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Reining in growth in China

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East Asian markets for currency, commodity, equity and debts have all reacted to fears of a disruptive slowdown in China resulting from a policy response to excessive growth. With exports to China leaping, the rest of Asia has a large stake in an orderly return of the Chinese economy to a sustainable growth path. The Chinese government has responded to the latest cyclical upswing with a mix of administrative, credit, prudential and liquidity measures, but not yet with tighter monetary policy defined in terms of higher benchmark interest rates. Various dilemmas facing the authorities have shaped the choice of such a policy mix, and they may take more time to ascertain its effectiveness in achieving the objective of a measured and selective slowdown.

The pivotal role of China

East Asia has a large stake in a smooth deceleration of the Chinese economy towards a healthier pace. Both the growing international integration of China's production processes as well as the rapid growth of China's own domestic demand have been raising its demand for goods from the rest of Asia and beyond. The latter should not be overlooked: a mere shift of global manufacturing activities to China from other parts of the world alone cannot account for the China's increased net demand for a broad range of capital goods, energy and other commodities.

Table 1 **China's imports from Asia**

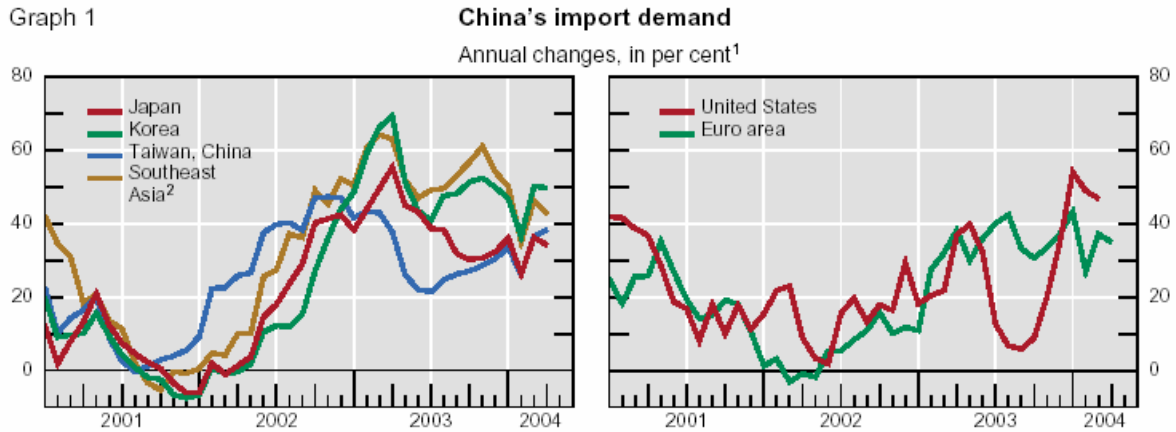
	Annual changes, in per cent			As a % of total exports of the partner country		
	2001	2002	2003	2001	2002	2003
Japan	3.1	24.9	38.7	10.6	12.9	15.8
Hong Kong SAR	1.7	13.6	19.0	37.1	40.0	42.6
India	26.0	33.8	87.0	3.9	4.6	7.7
Other Asia						
Indonesia	-11.7	15.8	27.8	6.9	7.9	9.4
Korea	0.8	22.2	51.0	15.6	17.6	22.2
Malaysia	13.2	49.8	50.6	7.1	9.9	13.9
Philippines	16.0	65.3	96.2	6.1	9.2	17.8
Singapore	1.6	37.2	48.7	4.2	5.6	7.3
Thailand	7.6	18.8	57.7	7.2	8.2	11.3
<i>Memo items</i>						
Euro area	15.5	8.2	37.8	3.8	3.8	4.5
United States	18.5	15.4	28.4	1.9	2.3	2.8

Sources: CEIC; IMF; national data.

¹ The views expressed in this note are those of the authors and do not necessarily reflect those of the BIS.



