Preliminary Version

Is the Chinese Growth Miracle Built to Last?

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Abstract

Is the Chinese growth miracle—a remarkably high growth rate sustained for over two decades—likely to persist or are the seeds of its eventual demise contained in the policies that have boosted growth? For all its flaws, the particular approach to macroeconomic and structural policies that has been adopted by the Chinese government has played a key role in delivering high growth along with a reasonable degree of macroeconomic stability. And, in tandem with the benign international environment witnessed in this decade, this approach makes it highly unlikely that the economy will face an explosive crisis. But there comes a point when the policy distortions needed to maintain this approach could generate imbalances, impose potentially large welfare costs, and themselves become a source of instability. Nevertheless, the traditional risks faced by emerging market economies, especially those risks related to having an open capital account, do not loom large in the case of China. There are, however, other less prominent factors that could easily trigger unfavorable economic dynamics that, even if they don't rise to the level of a crisis, could have serious adverse repercussions on growth and welfare. The flexibility and potency of macroeconomic tools to deal with such negative shocks that may hit the economy is constrained by the panoply of policies that have supported growth so far.

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I. Overview

The Chinese economy has been humming along for over two decades now, with no sign of slowing down anytime soon. The economy held together well even during the tumultuous period of the Asian crisis in the late 1990s. Since then, GDP growth has averaged about 10 percent and, after a brief flirtation with deflation during 2002-03, inflation has remained at moderate levels and has recently been in the range of 1-3 percent (Figure 1).

This remarkable success has given rise to two opposing views about prospects for the Chinese economy. One is that all is well—indeed, in some ways things may be even better than they look—and, with some minor policy adjustments, there is no reason the party (the economic one, that is) cannot go on indefinitely. The other view is that the economic boom is built on a house of cards that could come crashing down any minute. Where should we place our bets?

Even a casual reader of economic history knows that apparently sure things, borne along on the belief that *this* time things are really different, often come unhinged with little warning. But perhaps things really are different this time. While the Chinese growth miracle has borrowed part of its template from other success stories, there are many aspects to the Chinese experience that do make it sui generis. For instance, the investment boom that has underpinned growth has been largely financed out of domestic savings, the stock of foreign exchange reserves is well beyond any reasonable precautionary norms and, despite the huge capital inflows during 2001-05 and the rapid rate of expansion of monetary and credit aggregates, there are few signs of major inflationary pressures.

In this paper, I will argue that things are indeed different in the sense that China's present situation makes an explosive crisis unlikely. However, this is not to say that all is well. Indeed, there are deep structural problems in the Chinese economy that policymakers will have to come to grips with. A high rate of growth is of course one of the best tonics for such problems as they diminish the scale of the problems in relative terms and also create resources to deal with them. Perhaps, therefore, the means to achieving high growth may be less relevant than the end results. But rapid growth can hide a number of problems that come home to roost when the going gets rough, as it has a habit of doing.

A more direct way of posing this question is to ask whether the good times are leading to a buildup of imbalances that will make a crash inevitable? There are indeed deep problems in the system that could lead to this outcome. For instance, 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 and housing markets).

In my view, however, the sustainability of growth, while an important concern, is not the key problem. There are, however, indirect and subtle costs to the current growth model

that deserve more attention. For instance, China has held the exchange rate of the renminbi relative to the U.S. dollar within a narrow range despite enormous pressures for a substantial appreciation in recent years. And this has been accomplished without the typical rising quasi-fiscal costs of sterilizing the liquidity generated by large capital inflows. But this system has been held together by financial repression and a relatively closed capital account. This has, among other things, meant very low real rates of return for households, who save a lot and have few investment opportunities other than domestic bank deposits. These policies have also curtailed financial sector development, leading to inefficient intermediation of domestic capital. There are clearly large welfare costs associated with these constraints.

The second issue, which looms larger in my mind, is that the growth strategy has involved a number of important policy distortions and constraints that have greatly reduced the room for policy maneuver in case any big shocks should hit. It is inevitable that, as the economy becomes more complex and integrated with the world trade and financial systems, it will be exposed to more shocks. Such shocks could come from internal sources—e.g., loss of confidence in the banking system, social instability generated by rising inequality—or external sources—e.g., international capital market crises, a collapse of external demand, U.S. trade sanctions, flaring-up of tensions over Taiwan etc.

Of course, shocks tend to mutate into forms that one cannot predict and often come from unexpected directions. Chronicles of crises foretold are far outnumbered by crises that were largely unanticipated until things began to unravel. Thus, a more relevant question than the one about sustainability on the basis of purely internal dynamics of the system is whether the economy has enough flexibility to withstand and recover from large shocks, either internal or external. Here the answer is far less clear.

Monetary policy is typically the first line of defense against such shocks but, with monetary policy constrained by the objective of maintaining a tightly managed exchange rate, it can at best play a very limited role. There appears to be room for fiscal maneuver 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.

So what should China do to prepare itself to deal with shocks, and make growth more balanced and sustainable? There are some answers that few would disagree with. The banking system should be made more robust and driven by market principles, and the financial system should be broadened to create alternative sources of funding for firms and alternative investment opportunities for households and firms. The state-owned enterprise sector needs to be further corporatized by hardening budget constraints. There is a need for a better social safety net and a better system for delivery of social services.

While it is easy to create a longer laundry list of reforms, a key point is that many of these reforms are inter-related and China has reached a point in its evolution towards a

major market-oriented economy that trying to implement these reforms in isolation is not 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 cautious capital account liberalization. And a flexible exchange rate is a prerequisite for both of these. Ignoring these linkages—for instance, trying to push forward with banking reforms while holding monetary policy hostage to an exchange rate objective—makes an already difficult reform process even harder.

Before one gets swept away by doom and gloom scenarios, however, it is also important to recognize some of the strengths of the system. While the state sector remains dominant, there is a vibrant and rapidly expanding private sector that, despite all of its own flaws, is probably contributing even more to output and employment growth than suggested by official statistics. There has also been significant reform of the state-owned enterprise and banking sectors. There is a long way to go on these fronts but, given the legacy problems that these sectors faced to begin with and the apparent intractableness of the root problems, such progress cannot be dismissed as being inconsequential. There are other structural features of the economy that also constitute key strengths—a labor market that is flexible in many dimensions, a physical infrastructure that is the envy of many countries at a similar stage of development, an economy that is very open to trade, and a highly competitive export sector. Indeed, all of these factors come together in delivering the apparently high rate of productivity growth (Bosworth and Collins, 2007) and subdued inflation.

Ultimately, the essence of the policy debate can be framed in terms of the pace and sequencing of reforms required to turn these strengths into forces that allow the growth miracle to be sustained and to reduce the risks of its being derailed by shocks. There is, as always a delicate balance to be struck in terms of the reform strategy; economic theory by itself is of little practical value here as it points out the first best but not the least risky way to get there. One key principle, as noted above, is to recognize that there are inherent limits to the incremental reform strategy that has worked well in the past. At a certain level of development and complexity of an economy, the connections among different reforms become difficult to ignore. There is also the pressing need to take advantage of favorable conditions that now exist--high growth, low inflation, benign international environment--to push forward with reforms that could be much messier and more difficult to implement under duress when times are less good.

