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## China's Growth Model: Choices and Consequences

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### 7.1 Introduction

China has maintained a phenomenal rate of growth over the last two decades, with annual GDP growth averaging about 10 percent. What accounts for this impressive growth performance? How long is it likely to last and what are the risks? This paper attempts to address these questions by providing a critical evaluation of the combination of macroeconomic and structural policies that has generated this growth. While it is hard to argue with success, I will argue that the choice of policies has led to unbalanced growth and portends serious risks for the future.

I will also provide a brief contrast between the Chinese and Indian growth models. While India has had a much lower average rate of growth over the last two decades, India's economy has picked up pace since 2005, growing at an average rate of over 8 percent per annum. Unlike in the case of China, this growth has been more balanced, with private consumption and investment contributing significantly to this growth.

One concern of Chinese policymakers is about the sustainability of high growth. But sustainability is not the only issue. There are many costs associated with the current growth model that deserve attention. For instance, tight management of the exchange rate has been facilitated by financial repression and a relatively closed capital account. These policies have curtailed financial sector development (which the authorities have declared to be a major policy priority), leading to inefficient intermediation of domestic capital. There are clearly large welfare costs associated with these constraints.

Indeed, rapid growth can mask, or in some cases even exacerbate, a number of deeper problems. The financial sector is in poor shape and has distorted domestic demand; the patterns of investment financing could lead to a resurgence of nonperforming loans (NPLs) in the future and, by fueling a buildup of excess capacity in some sectors, could generate deflationary risks in the medium term. Meanwhile, in the short term, some of the pressures are becoming evident in other forms such as asset price booms (in the equity markets, in particular).

Another aspect of the growth strategy is that it has involved a number of policy distortions and constraints that have greatly reduced the room for policy maneuver in case any big shocks, either internal or external, should hit the economy. Monetary policy

is typically the first line of defense against such shocks but monetary policy is constrained by the objective of maintaining a tightly managed exchange rate. Fiscal policy could play a role in buffering the economy against shocks, especially since the explicit levels of the fiscal deficit and government debt are quite low, but this may be deceptive as there are large contingent liabilities in the state-owned banking system and huge unfunded pension liabilities. The financial system is still dysfunctional in many ways and may not be deep or robust enough to withstand a significant shock.

What sorts of shocks is the Chinese economy likely to be vulnerable to? Possible internal shocks include loss of confidence in the banking system, social instability generated by rising inequality, and the bursting of the stock price bubble. External shocks include international capital market crises, a collapse of external demand, U.S. trade sanctions, flaring-up of tensions over Taiwan etc.

To deal with such shocks and to make growth more balanced and sustainable, reforms to the financial system, the state-owned enterprise sector and the social safety net will all be needed. Many of these reforms are inter-related and trying to implement these reforms in isolation may not be an effective way to proceed. For instance, stable macroeconomic policies and a well-developed and efficient financial sector are essential ingredients for balanced and sustainable growth. In turn, these two intermediate objectives would be helped by effective monetary policy and further capital account liberalization. A flexible exchange rate is a prerequisite for both of these. Thus, a broader approach to policy reforms will be essential to make growth more balanced and less vulnerable to shocks.

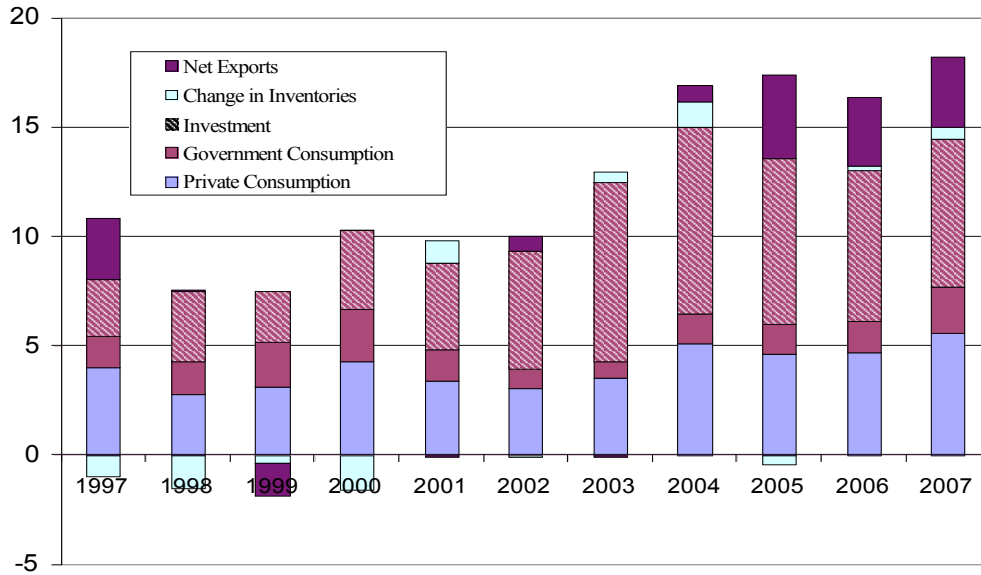
India's growth may also be hitting some constraints, although ones quite different from those of China. The financial system in India is in better shape than that of China, although it, too, has a long way to go in becoming an efficient intermediary of savings into productive investment. The real constraints to growth in India are likely to come from the low levels of investment in infrastructure and human capital, as well as weak public institutions and governance.