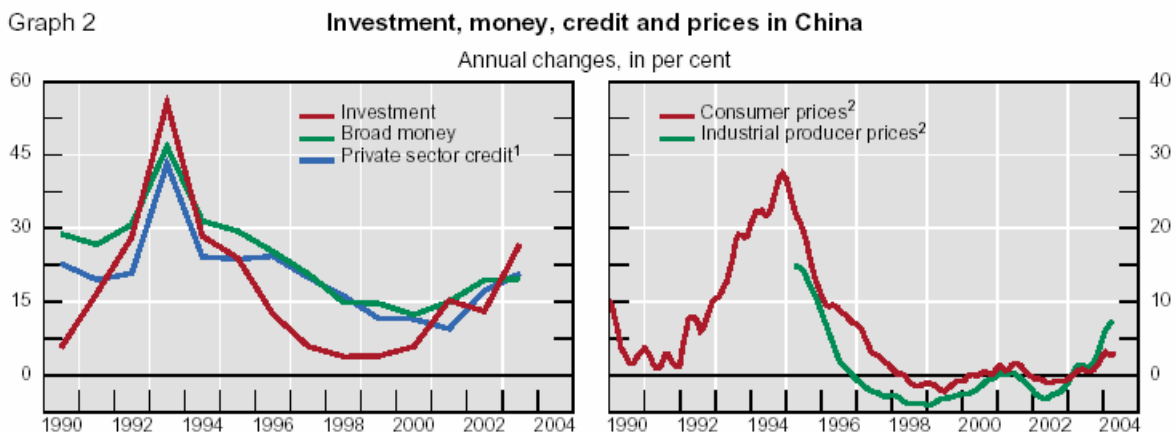
As a result, China's strong growth has played a major role in Asia's recent rebound as well as in global growth last year. China's imports last year increased at rates of 50 to 100% from India, Korea, Malaysia, and the Philippines, and 30 to 50% from Japan and Singapore (Table 1 and Graph 1). In 2003, East Asia's exports to China rose 40% on average, representing 10% of Malaysia's overall export growth and more than 100% for the Philippines. Trade and tourism flows from China have also helped Hong Kong to recover from deflation.



¹ Three-month moving averages. ² Indonesia, Malaysia, the Philippines and Thailand.
Sources: CEIC; national data.

Debate over the business cycle in China

The Chinese economy's growth has accelerated since 2002, with signs of increased inflationary pressure. A confluence of such forces as local-government investment drives, banks' eagerness to grow out of their non-performing loan (NPL) problems and buoyant real-estate development began to lead to rapid credit growth in late 2002. Loan growth has doubled to 20% since late 2002 and, together with strong corporate profits and continued large foreign direct investment, financed investment spending that accelerated to 43% year-over-year in the first quarter from a 27% rise last year (Graph 2). GDP expanded at more than 9% for the last three quarters. Imports of capital goods and commodities jumped, and their prices increased nearly 10%. For the first time in ten years, China's trade balance fell into deficit in the first four months of this year. Consumer prices sprang from deflation in 2002 to a positive 3.8% year-over-year in April, exceeding the benchmark one-year deposit rate, with still higher inflation recorded in some measures monitored by the People's Bank of China (PBOC). Statistics for May 2004 suggest an easing in economic activity in China, particularly in the areas of investment and bank credit, though consumer spending strengthened somewhat.



¹ Domestic credit to the private sector. ² Three-month moving average.
Sources: IMF; CEIC; national data.



Despite evidence of stronger economic activity and inflationary pressure, there has been a lively debate in China over whether higher inflation is the biggest risk to the economy. First, SARS delivered an unanticipated and sharp hit to demand in spring 2003, distracting the attention of the central government and complicating the assessment of the business cycle. Second, despite the current unsustainable pace of investment growth, unemployment in China is said to be still rising. Third, cost pressures have to date exerted limited effects on consumer prices, given moderately growing household spending last year, fierce competition in final manufacture markets and increased imports. In 2003, real private consumption grew by less than 7%. Finally, the dynamics of excessive investment could pose an even larger risk: subsequent price declines and new NPLs in such overbuilt sectors as steel, cement, aluminium and real estate. Nevertheless, by April 2004, a consensus had formed among policy makers over the need for stronger measures to deal with economic imbalances in a measured and selective fashion.

