

---

# **China's Unfinished Yuan Reform**

## **-- Further Appreciation Needed to Redress External Imbalances**

*C. H. Kwan*

---

As symbolized by the surge in China's foreign exchange reserves, the Chinese currency has been under upward pressure in recent years. The situation has remained virtually unchanged even after China revalued the yuan (renminbi) by 2.1% on July 21, 2005 and shifted to a managed floating system.

The Chinese government has been hesitant to revalue the yuan out of concern over the negative impact revaluation would have on the domestic economy. To maintain a stable exchange rate, however, the authorities have had no choice but to tolerate large balance of payment surpluses and a rapid increase in foreign reserves. This has already led to some negative outcomes, including increased trade friction with trading partners and excess liquidity.

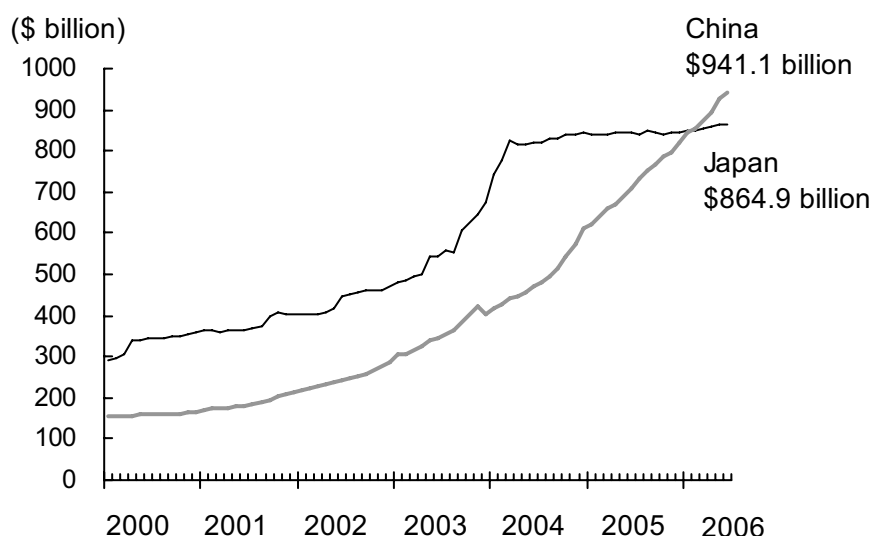
To redress these external imbalances and regain autonomy in its monetary policy, China needs to move toward a free floating exchange rate system by refraining from intervention and letting the market determine exchange rates. Should this happen, the exchange rate, instead of foreign exchange reserves, should rise.

### **I. A large balance-of-payments surplus is putting upward pressure on the yuan**

China's foreign exchange reserves reached \$853.7 billion in February 2006, surpassing those of Japan to become the largest in the world (Figure 1). At their current growth rate it is highly probable that they will top \$1 trillion later this year. Behind this surge in China's foreign exchange reserves lies the huge surpluses that China is logging in both its current account, centering on trade, and its capital account, which centers on direct investment.