## **7.2 The Composition of Growth in China and India**

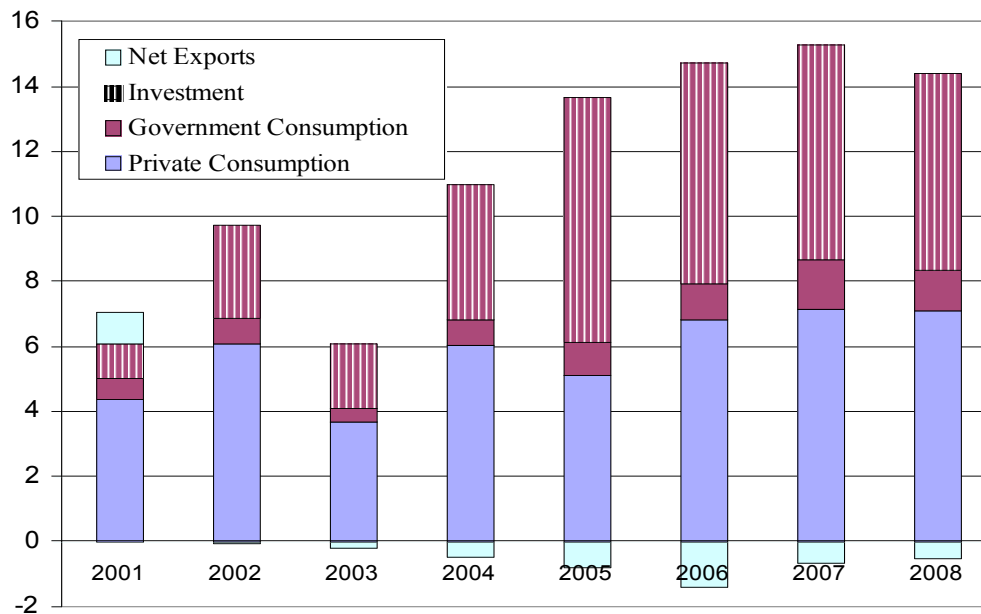
Investment in physical capital has been a major contributor to growth in China during this decade, in some recent years accounting for nearly two-thirds of nominal GDP growth (see Figure 7.1). Private consumption, by contrast, has made a much smaller contribution to growth (see Aziz, 2006, and Lardy, 2006). It is only very recently that net exports have made a significant contribution to growth, despite the widely-held view that China is an "export-led" economy. In India, private consumption has been an important contributor to growth, with investment playing a significant but not dominant role. In sharp contrast to the composition of growth in China, net exports have not made a positive contribution to growth as the trade balance has been consistently negative in recent years.

**Figure 7.1. GDP Growth**

**China**



**India**



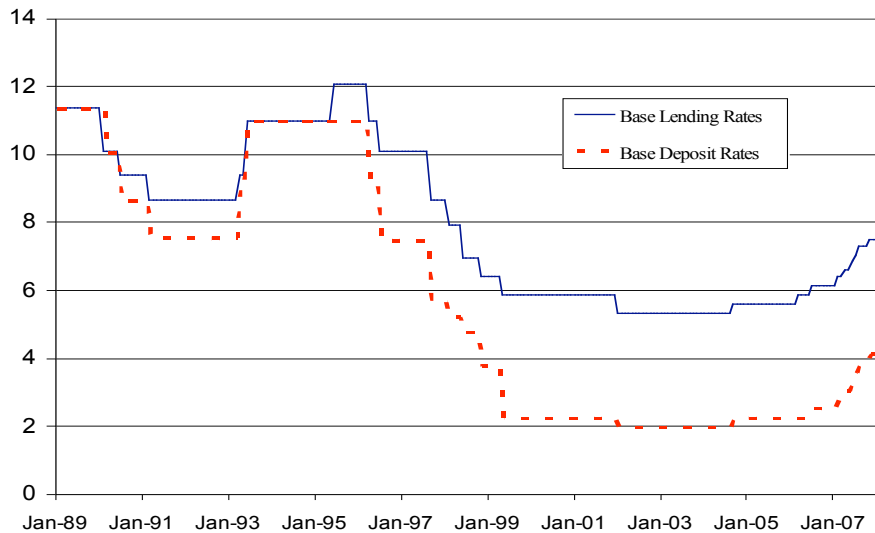
Source: CEIC and author's calculations.