Policy instruments

Given the debate about the current phase of the business cycle, the government has responded to stronger activity, rising inflation and higher financial risks with three kinds of measures. The first is a mix of administrative, credit and prudential policies. The second is a tightening of liquidity in the banking system, in effect setting the level of excess reserves as the operating target for the PBOC. And the third, yet to be adopted, is higher interest rates, in the context of the government's current intention to maintain the basic stability of the exchange rate.

It is unclear how much the first set of measures have restrained spending and associated credit, and it can be argued that liquidity tightening is more a preparation for a tighter monetary policy than any tightening in itself. In any event, it can be argued that, in a transitional economy, a mix of administrative, prudential, liquidity management and price instruments serves as a second-best policy.

Though what follows mostly focuses on the policy of the PBOC, it should be recalled that it adjusts its instruments within limits set by the State Council. The latter has withdrawn some fiscal stimulus as an important reinforcement of the mix of policies discussed below. Moreover, at the level of objectives, the State Council charges the PBOC with achieving price stability, economic growth, employment, external balance and financial stability, in contrast to the single-minded inflation-targeting as practised by many central banks.

Administrative, credit and prudential policies

The Chinese authorities have responded first and foremost with credit and sectoral measures, in an attempt to slow down overall investment expenditure and to influence credit allocation. These combine old command-and-control policies, tightened loan underwriting standards (as used in Hong Kong and elsewhere), and some novel elements.

Since mid 2003, the PBOC has offered more frequent and extensive "window guidance" (moral suasion) to banks. In particular, prudential guidelines for banks limited the fraction of financing for property development through bank loans and lowered loan-to-value ratios for residential mortgages. New rules that land be auctioned would also require more cash in advance from developers. In addition, the China Banking Regulatory Commission (CBRC) ordered the big four state-owned banks to re-centralise their decisions on loans to overbuilt sectors, and reduced the maximum share of bank loan financing for new investments in the same sectors. In April 2004, the CBRC reportedly even imposed a week-long loan moratorium on second-tier commercial banks. The PBOC, CBRC and several ministries issued a joint guideline for bank lending by sector in May 2004.

The PBOC also introduced differentiated reserve requirements as a macro-prudential tool in April 2004. Second-tier commercial banks with capital adequacy or asset quality below certain thresholds are now subject to an 8% *required reserve* ratio (as compared to the general level of 7.5%). The policy intends to curtail loans by banks that are most subject to moral hazard and that have been increasing their lending rapidly. It has been reported that in the first quarter of 2004, the second-tier commercial banks expanded their loan book by some 35% year-over-year, compared to just 13% for the big four



state banks. Currently, 38 of such second-tier commercial banks are said to be subject to the 8% requirement tier, affecting about 10% of the total bank deposits in the system.²

How effective have the administrative, credit and prudential policies adopted so far been in realising the goal of the Chinese government to slow down the economy in a measured and selective fashion? The picture appears mixed at this point. Loan and investment growth are moderating. Bank loan expansion in the first quarter already exceeded one third of the PBOC's full-year target for 2004. On the other hand, investment has been visibly slowing over the past two months and local steel prices in several important categories are reported to have fallen by more than 10% in recent weeks. CPI inflation might not have peaked yet, but a good grain harvest in June could moderate CPI rises before the year end, if increased acreage and inputs work as intended.

Tightening liquidity

It is tempting to view the PBOC's management of liquidity in the Chinese banking system as a separate monetary policy instrument. Just as one spoke of a loosening in Japanese monetary policy as an enlargement of the current account balances held by financial institutions at the Bank of Japan, so, too, one can speak of a tightening in China as the reduction of excess reserves in the banking system. There are analytic similarities: just as there is little opportunity cost for banks to hold excess reserves in Japan, owing to zero market interest rates, so too there has been little opportunity cost of holding excess reserves in China, owing to the PBOC's practice of paying interest on these at rates near interbank rates (arguably setting a floor on such rates). The difference between the two cases, however, is that Japanese interest rates have been basically constrained by the zero lower bound, while Chinese interest rates can rise.