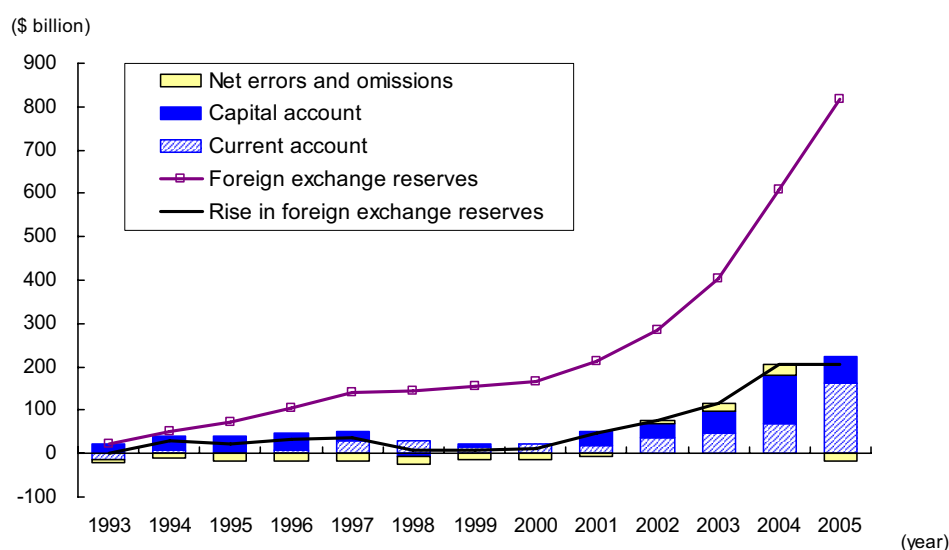
The relationship between the sharp rise in China's foreign reserves and the "twin surpluses" in its external accounts can be confirmed in the "2005 Report on China's Balance of Payments" (State Administration of Foreign Exchange) released in April (Figure 2). According to the report, the current and capital account surpluses in 2005 stood at \$160.8 billion (7.2% of gross domestic product) and \$63 billion (2.8%), respectively. Together with the \$16.8 billion logged as a deficit from net errors and omissions, reserve assets (which are mostly foreign exchange reserves) increased by some \$207.0 billion (9.3% of GDP) in 2005, after rising by \$206.4 billion the previous year.

**Figure 1 China's foreign reserves surpass those of Japan**



Source: State Administration of Foreign Exchange (China), Ministry of Finance (Japan)

**Figure 2 China's rising external imbalances and foreign exchange reserves**



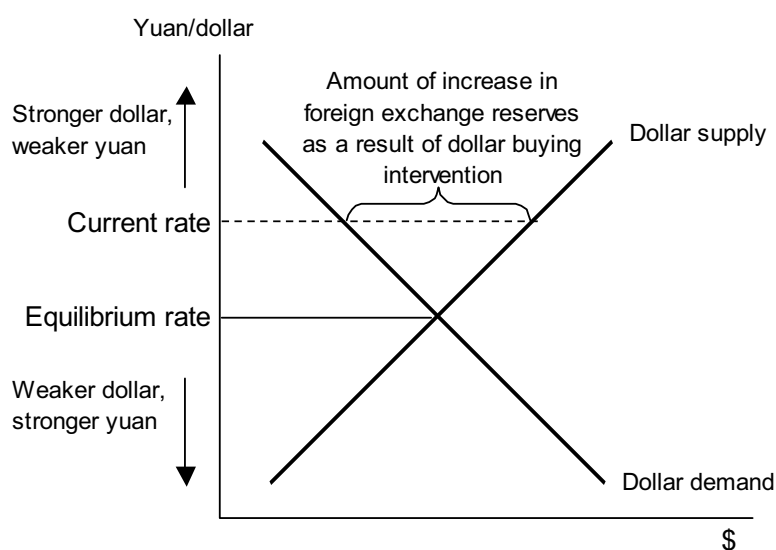
Source: Based on data from the State Administration of Foreign Exchange

The nation's foreign exchange reserves increased by nearly the same amount in 2005 as they did in 2004, but the current account surplus replaced the capital account surplus as the greatest factor behind the increase, with the current account surplus 134% higher than the \$68.7 billion logged the previous year and the capital account surplus 43% less than the \$110.7 billion in 2004. As a result, it is no longer convincing to oppose revaluation of the yuan on the grounds that upward pressure on the currency is the result of "speculation" in the form of capital inflow rather than "actual demand" based on current transactions.

