.32
Trade balance	-12.22	5.40	18.05	12.22	40.43	43.59
Capital and financial account	23.47	32.64	38.68	33.97	22.96	-6.32
FDI inflow (net)	27.52	33.79	35.85	40.18	44.24	43.75
Change in reserves	-1.77	-30.53	-22.48	-31.64	-35.72	-6.43
Errors and Omissions	-9.80	-9.78	-17.81	-15.57	-16.58	-16.95

**Source and Note:** bulletins of China State Administration of Foreign Exchanges (SAFE); a negative sign of the change in reserves indicates an increase.

It seems that during this later period, a serious contradiction occurred to China's monetary policy. Between 1996 and 1998, inflation gave rise to deflation in China, suggesting the monetary policy to be shifting towards expansionary direction. In the domestic dimension, the central bank indeed conducted several interest rate cuts since 1996, but in the external dimension, however, its policy of maintaining the stability of exchange rates by reducing foreign exchange reserves had unintentionally constrained the money supply expansion from this channel. Efforts made to maintain the stability of *Renminbi's* exchange rates partly contributed to falling domestic prices through various ways, though there were certain other domestic factors that also played an important role in the occurrence of deflation.

<sup>8</sup> This could have been more or less attributed to the success of the large-scale campaign against trade smuggling, a move started from July 1998. However, the degree of the effect of the measure remains a question of close examination.

To summarize, the post-1994 experience suggests that China wished to establish an exchange rate regime independent of its short-term trade policy and to integrate the exchange rate regime into its monetary policy. The long-term result of this move should be making *Renminbi*'s exchange rates more flexible. Judged from the recent situation appeared in 1998, the objective was yet to become reality as *Renminbi*'s exchange rates remained virtually unchanged when the central bank's monetary base underwent some relative contraction.

## 2.2. Flexibility of *Renminbi*'s exchange rates: some institutional constraints

As indicated earlier, the 1994 reform laid down institutional foundations for a flexible exchange rate regime in China by abolishing fiscal distribution of foreign exchange funds, strengthening the role of financial institutions in conducting foreign exchange transactions, and formalizing the role of the central bank as a balancing function of market demand and supply forces. In so doing, China started to move away from traditional approach to exchange rate policy, and market forces began to play a role in a recognized, more formal way.

However, problems due to incompleteness of the institutional reform did emerge afterwards, which were all associated with the less flexibility of *Renminbi*'s exchange rates. An immediate indicator has been the slow growth of the volume of transactions in China's inter-bank foreign exchange center since 1994, as shown in Table 4. The volume of transaction did increase sharply between 1994 and 1995, but decreased considerably between 1997 and 1998. Noticeably, over this period, the volume of China's total trade and services (current account transactions) in dollar terms had increased steadily, except for 1998 when it fell slightly compared to the previous year.

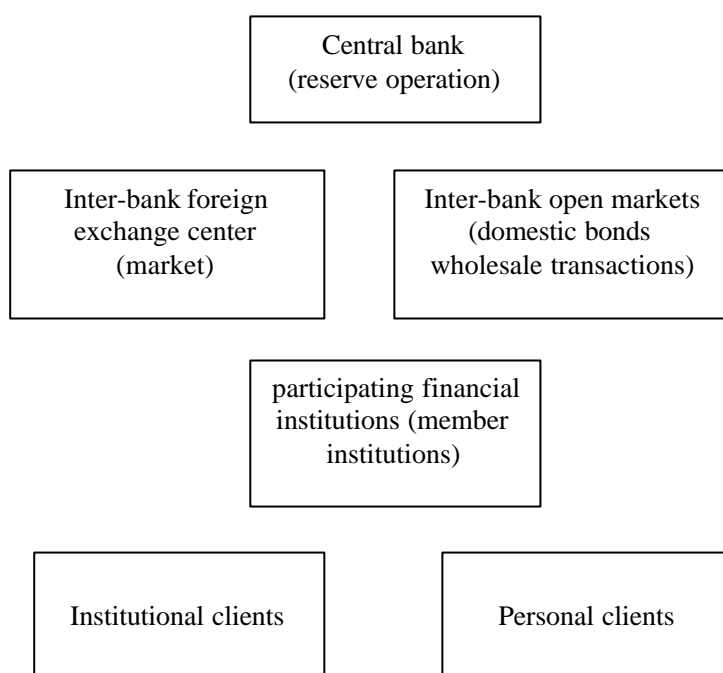
**Table 4: Volume of Transactions in China's Inter-bank Foreign Exchange Center 1994-1998 (billion USD)**

	1994	1995	1996	1997	1998
Volume of transactions	50.46	95.33	92.09	100.68	78.30
<i>Memo</i>					
Yuan/dollar rate (yearly average)		8.3495	8.3139	8.2898	8.2790
Volume of China's total trade and services (billion USD)	245.21	306.90	355.48	374.01	373.50

**Source and note:** the figure of the volume of transaction was published by the China Foreign Exchange Transaction Center Beijing Sub-center (similar data were also published by the People's Bank of China, Quarterly Statistics Bulletin); The inter-bank foreign exchange center formally commenced its function in April 1994, when the yuan/dollar rate was still at its January level of 8.7 (People's Bank of China, 1997, p.65).