Note: The growth rate is of nominal GDP.

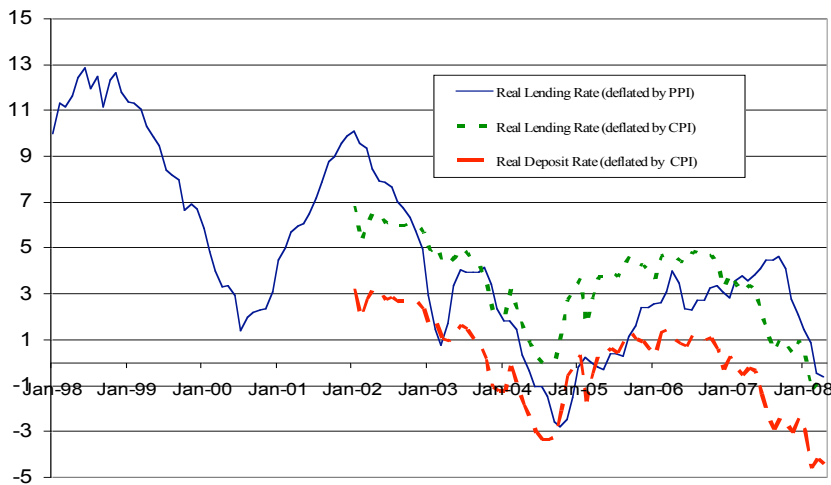
Why has investment growth in China been so strong? A substantial fraction of this investment in China has been financed by credit provided by state-owned banks at low interest rates. Indeed, cheap capital has played a big part in skewing the capital-labor

ratio and holding down employment growth (Aziz, 2006). Recent increases in the base lending rate have been far too small to raise the real price of capital to a meaningful level for an economy that is experiencing annual real growth of over 10 percent (Figure 7.2a, 7.2b). In addition, local governments provide subsidized land in order to encourage investment. And energy prices continue to be administered and made available to enterprises at prices below international levels.

**Figure 7.2a. Base Lending and Deposit Rates (1-year rates, in percent)**



**Figure 7.2b. Real Lending and Deposit Rates (1-year rates, in percent)**



Source: CEIC and author's calculations

Notes: Real rates calculated by deflating the nominal rates by twelve-month trailing CPI or PPI inflation.

Much of the recent investment has also been financed through retained earnings of profitable firms, which ought to be more defensible on the basis of economic criteria. However, even here the picture is not clear. Profitable state enterprises were not, until

very recently, required to pay dividends to the state. This suggests that such investment may have been spurred by the minimal rates of return on bank deposits which made even marginal investment projects seem in the money. The risk, of course, is that such high rates of investment in industries with favorable demand conditions may be leading to a buildup of excess capacity in those very industries; this could become evident if there were to be adverse demand shocks in the future (Goldstein and Lardy, 2006).

While investment has been high, national savings have been even higher, with both household and corporate savings rising in recent years. The uncertainties engendered by the transition to a market economy, the limited availability of instruments to borrow against future income to finance purchases (major durable goods, housing etc.), and the lack of international portfolio diversification opportunities have all contributed to high household savings (Chamon and Prasad, 2007). Financial system repression has meant that there are few alternatives to funneling these savings into deposits in the state-owned banking system.

Households willingly hold bank deposits despite the weaknesses of the banking system because of implicit deposit insurance provided by the government. This provides abundant liquidity for banks to expand credit which, because of the distorted incentives faced by lenders, largely finances investment by state enterprises. State enterprises that do make profits are not required to pay dividends, encouraging them to plow retained earnings (which are counted as enterprise savings) back into investment. Thus, the investment boom in recent years has been fueled by cheap credit and overoptimistic expectations of future demand growth in sectors that are doing well at present.

### **7.3 Policy Choices**

China has kept its exchange rate fixed relative to the U.S. dollar since 1995. China's strong productivity growth relative to its trading partners has generated pressures for currency appreciation during this decade. This pressure has been held back only by massive intervention in the exchange market. The current account surplus is likely to hit 12 percent of GDP in 2007, another indication of a substantially undervalued currency. Figure 7.3 shows that, despite an appreciation of the renminbi versus the U.S. dollar since June 2005, the real effective exchange rate of the renminbi is now *below* its recent peak in 2002 (largely due to the U.S. dollar's depreciation against other major currencies).