In order to correct these imbalances, the Chinese authorities have taken steps to increase demand for foreign currency while at the same time limiting its supply. First, on the current transaction side, they have imposed export restraints on such goods as steel and petroleum products that require a huge resource inputs and harm the environment, and on certain textile products that have become the focus of trade frictions. Meanwhile, ahead of President Hu Jintao's April visit to the United States, Vice Premier Wu Yi led a huge business delegation to the US and signed purchasing contracts worth some \$16 billion with US firms, including a deal with major aircraft manufacturer Boeing to buy eighty 737 passenger jets (worth \$4.6 billion). On the capital transaction side, authorities have eased restrictions on capital outflow, which in the past had been stricter than those on capital inflow. Specifically, the government has introduced the qualified domestic institutional investor (QDII) system and will use it to encourage portfolio investment in overseas markets. Not only are the effects of such policies limited, however, they are also only stopgap measures, and do not ultimately resolve the problem.

The fundamental cause of China's huge external surplus is that authorities suppress the yuan's exchange rate through market intervention (Figure 3). If a free floating exchange rate system were to be adopted and authorities did not intervene in the foreign exchange market, there would be no external account imbalances, and instead of a rise in foreign exchange reserves, China would see the yuan appreciate against the dollar. Thus China has to choose between allowing either foreign exchange reserves or the exchange rate to rise further.

**Figure 3 Mechanism behind the rise in foreign exchange reserves**



## **II. The more foreign exchange reserves the better?**

Thus far, the authorities have tolerated large balance-of-payment surpluses and a rapid increase in foreign reserves to maintain a stable exchange rate, but this has also had negative consequences.

To begin with, China's trade imbalance has increased trade friction with the US and other trading partners. China surpassed Japan to become the US's biggest trading partner in 2000, and the trade imbalance between the US and China has continued to grow since then, reaching \$201.6 billion in 2005 (according to US data). The Treasury Department's latest bi-annual "Report on International Economic and Exchange Rate Policies," (released on May 10) expressed "strong disappointment" with the delay in yuan reforms and called on Beijing to accelerate those reforms.

The increase in foreign reserves, by fueling growth in the money supply, has led to an overheating of investments and rising asset prices. In addition to the sharp rise in real estate prices since 2002, stock prices have also shot upwards over the past year, suggesting an economic bubble may be forming. The major cause of this has been the authorities' continued intervention in currency markets to battle the upward pressures on the yuan, and this is creating excess liquidity. Conditions in China are looking more and more like those of Japan in the late 1980s (Box 1).

Furthermore, although foreign exchange reserves are necessary as a measure to maintain currency stability, it should be recognized that a high cost accompanies the holding of foreign exchange reserves. As a developing country, China is charged high interest rates as a risk premium when it procures funds from overseas. But it only

earns low returns when it invests its foreign exchange reserves in US Treasury bonds,. This negative spread in interest rates essentially means a transfer of income from China, a poor country, to the United States, a rich one. Considering that these funds, rather than being invested in US debt, would be better invested domestically, where the rate of return is higher, it is clear that the opportunity cost of holding these funds in dollars is very high.

The key factors determining the optimal size of foreign reserves, in addition to the interest rate gap between borrowing and lending, are the volume of imports, the amount of short-term liabilities, and the state of capital account liberalization. China currently has a high level of foreign reserves, equating to more than a year's worth of imports (\$660 billion in 2005) and 5.6 times its external short-term debt (\$156.1 billion as of the end 2005). Taking account also of the strict controls that China has placed on short-term capital flows, it appears that its foreign reserves are already well above their optimal level. In light of this, the authorities must reassess the tradeoff between allowing foreign reserves to grow or raising the yuan's exchange rate by shifting their focus away from the former and toward the latter. In addition, China must diversify its foreign reserves out of dollar investments to prepare for a further decline in the dollar resulting from the growing US trade deficit (Box 2).

### **III. Foreign exchange policy cannot solve structural problems: a policy-mix approach is needed**

Despite rising upward pressure on the yuan, the Chinese authorities remain cautious about revaluation and continue to make heavy market interventions to stem the pace of yuan appreciation. As one reason behind this policy, China often cites its concern that further revaluation would bankrupt many state-owned enterprises, increase unemployment and cause huge damage to domestic agriculture. However, foreign exchange policy is nothing more than an instrument of macroeconomic policy and using it as a means to protect specific sectors can result in various side effects, including the expansion of internal and external imbalances.