The recent shrinking of the volume of transactions in China's inter-bank foreign exchange market might have been caused by some institutional imperfections of the system. Looking at the design and function of the market, as shown in Chart 2, we may first note that there were two separate, parallel short-term currency markets, with one dealing with foreign exchange transactions, and the another dealing with the local currency transactions only. No flow of funds across these two market segments was allowed because of the inconvertibility of the *Renminbi*.

**Chart 2: Diagram illustration of China's currency markets**



For participating financial institutions in the inter-bank foreign exchange market, the lack of liquidity was also believed to be a concern. Under current regulation, there were upper limits applied to maximum positions of foreign exchanges held by designated banks, above which they had to sell to the central bank (Xu Bin, 1996, p.49). This regulation ruled out any possibility of independent market-makers in China's inter-bank foreign exchange market, therefore restraining the growth of liquidity flowing into the market.

The fact that transactions in China's inter-bank foreign exchange markets have been restricted to spot ones with no operational forward and futures dealing might as well have affected the vigorousness and flexibility of the market. In the absence of forward and futures markets, not only would expectations have little role to play in the formal marketplace, but also the central bank would find it hard to adjust its reserve operations (i.e., to increase or decrease its foreign exchange reserves) until underlying and recognized current account transactions and their balance had changed significantly<sup>9</sup>.

Moreover, certain restrictions placed on foreign exchange transactions in the personal sector have more or less depressed the demand for foreign exchanges in the real economy, so that signals from the indicators of the volume of transactions or prevailing exchange rates in the formal marketplace could not be able to be taken as a complete reflection of true situation. A challenge to regulators arisen from this regard is to what degree to which deregulation could take place proportional to recognizable personal demands for foreign exchanges which fall into the category

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<sup>9</sup> The central bank may have thus actually undertaken *implicit* liabilities to maintain certain exchange rate target in such setting because for permitting exchange rates to be floating, more freedom of disposition of monetary assets should be given to financial institutions in handling risks arisen from exposure to foreign exchange transactions. In one sense, there seems a trade-off between the flexibility in exchange rate management and the restriction of foreign exchange transactions: a less-strict restriction would be more likely to couple with a higher degree of flexibility in exchange rate regime.

of current account convertibility.

These identified institutional and regulation issues call for further reforms and refinement in China's foreign exchange administration system in order to make the currency more flexible in the future. Without these institutional and regulation preparation, it would be difficult for monetary authorities to see more flexibility even if they wished so.

### **III. Options for the Future**

It has been widely held that China needs a relatively stable exchange rate regime to promote its long-term development of trade and investment relations with the outside world. The 1994 reform has proven successful in moving mechanically towards this objective. As discussed above, incompleteness in institutional and regulation reforms have also raised a question of how to avoid the danger associated with inflexibility of *Renminbi*'s exchange rates. Further progress is therefore needed to pursue through in these areas. In addition, the operation of *Renminbi*'s exchange rates may also need improvement. Below are several options for the future.

#### **3.1 Widening target band**

China's central bank currently has an open market operation department which is responsible for day-to-day monitoring over the inter-bank foreign exchange markets and acts in the market on the behalf of the central bank. Fluctuations in the exchange rates between yuan and the US dollar, Japanese Yen, and Hong Kong dollar (these are three foreign currencies currently quoted in the market) are considered to reflect forces of both of ordinary market participants and the central bank. The central did not publish its exchange rate target but had implicit obligations to maintain stable exchange rates. The meaning of "stable" in practice was actually referred to historical levels of the yuan/USD rates in particular. Mehran, et al, 1996 (p.61 and p.62) indicated that an operational principle was adopted by the central bank towards the spread between a current day and last day's exchange rates in the inter-bank market, such that the spread should not exceed over 0.3% limit. At the end of each transaction day, the central bank would formally weight up average quotations for the three currencies. These quotations were then published as "base exchange rates" for reference by which retail transactions in foreign exchanges could use and extend to other international currencies. The margin between the "base exchange rates" and average retail exchange rates were also subject to certain limitation so that no arbitrage could be made possible.

