



# IMF Policy Discussion Paper

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## Putting the Cart Before the Horse? Capital Account Liberalization and Exchange Rate Flexibility in China

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Capital Account Liberalization and Exchange Rate Flexibility in China**

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**Abstract**

**This Policy Discussion Paper should not be reported as representing the views of the IMF.** The views expressed in this Policy Discussion Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Policy Discussion Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

This paper reviews the issues involved in moving towards greater exchange rate flexibility and capital account liberalization in China. A more flexible exchange rate regime would allow China to operate a more independent monetary policy, providing a useful buffer against domestic and external shocks. At the same time, weaknesses in China's financial system suggest that capital account liberalization poses significant risks and should be a lower priority in the short term. This paper concludes that greater exchange rate flexibility is in China's own interest and that, along with a more stable and robust financial system, it should be regarded as a prerequisite for undertaking a substantial liberalization of the capital account.

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## I. INTRODUCTION AND OVERVIEW

Like their counterparts in many other emerging market economies, Chinese policymakers are facing a complex set of questions related to the desirability and appropriate mode of implementing exchange rate flexibility and capital account liberalization. The Chinese authorities have stated publicly that both exchange rate flexibility and capital account convertibility are their medium-term objectives, but they have resisted recent calls from the international community for an early move toward more flexibility.

The issue has come to the fore in the context of discussions about the appropriateness of maintaining the current exchange rate regime—wherein the renminbi is effectively linked to the U.S. dollar—given the rapid pace of China’s reserve accumulation. Many observers have interpreted this surge in reserve accumulation over the last two years, which has reflected a rapid expansion of China’s exports as well as large inflows of foreign direct investment (FDI), as clear evidence of undervaluation of the renminbi. However, it also reflects large speculative capital inflows, suggesting that the evidence on whether the renminbi is substantially undervalued in terms of fundamentals is far from conclusive.<sup>2</sup>

A more important reason for recommending exchange rate flexibility is that it is in China’s own interest. As its economy matures and becomes closely integrated with the global economy, China will inevitably become more exposed to different types of macroeconomic shocks, both internal and external. It would therefore benefit from having some flexibility in the exchange rate and, by extension, a more independent monetary policy to help the

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<sup>2</sup> On the one hand, IMF (2004) and Funke and Rahn (2004) conclude that there is no strong evidence that the renminbi is substantially undervalued. Goldstein (2004) and Frankel (2004), on the other hand, argue that the renminbi is undervalued by at least 30–35 percent. Market analysts have a similarly diverse range of views. The role of speculative capital inflows in accounting for pressures on China’s exchange rate appears to have increased substantially since 2001. For instance, about half of the increase in international reserves in 2003 can be accounted for by non-FDI capital inflows (for more details, see IMF, 2004, and Prasad and Wei, 2004).

economy better adjust to such shocks. Thus, a strong argument can be made for an early move toward greater exchange rate flexibility in China, irrespective of whether or not the renminbi is substantially undervalued. A corollary to this argument is that it is a move toward flexibility rather than a revaluation of the rate that is desirable.<sup>3</sup> As experiences of other countries have shown, rapid economic growth and a strong external position constitute relatively favorable circumstances for making such a move.

An interesting point in this public discussion is that the Chinese authorities as well as a number of observers on both sides of the exchange rate flexibility debate have conflated the issue of exchange rate flexibility with that of capital account liberalization.<sup>4</sup> One of the main points of this paper is that these are related, but distinct issues. They do not necessarily have to be implemented simultaneously, and neither one necessarily implies the other.

The juxtaposition of these issues appears to have come about in the context of the notion that exchange rate flexibility could pose major problems for the financial sector. Indeed, a number of observers—and the Chinese authorities themselves—have argued that the weaknesses in China’s banking system are a reason to defer making a move toward greater exchange rate flexibility. The logic appears to be that such flexibility could expose the

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<sup>3</sup> See Prasad (2004) for a further discussion of this point. Goldstein and Lardy (2004) argue for a two-step approach to exchange rate reform in China—a revaluation followed by a widening of the trading band. At the other end of the spectrum, the most prominent proponents of the view that China should not alter its current exchange rate regime include McKinnon (2003) and Mundell (2003).

<sup>4</sup> To cite a prominent example, Alan Greenspan has been quoted as saying that “Many in China fear that removal of capital controls that restrict the ability of domestic investors to invest abroad and to sell or to purchase foreign currency—which is a necessary step to allow a currency to float freely—could cause an outflow of deposits from Chinese banks, destabilizing the system” (*Wall Street Journal*, March 2, 2004). News reports interpreted his statement as indicating “...that before floating its exchange rate China should fix its banking system” (Ip, 2004). Standard & Poor’s has also said, in their evaluations of China, that “risk control systems are ill-prepared to deal with rapid liberalization of the exchange rate and capital controls,” suggesting that the two issues are linked (S&P, 2003).

financial system's vulnerabilities by facilitating outflows from the banking system as domestic economic agents take advantage of investment opportunities abroad.

We argue that with existing capital controls in place—even if these are somewhat porous—the banking system is unlikely to be subject to substantial stress simply as a result of greater exchange rate flexibility. Domestic banks do not have a large net exposure to currency risk, and exchange rate flexibility by itself is unlikely to create strong incentives (or channels) to take deposits out of the Chinese banking system. Furthermore, the introduction of greater flexibility would create stronger incentives for developing the foreign exchange market and for currency risk management, including developing the hedging instruments and forward markets that are currently absent. In this way, the introduction of exchange rate flexibility could, in fact, facilitate capital account liberalization by better preparing the economy to deal with the impact of increased capital flows.