Figure 7.3a. RMB-USD Exchange Rate

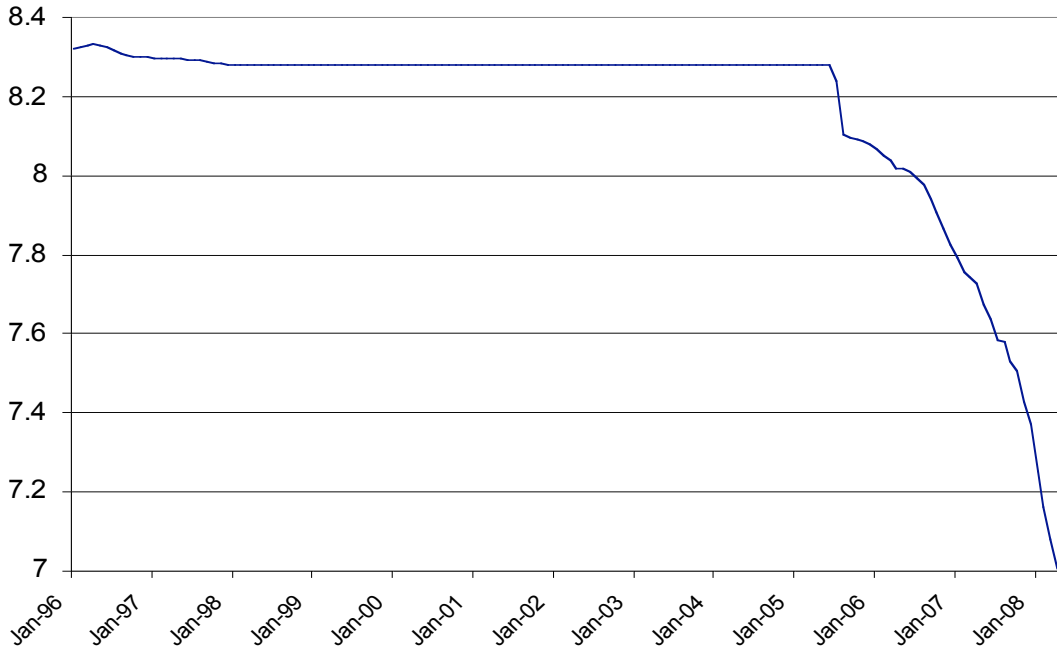
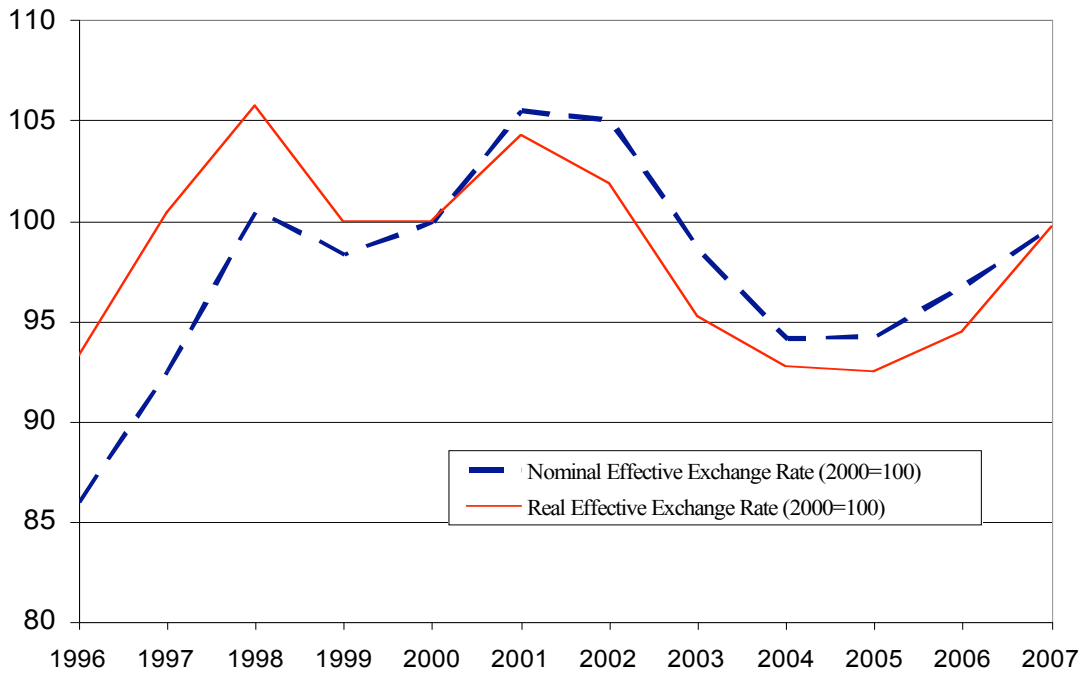