(i) Initial conditions

The new leadership of the PBOC in late 2002 found a banking system with vast excess liquidity. Earlier that year, excess reserves of over 10% of GDP—well above any notion of “frictional” amounts—seemed appropriate given anaemic credit growth and the PBOC's repeated calls in 2000 and 2001 for banks to lend more. As bank credit growth started picking up in late 2002 and continued accelerating into 2003, apparently in response to stronger loan demand from the real economy as well as greater willingness on the part of banks to supply credit, the need to contain and even to reduce this excess became a policy issue. The PBOC took a fairly forward-looking step in late 2002, preparing a new instrument to drain liquidity by converting some of its outstanding repo contracts into central bank bills.³

Any effort to drain liquidity had to contend not only with an initial condition of vast excess liquidity but also the ongoing injections of liquidity from continued large dollar inflows, given an exchange rate tightly linked to the dollar and a partially liberalised capital account (to be discussed in the section on capital inflows). The acceleration of these inflows in 2003 reflected both interest rates in China above those on US dollar instruments both on and off shore, and expectations of an appreciation of the renminbi.

(ii) PBOC bill sales and reserve requirements

In 2003, after selling off its rather limited Treasury bond holdings, the PBOC put its new instrument to work draining excess liquidity. After its 2002 Monetary Policy Report explicitly warned banks against the acceleration of credit, the PBOC auctioned its first bills to drain excess banking system liquidity in April 2003. The second quarter's net sales of PBOC bills exceeded in absolute terms such autonomous changes in liquidity as the injection from the increase in net foreign assets or the apparently seasonal drain from increased liabilities to the government. Strong net bill sales continued into the third quarter (see Table 2).

² In contrast, the fragile rural and urban credit cooperatives have been exempted from the two required reserve hikes and continue observing the 6% statutory ratio. Thus, China's differentiated reserve requirement system now features three tiers.

³ Since no auctions of new bills were held until April 2003, the stock of outstanding bills as shown on the table declined in the fourth quarter of 2002 and the first quarter of 2003.



The PBOC reinforced its open market operations by hiking the required reserve ratio by one percentage point to 7% effective in September 2003. Even though much of the combined effect of the net sales of PBOC bills and the hike in the reserve ratio was offset by an increase in other net domestic assets in the third quarter of 2003 (shown as a decrease in other net domestic liabilities on Table 2), the PBOC succeeded in bringing the excess reserves down by over a third relative to the end-2002 level in renminbi terms, and down even more as a fraction of deposits (memo items).

Table 2: Injection and withdrawal of excess bank reserves in China¹

	2002Q4	2003Q1	2003Q2	2003Q3	2003Q4 ²	2004Q1
Excess reserves, start of period ³	682	983	791	634	606	984
Plus injection of excess reserves (sources): change in net foreign assets ⁴	151	210	187	271	468	335
Less withdrawal of excess reserves (uses):						
Currency issue	88	9	-19	150	125	-26
Net liabilities to government	-233	141	117	14	-88	136
Required reserves due to M2 growth ³	81	15	54	53	64	-1
Required reserves due to change in statutory ratio	0	0	0	138	9	-0
Net PBOC bill issuance	-45	-104	193	202	-137	293
Other net domestic liabilities, change ⁵	-41	341	-0	-258	117	135
Change in excess reserves (injection minus withdrawal)	301	-192	-157	-28	378	-202
Excess reserves, end of period ³	983	791	634	606	984	782
<i>Memo</i>						
<i>Excess reserve ratio³</i>	6.47%	5.12%	3.88%	3.52%	5.38%	4.28%
<i>Excess reserves as a % of 2003 GDP³</i>	8.41%	6.76%	5.42%	5.18%	8.42%	6.69%
<i>Bank loan growth (12 months, quarter-end)</i>	15.8%	19.9%	23.1%	23.5%	21.1%	19.1%
<i>M2 growth (12 months, quarter-end)</i>	16.8%	18.5%	20.8%	20.7%	19.6%	19.1%

¹ In billions of renminbi. ² Adjusted for the effect of the \$45 billion recapitalisation of two state owned banks in the fourth quarter of 2003. ³ The levels of both required and excess reserves are derived from the excess reserve ratios reported in the PBOC's Monetary Policy Reports. ⁴ The NFA has been adjusted for valuation effects, assuming the portfolio weights of 70% dollar, 20% euro and 10% yen. ⁵ This term also captures stock-flow discrepancies.

