The University of Nottingham

China Policy Institute

Briefing Series – Issue 2

CHANGES IN CHINA'S EXCHANGE RATE POLICY AND FUTURE POLICY OPTIONS

by Jingtao Yi

© Copyright China Policy Institute

December 2005

China House
University of Nottingham
University Park
Nottingham NG7 2RD
United Kingdom
Tel: +44 (0)115 846 7769
Fax: +44 (0)115 846 7900
Email: CPI@nottingham.ac.uk
Website: www.nottingham.ac.uk/china-policy-institute

The China Policy Institute was set up to analyse critical policy challenges faced by China in its rapid development. Its goals are to help expand the knowledge and understanding of contemporary China in Britain, to help build a more informed dialogue between China and the UK and to contribute to government and business strategies.

Changes in China's Exchange Rate Policy and Future Policy Options

Summary

China has changed its exchange rate regime for the Renminbi (RMB) by abandoning its peg to the US dollar. With this reform measure announced in July 2005, the Chinese RMB switched to a managed float linked to a basket of currencies after a 2.1 percent appreciation against the dollar.

It was a calculated political move in response to mounting external pressure to revalue the RMB. Such a policy option was chosen in an attempt on the part of the Chinese leadership to reach a balance between external pressures and internal constraints.

The decision involved two key factors: a revaluation of the RMB and the selection of the right option for the exchange rate regime in China's economic circumstances.

There had been a heated debate over these issues. Estimates of the undervaluation of the RMB had varied from 10% to 40%, and the proposed options for China's exchange rate regime ranged from a sustained peg to the U.S. dollar after a one-off revaluation and a crawling peg to the U.S. dollar to the peg to a basket of currencies.

China's exchange rate regime has been through five phases since the economic reforms were begun by Deng Xiaoping and the country opened its doors to the outside world in 1979, when there was a fixed official rate to the US dollar.

The new regime is a medium-term option, aiming at protecting China from unfavourable movements of the U.S. dollar against other currencies in the medium term. Since many of China's major trading partners still denominate trade in the dollar, the real effect of the basket remains moderate.

When China makes further reforms in its financial system, any move to liberalization of the capital account and an independent inflation-targeted monetary policy will challenge the current managed float regime.

Nevertheless, China's exchange rate reform is mainly determined by political rationality and follows an incremental process. It is therefore unrealistic to expect that the government will plan another one-off revaluation.

Radical reforms are unlikely, but it is reasonable to expect that the transparency of operation of the new exchange rate regime will increase and the band within which the RMB fluctuates will widen over time. China's long-term objective is to move towards a flexible exchange rate regime, in the interests of its economic development. It will take a long time for the Chinese government to achieve that target if as expected that the government continues with its incremental approach.

Changes in China's Exchange Rate Policy and Future Policy Options

By Jingtao Yi*

China Changes Its Exchange Rate Regime

1.1 On 21 July 2005, the Chinese government announced that the country's exchange rate regime would immediately move to a managed floating exchange rate regime based on market supply and demand with reference to a basket of currencies. With this reform measure, the Chinese RMB switched from a peg to the U.S. dollar to a managed float based on a basket of currencies after a 2.1 percent appreciation. This was widely seen as an improvement to the RMB exchange rate regime, giving it greater flexibility.

1.2 It was a calculated political move in response to mounting external pressures to revalue the Chinese RMB. In recent years, China's continuing large trade surpluses and its rapid accumulation of foreign exchange reserves have focused considerable global attention on the exchange rate of the RMB and China's exchange rate regime. Given China's growing integratioin into the global economy and the fact that changes in its currency exchange rate will have a major external impact, the issue of RMB appreciation and the options for China's exchange rate regime have become of major concern to many countries.

1.3 External pressure from the U.S., Japan, and other G-7 nations mounted on China to revalue the RMB and end its peg to the U.S. dollar. It was believed that such actions on the part of China were necessary to correct global trade imbalances and prevent low-valued Chinese exports from flooding U.S. and European markets.[1]

1.4 Will further reform measures be introduced? To improve its so-called "socialist market economic system", China will have to undertake further reforms in the financial system. Any move towards an inflation-targeted monetary policy and liberalization of the capital account would inevitably challenge the current managed floating regime. This would have significant policy implications for the RMB..