Figure 7.3b. Real and Nominal Effective Exchange Rate for China

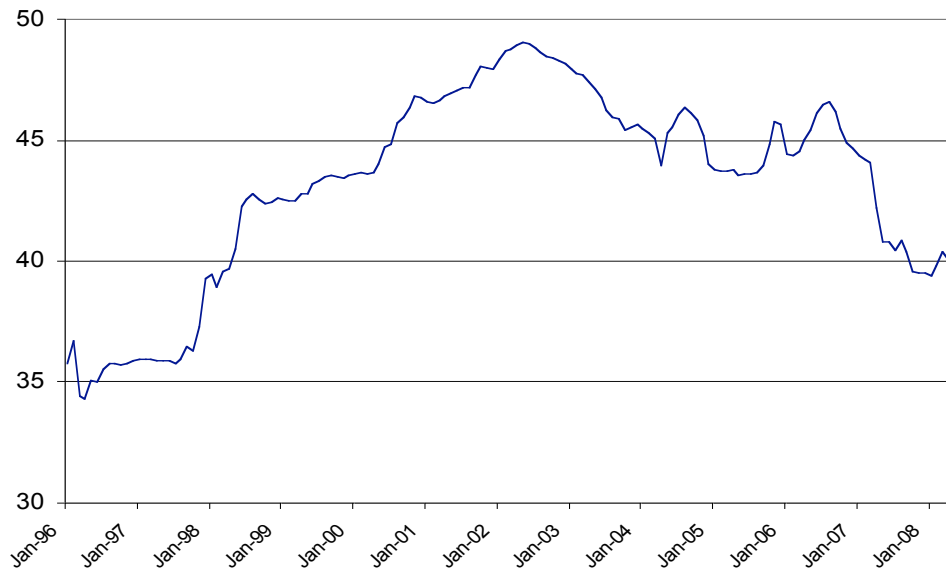


Source: IFS

Note: Data for 2007 is upto July 2007.

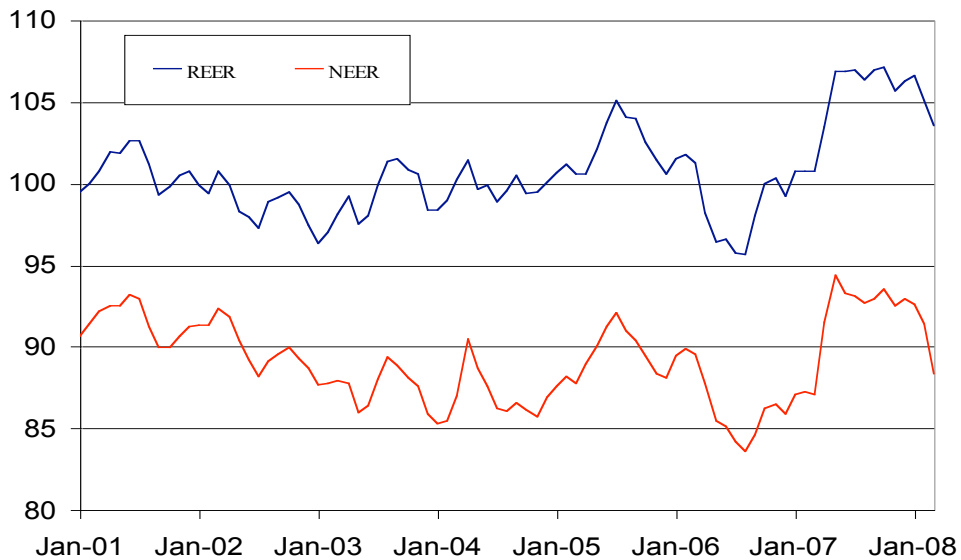
In contrast to the tightly-managed exchange rate regime of China, India's exchange rate regime has allowed for a great deal more flexibility (see Figure 7.4), although the Reserve Bank of India did undertake substantial exchange market intervention since the beginning of this decade in order to temper the appreciation of the rupee.