In considering economic policy in situations where multiple targets must be pursued, the rules of Jan Tinbergen and Robert Mundell provide theoretical guidelines.

- 1) Tinbergen's rule: Achieving a multiple number of independent policy targets requires an equal number of policy instruments.
- 2) Mundell's rule: Each policy instrument should be assigned to the policy target on which it has greatest relative effect.

Let us assume there is a country that is pursuing full employment (internal equilibrium) and equilibrium in the balance of international payments (external equilibrium) under a fixed exchange rate regime. According to Tinbergen's rule, to simultaneously achieve these two goals the country would have to implement two policy instruments: fiscal policy and monetary policy. Following Mundell's rule, the most effective way to do this would be to use fiscal policy as a means to achieve internal equilibrium and monetary policy to achieve external equilibrium,.

Presently, China is pursuing two goals: macroeconomic stability and the protection of inefficient companies and industries. According to Tinbergen's rule, these two goals cannot be achieved simultaneously through foreign exchange policy alone; another policy instrument is needed. Meanwhile, based on Mundell's rule, foreign exchange policy should be targeted at macroeconomic stability while institutional reform should be the tool of choice for such issues as income disparities and structural problems.

Certainly, China is facing a very serious unemployment problem. In addition to a large redundant labor force in rural areas, the number of unemployed in the urban population is rising due to the restructuring of state-owned enterprises. These problems are structural in nature, however, and not attributable to macroeconomic factors such as a shortfall in demand. Also, agriculture and state-owned enterprises, in which China does not have a comparative advantage, would be forced to scale down when exposed to competition. From the viewpoint of efficiency, the capital, land and human resources currently trapped in such inefficient companies and industries should be transferred to efficient sectors. This would improve the efficiency of the overall economy and upgrade the industrial structure. To help those who lost jobs amid the industrial adjustments, the government should employ more direct and effective measures, such as reinforcing the social security system and supporting job training programs, rather than relying on foreign exchange policy.

To begin with, if foreign exchange policy were the optimal policy tool for solving ongoing "structural unemployment," the Chinese authorities should not have been satisfied merely with resisting the pressure for a revaluation of the yuan; they should aggressively devalue it. The reality, however, is that foreign exchange policy is a tool to help stabilize the macroeconomy. Pressing it into use as a means to generate employment would be at the expense of the policy's primary target.

The ongoing policy of maintaining the exchange rate at a relatively low level is already producing various side effects. To begin with, the monetary authorities need to intervene by absorbing excess foreign currency (selling yuan and buying dollars) so as to keep the yuan's exchange rate from rising. This puts significant constraints on the independence of monetary policy. In addition, with its trade surplus rising rapidly, particularly with the US, China is facing intensifying trade friction with the rest of the

world. To sustain economic growth while avoiding all these problems, China needs to reexamine its economic policy mix.

#### IV. Reform of the foreign exchange rate system needed to restore monetary autonomy

There is growing recognition that no country can have free capital mobility, an independent monetary policy, and a fixed exchange rate (known as "the impossible trinity") simultaneously. Each country therefore must choose from three "ideal" options (Figure 4).

**Figure 4 The "impossible trinity" in international finance**

	Free Capital Mobility	Independent Monetary Policy	Fixed Exchange Rate	Examples
Capital Controls	No	Yes	Yes	China (before July 2005)
Monetary Union	Yes	No	Yes	Hong Kong, EU
Free Floating	Yes	Yes	No	Japan, Australia

Source: C. H. Kwan, *Yen Bloc*, Brookings Institution Press, 2001

The first option is to maintain a fixed exchange rate system and monetary autonomy by imposing capital controls, as China did until July 2005. Indeed, thanks to strict capital controls, China not only managed to avoid the repercussions of the Asian financial crisis, it was also able to allow interest rates to fall to stimulate domestic demand.