1.5 Nevertheless, it is unrealistic to expect that the Chinese government will take radical measures to further reform its exchange rate regime. Despite continued external pressure, the Chinese government is likely to continue its incremental reform pattern. While external pressure can play a role in facilitating China's reform, the Chinese leadership must also take domestic pressures into account.

---

*Jingtao Yi is a PhD candidate of School of Economics, University of Nottingham, UK. The author is grateful to Yongnian Zheng, David Harvey, Mark Roberts, and Richard Pascoe for their valuable comments.

1 The argument was involved in ambiguity and uncertainty. Refer to Lawrence Lau and Joseph Stiglitz, "China's Alternative to Revaluation," *Financial Times*, 27 April 2005.

Debate on China's Exchange Rate Regime

2.1 The global debate on the RMB's exchange rate has concentrated on two key issues: the revaluation of the RMB and the optimal exchange rate regime for China.

2.2 The RMB is believed to be undervalued, and estimates of its undervaluation vary from 10% to 40%. Goldstein estimated a revaluation of 15% to 30% based on China's balance of payments data and on the viewpoint of global payments imbalances (no specified period).[2] Funke and Rahn estimated a 12% undervaluation over the period of January 1985 to April 2002.[3] Frankel used the PPP model and estimated a 36% undervaluation in 2000 based on a cross-country regression of 118 countries.[4] The magnitude of the misalignment depends on the assumptions that researchers make and the approach to estimation that they use. Although there is no consensus, the debate has continued to create a strong push for the RMB's further appreciation.

2.3 There has also been an exhaustive and lasting debate on the options for the RMB's exchange rate regime before and after the launch of the new exchange rate regime in July 2005. Martin Wolf proposed a three-step reform. In the short term, China would not change its policy, but capital outflows and imports should be liberalized further, along with special programmes to buy goods abroad. This could lower the pressure on the appreciation of the RMB. In the medium term, there should be a move to a heavily managed float compatible with exchange controls, rather than an upward adjustment of the peg. Such a float could be achieved by widening the bands or moving to an unspecified currency basket. In the long term, China should require full liberalization of exchange controls, a freely floating currency and an inflation-targeting central bank, provided that there was an efficient and well-regulated financial system.[5]

2.4 Morris Goldstein suggested a two-step reform. Step one would involve simultaneously a switch from a unitary peg to a basket peg, a 15% to 25% appreciation and wider margin of 5% to 7% on either side around the new peg. Step two would involve a transition to a managed float, along with the liberalization of capital outflows when the banking system was stronger.[6]

2.5 Jeffrey Frankel argued for increased exchange rate flexibility, but not for a free float. He regarded China as a good counter-example to the popular "corners hypothesis" prohibition on intermediate exchange rate regimes

---

2 Morris Goldstein, "Adjusting China's Exchange Rate Policies", a paper presented in IMF's seminar on China's Exchange Rate System, Dalian, China, May 26-27, 2004.
3 Michael Funke and Jorg Rahn, "Just How Undervalued Is the Chinese Renminbi", Bank of Finland, BOFIT Discussion Paper, No. 14/2004, Helsinki.
4 Jeffrey Frankel, "On the Renminbi: The Choice between Adjustment under a Fixed Exchange Rate and Adjustment under a Flexible Rate", a paper presented in a seminar on China's Exchange Rate System, Dalian, China, May 26-27, 2004.
5 Martin Wolf, "China must move to a flexible currency", *Financial Times*, December 2, 2003.
6 Goldstein, "Adjusting China's Exchange Rate Policies."

and believed that the hybrid basket-band-crawl regime that China announced in July 2005 would be suitable if it were really followed. An intermediate exchange rate regime was likely to be a good option for the RMB's exchange rate regime in China, along with the reform of financial system.[7]

Currency's Appreciation and Equilibrium Exchange Rates

3.1 China has faced intensive pressure for the RMB to appreciate in recent years. The widely believed assumption that the RMB exchange rate was undervalued implied that there would be an underlying equilibrium level for the RMB exchange rate and that the RMB was in a state of disequilibrium.