Capital controls do, however, tend to become less effective over time. Expanding trade and the increasing sophistication of domestic and international investors invariably generate new ways to get around capital controls. In addition, the experiences of numerous emerging market countries have shown the risks associated with maintaining a fixed exchange rate in tandem with a capital account that is open in either de jure or de facto terms, especially if there are weaknesses in the domestic financial system. Thus, the authorities' recent efforts to gradually liberalize capital outflows in the context of the current exchange rate regime could well prove counterproductive. Moreover, these factors suggest that delaying a move toward greater exchange flexibility could precipitate the need for an adjustment in the future under far less desirable circumstances.

At the same time, given the weaknesses in China's banking system, a cautious and gradual approach to capital account liberalization would, indeed, be appropriate. There are substantial risks associated with exposure to capital flows in the absence of sufficient institutional development, especially in the financial sector. The liberalization of capital flows should be sequenced in a manner that reinforces domestic financial liberalization and allows for

institutional capacity building to manage the additional risks. A more stable financial system and experience over time with greater flexibility in the exchange rate should, in fact, be regarded as prerequisites to fully opening the capital account.

But what does it mean to have exchange rate flexibility if the country's currency is not convertible on the capital account? The exchange rate can still be allowed to fluctuate in response to the evolution of supply and demand for foreign exchange, even though there may be constraints on capital flows. A move toward more flexibility also does not necessarily mean immediate adoption of a free float.<sup>5</sup> In fact, a period of "learning to float" can be advisable to overcome "fear of floating," a term used to characterize policymakers' initial aversion, upon exiting a fixed exchange rate regime, to allow the nominal exchange rate to move significantly. At the same time, the maintenance of capital controls can, to some degree, support this process by providing protection from potential instability arising from capital flows while institutional arrangements needed to support capital account convertibility are allowed to develop.

The remainder of this paper develops the case for two key points: that a move toward greater exchange rate flexibility is in China's own interest and that it should precede capital account liberalization (Eichengreen, 2004 reaches similar conclusions). It does not deal with a whole host of related (and equally important) issues including how the move toward greater exchange rate flexibility should be managed, what the best alternative exchange rate regime would be, what form an alternative monetary anchor could take, or how much financial sector and institutional development is adequate to minimize the risks of capital account liberalization.

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<sup>5</sup> IMF (2004) notes that an initial move toward flexibility could take the form of a widening of the renminbi trading band, a peg to a currency basket, or some combination of these.

## **II. THE CASE FOR EXCHANGE RATE FLEXIBILITY**

With China's increasing integration into the global economy, its exposure to external shocks has increased. This has heightened the need for an autonomous monetary policy and greater use of market-oriented instruments such as interest rate changes to control economic activity. Indeed, the constraints on the use of such instruments have been highlighted by the capital inflows since 2001 that have increased liquidity in the banking system and complicated domestic monetary management. During this period, rapid growth of bank credit has contributed to a surge in investment growth, leading to the possible buildup of excess capacity and associated nonperforming loans in several sectors of the economy, as well as potential problems of more generalized overheating. Increases in interest rates to control these problems have perforce been limited by the increased incentives for capital inflows that would result.

In this context, it is worth reiterating that the Chinese authorities themselves have clearly articulated the desirability of having a more flexible exchange rate and independent monetary policy; the main focus of the recent debate has been about the appropriate timing for such a move. It is useful to set the stage for the case for an early move to flexibility by reviewing the economic concerns that could be inhibiting it.

### **A. Concerns About Greater Exchange Rate Flexibility**

China's export growth is widely regarded as playing an important role in catalyzing overall economic and employment growth. Thus, a key concern about allowing more flexibility is that an appreciation of the renminbi could hurt China's external competitiveness, thereby reducing export growth and weakening prospects for continued FDI inflows (see Mundell, 2003). However, the direct impact on exports of a moderate appreciation of the exchange rate is likely to be considerably muted by the high import content of China's exports, as well as China's strong productivity growth and low labor costs. Indeed, during the period 1999-2002, China's total exports (in value terms) rose by 37 percent despite a 7 percent real effective appreciation. Trade data show that over 50 percent of Chinese export operations

involves the final assembly of products using intermediate inputs produced by other countries. Despite the high gross value of Chinese exports, the domestic value-added content of these exports to the rest of the world in general, and to the United States in particular, is only about 30 percent and 20 percent, respectively (Lau, 2003). An appreciation of the renminbi, while raising the cost of processing and assembly in China, would also lower the cost of imported intermediate inputs. Hence, an appreciation of the renminbi may not put much of a dent in China's external competitiveness.<sup>6</sup>

Another concern is that an exchange rate appreciation could adversely affect the agricultural sector. There is believed to be a large amount of surplus labor in the rural areas—about 150 million workers by the Chinese authorities' own estimates. This, in conjunction with the notion that the Chinese agricultural sector is not internationally competitive, has raised considerable concerns among policymakers that a fall in domestic prices of food imports that would result from an appreciation of the renminbi could have significant adverse consequences. While this is a plausible and relevant concern, there is as yet little empirical evidence to support it. In addition, recent research suggests that the competitiveness of China's agricultural sector has improved significantly in recent years, making it less sensitive to external shocks (see Rosen, Rozelle, and Huang, 2004).<sup>7</sup>

As noted earlier, a greater concern is that exchange rate flexibility could imperil the health of the banking system. Indeed, this is a typical problem in countries where a devaluation imposes a large burden on firms and banks that have large amounts of debt denominated in foreign currencies. The situation in China is of course quite the opposite as current pressures

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<sup>6</sup> Anderson (2004) makes a similar point. Lau (2003) estimates that a 10 percent real appreciation of the renminbi would increase the cost of Chinese exports to the United States by only about 2 percent.