The second option is to give up the freedom to pursue an independent monetary policy, the extreme case being to abandon the national currency and to join a monetary union. Under Hong Kong's linked exchange rate system, for example, the need to maintain the Hong Kong dollar at its official rate against the US dollar means that domestic interest rates have to follow those in the United States. Thus the Federal Reserve Board, rather than the Hong Kong Monetary Authority, is ultimately in charge of Hong Kong's monetary policy.

The third option is to give up fixed exchange rates and allow the exchange rate to float in order to maintain free capital mobility and an independent monetary policy, as in the case of Japan and many other industrial countries. The cost of allowing exchange rates to float freely may be very high, however, for developing countries with fragile financial systems.

In reality, there exist a lot more options than these three polar regimes, since exchange rate fixity, capital mobility, and freedom to pursue an independent monetary policy each range over a spectrum from nil to perfect. For example, a country can enhance (although not fully restore) its freedom to pursue an independent monetary policy by introducing a managed floating system that allows its exchange rate to float within a certain band while partially maintaining capital controls. The choice of an optimal exchange rate regime, broadly defined to include choosing the degree of capital control, involves compromising among the impossible trinity.

Until July 2005, China had tried to maintain monetary policy autonomy and exchange rate stability (with a dollar peg, one form of fixed rate system) by giving up the free flow of capital.

Despite government restrictions, however, capital flows are de facto becoming free, and this is forcing China to sacrifice exchange rate stability to a certain extent in order to maintain an autonomous monetary policy. China, still midway on the road to financial reform, is unlikely to adopt a completely free floating rate regime at this juncture, and the most realistic option is for it to gradually widen the exchange rate band as it shifts to a managed floating system.

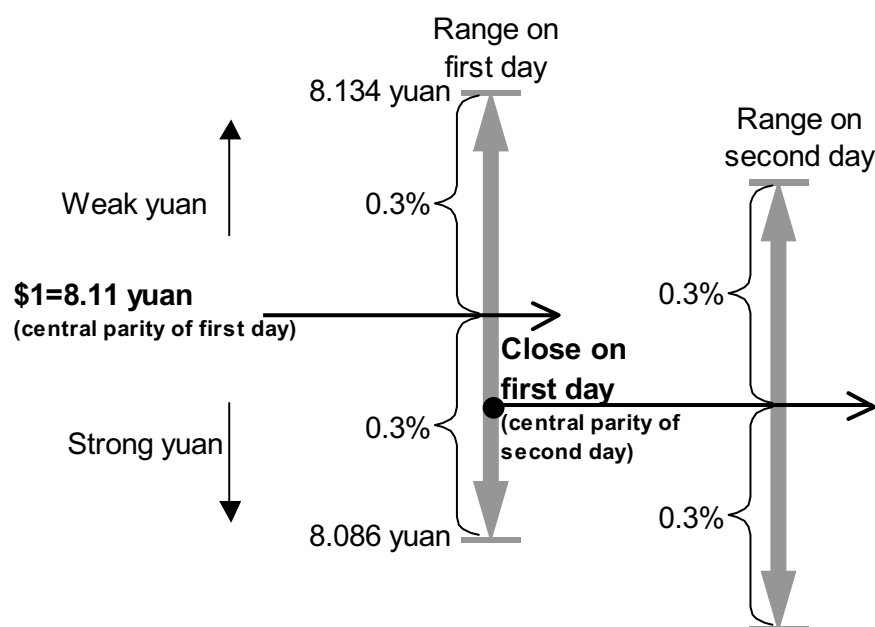
## **V. How China's managed float system actually works**

As a first step in this direction, on the evening of July 21, 2005, China announced that it would revalue the yuan by some 2.1% and shift from a dollar peg to a managed floating exchange rate regime "based on market supply and demand with reference to a basket of currencies." Dr. Yu Yongding, a member of the Monetary Policy Committee of the People's Bank of China, described this new foreign exchange regime as a managed float based on the "BBC rules" (band, basket and crawl) described in textbooks on international finance, thereby allowing the exchange rate to appreciate or depreciate at a more or less predictable rate ("The Historic Decision to Reform the Yuan Exchange Rate Regime," *Jinrong Shibao*, July 23, 2005). Even after the introduction of the new regime, however, the authorities have intervened to suppress the yuan's rise against the dollar, making the "C" in BBC closer to "control" than to "crawl".