3.2 The equilibrium exchange rate is described as the exchange rate to achieve the internal balance and the external balance. The internal balance maintains domestic economic stability while the external balance sustains the current account balance. There are four basic empirical tests to assess whether the exchange rate is in equilibrium and whether further undervaluation or overvaluation needed.[8]

3.3 The first is the foreign exchange reserves test. If the central authorities intervene to buy or sell foreign exchange, official foreign reserves will rise or fall, implying that the supply of foreign exchange will be above or below demand at the current spot price. Hence, the domestic currency will be undervalued or overvalued in current terms. The change in foreign reserves signals the misalignment of the exchange rate from the equilibrium. While the supply of and the demand for foreign exchange are influenced by a group of temporary factors that has no ultimate effect on the equilibrium, a sustained rise in official foreign reserves can be interpreted as indicative of an appreciation in the exchange rate. Since this test is constrained under capital controls, it is not as relevant to China as it is to those countries with free capital flows.

3.4 The second is the inflation test. If the central authorities intervene to buy or sell foreign exchange, monetary supply will increase or decrease, which has implications for inflation. When they constantly purchase foreign exchange to defend the currency to maintain a peg, the economy will be caught in high inflation and the currency is considered to be undervalued. This test is flawed in the case of imported inflation, due to e.g. large-scale imports of petroleum to China, and in the case of inflation stimulated by heavy domestic demand, such as a financial bubble in the real estate sector in most medium and large cities in China.

3.5 The third is the trade balance test. The trade balance is sometimes referred to as the visible balance in the current account balance. An invisible balance which includes net property income flows has no direct link to the exchange rate. A visible balance that includes exports and imports is closely related to the exchange rate, and a zero balance

---

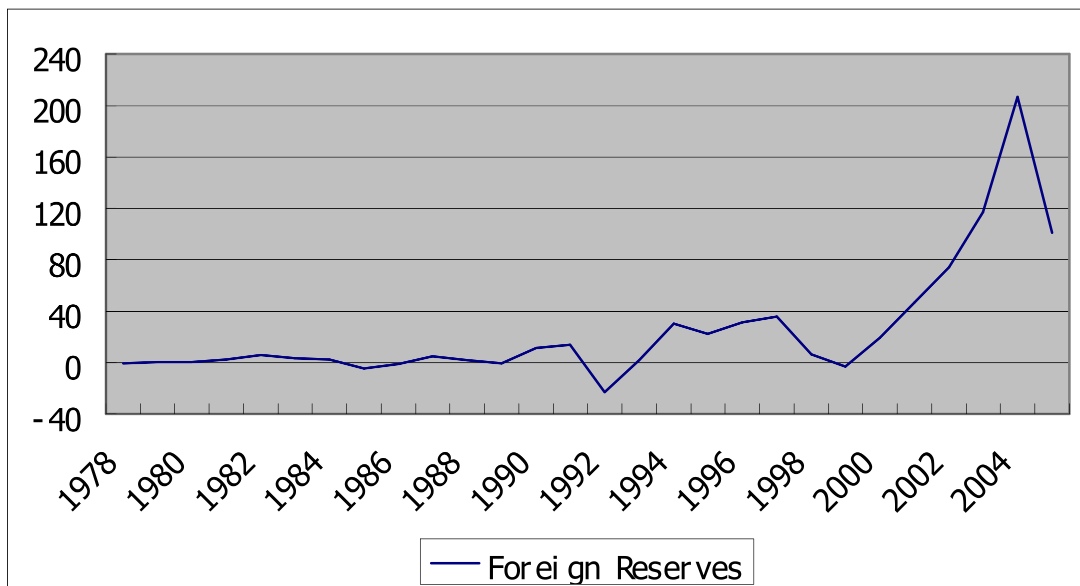
7 Jeffrey Frankel , "On the Renminbi", Forthcoming in *CESifo Forum*, Ifo Institute for Economic Research, Revised in September 2005.
8 Jonathan Anderson, "The RMB Peg—Which Way Out", *Asian Economic Perspectives*, UBS Investment Research, June 19, 2003.

maintains an equilibrium level for the exchange rate. If the trade balance is consistently positive, the currency is considered to be undervalued and if the balance is negative, the currency is overvalued.

3.6 The fourth is the basic balance of payments test. The basic balance is the current account balance plus the net balance on foreign direct investment.[9] Taking the sustained capital flows to China over the two decades since the mid-1980s into account, this basic balance is a more relevant and stable indicator for equilibrium since any significant change in the basic balance is regarded as a sign of a fundamental change in the direction of the balance of payments. If the basic balance is consistently positive, the currency is considered to be undervalued at a fundamental level and if the balance is negative, the currency is overvalued.