<sup>7</sup> This study notes that, contrary to expectations, the agricultural sector was able to cope quite well with the opening up of China's agricultural markets that resulted from WTO accession commitments.

are for an appreciation, but the fact that domestic banks have a positive net foreign asset position implies that there could still be costs to the banking sector.

The current overall exposure of the corporate sector and banks in China to foreign exchange risks appears to be low; however, there are some indications that the degree of exposure has been on the rise in recent years. As shown in Table 1, in 2003, banks' net foreign assets accounted for 3 percent of broad money and 6 percent of GDP, and foreign currency lending constituted about 5 percent of domestic credit and 9 percent of GDP. These indicators seem relatively innocuous when compared with those of other countries. Their recent evolution, however, points to a trend that bears watching closely: during 2001-03, banks' foreign currency loans to domestic residents have increased by over 60 percent, net foreign currency liabilities are up by nearly 50 percent, and total short-term external debt (which is denominated in foreign currencies) has risen by over 50 percent. These are trends that are likely to continue with China's increasing global integration and the opening of the financial system as part of the terms of World Trade Organization (WTO) accession.<sup>8</sup>

There are some caveats to be borne in mind in interpreting the aggregate figures in Table 1. Detailed information on exposures of large financial institutions, including the currency composition and maturity of foreign currency assets and liabilities, would have to be analyzed to determine the exposure of specific institutions and any possible systemic spillovers that could result from the effects of an exchange rate appreciation on any of these institutions. Moreover, there is currently little information available on hedging practices in the corporate sector. Anecdotal evidence suggests that the use of hedging instruments is limited; however, other forms of hedging—particularly “natural” hedges (e.g., denomination of processing imports and related exports in the same currency)—may be more prevalent.

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<sup>8</sup> Latest data show that total short-term external debt as of end-September 2004 was 29 percent higher than its end-2003 level.

Table 1. China: Foreign Currency Exposures of Financial and Corporate Sectors  
(In billions of U.S. dollars)

	2001	2002	2003
Net foreign assets of People's Bank of China	234	276	370
Net foreign exchange-denominated assets of the banking system 1/	31	60	67
Of which, net foreign assets	85	108	85
<i>(in percent of broad money)</i>	4.6	4.8	3.2
<i>(in percent of GDP)</i>	7.3	8.5	6.1
Net domestic foreign currency assets	-54	-48	-19
Banks' foreign currency loans to domestic residents	81	103	130
<i>(in percent of total credit)</i>	5.0	4.9	5.2
<i>(in percent of GDP)</i>	6.9	8.1	9.2
Net foreign currency exposure of corporate sector	-103	-121	-150
Corporates' foreign currency assets 2/	45	52	52
Corporates' foreign currency liabilities 3/	149	172	202
Total external debt	170	171	194
<i>Of which: short-term</i>	44	48	73
<i>Of which: corporate</i>	68	70	82

Sources: CEIC; and IMF staff estimates.

1/ Sum of net foreign assets (net claims against foreign residents) and net foreign currency-denominated assets against domestic residents.

2/ The estimates are based on corporate foreign currency deposits in domestic banks.

3/ Sum of corporate external debt and domestic foreign currency loans.

A more general concern is that nominal exchange rate volatility under a more flexible exchange rate regime could affect trade flows and FDI inflows, both of which have been important to China's growth. On the former, recent studies find little evidence that exchange rate volatility has a significant adverse effect on trade flows (see Clark, Tamirisa, and Wei, 2004). It is also worth noting that, by maintaining an effective peg to the dollar, China's currency is stable relative to its major trading partner—the United States—but it still fluctuates relative to most of China's other trading partners. This does not appear to have hurt China's trade expansion in other industrial country markets.

There is also little evidence in the literature that exchange rate volatility has a significant role in determining the level of FDI a country receives. The most important factors affecting FDI include market size, GDP growth, productivity growth, political and macroeconomic stability, the regulatory environment, and the ability to repatriate profits (United Nations, 1999; Lim, 2002). Nevertheless, some recent papers have suggested that China's maintenance of an undervalued exchange rate is crucial for its ability to attract strong FDI inflows.<sup>9</sup> Our view is that, given China's strong productivity growth, increasing access to world markets, and rapidly expanding domestic demand, there is little reason to believe that an exchange rate appreciation would have a substantial negative effect on FDI inflows. Indeed, the prospects of greater macroeconomic stability that could result from exchange rate flexibility could well offset any negative effects from an appreciation.

In summary, our assessment is that the net adverse effects on the Chinese economy of any appreciation in the renminbi resulting from a move towards greater flexibility would be quite modest. There could, however, be significant distributional effects, with some sectors such as agriculture potentially facing larger adjustment costs.

All of these potential costs would, in any case, depend on the persistence of any appreciation of the currency. Under current circumstances, a near-term appreciation of the renminbi is widely regarded as a sure thing. Over the medium term, however, the trend in the real exchange rate is much harder to predict as it will depend on a number of additional factors with potentially offsetting effects. Forces for appreciation include the continuing strong productivity growth in China's traded goods sector, aided by structural reforms and further improvement in access to world markets. Forces for depreciation include the further liberalization of China's domestic market that will take place as part of WTO accession commitments, and the expected gradual liberalization of the capital account which could lead to more outflows if domestic agents sought to undertake some international diversification of

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<sup>9</sup> For instance, this is implicitly suggested by the work of Dooley, Folkerts-Landau, and Garber (2004), although it is not their central thesis.

their portfolios. Moreover, as noted earlier, recent upward pressure on the exchange rate reflects strong capital inflows that in large part appear to be driven by speculative inflows in anticipation of a currency appreciation. Such inflows are likely to be transitory and could easily reverse. Thus, it is far from obvious that greater flexibility will result in a persistent appreciation of the renminbi.