II. Parsing the Growth Story

One dimension of the Chinese growth story that is of particular relevance in the context of the arguments in this paper is the composition of growth. Until recently, data on the composition of GDP from the expenditure side were available only on a nominal basis. To provide a historical comparison, I will present those data here. Figure 2 shows that investment has been a major contributor to growth during this decade, in some years accounting for nearly two-thirds of nominal GDP growth. However, it is also worth noting that net exports by themselves were not a major contributor to growth for most of

this decade. Even though Chinese exports have been growing by leaps and bounds, the direct growth contribution of the trade balance had been relatively small until 2005-6.

For a developing economy that is typically labor-rich but capital-poor, high rates of investment ought to be good for faster capital accumulation and higher growth during the convergence to the steady state rate of long-run growth. But a substantial fraction of this investment in China has been financed by credit provided by state-owned banks. Indeed, cheap capital has played a big part in skewing the capital-labor ratio and holding down employment growth (Aziz, 2006). There are two features of bank lending that may be relevant for the price of capital—the first is the lending rate (Figure 3) while the second is the absence of obvious penalties for non repayment of loans by state-owned enterprises, which has effectively acted as a further subsidy for capital. The second factor has become less relevant over time as state enterprises are being subject to increasingly hard budget constraints and banks' NPL positions are being closely monitored.

The ceiling on lending rates had acted as another instrument for subsidizing capital. Following gradual increases in the lending rate, in October 2004, the ceiling on lending rates was scrapped altogether (except for urban and rural credit cooperatives).[2] The subsequent widening of the gap between the base lending rate and the actual lending rate (a weighted average based on loan volumes) indicates that banks are beginning to use this margin (Figure 4). However, there is still little evidence that the large state commercial banks (SCBs), in particular, are using this flexibility to substantially redirect lending to the private sector at higher interest rates.

Results of surveys of lending institutions reported in the People's Bank of China's quarterly Monetary Policy Reports reveal that banks still price a majority of their loans around the base lending rate (which has now become a floor). This could in part reflect concerns banks have about their own risk-assessment capabilities, especially in an environment where there is still strong pressure to avoid accumulation of new NPLs. A less benign explanation is that banks are responding to an informal incentive structure that remains unchanged—loans made to state enterprises are still regarded as less risky in terms of reputational costs to bank managers and loan officers, while loans made to private sector enterprises that become nonperforming could entail charges of incompetence or corruption.[3] Deficiencies in the legal framework may also play a role. Weak legal protection means that collateral provisions are difficult to enforce, so lending to the private sector carries additional risks.

A lot of the recent investment has also been financed through retained earnings; such investment is surely reasonable as it is being undertaken by profitable firms. However,

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[2] Dunaway and Prasad (2004) note the potential benefits of this policy shift.

[3] Podpiera (2006) examines lending growth, credit pricing, and regional patterns in lending to look for evidence of changes in the behavior of SCBs following recent reforms and strengthening of their balance sheets. He concludes that the pricing of credit risk remains rather undifferentiated and that SCBs do not appear to take enterprise profitability into account when making lending decisions.

even here the picture is far from clear. Profitable state enterprises were, until a few months ago, not required to pay dividends. 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 lead to a buildup of excess capacity in those very industries, particularly 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 (Figure 5).

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.

As for manufacturing exports, Chinese policymakers clearly see that as an integral part of the growth strategy. Policy measures to encourage exports include substantial tax incentives for foreign direct investment into China--most of this FDI has gone into the exporting sector—and the setting-up of special economic zones for exporting firms. Export growth skyrocketed after China's WTO accession in 2001, which opened up industrial country markets that had previously restricted imports from China. It is estimated that about half of China's exports are accounted for by processing trade, which accounts for only limited value added to final products within China. However, far more important than the direct contribution of the trade balance to GDP may have been the catalytic effect of gross exports, especially the technological and efficiency gains that have come with greater outward orientation of the economy.

III. Policy Choices and Their Consequences

I now turn to a discussion of economic policy choices that, unwittingly or otherwise, have generated the patterns of growth described above. Whether the maintenance of a fixed exchange rate—one of the most visible policy choices—is part of a mercantilist strategy to promote export-led growth has been the subject of intense debate. On the one hand, China has maintained a relatively stable exchange rate relative to the U.S. dollar since 1995. This policy was sustained even through the Asian crisis when the temptations for

devaluing the currency were great. On the other hand, during this decade the exchange rate has been kept from appreciating only by massive intervention in the exchange market. In tandem with the burgeoning trade surplus, this has been seen as prima facie evidence of a grossly undervalued currency. Determining the extent of undervaluation of the renminbi is, however, not an easy matter. In any event, there are clearly huge underlying pressures for real exchange rate appreciation coming from China's high productivity growth in its traded goods sector relative to that of its trading partners.

Inflows of speculative capital (in anticipation of eventual renminbi appreciation) during the period 2001-05 and the increase in the trade surplus in 2006 have led to a surge in the accumulation of international reserves since 2001 (Figure 6), added to the liquidity in the banking system, and further complicated the control of credit growth. Why have these inflows not led to rampant inflation? The answer lies in the ability of the 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 the case of China, however, a confluence of forces appears to have made sterilization operations relatively easy to carry out. As noted earlier, 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. The state commercial banks have also been aggressively trying to improve their balance sheets, including in terms of meeting capital adequacy norms set by the government, in order to attract strategic investors and undertake successful IPOs. In this context, 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. Thus, there is a great deal of demand for PBC bills even at relatively low interest rates, well below the rates of return on comparable-maturity industrial country treasury bonds (Figure 7). This means that, at the margin, sterilization is essentially a money-making operation for the PBC.

But such a cost-benefit calculation can be deceptive. As will be argued in more detail below, one of the principal concerns is that the lack of exchange rate flexibility not only reduces monetary policy independence, it also affects banking sector reforms. The inability of the PBC to use interest rates as a primary tool of monetary policy implies that credit growth is often controlled by much 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). As argued by Prasad and Rajan (2006), 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 subsidized 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 are probably ultimately borne by depositors in the form of low real returns on their saving.

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 official game in town, for both borrowers and savers.

China's approach to exchange rate policy and capital account liberalization may be indicative of a desire to maintain stability on the domestic and external fronts while opening up to trade and financial flows. And the large stock of foreign exchange reserves resulting from these policies may serve as insurance against vulnerabilities arising from a weak banking system.[4] But there comes a point when the policy distortions needed to maintain this approach could generate imbalances, impose potentially large welfare costs, and themselves become a source of instability.