3.7 Figure 1 shows that foreign reserves accumulation is increasing. This can be read as a signal of appreciation in the RMB. But the interpretation is constrained by capital controls. Figure 2 shows the low and stable inflation rate as indicated by the movement of China's consumer price index (CPI) within a band of -2% to +2% over an 11-year period. This could be the effect of a domestic policy mix and is of no help in assessing whether the RMB is undervalued. Figure 3 shows that the trade balance is consistently positive in most of the period. This is likely to imply an undervaluation in the RMB during the period, especially in the last two years. Figure 4 shows that the basic balance of payments is consistently positive over the whole period. This can be a fundamental indicator for undervaluation in the RMB during the period.

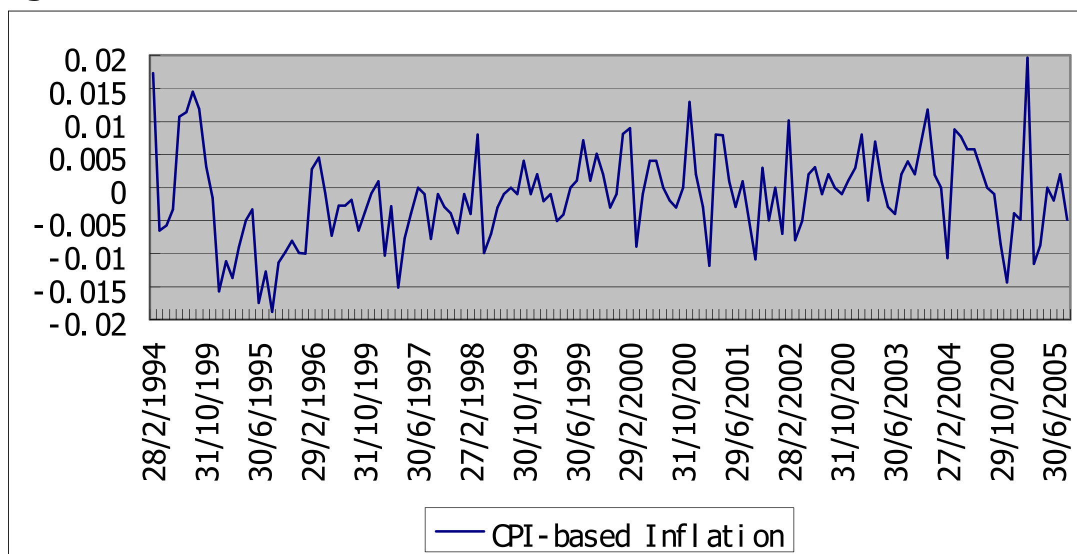
Figure 1: China's Net Foreign Reserves 1978-2005



Note: Data are yearly and compiled from China State Administration of Foreign Exchange. Net foreign reserves are net accumulation in foreign reserves each year, 1978-2004-2005.6.

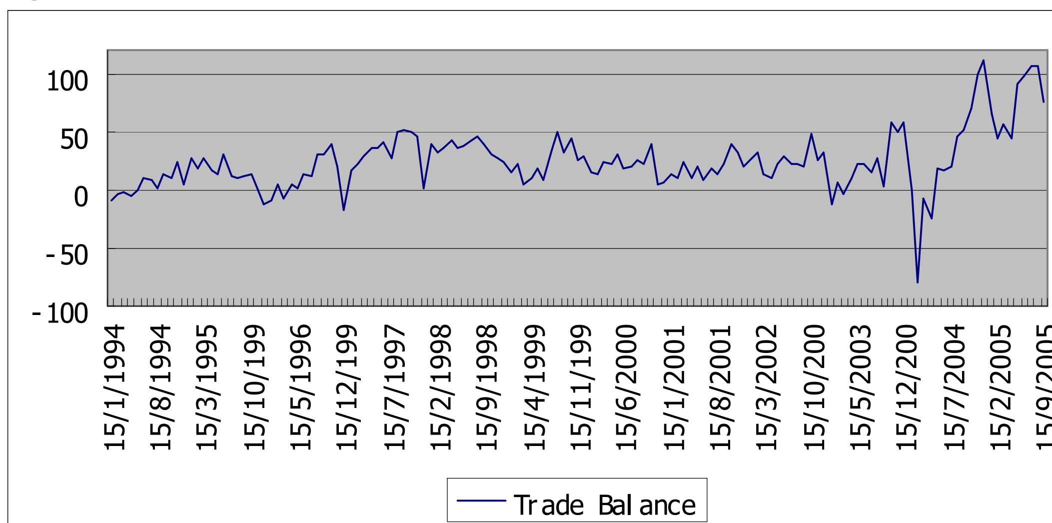
9 The basic balance measures the current account balance and the net balance on long-term capital flows. Since the classification of short-term and long-term capital flows becomes problematic, the current account balance plus the net balance on foreign direct investment for the basic balance fits the case in China.