### **B. The Potential Costs of Not Having Exchange Rate Flexibility**

We now turn to a discussion of the costs of delaying a move towards exchange rate flexibility. In this context, it is first worth reviewing why countries adopt fixed exchange rate systems in the first place. A crucial consideration for developing economies is that such regimes provide a well-defined nominal anchor and, in principle, impose discipline on macroeconomic policies. This discipline can be useful for countries with institutional and policy weaknesses that tend to manifest themselves in higher inflation, problems of debt sustainability, fragile banking systems, and other sources of macro volatility. Empirical studies have shown that fixed or relatively rigid exchange rate regimes have indeed provided some benefits in terms of macroeconomic stability, especially to low-income countries where financial market development is limited and the capital market closed (see, e.g., Rogoff and others, 2004). But these benefits tend to erode over time while exchange rate flexibility becomes more valuable as economies mature and become integrated with global markets.

In fact, maintenance of a fixed exchange rate regime can often mask underlying policy and institutional weaknesses and result in the buildup of various sorts of imbalances. These problems can be exacerbated by an open capital account. For instance, governments may accumulate external debt in order to get around constraints to domestic financing of budget deficits. Domestic firms and financial institutions may also react to the perception of limited foreign exchange risk by taking on foreign currency debt. Given the relative riskiness of lending to emerging markets as perceived by international investors, much of this debt tends to be short term. The presence of large amounts of short-term external debt denominated in

foreign currencies is now widely recognized as being a key risk factor in precipitating balance of payments crises.

In addition to these general considerations, the particular circumstances that China faces also generate some specific costs of maintaining a fixed exchange rate. The sterilization of capital inflows has been facilitated by the fact that domestic interest rates related to the main sterilization instrument (central bank bills) have been lower than interest rates on medium and long-term industrial country treasury bonds, which is where much of China's reserves are presumed to be held. Thus, the traditional net costs of sterilization are absent in this case. However, maintaining such low domestic interest rates, which have recently been negative in real terms, requires domestic financial repression, which in turn creates large distortions and efficiency losses.

Moreover, the depreciation of the U.S. dollar since 2003 suggests that the terms of trade for China have worsened. This effectively acts as an implicit tax on consumption and, while such costs are difficult to detect directly, they are likely to be significant in terms of potential welfare losses, especially in view of China's high level of trade openness.

Furthermore, if fundamental factors such as relative productivity growth create persistent pressures for real exchange appreciation, these pressures eventually tend to force adjustment through one channel or another. Even in an economy with capital controls and a repressed domestic financial sector, these pressures can be bottled up for only so long (Rajan and Subramanian, 2004). It is typically better to allow the required adjustment to take place through changes in the nominal exchange rate rather than through inflation. Particularly in a developing economy, such inflationary dynamics can pose serious risks as expectations of rising inflation can feed on themselves and become entrenched.

For an independent monetary policy (with exchange rate flexibility) to be most effective, further institutional and operational improvements would be needed to establish a credible monetary policy framework and improve the monetary policy transmission mechanism.

However, the movement toward an independent monetary policy regime should not be delayed. While it may indeed be possible to maintain China's present exchange rate regime for a long period, the explicit and implicit costs of maintaining this regime are potentially large and likely to grow over time, especially in view of China's increasing integration with global markets and the authorities' stated objective to gradually liberalize the capital account.

### **III. CAPITAL ACCOUNT LIBERALIZATION**

#### **A. Benefits and Risks in Theory and Practice**

The financial crises experienced by many emerging markets in the last two decades have led to an intense debate about the benefits and risks of capital account liberalization for developing countries. In theory, capital account liberalization should have unambiguous benefits in terms of promoting more efficient international allocation of capital, boosting growth in developing countries through a variety of channels, and allowing countries to reduce their consumption volatility by offering opportunities for sharing income risk. The reality, however, is far more sobering. There is little conclusive evidence of a strong and robust causal relationship between financial integration and growth. Moreover, there is evidence that financial integration could actually increase the relative volatility of consumption growth for emerging markets (see Prasad, Rogoff, Wei, and Kose, 2003).

Opening the capital account while maintaining an inflexible exchange rate regime, especially when domestic macroeconomic policies are not consistent with the requirements of the regime, has proven to be a precursor of crisis in many countries. Recent episodes involving emerging market economies, from the "tequila crisis" of 1995 through the Asian/Russian/Brazilian crises of 1997–98, have added to the evidence that a fixed exchange rate regime with an open capital account provides a fertile ground for crises. By contrast, emerging market economies that maintained greater flexibility in their exchange rate regimes have generally fared much better when faced with external pressures. For example, Chile, Mexico, Peru, South Africa, and Turkey all seem to have benefited from the flexibility of their exchange rates during periods of instability in emerging markets. China and India were

less affected by the Asian crisis of 1997–98, and their relatively closed capital account regimes have been credited with helping to limit vulnerability to financial contagion, although other factors may have played a role as well, including comfortable foreign reserves positions (see Krugman, 1998; Fernald and Bobson, 1999).

As noted earlier, capital account liberalization can also aggravate risks associated with imprudent fiscal policies. Moreover, in the presence of weak and inadequately supervised banking systems and other distortions in domestic capital markets, inflows of foreign capital could be misallocated and create a host of problems, including currency, maturity, and duration mismatches on the balance sheets of financial and corporate sectors, as well as unsustainable levels and maturity structures of external debt (Ishii and Habermeier, 2002).