IV. Connections among Different Reforms

What is the way forward? It turns out that it is not easy to isolate specific policies to deal with particular problems identified above. Indeed, the reform process appears to have reached a stage where the traditional approach of undertaking incremental reforms in isolation from others may not work well anymore. 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.

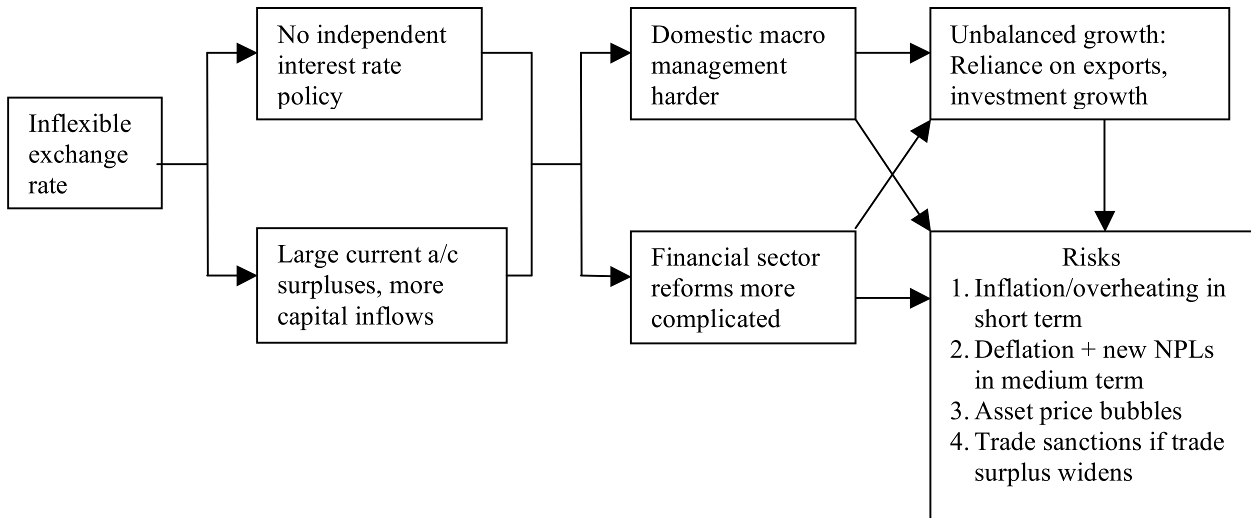
To begin with, why is the exchange rate regime of such importance? After all, the exchange rate is just a relative price. Moreover, economic models tell us that macroeconomic fundamentals will eventually win out in terms of what really matters—the real exchange rate rather than the nominal exchange rate. That is, if the nominal exchange rate doesn't adjust in response to changes in fundamentals, relative price levels will adjust. But a combination of policies such as financial repression and a closed capital account can delay this adjustment for a significant period. While this can boost export competitiveness by keeping the exchange rate undervalued, there can be subtle indirect costs, in terms of both economic welfare and reduced policy flexibility in responding to various shocks.

What are the costs of an inflexible exchange rate? The schematic diagram below lays out some of the connections, although this should of course be recognized as a heuristic diagram that ignores many of the complexities in the relationships depicted here. The main point is that 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

[4] Jeanne (2007) argues that the level of reserves now held by China far exceeds any reasonable calculation of what is needed for precautionary reasons.

periods. It is these distortions that—through multiple channels—hurt economic welfare and could, over time, shift the balance of risks in the economy.

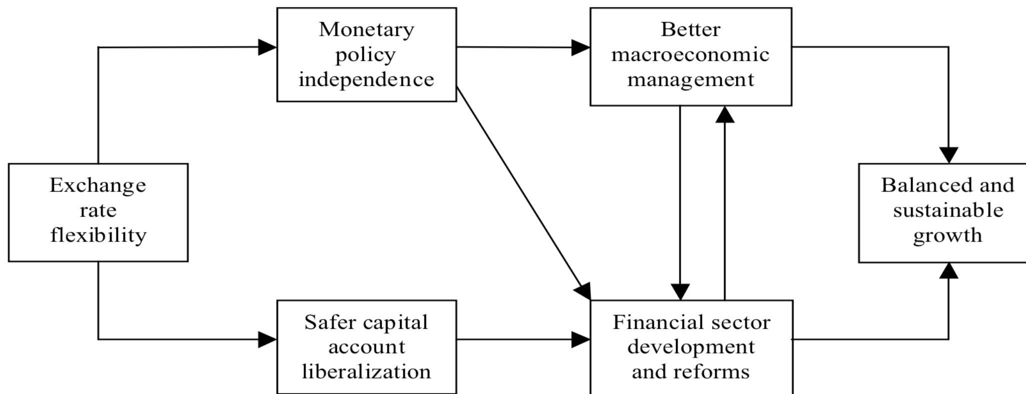
Lack of Exchange Rage Flexibility Complicates Macro Policy and Reforms



Flipping this around makes it easier to see why exchange rate flexibility matters for China. It is not because it will directly have a large or lasting impact on problems such as the U.S. trade deficit or imbalances in the Chinese economy.[5] 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.

[5] Some authors such as Goldstein (2005) have forcefully argued that China should undertake a large revaluation as a downpayment towards a significant appreciation of the currency, which could ultimately imply an appreciation of 25-30 percent against the U.S. dollar. Other observers have noted that, 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.

Making the Right Connections



An independent monetary policy is a key tool for improving domestic macroeconomic management and promoting stable growth and low inflation. As the Chinese economy becomes more complex and market-oriented, it will become harder to manage through command and control methods as in the past. And, as it becomes more exposed to global influences through its rising trade and financial linkages to the world economy, it will also become more exposed to external shocks. Monetary policy is typically the first line of defense against macroeconomic shocks, both internal and external. Hence, having an independent monetary policy is important for overall macroeconomic stability.

Monetary policy independence is, however, a mirage if the central bank is mandated to attain an exchange rate objective. Capital controls, which prevent money from moving in an out of an economy easily, do insulate monetary policy to some extent. But capital controls are notoriously leaky (the unofficial flows into and out of China itself are ample testimony to this) and tend to become increasingly less effective over time.[6] Thus, a flexible exchange rate is a prerequisite for an independent monetary policy.

Independent monetary policy, in turn, is a key input into financial sector reforms. Until the late-1980s, lending operations of state-run banks (which still dominate the financial landscape in China) were determined by the government. The legacy of directed lending lives on in some ways, especially since Chinese banks have still not developed risk-assessment expertise or been given the right incentives to lend on commercial principles. Thus, using interest rate policy, rather than government directives, to guide credit expansion is essential to encourage banks to become more robust financial institutions.

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[6] 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.

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 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 financial 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, which could send them tumbling at the slightest provocation, with broader ripple effects throughout 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.[7] 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.[8] History is replete with examples of countries that opened up the capital account while things looked good, even while keeping their exchange rates fixed, and were then subject to large exchange rate depreciations when they were subject to sudden stops and/or reversals of capital flows.