**Figure 7.4a. Rupee-USD Exchange Rate**



Source: IFS

**Figure 7.4b. Real and Nominal Effective Exchange Rate for India**

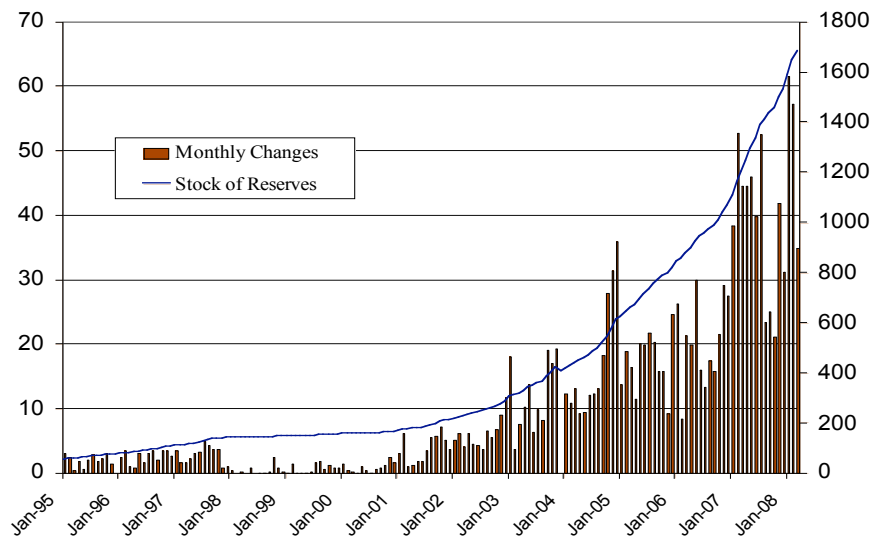


Source: RBI

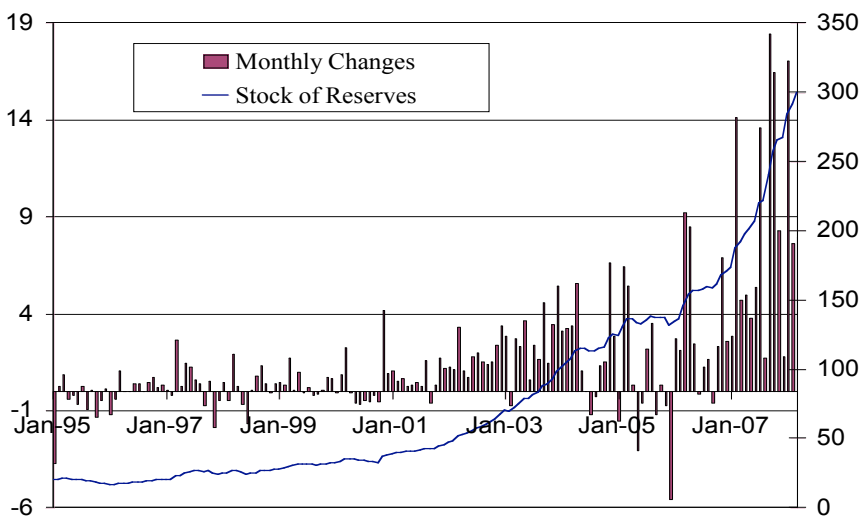
China's exchange rate policy has resulted in a massive accumulation of international reserves since 2001 (Figure 7.5). During the period 2001-04, inflows of speculative capital (in anticipation of eventual renminbi appreciation) accounted for most of the pickup in the pace of reserve accumulation relative to the period 1998-00. During 2005-06, speculative inflows shrank but the slack was more than taken up by a dramatic surge in the trade balance, which doubled the rate of reserve accumulation that had been seen during 2001-04. The inflows resulting from these factors have added to the liquidity in the banking system and further complicated the control of credit growth.

**Figure 7.5. Foreign Exchange Reserves: Flows and Stocks  
(in billions of USD)**

China



India



Source: CEIC and author's calculations.



Why have these inflows not led to rampant inflation in China? The answer lies in the ability of the People's Bank of China (PBC) to sterilize these inflows. Such sterilization usually quickly runs into limits in most emerging market economies. Government bonds that are used to soak up liquidity have to offer increasingly high yields to convince domestic economic agents to hold them, leading to ever-increasing costs to the budget.

In China, private saving rates (both household and corporate) continue to be very high; most of these savings invariably flow into the banking system since there are few alternatives. This has made the banks flush with liquidity, particularly at a time when they are under pressure to hold down growth in credit. Moreover, banks have an incentive to hold PBC bills rather than increase their lending since corporate lending, for instance, carries a capital requirement of 100 percent while no capital needs to be put aside for lending to the government. So there is a great deal of demand for PBC bills even at relatively low interest rates. This means that, at the margin, sterilization is essentially a moneymaking operation for the PBC (abstracting from the effects of changes in the exchange rate).

But such a cost-benefit calculation can be deceptive. The lack of exchange rate flexibility not only reduces monetary policy independence, it also hampers banking sector reforms. The inability of the PBC to use interest rates as a primary tool of monetary policy implies that credit growth has to be controlled by blunter and non-market-oriented tools, including targets/ceilings for credit growth as well as "non-prudential administrative measures" (which effectively amount to moral suasion). This vitiates the process of banking reform by keeping banks' lending growth under the administrative guidance of the PBC rather than letting it be guided by market signals. This constraint has also perpetuated large efficiency costs via provision of cheap credit to inefficient state enterprises (Dollar and Wei, 2007). The incidence of these and other costs of banking system inefficiency are not obvious, but they may ultimately be borne by depositors in the form of low (or negative) real returns on their saving.<sup>1</sup>

The management of capital flows has been another crucial component of macroeconomic policy. Extensive capital controls, along with tax benefits and other incentives, have been used to promote inward FDI while other forms of inflows, especially portfolio debt, have been discouraged (Prasad and Wei, 2007). Capital controls have also played an important role in protecting the banking system from external competition by restricting the entry of foreign banks and by making it harder to take capital out of the country. The limited development of debt and equity markets means that the state-owned banking system is effectively the only major game in town, for both borrowers and savers.