A possibility regarding the operation is therefore to widen the spread (target band). A small margin necessitates heavy and constant interventions by the central bank in the inter-bank market, whilst an enlarged margin would allow for the central bank to have more freedom in deciding the entry into transactions (buying or selling of foreign exchanges in proportion to an increase or decrease of foreign exchange reserves). To enlarge the margin would also help the market absorb

more liquidity in the long run.

However, this could be hardly made possible without accordingly institutional adjustments, as indicated earlier. To allow for a greater margin of variability in exchange rate movements, the central bank would make domestic financial institutions necessarily facing increased risks in their transactions of foreign exchanges with the central bank and among themselves. They are therefore likely to require appropriate mechanism of hedging the risks, i.e., to have ability by regulation to develop secondary foreign exchange markets. In short, it is largely a same thing that the central banks allows for a wider band of exchange rate target, reduces its implicit liability to maintain quasi-fixed target, and to enable institutionally domestic financial institutions to engage in market-driven risk-hedging transactions.

### **3.2 Targeting a basket of currencies**

Another option for maintaining stable exchange rates whilst offsetting shocks from external fluctuations in major international currencies is to target a basket of selected currencies. Advantages of targeting composite currencies include keeping nominal effective exchange rates stable and thereby providing more support to what trade and investment may need for their smooth growth. In addition, targeting composite currencies would help an economy avoid the danger of falling into a trap of single peg. In one sense, targeting a basket of currencies may be used as one of exit strategies from single peg (the term is borrowed from Eichengreen 1999). On the other hand, the practice has certain disadvantages. One of them is readjustment in any of composite currencies to be made more likely and more frequently in response to any significant change in one of composite currencies.

China did adopt the practice some time ago, but that was conducted in an environment rather different from now, internationally and domestically. To make composite currencies targeting more feasible in the environment facing China now, the economy would better select a relatively small number of international currencies such as the US dollar, Euro, and Japanese Yen. As the Hong Kong dollar links to the US dollar, so that it would be naturally included in the basket. If monetary authorities have certain implicit limit on one or more of the composite currencies with regard to their exchange rates and their change, which may be more or less different from moves in markets, certain arbitrage would become necessary. This requires for China to further develop market-based foreign exchanges system.

A question would arise for this option as to what level of targeted currencies upon which the base of the basket should be determined. An underlying assumption of the basket targeting practice has been “equilibrium” exchange rates. However, the concept of “equilibrium” exchange rates is debatable as it is largely dependent on institutional setting (such as liberalized capital moves and strict control), as well as on real economic movements (such as current account balances) and domestic macroeconomic situation (such as inflation and interest rate expectations).

Nevertheless, one would take a short-cut approach to this issue such that determination is to be made on recent historical records<sup>10</sup>.

### 3.3 Regional currency co-ordination

One of lessons that may be derived from the Asian financial crisis has been for economies exposed to external fluctuations to seek international co-operation in enhancing abilities to cope with shocks. Whilst the importance of international co-operation at the global level cannot be underestimated, that at the regional level should also be highly reviewed.

It is considered that if China is to further liberalize its financial markets and let the currency fully convertible in the future, the economy's exposure to external shocks would be increasing proportional to the growth of international trade and investment flows. In coping with increased risks in international financial markets, engagement in regional currency and financial co-ordination would lend additional protection that is needed.

**Table 5: Asia's share in China's total trade (%)**

	1990	1991	1995	1996	1997	1998
Total	100.0	100.0	100.0	100.0	100.0	100.0
Japan	14.4	14.9	20.5	20.7	21.0	17.9
Korea		2.4	6.0	6.9	8.3	6.6
Taiwan, province		3.1	6.4	6.5	6.8	6.3
ASEAN Five	5.8	5.9	6.6	6.2	7.9	6.7
Singapore	2.5	2.3	2.5	2.5	3.0	2.5
Malaysia	1.0	1.0	1.2	1.2	1.5	1.3
Indonesia	1.0	1.4	1.2	1.3	1.6	1.1
Thailand	1.0	0.9	1.2	0.7	1.2	1.1
Philippines	0.3	0.3	0.5	0.5	0.6	0.6
Asia	63.7	67.0	60.5	60.3	68.1	57.2
Hong Kong, SAR	35.4	36.6	15.9	14.1	17.5	14.0