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, as shown by the connections depicted above, has an important role to play in achieving these deeper policy reforms and also the ultimate objectives in terms of growth and welfare.

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[7] See Kose, Prasad, Rogoff and Wei (2006).

[8] See Eichengreen (2004), Prasad, Rumbaugh, and Wang (2005), and Yu (2007).

V. A Broader Context for Currency Reforms[9]

For an emerging market economy, keeping domestic inflation low and stable, and controlling inflation expectations, is always a difficult challenge. For all its flaws, the exchange rate link to the U.S. has served as a useful anchor for inflation expectations in China. So what could serve as a suitable alternative anchor for inflation expectations in place of a tightly managed exchange rate?

Based on joint work with Marvin Goodfriend (Goodfriend and Prasad, 2007), my view is that China should 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. 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 employment growth. Over time, the inflation objective would provide a basis for currency flexibility. Thus, exchange rate reform will be seen as a key component of an overall reform strategy that is in China's short- and long-term interests.

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.

But how could such a regime—which is in many ways similar to that advocated for the U.S. by Ben Bernanke—work effectively in an economy with a weak financial system? The basic condition is that banks' balance sheets must be robust to interest rate fluctuations. The PBC has already made good progress on this front by clearing bad loans from the books of the key large banks and recapitalizing them. Full modernization of the banking system is a long way off, of course. But it would be inadvisable to wait for that outcome before moving to a new monetary framework. Indeed, as noted earlier, effective monetary policy is necessary for pushing forward with financial sector reforms.

I am not advocating a full-fledged inflation targeting regime, although this could serve as a useful long-term goal. The approach I have outlined above is more practical for the foreseeable future, and it 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

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[9] This section draws heavily on Goodfriend and Prasad (2007).

subsequently if interest rate actions in a different direction become necessary, or if investor sentiment and the pressures for capital inflows or outflows shift. This is why the focus on a large one-time revaluation to atone for past sins doesn't get us anywhere, either in terms of the policy debate or in terms of effecting reforms that really matter.

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. Indeed, as noted above, there are good reasons why it is preferable to move more gradually on capital account opening than on exchange rate flexibility. A free float with an open capital account is a useful long-term objective, but is not a high priority in the short run.

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 noted above between exchange rate flexibility and capital account liberalization becomes important. There is no reason why, with even the moderately effective capital controls that now exist, 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.

VI. Bumps and Lumps Along the Road

While one may quibble about the pace of reforms and their sequencing, there is undeniably progress being made in terms of various reforms and a recognition on the part of Chinese policymakers about what needs to be done. What could derail this process? I now review a series of risks that the Chinese economy faces, how the present economic circumstances may allow them to be dealt with, and what could be done to mitigate them. This is not meant to be an exhaustive set of risks and one must also emphasize the proviso that, to paraphrase Donald Rumsfeld, the known unknowns may be far less consequential than the risks that we may not even be able to conceive of in advance.

With China's increasing integration into the world economy through its trade and financial linkages, its exposure to external shocks has increased and so has their potential impact on the Chinese economy. It is difficult to compartmentalize risks as emanating from domestic or external sources, however, since it is the interaction of foreign and domestic circumstances that matters for the economic impact of these shocks. With this caveat in mind, let us trace through some specific shocks that have mattered in previous emerging market crises and see what relevance they may have for China.

1. *Sudden stop or reversal of capital inflows*. This phenomenon has been associated with a large number of emerging market crises and can be particularly brutal when an economy is heavily dependent on foreign capital. In China's case, this dependence is quite limited. Most of the flow of capital through official channels has been in the form of foreign direct investment (FDI). This form of foreign inflows tends to be the most stable and difficult to reverse in short periods. Furthermore, the amount of annual gross FDI inflows that China has gotten in recent years has been on the order of $60 billion (about 2 percent of GDP). The level of external debt remains low at about 25 percent of GDP and, notwithstanding the rising share of short-term debt in total debt, is hardly at a level that is a cause for concern. Putting these factors together, and taking into account the level of foreign exchange reserves, a sudden stop is not a high-probability event and will have little direct short-term impact on the Chinese economy.[10] By extension, financial crises in other emerging market economies are unlikely to spill over to China, so "contagion" is not a major concern.

2. *Plunge in the value of the U.S. dollar against major international currencies*. This is an ever-present possibility given the high level of the U.S. current account deficit. Unless the value of the renminbi was in fact to be set against a basket of currencies with a sufficiently high weight on non-U.S. currencies, this would lead to a depreciation of the renminbi in real effective terms, further boosting the competitiveness of Chinese exports in non-U.S. markets. The direct impact on China would be limited (depending also on what happened to U.S. import demand), but the effective depreciation of the renminbi could drive the current account surplus higher, bring in more inflows, and make domestic macroeconomic management even harder. There could of course be major second-round effects if the dollar depreciation led to a spike in U.S. inflation, which in turn led to a tightening by the Fed and a slowdown in U.S. activity, affecting global demand.

3. *Collapse of external demand*. In the U.S., the "recession" word has been uttered by no less a personality than Greenspan. Of course, he and others do not see this as a likely event, but there are factors like a meltdown of the subprime mortgage market that could ripple through financial markets and trigger a slowdown in domestic consumption. A slowdown in the U.S. economy would have significant spillover effects onto other economies that also constitute major Chinese export markets. Chinese exports of goods and services amount to almost 40 percent of GDP and exports to the U.S. account for about one-third of the total. Thus, this is an important risk for the Chinese economy,

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[10] In Goldstein's (2005) cross-country analysis of external vulnerabilities among emerging market economies, China comes out looking rather good on most dimensions.

especially given that net exports have made a sizable contribution to growth in 2005-06 (the current account surplus now amounts to about 7 percent of GDP).

4. *U.S. trade sanctions*. About a third of China's exports go to the U.S., so substantial tariffs or quantity restrictions on U.S. imports of Chinese products would certainly hurt export growth. There is a distinct probability that some bipartisan legislation will soon be brought to the floor of Congress but, in the interests of making such legislation WTO-compliant and veto proof, it is likely to be less drastic than last year's Schumer-Graham bill (which called for tariffs of 27.5 percent on all imports from China). It is also likely to give the Chinese more time to modify their currency regime by calling for better guidelines to measure currency misalignment and deal with excessive misalignment through the intervention of international organizations such as the IMF.

5. *Loss of confidence in the banking system.* This is potentially one of the most serious risks in the economy. Deposits in the state-owned banking system are implicitly insured by the government, but this covenant could come into question very quickly. A new formal deposit insurance system is being put in place, but the authorities' reaction if a bank was indeed close to failing and reactions of depositors in the entire banking system if the system did work the way it should are difficult to predict. Although the NPL problem seems to be under control, it is likely that the true extent of NPLs is larger than suggested by the books of state banks. Furthermore, as discussed earlier, an economic downturn could lead to a surge in new NPLs because of the credit boom that is now fueling growth.