To start with, the dollar exchange rate announced daily by the People's Bank of China includes a price band of  $\pm 0.3\%$ , and trades must be made within this band. The closing rate from the previous day was initially used as the mid-rate of the band, but since January 2006 this mid-rate has been set at the weighted average of the quotes collected by market makers prior to the opening of the China Foreign Exchange Trade System (CFETS) (Figure 5). Under the new system, there is no rule prohibiting the mid-rate from exceeding the band of the previous day, and a substantial rise in the yuan can be easily realized over a short-period of time. At the present stage, the yuan's actual range of fluctuation is much narrower than  $\pm 0.3\%$ , but in the future, if the government refrains from intervening in the market, the exchange rate should fluctuate more widely within the band, and the band itself will most likely be gradually expanded.

**Figure 5 How the yuan rate is determined under the new regime**

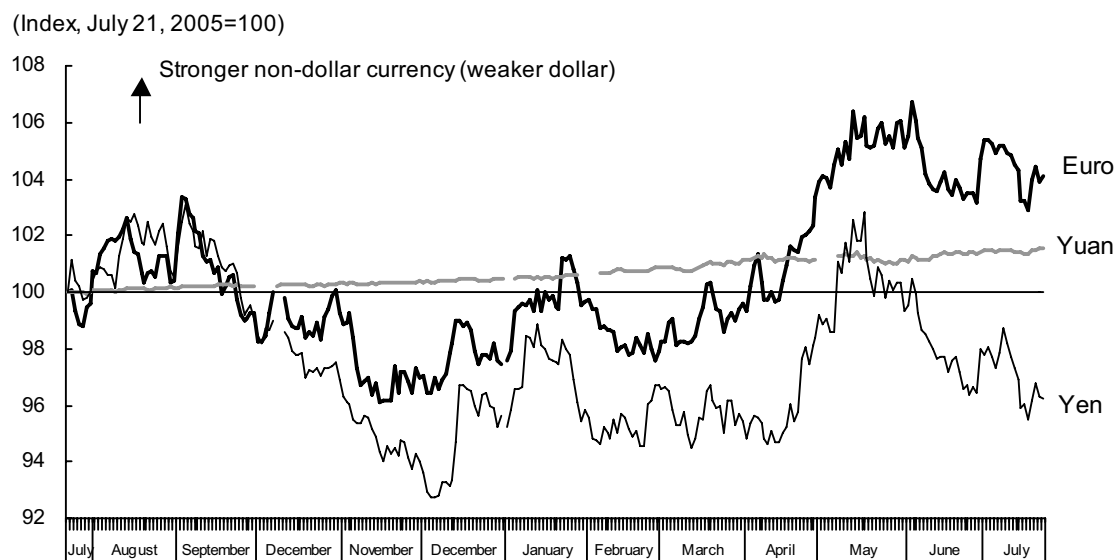


Source: Based on People's Bank of China, "Public Announcement on Reforming the Renminbi Exchange Rate Regime," 21 July, 2005.

Also, a basket of currencies serves as the reference in deciding the foreign exchange rate. People's Bank of China Governor Zhou Xiaochuan has indicated that the currencies that comprise the basket include the US dollar, euro, yen, South Korean won, Singapore dollar, British pound, Malaysian ringgit, Russian ruble, Australian dollar, Thai baht and Canadian dollar, but the exact weights those currencies have in the basket have not been revealed. The fact that the yuan's rate against the US dollar has remained stable even after the shift to the new regime makes it clear that the dollar's weight in the currency basket is very high, while the weight of other currencies such as the yen and the euro are low (Figure 6). But left in this state, the expected effectiveness of the currency basket as a built-in stabilizer for exports is

limited. In the future, it will be natural for China, which has developed close economic ties through trade and investment with neighboring Asian countries including Japan, to enhance the stability of the yuan against regional currencies by increasing their weights in the reference basket.