Sources: PBOC, CEIC and BIS estimates.

(iii) What happened in the fourth quarter of 2003?

Developments in the fourth quarter demonstrate that the parallel with Japan has its limits. In Japan, easing liquidity is possible but easing rates is not. In China the authorities can do more than just tighten liquidity. After last year's increase in reserve requirements, money market interest rates rose. This in turn led bond yields to rise, prompting the government to cancel some new bond issues during the last quarter of 2003. In this quarter, however, the PBOC seemed to reverse gear, not rolling over maturing bills and thereby injecting liquidity through open market operations. Three quarters of progress in reducing excess reserves were thereby reversed.

There are at least four ways of interpreting this episode of higher and more volatile market rates, with the first three highlighting technical factors and the fourth the larger policy debate. The PBOC's Monetary Policy Report draws attention to the distorting effects of initial public offerings in creating temporary increases in liquidity demand, which pushed rates through the upper end of the PBOC's interest rate corridor (see Graph 3). Another technical interpretation is that the interest rate rise was an unintended consequence of raising reserve requirements, which led bank managers to enforce more cautious liquidity management on their treasuries, in effect reducing the supply of funds to the money market. Still another technical interpretation is that longer-dated interest rates rose as the market digested the additional duration of the PBOC 3- or 6-month bills. Since the increase in net foreign assets contributed to the need for the higher reserve requirement and the bill sales, these interest rate

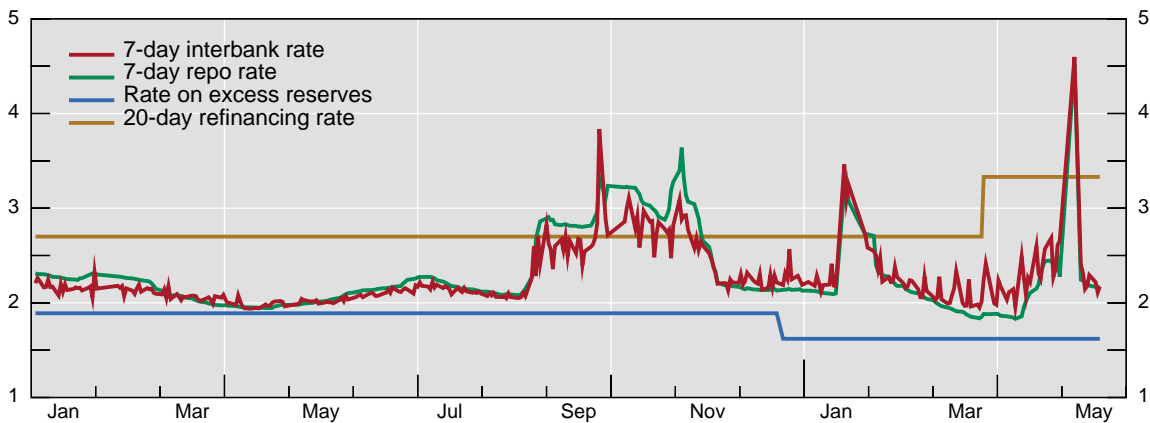


risers could be ascribed to difficulties in sterilisation (as well as limitations on the capacity of the money market to distribute the still excess aggregate liquidity around the banking system).⁴

The fourth interpretation is that market participants read the body language of the PBOC as suggesting that a rise in interest rates, perhaps proximately caused by such technical factors, was not unwelcome. Such a reading would make bond yields more sensitive to the money market developments, and bond yields did rise sharply in September and early October 2003 (Graph 4). On this last interpretation, the subsequent decline in money market interest rates reflected the lack of a broader policy consensus for an interest rate increase given differences in views about the balance of various risks in the Chinese economy. While money market rates had almost completely retraced to July-August levels by November, bond yields only partially did so in November-December, suggesting that higher market interest rates were still expected to some extent.