The true extent of NPLs in the banking system is unclear. So it is difficult to say conclusively whether the existing stock of foreign exchange reserves will be enough to protect the banking system, but this is likely to be the case even if new NPLs surge and private agents pull a substantial portion of their savings out of bank deposits. Moreover, so long as the capital account remains relatively closed, the possibility of massive capital flight is limited. But the government has been opening channels for money to flow out of the economy in order to relieve pressure on the exchange rate. History shows that, once these taps are opened, it is very difficult to shut them off.

This poses a significant risk because deposits in the banking system now stand at about 160 percent of GDP while foreign exchange reserves amount to less than 50 percent of GDP. The risk of such a massive flight out of bank deposits is small. Nevertheless, these numbers do serve to drive home one important point. Rather than focus on capital account liberalization, which can be risky if circumstances changes and there is pressure for outflows, it would be far better to deal with the root problem—the lack of exchange rate flexibility and the absence of an independent monetary policy.

6. *Social instability.* This is another wildcard. The rising inequality of incomes—between rural and urban areas, between well-educated and low-skilled workers, etc.—has created deep resentment in a society that is ostensibly driven by egalitarian ideals. Moreover, the effects of institutional weaknesses such as corruption and lack of public sector transparency are felt more keenly by the poor. Such tensions could very easily boil

over for any number of relatively minor reasons. The Chinese Communist Party has hitherto managed to keep a lid on social instability by quickly isolating and beating back such incidents, but these could easily spin out of control if the government responds to some external shock in a way that causes the burden to fall largely on the poor.

There are other risks as well that could slow growth. A sharp increase in oil prices could affect Chinese industrial output, given China's dependence on manufacturing that is capital- and energy-intensive. China has made some progress in building its stockpile of oil reserves but would still be adversely affected but not by enough to knock more than a couple of percentage points off growth. Similarly, a flare-up in tensions across the Taiwan straits would have unpredictable consequences. These are known but hard-to-quantify unknowns. Demographic pressures are also building and, as dependency ratios rise and the share of the working-age population declines, these pressures could have adverse implications for labor supply and also for social expenditures on health.

The main message of this section is that the traditional risks faced by emerging market economies, especially those related to an open capital account, do not loom large in the case of China. There are, however, other less prominent factors that could easily trigger unfavorable economic dynamics that, even if they don't rise to the level of a crisis, could have serious adverse repercussions on growth and welfare. And the potency and flexibility of macroeconomic tools to deal with such developments is constrained by the panoply of policies that have supported growth so far.

VII. Concluding Remarks

China has achieved remarkable economic progress in the last three decades. But there is much work to be done to make the economy resilient to large shocks, to ensure the sustainability of its growth, and to translate this growth into corresponding improvements in the economic welfare of its citizens. One important lesson from the experiences of other countries is that periods of high growth can sometimes mask deep underlying problems. At the same time, favorable domestic and external circumstances may provide an excellent—but possibly narrow—window of opportunity for tackling deep-rooted problems without much economic disruption. For one, sustained capital inflows and appreciation pressures on the exchange rate may make it easier to manage the move towards greater exchange rate flexibility. Exits from a currency peg when there are massive outflows due to pressures for depreciation tend to be much messier. Similarly, the current state of low inflation provides a good environment to consider setting a long-run low inflation objective as a nominal anchor. And the favorable fiscal position provides some room for rethinking social expenditure priorities, particularly in education and health care.

There is no question that Chinese policymakers face a difficult balancing act—they need to ensure that each set of reforms proceeds at a reasonably rapid pace and, at the same time, that a broad set of reforms move along in tandem. This will involve more of a leap into the unknown and will carry attendant risks, but the risks of not moving at a sufficient pace and along a broad front are even greater. Indeed, perhaps the best way to mitigate

the unknowable risks at the current juncture will be, as part of the reform agenda, to develop flexible and potent policy instruments as well as streamlined economic decision-making structures that allow for nimble responses to unanticipated developments.

External pressure can play a helpful role in this process, but only if it is placed in the right context. For instance, the debate in the U.S. about the Chinese exchange rate regime has been distorted in some ways, and made political rather than substantive, by placing it in the narrow context of the U.S.-China trade balance. There is an important strategic (and educational) element related to reframing the exchange rate issue in a broader context. This is where external pressure from the international community can be helpful, not in the form of threats but by reorienting the discussion in a fashion that makes the linkages between currency reform and other reforms—on which there is broad consensus within China—much clearer.

Furthermore, working with the Chinese to develop deadlines for achieving specific policy goals would be useful if done in a collaborative rather than confrontational manner. These intermediate steps could serve as concrete guideposts for the reform process and help break down internal resistance to the reforms. Commitments that the Chinese made in the context of accession to the World Trade Organization, for instance, have helped to galvanize internal reforms. In China—as in any other country—there are some groups that stand to lose disproportionately from certain reforms, even if those reforms may be hugely beneficial overall. This is precisely where external pressure, if applied judiciously, can be helpful in generating enough momentum to help the forces that are predisposed towards undertaking reforms. A confrontational approach, on the other hand, could well prove counterproductive by bolstering the forces opposed to reform and allowing them to paint certain reforms as being detrimental to China and in the interests only of other countries.

Ultimately, as far as Chinese reforms are concerned, there is a set of shared interests between policymakers in China, the U.S. and elsewhere. For it is deep and enduring reforms that promote sustained and balanced growth in China that are in the best interests of both China and the world economy.