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<sup>1</sup> In July 2007, the benchmark one-year deposit rate was raised to 3.33 percent and the tax rate on bank interest income was cut from 20 percent to 5 percent. The effective after-tax deposit rate is now 3.16 percent, which is still below the current rate of CPI inflation.

## 7.4 The Reform Agenda

The complexity of the macroeconomic problems facing China makes it difficult to isolate specific policy solutions. The traditional approach of undertaking incremental reforms in a limited and experimental manner may not work well anymore.<sup>2</sup> Given the prominence of China's exchange rate regime in discussions about China-U.S. bilateral relations as well as the issue of global current account imbalances, currency policy provides a good illustration about the inter-connectedness of various reforms.

Let us begin by analyzing the costs of having a tightly-managed, rather than flexible, exchange rate. An inflexible exchange rate, while not the root cause of imbalances in the economy, requires a large set of distortionary policies for its maintenance over long periods. It is these distortions that—through multiple channels—hurt economic welfare and could, over time, shift the balance of risks in the economy.

Indeed, exchange rate flexibility matters for China, but not necessarily because it will directly have a large or lasting impact on problems such as the U.S.-China trade imbalance.<sup>3</sup> Rather, the case for a flexible exchange rate rests on a deeper set of policy priorities, with the ultimate objective being balanced and sustainable growth in the longer term.

An independent interest rate policy is a key tool for improving domestic macroeconomic management and promoting stable growth and low inflation. Monetary policy independence is, however, a mirage if the central bank is mandated to attain an exchange rate objective. Capital controls do insulate monetary policy to some extent, but they are notoriously leaky and tend to become increasingly less effective over time.<sup>4</sup> Thus, a flexible exchange rate is a prerequisite for an independent monetary policy.

Independent interest rate policy, in turn, is a key input into financial sector reforms. Using interest rate policy, rather than government directives, to guide credit expansion is essential to encourage banks to become more robust financial institutions. Trying to foster the commercial orientation of the banking sector in the absence of monetary policy tools to guide credit and money growth vitiates banking reforms.

The argument that the financial system needs to be fully modernized before allowing currency flexibility therefore has it backwards. Indeed, durable banking reforms are

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<sup>2</sup> See Blanchard and Giavazzi (2006) and Prasad and Rajan (2006) for more on this point.

<sup>3</sup> While Chinese currency appreciation by itself may not have much of an impact on global current account imbalances, it would be an important step towards resolving those imbalances since other Asian economies may be emboldened to allow their currencies to appreciate as well if China made the first move.

<sup>4</sup> A crude way of measuring *net* flows through unofficial channels is to look at the errors and payments category of the balance of payments. Prasad and Wei (2007) document that, during periods of downward (depreciation) pressures on the renminbi—e.g., the Asian crisis period—errors and omissions were negative and large, suggesting significant capital flight. During 2003-05, the errors and omissions turned into large positive numbers, reflecting speculative inflows in anticipation of renminbi appreciation. *Gross* unofficial flows could of course be much larger.

likely to be stymied if the PBC's ability to manage interest rates is constrained by the exchange rate objective. The PBC then has to revert to its old practice of telling state banks how much to lend and to whom, which hardly gives banks the right incentives to assess and price risk carefully in their loan portfolios. This makes banking reforms even more complicated than they already are.

Another requirement for broader financial development is a stable macroeconomic environment, for which again good macroeconomic policies, including effective monetary policy, are necessary. On the flip side, the lack of effective macroeconomic management could generate risks via the financial sector. In the absence of room for maneuver on interest rates, liquidity flows into the economy could result in asset price bubbles, including in the real estate and stock markets. These markets could become vulnerable to sudden and unpredictable shifts in investor sentiment that could send them tumbling at the slightest provocation, with broader ripple effects through the economy.

For developing the domestic financial sector, opening up of the capital account—to inflows as well as to outflows—could also serve as an important catalyst.<sup>5</sup> Inflows can bring in technical expertise on developing new financial instruments, creating and managing risk assessment systems, and improving corporate governance. Indeed, the approach of using foreign strategic investors to improve the efficiency of domestic banks is a strategy the Chinese authorities see as playing a useful role in their overall reform effort. Allowing outflows would help increase efficiency by creating competition for the domestic banking system and limiting the captive source of funds (bank deposits) that now keep domestic banks flush with liquidity. However, opening the capital account ahead of introducing greater flexibility in the exchange rate could pose serious problems in the future.<sup>6</sup>

Ultimately, stable macroeconomic policies and a well-developed and efficient financial sector are crucial ingredients for balanced and sustainable growth. Exchange rate policy is clearly not an end in itself but has an important role to play in achieving these deeper policy reforms and also the ultimate objectives in terms of growth and welfare.