**Source:** China's Statistics Yearbook, various issues.

As far as trade is concerned, China has experienced a certain degree of Asian orientation during the 1990s. As Table 5 shows, between 1990 and 1997 (in the cases of Korea and Taiwan, between 1991 and 1997), the share of listed Asian economies in China's total trade increased significantly, with Japan and Korea as typical cases. Only exception to this general trend is perhaps Hong Kong, with its share declined considerably (which also contributed to the overall fall in the share of Asia as a whole between 1990 and 1995). Reasons for Hong Kong's changed role are believed to be more closely associated with general economic restructuring and economic

<sup>10</sup> However, even if this is a rather simple method, it still requires domestic enterprises to be sufficiently strong and flexible in their product development and external competition, for otherwise they could be negatively affected by variation in exchange rates of individual currencies in the basket.

integration with China's mainland through channels of investment flow. Also shown in the table, the Asian financial crisis had severely affected trade flows between China and other Asian economies as the 1998 figures fell sharply for almost all compared to the previous year.

Ever-increasing Asian trade linkage happened not only to China, but also to many other Asian countries. Asian countries from Japan to Philippines, as shown in Table 6, all have seen the share of developing Asian economies in their individual total exports increased between 1990 and 1997 (in the case of Malaysia, that is between 1990 and 1996).

**Table 6: Developing Asian Economies as a % of Total Exports**

	1990	1995	1996	1997
Japan	31.3	43.7	44.1	42.2
Korea	17.6	35.1	37.8	39.1
Singapore	42.8	51.4	51.3	51.6
Indonesia	25.1	32.2	26.4	36.8
Malaysia	44.6	43.8	46.8	43.3
Thailand	22.1	36.0	36.8	37.7
Philippines	17.8	25.8	25.7	24.4

Source: IMF: Direction of Trade.

Various forms of currency co-ordination in the Asian region have been proposed recently (see, for example, Kusakawa 1999). During the Asian financial crisis, some *ad hoc*, multilateral co-ordination measures had been undertaken by Asian neighboring countries, including China. It may be envisaged that as China is moving towards a more flexible exchange rate regime and further liberalizing its financial markets to the outside world, its needs for regional financial and currency co-ordination would proportionally increase.

### 3.4 Independent floating

The meaning of “independent floating” here is for monetary authorities to formally abandon any target of exchange rates and to concentrate on domestic monetary affairs. Practically, this could be done by explicitly switching to and committing to inflation targeting, which has been widely documented in recent literature.

Transition to independent floating requires that fluctuation in foreign exchange rates be no concern to the monetary authorities in question, as long as the magnitude of fluctuation is relatively small and economically acceptable. Another requirement for independent floating is credibility that the monetary authorities has been able to establish and enjoy both at home and abroad such that variation in foreign exchange rates would pose no threat to their reputation. More fundamentally, a country's ability to conduct independent floating depends the size of its monetary base, especially the proportion of the base that is tied with domestic economic conditions. If a country could expand its monetary base only largely through external trade expansion (i.e., increase the money supply by absorbing more foreign exchange reserves, which may also imply that if it wishes to expand through internal means this would be likely to cause inflation

significantly higher than the world level), it would be difficult for it to concentrate on domestic monetary affairs.

During the first half of the 1990s, foreign trade expansion was sought tremendously in China, and it became an important source for China's monetary expansion. As China moves towards a more balanced way of economic development in the future, the importance of targeting exchange rate (and therefore to be preferable for external development) would be becoming relatively small. Meanwhile, the importance of targeting domestic monetary variables would be increasing proportionally. To complete this process of transition, China may need quite a number of years.

## **V. Conclusion**

China's monetary authorities had sought to stabilize *Renminbi's* exchange rates since 1994 under a new foreign exchange transaction system where the private sector gained a greater freedom. The pursuit has proven successful in that neither significant appreciation nor depreciation was seen in the markets for bulky flow of trade and investment. The central bank's non-commitment to a fixed exchange rate regime also lent it a degree of flexibility in conducting monetary policy aimed domestically and management of exchange rates aimed externally. Nevertheless, this operation of exchange rate regime had not been undergone without friction. Firstly, there was some conflict between domestic monetary policy intention and stabilization targets for exchange rates. Second, direct costs of exchange rate stabilization were growing as economic environment changed. Intensified institutional regulations and more requirements for the central bank to intervene in foreign exchange markets were typical ones of direct costs. Third, it has been felt that as China moves towards full currency convertibility, a greater degree of flexibility in exchange rates will become imperative.

There are several options for China regarding the choice of an exchange rate regime or its finer improvement. Widening a target band, selecting a basket of target currencies, and/or linking to a mechanism of regional currency co-ordination, would all be a possibility among others. From a longer-term point of view, the exchange rate regime in China may evolve towards independent floating or domestic targeting.

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