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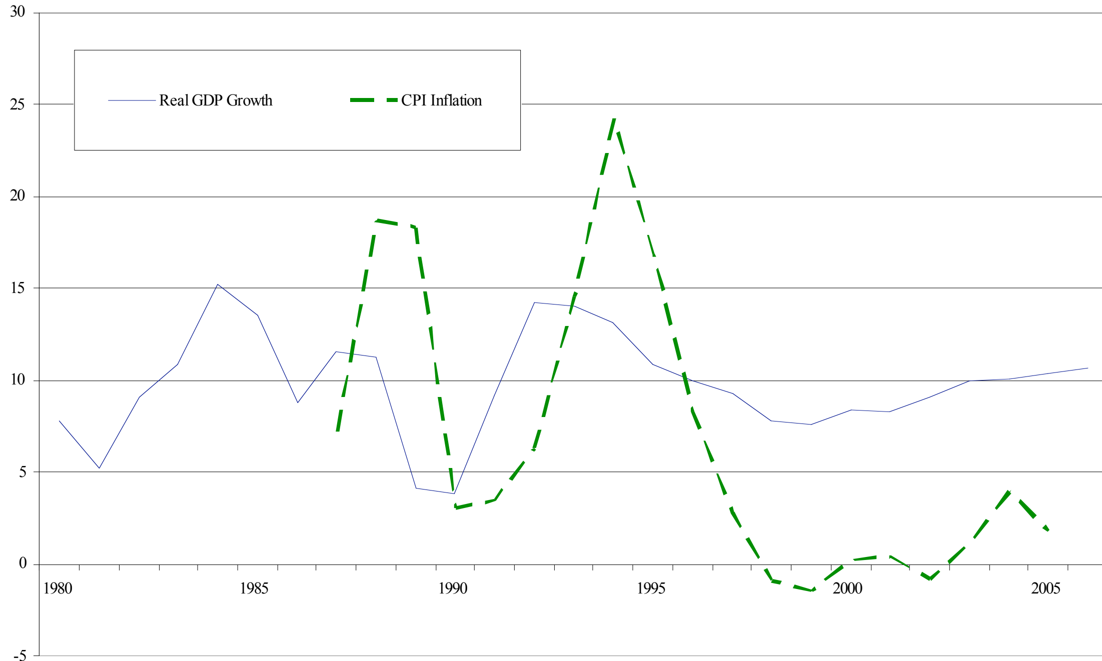
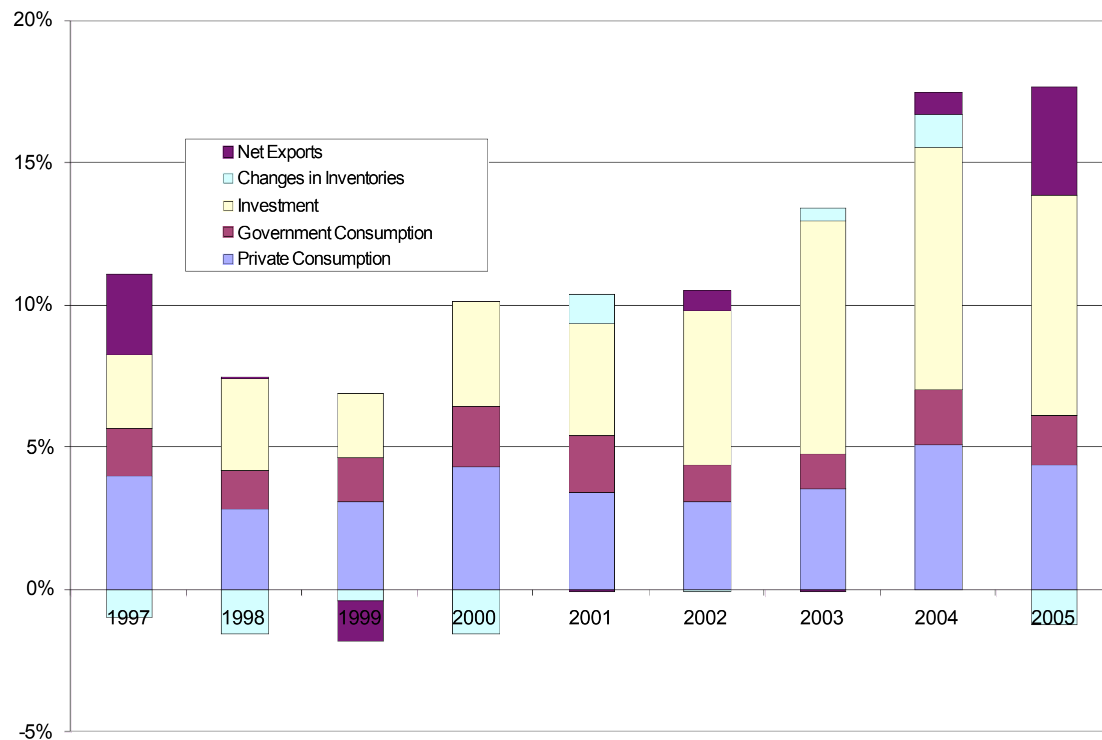
Figure 1. GDP Growth and CPI Inflation



Source: CEIC and IMF's International Financial Statistics.

Figure 2. Contributions of GDP components (by expenditure) to China's nominal GDP growth



Source: CEIC and author's calculations.