All of this suggests that China would do well to adopt a cautious approach to capital account liberalization. Indeed, China's approach of opening up to FDI rather than other types of capital inflows has helped insulate it from many of the risks associated with capital account liberalization. But, as discussed below, the dominance of FDI in China's total capital inflows has declined markedly in recent years, implying that the composition of inflows is likely to be increasingly driven by market forces rather than the desires of policymakers.<sup>10</sup>

### **B. Capital Controls and Their Inevitable Erosion Over Time**

Growing awareness about the potential pitfalls of capital account liberalization has refocused attention on the usefulness of capital controls in managing the process of integration with the global economy. Capital controls do provide a degree of protection from the vagaries of international capital flows and can help in controlling the risks posed by a weak financial

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<sup>10</sup> Prasad and Wei (2004) document changes over time in the relative importance of FDI in China's total capital inflows and discuss various hypotheses about why China's inflows have been largely tilted towards FDI.

sector. However, they can often perpetuate inefficiencies and distortions in domestic financial systems, with consequences for long-term growth and stability.

In countries with weak financial systems, capital controls can prevent the corporate sector as well as domestic banks—whose operations may not entirely be run on a commercial basis and that may have inadequate risk assessment capacity—from excessive external borrowing. In countries with an inflexible exchange rate regime, capital controls are also used to preserve a degree of monetary policy autonomy. Some countries resort to capital controls to reduce both exchange rate volatility generated by swings in short-run capital flows as well as exposure to balance of payments crises. At the same time, capital controls can also support policies of domestic financial repression that can be used to ensure that domestic savings are used to finance the government budget and sectors deemed as priorities by policymakers.

In practice, capital controls tend to be far from watertight. A number of channels can be used to evade capital controls. One of the most frequently used channels has been under- and over-invoicing of export and import contracts (Guati, 1987; Kamin, 1988; Patnaik and Vasudevan, 2000). Multinational companies can also use transfer pricing schemes to evade capital controls. Another trade-related channel for unrecorded capital flows is associated with the leads and lags in the settlement of commercial transactions or variation in the terms offered on short-term trade credits. Remittances of savings by foreign workers in the domestic economy and by domestic nationals working abroad, family remittances, and tourist expenditures—although typically regarded as current account transactions—have also been used as vehicles for the acquisition or repatriation of foreign assets.

There is by now considerable evidence that the effectiveness of capital controls tends to diminish over time, especially when strong exchange rate pressures are resisted by official intervention. Japan's experience in the wake of the collapse of Bretton Woods system in the 1970s and the experiences of Latin American countries during the debt crisis of the 1980s demonstrate that capital controls have generally not been very effective in restricting capital outflows (inflows) when there is strong downward (upward) pressure on the exchange rate.

Capital controls in China are extensive and appear to have been reasonably effective in the past. However, recent experience suggests that their efficiency may be waning. It is widely cited that China's capital controls were one reason the country withstood the Asian financial crisis (e.g., Gruenwald and Aziz, 2003), but it should be noted that the capital flight from China during the Asian crisis was triggered by external shocks, while public confidence in the domestic financial system remained basically intact. In this sense, China's capital controls have not really been tested in a crisis context.

Despite the existence of controls on capital outflows, sizable amounts of financial capital still appear to have flown out of China during the Asian crisis and its aftermath.<sup>11</sup> Since 2001, expectations of an appreciation of the renminbi, coupled with a positive Chinese-U.S. interest differential, have resulted in substantial net inflows of non-FDI capital despite the extensive controls on non-FDI inflows (see Prasad and Wei, 2004). Moreover, these expectations have also been reflected in recorded capital account transactions. Foreign currency loans from domestic banks to residents increased by almost 30 percent during 2003, while residents' foreign currency deposits declined slightly. At the same time, anecdotal evidence of early collection of export receipts and increased use of trade credit for imports are also consistent with general expectations of an appreciation of the renminbi.

These experiences, corroborated by more formal empirical work (e.g., Cheung et al, 2003), suggest that the capital controls have become less effective over time, increasingly limiting the room for an independent monetary policy. China's continued rapid trade expansion also creates a growing scope for getting around capital account restrictions. As China becomes increasingly integrated into the global economy in the context of its WTO accession, with commitments to further liberalization of trade and the opening-up of the financial sector, its capital controls are likely to become even more porous.

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<sup>11</sup> Gunter (2004) estimates that capital flight from China exceeded US\$100 billion a year during 1997–2000. He also notes that, during this period, stricter controls on cross-border currency and investment flows were largely offset by increasing use of trade mis-invoicing.

#### IV. THE FOREIGN EXCHANGE MARKET

Some commentators have argued that the absence of a well-functioning foreign exchange market will inhibit any move toward greater exchange rate flexibility. Furthermore, it has been argued that, so long as controls on capital account transactions are in place, there will not be a fully functioning foreign exchange market in China, as much of the potential demand for foreign exchange in China is still excluded from the market (e.g., Lau, 2003). The latter is a valid point. However, while liberalizing the capital account can expand the sources and uses of foreign exchange, an open capital account is not a necessary condition for deepening the foreign exchange market. Since China has a large volume of trade transactions and few restrictions on convertibility on current account transactions, there is clearly potential for a deep and well-functioning foreign exchange market even without a fully open capital account.<sup>12</sup>

Furthermore, the notion of needing to first perfect the foreign exchange market before moving towards greater flexibility is, in our view, a red herring. In fact, the functioning of the foreign exchange market can be greatly improved even within the context of the present exchange rate regime.<sup>13</sup> A phased approach toward flexibility should not pose any major risks even if existing financial instruments to hedge foreign exchange risks are limited, and would give economic agents stronger incentives to hedge foreign exchange risks that have so

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<sup>12</sup> Duttagupta, Fernandez, and Karacadag (2004) also discuss the potential to develop the foreign exchange market in these circumstances and show that it is difficult to establish a strong positive relationship between capital account liberalization and depth of foreign exchange markets.