**Figure 6 Movements in the exchange rates of the yuan, yen and euro against the dollar**



Source: Based on State Administration of Foreign Exchange and Bloomberg data

Furthermore, in order to stabilize the exchange rate against the dollar, the government has continued to intervene in the market, and as a result, its foreign reserves have continued to balloon. Meanwhile, the central bank will have to continue sterilization by issuing huge amounts of financial bills in order to suppress the increase in domestic money supply that results from market intervention. Consequently, the increased independence of monetary policy expected to result from the latest reform package has not been realized.

The biggest question concerning yuan reform is how to bring the fixed rate, which still undervalues the yuan, into alignment with the market's equilibrium rate. Even under the current system it is possible to achieve further rate adjustments by increasing the crawl speed. If the Chinese authorities continue to respond as they have before by ignoring the market's supply-demand relationship and setting the mid-rate each day at nearly the same level as the day before, criticism from overseas and a further expansion of the asset bubble will be unavoidable.

Thus the recent changes in the exchange rate regime are only an initial step toward yuan reforms. In the future, authorities will have to reduce market intervention as much as possible and loosen their "control" so as to allow the market to set exchange rates and bring the exchange rate system closer to a free floating regime. The result would probably be an increase in the yuan's value against the dollar over the medium to long term, instead of the increase in foreign exchange reserves that we have become accustomed to. For China, accelerating the pace at which the yuan rises to about 3%-4% per year is probably the minimum cost necessary to continue avoiding the "exchange rate manipulator" designation by the U.S. and gain time to implement adjustments.

### **Box 1: Why China has failed to learn its lessons from Japan's experience**

China has shown strong interest in Japan's experience of coping with the yen appreciation since the 1985 Plaza Accord. Unfortunately, however, the Chinese authorities have been so concerned about deflationary pressures from appreciation of its currency, as experienced before by Japan (McKinnon's hypothesis), that they have overlooked the causality between the monetary easing adopted to prevent excessive appreciation of the yen and the expansion of the asset bubble (Kuroda's hypothesis). It thus appears that China has not properly learned the lessons from Japan's experience, lessons that should serve China well.

In China, the mainstream view on Japan's experience with the sharply rising yen is that the long-term upward trend of the yen exerted strong deflationary pressure on the Japanese economy, as argued by Professor Ronald McKinnon of Stanford University. With the yen rising at an annual rate of 4% since the 1970s and expectations of an ever-higher yen becoming the norm, interest rates in Japan have stayed below those in the US by about the same margin (level of Japanese interest rates = level of US interest rates – expected appreciation of the yen vs. the dollar), reflecting interest-rate arbitrage. The situation was manageable while US interest rates remained at a relatively high level. As interest rates began to fall in the 1990s, however, Japanese interest rates were driven lower and lower, and by the latter half of the 1990s, Japan fell into a "liquidity trap," a situation in which the zero bound on nominal interest rates kept rates from declining further. Professor McKinnon argues that this has inhibited Japanese monetary authorities' ability to implement effective monetary policy, thus resulting in the prolonged economic recession. He also warns that if China were to yield to US pressure, as Japan did, and revalue the yuan in a shift to a floating exchange rate system, deflation might become serious and push China into a liquidity trap.