**Figure 3a. Base Lending and Deposit Rates (1-year)
(in percent)**

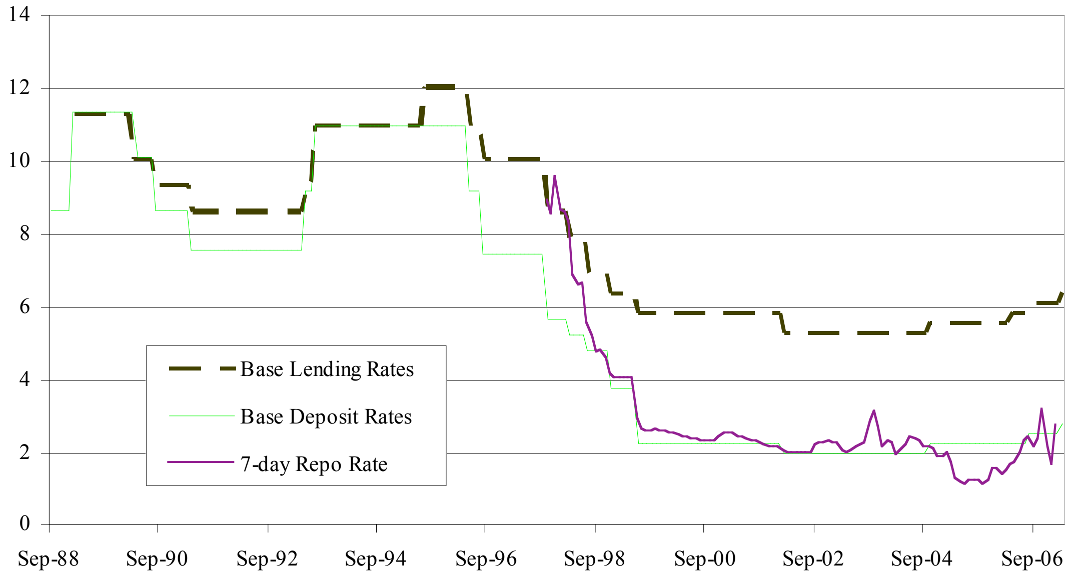


**Figure 3b. Real Lending and Deposit Rates
(in percent)**

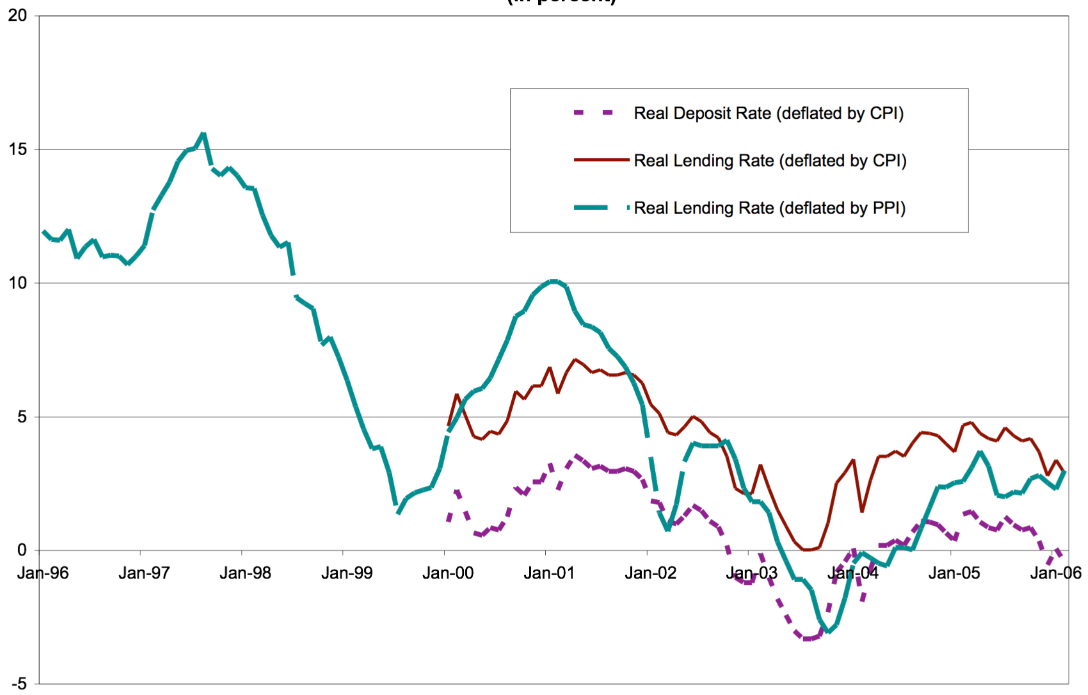
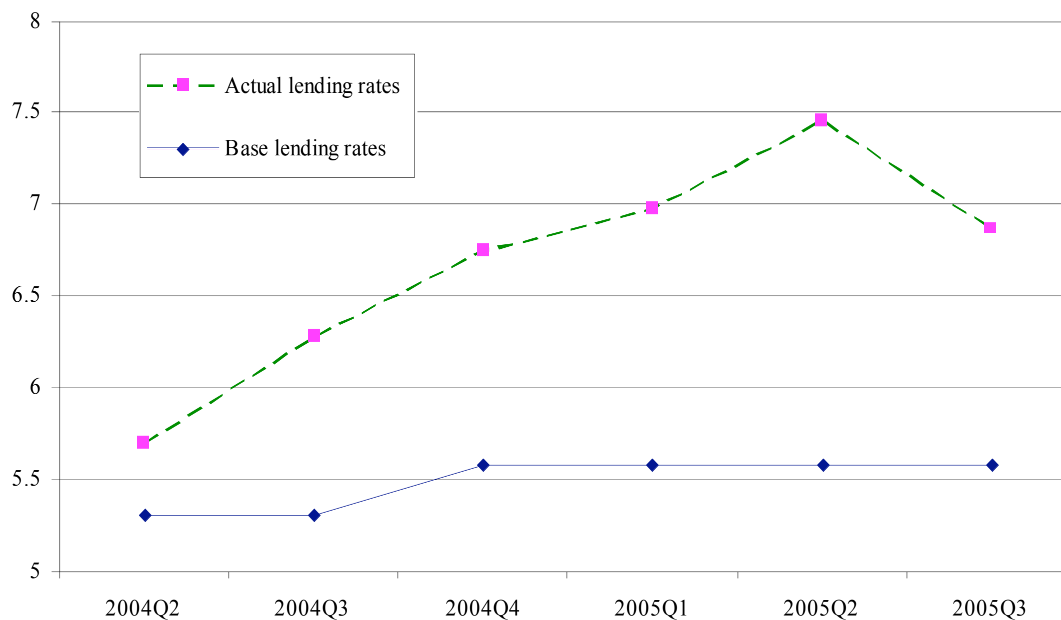
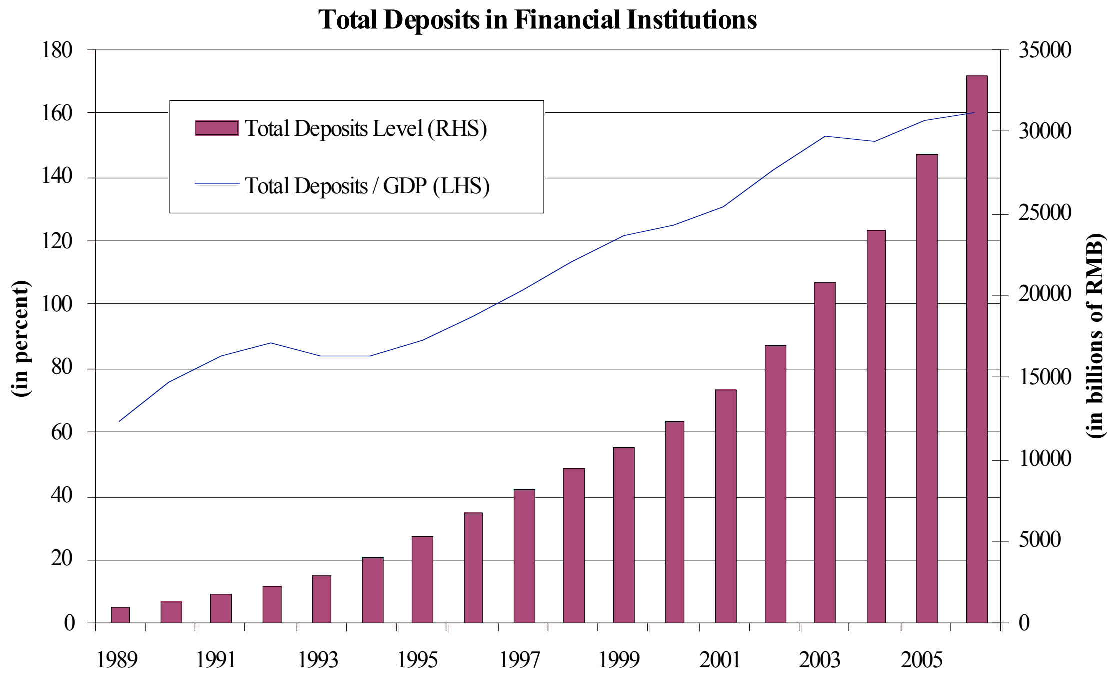