## **7.5 Monetary Policy**

There are good reasons why China should move away from using the exchange rate as an anchor for inflation expectations. It should, instead, adopt an explicit inflation objective—a long-run range for the inflation rate and an explicit acknowledgement that low inflation is the priority for monetary policy—as a new anchor for monetary policy (Goodfriend and Prasad, 2007). An inflation objective, coupled with exchange rate flexibility, would work best to stabilize domestic demand in response to internal and external macroeconomic shocks. Indeed, focusing on inflation stability is the best way for monetary policy to achieve broader objectives such as financial stability and high

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<sup>5</sup> See Kose, Prasad, Rogoff and Wei (2006).

<sup>6</sup> See Eichengreen (2004), Prasad, Rumbaugh, and Wang (2005), and Yu (2007).

employment growth. Over time, the inflation objective would provide a basis for currency flexibility.

The time is right for making the switch—economic growth is strong and headline inflation is low. At an operational level, the PBC could continue its current approach to monetary policy, which includes setting targets for money and credit growth. The crucial difference would be to switch the strategic focus from the exchange rate to the inflation objective, which means that the currency could appreciate or depreciate in response to more fundamental economic forces such as productivity growth. This framework would subsume monitoring of monetary aggregates such as M2 and private credit, but directly targeting these aggregates is increasingly inappropriate for an economy that is undergoing rapid structural transformation and changes in the structure of its financial markets.

A full-fledged inflation targeting regime could serve as a useful long-term goal, but the approach I have outlined above is more practical for the foreseeable future and should deliver most of the benefits of formal inflation targeting.

Two related points are worth noting. Independent interest rate policy requires a flexible exchange rate, not a one-off revaluation or a sequence of revaluations. A flexible exchange rate buffers some of the effects of interest rate changes, especially in terms of offsetting the temptation for capital to flow in or out in response to such changes. A one-off revaluation can solve this problem temporarily, but could create even more problems subsequently if interest rate actions in a different direction become necessary, or if investor sentiment and the pressures for capital inflows or outflows shift.

Another crucial point is that exchange rate flexibility should not be confused with full opening of the capital account. An open capital account would allow the currency to float freely and be market-determined. But the exchange rate can be made flexible and the objective of monetary policy independence achieved even if the capital account is not fully open.

A concern often expressed by Chinese policymakers is that, given the fragility of the domestic banking system, exchange rate flexibility could be disastrous. There are two possible factors behind this concern. One is that sharp changes in the value of the currency could destroy bank balance sheets. There is little evidence, however, that Chinese banks have large exposures to foreign currency assets (and/or external liabilities denominated in renminbi) that would hurt their balance sheets greatly if the renminbi were to appreciate in the short run.

A more serious concern is that outflows of capital could starve the domestic banking system of liquidity by allowing domestic savers to take their money abroad. This is where the difference between exchange rate flexibility and capital account liberalization becomes especially important. There is no reason why, with even the moderately effective capital controls that are in place now, China could not allow for more exchange rate flexibility. A flexible exchange rate, even if it does not yield a “true” market equilibrium rate because capital flows are constrained, can allow for an independent monetary policy. And this flexibility does not by itself generate channels for evading controls on capital flows. In short, as a reason for not moving more quickly towards a flexible exchange rate, banking system weaknesses constitute a red herring.

As noted earlier, India has a more flexible exchange rate and, hence, a more independent monetary policy than China. Nevertheless, the maintenance of an implicit exchange rate objective has often acted as a constraint on monetary policy, created unrealistic expectations about the central bank’s ability to control both inflation and the nominal exchange rate, and made it harder to anchor inflationary expectations. Thus, even in the case of India, a move to an inflation objective as the primary goal of monetary policy could have beneficial effects.

## **7.6 Concluding Remarks**

China and India have both made tremendous strides on the road to economic prosperity. But there remains a large agenda for reforms to ensure the sustainability of their growth and make both economies resilient to shocks.

China’s rising integration with the world economy makes it increasingly vulnerable to external shocks, and there are many sources of internal pressures as well. Some difficult policy reforms will have to be put in place to meet the challenges that lie ahead. External pressure from the international community can play a helpful role, if pitched in the right way, by reorienting the discussion in a fashion that brings into sharper focus the linkages between currency reform and other core reforms on which there is broad consensus within China.

In India’s case, further reforms to the financial system and to the monetary policy framework are important, as are more substantial investments in physical infrastructure and human capital. This would allow India to take advantage of two strengths that it has relative to many other middle-income economies including China—a broader financial system (notwithstanding all its lacunae, it still looks good in relative terms) and a young labor force.

Ultimately, it is deep and enduring reforms that promote sustained and balanced growth in China and India that are in the best interests of these economies as well as the world economy.