Another view on Japan's experience, although still a minority view in China, is held by Mr. Haruhiko Kuroda, former Vice Minister of Finance and now President of the Asian Development Bank, who sees the cause of Japan's bubble economy in the latter half of the 1980s not as the yen's appreciation itself, but rather as the monetary easing policy that was adopted to alleviate the deflationary pressure brought by yen appreciation. The dollar's exchange rate against the yen, which was at around 240 yen at the time of the Plaza Accord in September 1985, fell below the 200 yen level at the end of 1985, then to 150 yen a year later. To help export industries, which lost international competitiveness due to the yen's appreciation, the Bank of Japan (BOJ) cut the discount rate five times between January 1986 and February 1987 from 5% to 2.5%, and that rate, a record low at the time, was maintained until May 1989. Meanwhile, based on the recognition that the objective of correcting the overvalued dollar had been achieved, finance ministers and central bank governors of the Group of Seven industrialized countries agreed in the Louvre Accord to seek to stabilize the US dollar in February 1987. With this, the BOJ embarked on aggressive dollar-buying interventions. The increase in money supply resulting from sharp cuts in the discount rate and massive interventions in the foreign exchange market gave rise to excess liquidity, which was channeled into the stock and real estate markets, further fueling the asset bubble and setting the stage for the problems faced by the Japanese economy in the 1990s.

As argued by McKinnon, it is partly true that the rising yen (or expectations thereof) accelerated deflation in the post-bubble Japanese economy, but the current state of the Chinese economy more resembles that of the Japanese economy in the latter half of the 1980s, as depicted in Kuroda's hypothesis. In order not to repeat Japan's bitter experience, China must waste no time in curbing excess liquidity, by scaling back interventions and letting the yuan appreciate at a faster pace.

## **Box 2: Diversifying foreign exchange risk as a natural protective measure**

A substantial portion of China's foreign reserves are invested in dollar-denominated assets, primarily US Treasury bonds. According to statistics published by the US Treasury Department, as of April 2006 China held US Treasuries worth \$323.2 billion (roughly one-third of its total foreign reserves), but the amount of dollar assets in China's foreign reserves is considerably higher than this when also counting government bond holdings via third countries and non-government bonds.

Now that China's foreign reserves have surpassed those of Japan to become the world's largest, their currency composition has become an important issue, not only for the Chinese government but also for the global foreign exchange market. In its report on foreign currency management dated 5 January 2006, the State Administration of Foreign Exchange identified as a priority issue "improving management and administration of foreign currency reserves and finding more effective means to put those reserves to use." In fact, diversifying investments out of dollar assets would be a "more effective way to use foreign reserves" from China's perspective. If China were to greatly reduce its holdings of dollar-based assets and increase holdings of assets denominated in other currencies like the yen and euro, however, it would inevitably cause the price of US treasuries to fall (US interest rates to rise) and weaken the dollar. This would in turn lead to a major disruption to the global economy, the aftershocks of which would also be felt in China. China would also suffer a more direct loss in the form of declining asset values in its foreign reserves. It is out of concern for this that China must also take a very cautious stance over diversification of its investments.

Considering that the ultimate use of foreign reserves is for imports, the valuation of foreign reserve assets should be on a real basis, in terms of their purchasing power relative to imported goods, rather than on a nominal basis in terms of a specific currency such as the dollar. Otherwise, paradoxically, if the dollar continues to weaken, *ceteris paribus*, the value of other major currencies used as foreign reserves will show capital gains when measured in dollar terms.

A continued weakening of the dollar would not only spark inflation in the US, however, it would also cause an increase in the dollar price of products from economies, such as Japan and Europe, whose currencies appreciate against the dollar. If the rate of increase in import prices caused by dollar depreciation were to exceed the capital gains (in percentage terms) brought by appreciation of the yen and euro, it would cause a decline in the purchasing power of those foreign reserves. This becomes more likely the higher the dollar-weighting of foreign reserves and the lower the weighting of other currencies.

To hedge against the risk of a plunge in the value of the dollar, China must accelerate the pace of the yuan's appreciation to suppress the rapid increase in foreign reserves on one hand, and lower the weighting of dollar assets in its foreign reserves on the other. If selling the dollar assets it already holds becomes difficult, it can at least begin the portfolio reallocation process by shifting future growth in foreign reserves to other currencies.