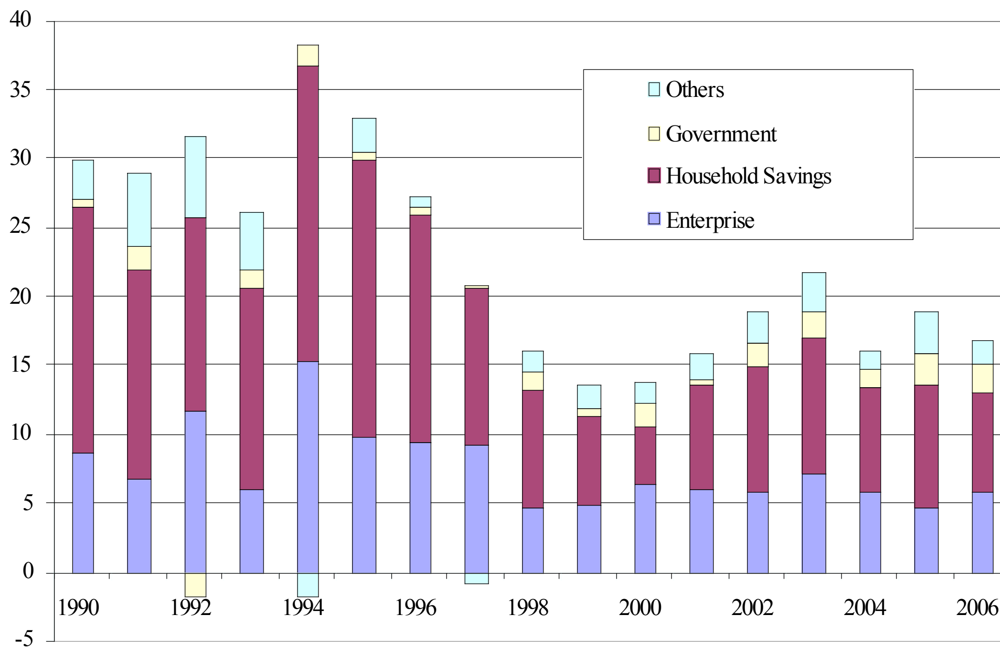
Figure 4. Base and Actual Lending Rates (1-year)
(in percent)



Source: CEIC, PBC Monetary Reports and IMF calculations.

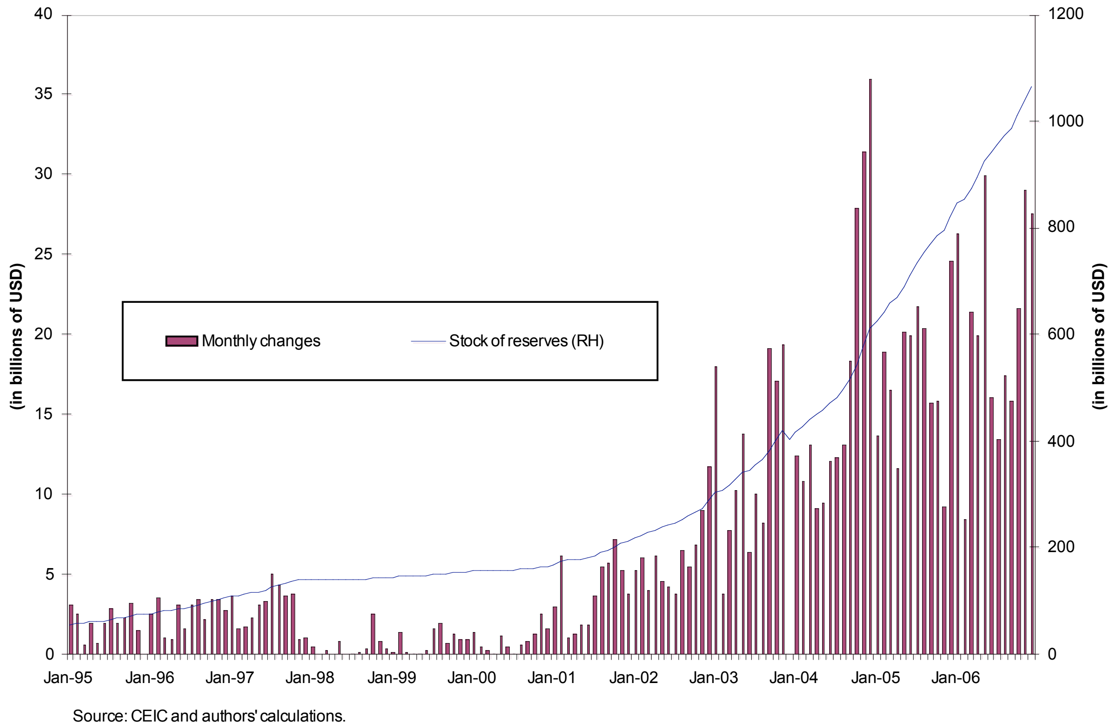
Figure 5. Deposits in the Chinese Banking System





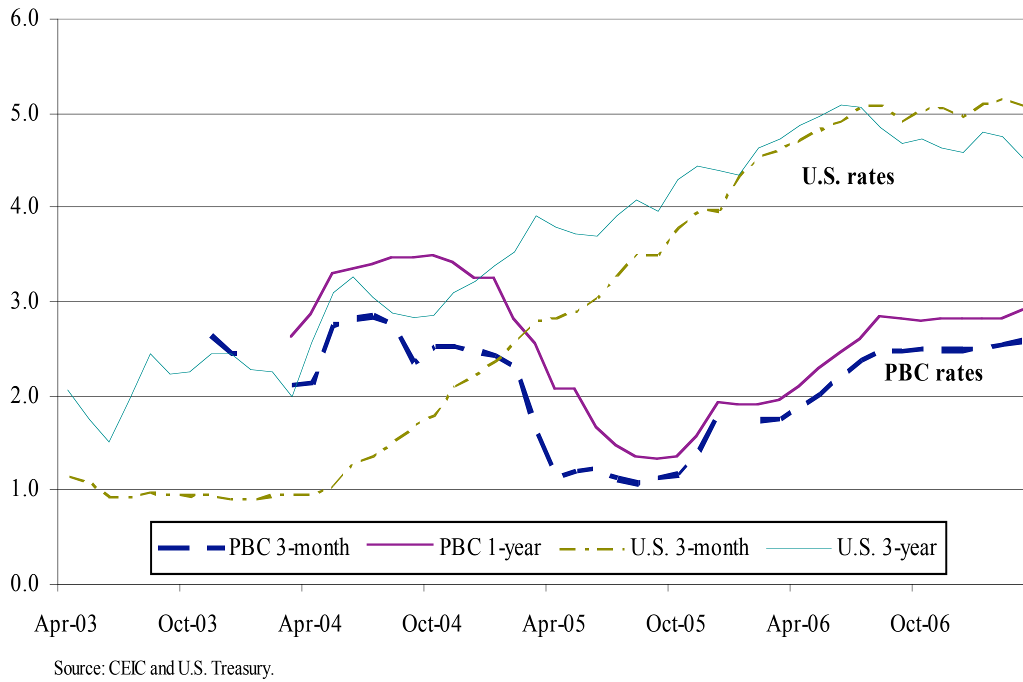
Source: CEIC and authors' calculations. Government share of deposits include fiscal deposits as well as deposits by government agencies and organizations. Others refer to rural and trust deposits, and remaining components. Deposits figures are based on end-of-period data, and do not include foreign currency deposits.

Figure 6. Foreign Exchange Reserves: Flows and Stocks



Source: CEIC and authors' calculations.

Figure 7. PBC Bill Rates vs. U.S. Treasury Yields



Source: CEIC and U.S. Treasury.