Figure 2: China CPI-Based Inflation 1994-2005



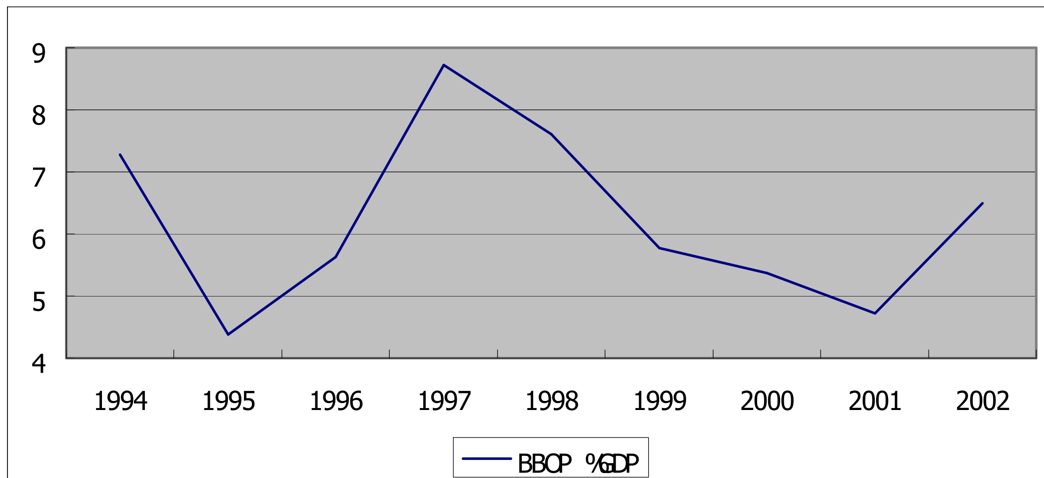
Note: Data are monthly series and compiled from DataStream 2005.

Figure 3: China's Trade Balance 1994-2005



Note: Data are monthly series and compiled from DataStream 2005.

Figure 4: China's Basic Balance of Payments 1994-2002



Note: Data are yearly and compiled from IFS 2004.

Changing Patterns in China's Exchange Rate Regime

4.1 Since China launched its reform and opening-up policy in 1979, the RMB exchange rate system has gone through five main phases as economic policy became progressively more market-oriented, after the old system of a single official fixed rate was abandoned.[10]

4.2 During the first phase from 1979 to 1984, a dual-track system whereby the official fixed exchange rate coexisted with an arbitrary exchange rate for foreign trade-related internal settlement was gradually developed.

4.3 In the second phase from 1985 to 1993, the foreign exchange swap market rate was introduced for foreign trade-related transactions and the regime became a dual exchange rate system where the official fixed exchange rate coexisted with the market-determined rate in the swap centers.

4.4 In third phase from 1994 to 1997, the official exchange rate was devalued and unified with the exchange rate in the swap market in 1994, starting a market-based, managed floating rate system.

4.5 During the fourth phase from 1998 to 2005, China followed a de facto fixed exchange rate system to the U.S. dollar even though the government officially claimed that it was a managed floating exchange rate regime, and an extension to the third phase.

4.6 In the fifth phase, China has reformed the exchange rate regime by moving to a managed float exchange rate regime based on market supply

10 Guo Shuqing, "Evolution of Renminbi Exchange Rate Regime," *China Daily*, 11 October, 2004. Guo is Director of the State Administration of Foreign Exchange and Deputy Governor of the People's Bank of China, and Wang Tao, "Exchange Rate Dynamics", in China's Growth and Integration into the World Economy-Prospects and Challenges, edited by Eswar Prasad, IMF Occasional Paper, Washington DC, 2004.

and demand with reference to a basket of currencies. With the appreciation of the RMB by 2.1 percent against the US dollar in July 2005, China's exchange rate regime has moved from a peg to the U.S. dollar to a managed float linked to the basket of currencies with a narrow daily-trading band of 0.3 percent around the central parity rate set by the Central Bank.