<sup>13</sup> For instance, allowing enterprises access to the China Foreign Exchange Trading System through a licensed broker system would increase trading volume and reduce the dominant role of official intervention in the market. Even within a narrow band of a de facto peg, relaxing bid-offer spreads could encourage participants to take positions on both sides. Foreign exchange surrender requirements could also be further reduced. Easing the requirement that enterprises need “real commercial demand” to enter forward contracts would allow them to hedge based on future needs (see Lin, 2004; Luo, 2004; Ma, 2004).

far been borne entirely by the monetary authorities. This would itself be an important factor nurturing the development of a deeper and more sophisticated foreign exchange market.

## V. CONSIDERATIONS OF TIMING

International experiences have varied considerably in terms of the order in which countries have adopted policies to open up to global integration. Some countries have liberalized capital flows without exchange rate flexibility—an approach that entails considerable risks if financial markets are not sufficiently developed—while others have introduced exchange rate flexibility well in advance of capital account liberalization. In general, countries appear to have better medium-term outcomes if they introduce exchange rate flexibility before fully liberalizing their capital account, especially if there are weaknesses in the financial sector.<sup>14</sup>

The Chinese authorities have attempted to alleviate recent appreciation pressures by easing controls on capital as well as current account transactions in order to provide more channels for capital outflows (see Annex II for a detailed description of recent measures taken to ease restrictions on cross-border foreign exchange transactions). These measures, while broadly in the direction of the authorities' long-term objective of full capital account convertibility, run the risk of getting the sequencing wrong. As discussed above, an increasingly open capital account without exchange rate flexibility has been the root cause of many recent emerging market financial crises.

Moreover, easing of controls on capital outflows may end up being counter-productive since this could stimulate further inflows. The removal of controls on outflows, by making it easier to take capital out of a country when desired, tends to make investors more willing to invest in a country (Labán and Larraín, 1993). In addition, to the extent that easing of controls on

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<sup>14</sup> Selected international experiences are discussed in Annex I. India is one example of a country that has recently introduced some exchange rate flexibility while only gradually easing capital account restrictions.

outflows is perceived as a commitment to sound domestic macroeconomic policies, more capital could be induced to flow in (Bartolini and Drazen, 1997). A number of countries (e.g., Italy in 1984, New Zealand in 1984, Spain in 1986, Uruguay in 1970) that have removed controls on outflows have experienced rapid and massive inflows soon after.

While capital controls provide some degree of protection to the domestic financial system, these controls are likely to become less effective over time. It would, therefore, be in China's best interest to consider an early move towards exchange rate flexibility, while the existing capital account controls are still relatively effective and the underlying structural problems manageable. The current strength and stability of the economy, together with existing capital account controls, have contributed to a reasonably high level of confidence in the banking system despite its weak financial position. But domestic banks are likely to come under increasing competitive pressure, especially once foreign banks are allowed to enter the Chinese market under WTO accession commitments.

In principle, an orderly exit from a fixed exchange rate regime to greater flexibility can best be accomplished during a period of relative tranquility in exchange markets. Since such periods are rare and fleeting, however, experiences of other countries suggest that a next-best set of circumstances is when the domestic economy is strong and pressures are for an appreciation of the currency (Eichengreen and Mussa, 1998a; Agénor, 2004). Such circumstances provide a useful window of opportunity that should be taken full advantage of. History is replete with examples of countries that, having passed up such opportunities, had to change their exchange rate regimes in far less ideal circumstances and with much less desirable macroeconomic outcomes during the adjustment to the new regime.

## VI. CONCLUDING REMARKS

China is firmly on the path of greater integration with the global economy—a path that has provided great benefits for China and for the world in general (see IMF Occasional Paper No. 232). The Chinese authorities clearly intend to continue on this path, undertaking more trade integration and a gradual liberalization of capital controls. In view of these objectives, gaining experience over time with greater flexibility in the exchange rate and achieving a more stable financial system should be prerequisites to fully opening the capital account.

Introducing more flexibility in the exchange rate would help to improve macroeconomic control and reduce vulnerabilities to shocks. Steps toward more flexibility in the exchange rate need not be deferred until all of the prerequisites for full capital account convertibility have been achieved. The exchange rate can be allowed to move in response to the evolution of supply and demand for foreign exchange, even though these forces may be constrained by restrictions on capital flows.

Historical experiences of other countries highlight the risks associated with capital account liberalization in the absence of exchange rate flexibility. Easing controls on capital outflows in order to alleviate pressures on the exchange rate could, in fact, be counter-productive and induce even larger inflows. Thus, capital account liberalization should be given a lower priority and should not be regarded as a substitute for greater exchange rate flexibility.

This paper has also argued that greater flexibility can be introduced without creating disruptions in the financial sector. Maintenance of capital controls can, to some degree, support this process by providing protection from potential instability arising from capital flows while institutional arrangements needed to support capital account convertibility, including a stronger domestic banking sector, are allowed to develop. A movement toward more exchange rate flexibility also does not necessarily mean immediate adoption of a free float. In fact, a period of “learning to float” can be useful in overcoming “fear of floating.”

However, capital controls will become increasingly ineffective as integration with the global economy continues. Furthermore, historical experiences of other countries clearly show the merits of making a move toward flexibility when the domestic economy is growing rapidly and the external position is strong. All of these factors lead to the conclusions that a relatively early move toward greater exchange rate flexibility would be in China's best interest and that there could be significant costs associated with long delays in making such a move.

## **I. Selected International Experiences with Capital Controls and Exchange Rate Flexibility**

### *Industrial economies*

Capital controls in advanced economies have generally been seen as helpful in avoiding sharp short-term fluctuations in the exchange rate while still providing some room for maneuver for monetary policy, provided that the exchange rate was allowed to move broadly in line with fundamentals over time. When there were clear misalignments in the exchange rate, the maintenance of capital controls resulted in increasing distortions and subsequent abrupt exchange rate corrections.