4.7 The phased changes in the exchange rate regime in China are in line with the goal of achieving a market economic system that will enable the market to play a full a role in resource allocation. Thus far, changes have been incremental. Since the reform process began in 1979, it has taken about eight years on average for the Chinese government to alter the exchange rate regime each time. This is likely to be an implied timetable for probable future reforms of the exchange rate regime. It is implausible to expect that the new managed float regime will be in place only for the short term. The time horizon for the new regime is likely to exceed three to five years, if economic and political pressures inside China and abroad continue as they are.

Options for China's Exchange Rate Regime

5.1 There are various forms of exchange rate regime across developing countries, emerging markets and advanced economies. The 1997-1998 Asian financial crisis led many economists to expect that countries would move to corner solutions, moving either to a hard peg or a free float. However, most countries are still located somewhere between the two corners.[11] In general, a hard peg is more common in developing countries than in emerging markets and advanced economies; free floats do not usually occur in developing countries and emerging markets.[12]

5.2 Whether a peg regime is appropriate for a country depends on a number of preconditions. The theory of optimal currency area suggests that a hard peg is necessary to maintain financial and trade-side stability for a small country that has a symmetric link to a large neighbor and flexible wages and prices. Another precondition is related to monetary policy. A hard peg is often required to maintain the credibility of monetary policy and to help lower inflation, since a country can import credibility by fixing the exchange rate to a hard-money country. But a country with weak institutions in financial and fiscal sectors finds it difficult to maintain the credibility of monetary policy and lower inflation only by maintaining a peg. Inflation targets however can often be achieved by having an independent central bank instead of a hard peg. In addition, countries with increased international capital flows can find it challenging to defend a fixed peg. However, countries which have considerable foreign currency denominated liabilities and currency-mismatch problems will fear a float and prefer a hard peg.

5.3 Whether a float regime is appropriate for a country also depends on a set

---

11 K. Rogoff, A. M. Husain, A. Mody, R. Brooks, and N. Oomes, "Evolution and Performance of Exchange Rate Regimes", *IMF Occasional Paper* 229, Washington DC, 2004.

12 Tuuli Koivu, "The Challenge of Choosing An Optimal Exchange Rate Regime for China", Bank of Finland, *BOFIT Discussion Paper*, No.1/2005, Helsinki, 2005.

of restrictive institutional factors. A large country with diversified and asymmetric financial links and foreign trade is likely to benefit from a floating regime if it has a stable fiscal stance, an efficient and well-regulated financial sector, liberalized capital flows and an independent central bank. A flexible exchange rate provides a country with easier and less costly adjustment in the case of a shock.

5.4 According to Rogoff and others, a fixed exchange rate seems to work well for developing countries by increasing policy credibility and lowering inflation; a rigid and mixed regime is often linked to banking crises in emerging markets with large capital movements; and a floating rate fits advanced economies well.[13] But how to classify China is a matter of debate, which makes choosing the right option for China's exchange rate regime challenging. Rogoff and his colleagues regard China as an emerging economy while Koivu treats China as an outlier from the emerging market sample because of its strict capital controls.[14]

5.5 China does not satisfy the criteria for a fixed regime. China is a large economy with diversified trade flows and capital controls. It is a net exporter of capital[15] and its credit stock is mostly denominated in domestic currency. In addition, pegging to the U.S. dollar will be risky in terms of further appreciation since the US has continuous fiscal and current account deficits and China is expected to continue economic growth.

5.6 China also does not fulfill the criteria for a flexible regime. China's banking system is weak and well-known for a large amount of non-performing loans (NPLs). It lacks developed financial markets for currency risk management, with no efficient hedging instruments. It has strict capital controls and has not liberalized capital flows.

5.7 The theory of the impossible trinity suggests that a country can only achieve two of the three macroeconomic objectives: liberalized capital flows, independent monetary policy and a fixed exchange rate regime. Capital controls imply that China should be able to have both a fixed exchange rate and independent monetary policy targeted for domestic economic and political purposes. The policy package of the fixed regime and independent monetary policy served China well before the launch of the new managed float linked to a basket, but China was still seriously challenged by domestic economic pressures from increased inflation, a financial bubble in the real estate sector and a large amount of government debts denominated in government bills and bonds. As neither of the corner solutions were a perfect solution for China, the most viable option seemed to be somewhere between a hard peg and a free float.

---

13 K. Rogoff, A. M. Husain, A. Mody, R. Brooks, and N. Oomes, "Evolution and Performance of Exchange Rate Regimes", *IMF Occasional Paper* 229, Washington DC, 2004.
14 Tuuli Koivu, "The Challenge of Choosing An Optimal Exchange Rate Regime for China", Bank of Finland, *BOFIT Discussion Paper*, No.1/2005, Helsinki, 2005.
16 The sustained current account surpluses in China imply that China is a net exporter of capital in general, since S-I=CA and excess domestic savings have to be invested abroad.

5.8 One option was a one-off revaluation, after which the peg to the U.S. dollar would remain in place. The difficulty to estimate the exact size of the undervaluation made this option less appealing. A too-small revaluation could even have increased capital inflows if investors expected a second revaluation. A too-large revaluation could have damaged foreign trade and induced low economic growth and high unemployment. In addition, a one-off revaluation was not a medium-term solution since it was expected that when capital controls were removed, households would try to move savings abroad because of the vulnerability of domestic banks and the pressure on the RMB would then reverse.

5.9 Another option was widening the fluctuation band and following a crawling peg to the U.S. dollar. Although China's large foreign exchange reserves could have supported operations to widen the band, a crawling peg is famously difficult to sustain in the presence of a weak financial sector or/and large capital flows. China has capital controls and its financial sector is vulnerable. The further opening of the banking sector to foreign banks could increase uncertainty in the sector.

5.10 The Chinese government chose as the most viable option the pegging the RMB to a basket of currencies in July 2005. It is a medium-term option because the regime can protect China from unfavorable movements of the U.S. dollar against other currencies in the medium term. China's trade is diversified and most trade is denominated in the U.S. dollar, as many Asian economies have de facto pegged their currencies to the dollar. The real effect of the basket might remain moderate.

5.11 The managed float linked to a basket involves more complicated administration and is less transparent than the peg to the U.S. dollar in the past decade. When the capital account was liberalized in the observed future, the current managed float regime would have been seriously challenged. In addition, the real effect of revaluation of 2.1 percent would also remain moderate and it would have no big effect on improvement in the US bilateral trade deficit with China if other Asian currencies did not appreciate with respect to the U.S. dollar. However, some Asian economies have started to follow China's revaluation and there could be an increasing effect in the near future.

The Prospects for China's Exchange Rate Regime

6.1 The guidelines for China's foreign exchange management have been security first, liquidity second, and the possibility of making money third.[16] This reflects the fact that China's exchange rate regime reforms have been largely determined by political rationality and a gradualist approach, as has been the case throughout the economic reform process initiated by Deng Xiaoping in 1979. China has benefited from incrementalism, and is unlikely to change this reform pattern.

6.2 China's exchange rate can be expected to fluctuate more freely over time, but it is unrealistic to expect that central authorities will plan another

16 Reuters, "Yuan to fluctuate, won't need revaluation", 9 September 2005. Denlu Ma is an assistant central bank governor.

one-off revaluation like the one carried out in July 2005. Apparently external pressure, especially from the United States, played an important role in facilitating China's reform. However, the role of external pressures can be easily exaggerated.

6.3 In responding to US pressure for changes in its exchange rate regime, Chinese Premier Wen Jiabao said repeatedly that the reform of the RMB exchange rate was a matter of China's sovereignty and that any external pressure or the politicization of an economic matter would not be conductive to a solution of the issue.[17] For the Chinese leadership, the reform of the exchange rate regime was not a simple economic calculation but a political decision. In introducing any major reform measure, the leadership faces serious domestic constraints. A balance has to be reached between responding to external pressures and internal constraints for any reform measure to be feasible.

6.4 Radical reforms are unlikely, but it is reasonable to expect that the transparency of operation of the new exchange rate regime will increase and the band within which the RMB fluctuates will widen over time. Moving towards a flexible exchange rate regime is China's long-term objective and it is in the interests of China's future economic development. It will take a long time for the Chinese government to achieve that target if as expected the government continues with its gradualist approach.

17 Xinhua Net, "Pressure on RMB Will Not Help--Wen", 14 October 2005.