For example, after the collapse of the Bretton Woods system, Japan initially attempted to maintain a fixed U.S. dollar-yen exchange rate and, as a result, experienced large capital inflows (Mathieson and Rojas-Suárez, 1993). The foreign subsidiaries of Japanese firms were an important source of inflows, as they used U.S. dollar-denominated loans to make prepayments on exports from their parent company or to purchase yen-denominated securities. The authorities initially responded by severely tightening capital controls, which disrupted trade financing and could not be maintained. Eventually, they floated the exchange rate.

More generally, the expectation of a large discrete adjustment in exchange rates in the early 1970s during the collapse of the Bretton Woods system led to large capital inflows that ultimately overwhelmed the capital controls and forced most countries to exit from their exchange rate pegs. The breakdown of the Bretton Woods system in the early 1970s led to the introduction of floating exchange rates, but capital account liberalization generally proceeded slowly. Capital controls were maintained into the 1980s for many industrial countries (the United States, the United Kingdom, Canada, and Switzerland liberalized earlier than the others). As globalization proceeded and financial markets became more sophisticated, both the ability of market participants to evade controls and the economic costs of preventing domestic agents from fully participating in international activities increased. A movement toward liberalization began with most capital controls gradually removed over a number of years after a significant period of experience with floating exchange rates. The United Kingdom removed controls in 1979; Japan in 1980; Germany in 1981; Australia in 1983; and New Zealand in 1984. Most European countries only liberalized in the late 1980s or early 1990s: Sweden (1989); France (1989); Italy (1990); and Spain (1992); and others even later (e.g., Iceland in 1995). In some of these countries, this was associated with the first stage of European Monetary Union (which began July 1, 1990) that involved liberalization of capital flows.

Among these countries, New Zealand was one exception to the general pattern of exchange rate flexibility preceding capital account liberalization. New Zealand floated its exchange rate and liberalized capital flows at the same time in 1984, leading to substantial capital inflows and a sharp appreciation of the real exchange rate. While exchange rate flexibility cushioned the impact, the scale of these inflows still contributed to an asset price boom and

subsequent bust. While there were other factors responsible for the deep recession the country experienced in 1990–92, this episode does illustrate some of the risks that can be associated with rapid capital account liberalization, even in an advanced economy.

### *Developing economies*

There are a wide range of experiences among developing countries and a full survey is not attempted here.<sup>15</sup> The selected examples cited below illustrate that controls on short-term inflows can be effective if supported by a broad program of economic reforms (Chile), but tend to be circumvented if financial markets are sophisticated and/or underlying economic imbalances are not addressed (Brazil). The experience of Korea before the 1998 crisis illustrates the perils of an ad hoc and inconsistent policy. The experience of India, where managed exchange rate flexibility is conducted in the context of extensive capital controls that are only gradually being liberalized, is particularly relevant for China's situation.

The experiences of a group of Latin American countries provide further evidence that capital controls tend to lose their effectiveness in the face of protracted exchange rate misalignments. Argentina, Chile, Mexico, and Venezuela maintained controls on capital account transactions in the early stages of the 1980s debt crisis. They were, however, generally unable to avert balance of payments crises or to sustain overvalued nominal exchange rates. The large-scale capital flight continued through this period of capital controls. For instance, during 1982, capital flight from Argentina is estimated to have continued at a brisk rate, despite reintroduction of foreign exchange controls on capital transfers. Capital flight from Chile is estimated to have ranged from US\$800 million to US\$900 million during 1982 despite capital controls. In Mexico, several estimates show substantial capital flight throughout the period 1976–84, although the estimated peak year varies. In Venezuela, capital controls were reintroduced in 1983, but capital flight continued, with estimates ranging from US\$1 billion to as high as US\$5 billion.

In the late 1980s, Chile eased restrictions on capital flows and the exchange rate was managed somewhat flexibly within a band of +/- 5 percent. However, the economy soon became vulnerable to volatility in international financial markets and, following a surge in capital inflows in the early 1990s, controls on inflows were reintroduced. These controls provided a degree of monetary independence. While the effectiveness of the controls is still a matter of debate, the fact that they were supported by a broad program of economic and structural reforms is seen as an important factor contributing to their apparent effectiveness (see Cowan and De Gregorio, 2004, for a discussion). Chile has moved on to full flexibility in the exchange rate and has dismantled most of its capital controls.

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<sup>15</sup> Many of these cases have been discussed more extensively elsewhere (e.g., in the context of the Asian crisis). BIS (2003) provides a few detailed case studies.

In the 1990s, Brazil maintained extensive controls on short-term capital inflows in the presence of a tightly managed exchange rate regime. These measures were designed to limit the amount of capital inflows and maintain a positive interest rate differential over foreign rates. In an attempt to further reduce net inflows, restrictions on capital outflows were substantially reduced. Repeated attempts by the authorities to curtail inflows were largely unsuccessful. With relatively sophisticated financial markets, capital continued to find ways around the controls, especially in view of the large interest rate differential favoring investment in Brazilian assets which persisted, in part, because of a lack of underlying fiscal adjustment.

In Korea, a tightly managed exchange rate policy, together with inappropriate sequencing and a regulatory bias toward short-term external borrowing, is seen as having played a role in the 1997–98 crisis. Prior to 1990, the won was allowed to float against the U.S. dollar within narrow limits. Between 1990 and 1997, these limits were progressively increased to +/- 10 percent. The capital account was also gradually liberalized during this time, but in a very uneven pattern, including frequent tightening and liberalization of both inflows and outflows in attempts to regulate foreign exchange market pressures. Short-term borrowing by banks and certain nonbank financial institutions was liberalized in the mid-1990s, leading to a large increase in overseas borrowing. However, substantial controls on many capital transactions remained, especially on longer-term external borrowing (bonds and commercial loans). The exchange rate has been classified as independently floating since December 1997, but there is still frequent exchange market intervention.

Taiwan Province of China introduced a flexible exchange rate regime in 1978, but there has subsequently been intervention--often extensive--to influence the path of the exchange rate. Many capital controls have remained in place. A qualified foreign institutional investors (QFII) program was introduced in 1991, permitting a controlled inflow of capital, and the program was gradually liberalized over a 10-year period. The amount authorized under the QFII program reached \$3 billion and entry criteria were liberalized in 2001. Foreign exchange controls on trade-related transactions were abolished in 1987, a forward foreign exchange market was introduced in 1991, and repatriation and remittance allowances were increased to \$5 million in 1992.

Thailand started to effectively peg the baht to a basket of currencies of its major trading partners on November 5, 1984. Following a decade of strong growth and prudent financial policies, there were growing signs of overheating in the economy after 1994. The widening current account deficit was more than adequately financed by capital inflows. However, facilitated by capital account liberalization after 1993, an increasing share of these inflows was short-term in nature. The growing size and volatility of inflows complicated the implementation of monetary policy in a fixed exchange rate environment with few indirect instruments. The authorities were reluctant to allow for greater exchange rate flexibility, which could have helped to discourage speculative inflows and put downward pressure on inflation. In addition, the liberalization of the financial system was associated with rapid credit expansion, especially to the real estate sector. Thailand was forced to float the baht in July 1997 amidst heavy market pressures, triggering a financial crisis.

India has introduced limited exchange rate flexibility in the context of a managed float, while pursuing only gradual capital account liberalization. Limited exchange rate flexibility has been in place since 1993, and India accepted the obligations of Article VIII of the IMF's Articles of Agreement (which requires the removal of restrictions on current account transactions) in 1994. Capital account liberalization has been uneven, with occasional tightening and liberalization of controls on inflows and outflows to help regulate foreign exchange pressures. The Indian experience also illustrates the possibility of asymmetric treatment of capital inflows and outflows depending on the circumstances. In this case, concerns that rapid liberalization would lead to substantial outflows and a sharp depreciation in the exchange rate led to restrictive controls on capital outflows, especially for residents. Capital inflows are less restricted, especially for FDI and portfolio flows; short-term inflows are still restricted, and external commercial borrowing is subject to annual quantitative as well as maturity ceilings.

## **II. China's Steps Toward Liberalization of Cross-Border Foreign Exchange Transactions**

Full renminbi convertibility has been the stated goal of the authorities since 1993, but the authorities have always emphasized that it would take a long time to achieve that objective. Current account convertibility has been in place since 1996. Extensive controls remain on most capital account transactions.

Capital controls are maintained for both monitoring and policy purposes. Foreign direct investment (FDI) is encouraged but is closely regulated. However, World Trade Organization (WTO) accession has resulted in further liberalization of procedures for FDI, as foreign investment approvals are no longer subject to mandatory requirements, such as on technology transfer or local content. Foreign portfolio flows are hindered by the segregation of China's stock markets between residents and nonresidents. Restrictions on other forms of external borrowing are pervasive and generally subject to strict ceilings. Capital outflows by residents (e.g., foreign currency accounts and purchase of securities abroad) are tightly regulated.

The authorities have recently taken further steps toward liberalization of cross-border foreign exchange transactions, many of which are directly or indirectly related to capital account transactions.

- In 2001, restrictions were liberalized on purchases of foreign exchange for advance repayments of domestic and foreign currency loans, loans converted from foreign debt, and other foreign debts. The purchase of foreign exchange was authorized for investments abroad in strategic foreign projects. Persons paying for their own studies abroad (college level or higher) were allowed a one-time purchase of foreign exchange of up to the equivalent of US\$20,000 (previously US\$2,000) including tuition and fees (effective January 2005, this amount will be raised to US\$20,000 in addition to tuition fees).
- In 2002, the Qualified Foreign Investor Initiative (QFII) was introduced, permitting nonresidents to invest in the domestic stock market (A shares), subject to some restrictions. As of November 2004, 23 foreign investors had received approval for an amount totaling US\$3.2 billion. All enterprises authorized to conduct current account transactions obtained the right to retain foreign exchange equivalent to 20 percent of their current account foreign exchange earnings in the previous year (and this ratio was raised to 30–50 percent in 2004), making it easier for exporters to finance imports.
- In 2003, registration with, and permission from, the government to repay loan principal was no longer required for residents wishing to borrow foreign exchange from domestic Chinese financial institutions. Domestic companies were allowed to retain foreign currency revenue from overseas contracted projects, overseas shipping and commissions, and international bidding projects in foreign exchange accounts. In some provinces and regions, the limit on outward investment was increased to the equivalent of US\$3 million from US\$1 million. The maximum amount of foreign exchange that residents may export without a License for Carrying Foreign Currencies Abroad

(LCFCA) was increased to the equivalent of US\$5,000 from US\$2,000, and the limit at which State Administration of Foreign Exchange (SAFE) verification is required was increased to US\$10,000 from US\$4,000. The maximum amount of foreign currency that residents may import without declaration was increased to the equivalent of US\$5,000 from US\$2,000.

- In 2004, the National Social Security Fund (which manages about US\$17 billion) and domestic insurance firms were given approval in principle to invest a small portion of their portfolios offshore, but details of the amounts involved have not yet been made public. The authorities permitted international financial institutions to raise funds domestically in renminbi for use offshore. Domestic members of multinational corporations were allowed to collect their foreign exchange funds together and redistribute them domestically in the form of trust loans, or to extend loans to their overseas affiliates. The transfer of personal assets abroad by Chinese citizens emigrating overseas or by nonresidents receiving inheritances is also now permitted.

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