Graph 3

Market rates, refinancing rate and remuneration on excess reserves in China in 2003-04¹

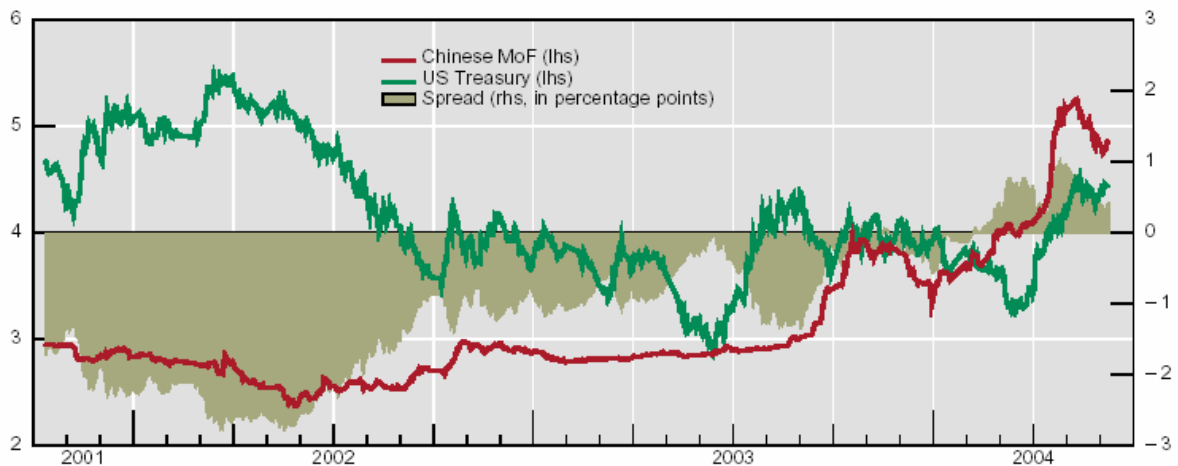


¹ In per cent.

Sources: PBOC; CEIC; BIS estimates.

Graph 4

Chinese and US government bond yields



Note: Based on government bonds maturing in August or September 2011.

Sources: Bloomberg; BIS estimates.

⁴ For an overview of the trends and potential costs of sterilised interventions in Asia, see Anderson (2004).



(iv) Back to work in 2004

However the fourth quarter events are interpreted, it is clear that the PBOC reverted to squeezing excess liquidity from the system in the first quarter of 2004. An apparently seasonal drain from increased liabilities to the government combined with huge sales of bills and an increase in other liabilities to reduce excess reserves notwithstanding a large foreign exchange reserve increase. April saw a further increase in the reserve requirement to 7.5%. In May, the PBOC issued an additional RMB50 billion PBOC bills on top of its normal weekly auction cycle to targeted banks that recorded fast lending and higher levels of excess reserves in the first four months of the year. The PBOC also resumed its weekly treasury bond-based repo operations that were suspended in April 2003.

As measured by excess reserves, at least, there has been a substantial, though interrupted, tightening of liquidity in the Chinese banking system over the 15 months to end-March 2004. Should this be seen as preparing for a formal policy tightening rather than already implementing one?⁵ Both quantity and price effects are possible. On the quantity side, given the scale of excess reserves in the system, there was little reason to expect that sharply lower growth in base money as a result of the liquidity squeeze would produce a *parallel* slow-down in broad money or credit growth.⁶ Still, the lower excess reserves ratio at the end of March 2004 was associated with a marginal deceleration of money and lending growth. On the price side, higher government bond yields mean that risky bank loans to enterprises are at the margin less attractive. And the tightening of liquidity could have led banks to offer loans less frequently at the permitted 90% of benchmark rates, although systematic reporting on loan terms remains work in progress. These effects apart, the liquidity squeeze would have had its greatest effect only if it were allowed to reduce excess reserves to a more binding level and thereby raise interest rates. Through the end of 2003, there was not the required consensus.

Higher interest rates?

Hitherto, the Chinese authorities have not resorted to two key price instruments: the exchange rate or benchmark interest rates. The exchange rate has been hotly debated but few market economists expect it to play a near-term role in tightening monetary conditions, and indeed the US dollar's trend since March 2004 has relieved market pressure as measured in the non-deliverable forward market. Lately, Chinese officials have talked about the real effective appreciation of the renminbi in recent months owing to higher domestic inflation and the US dollar's recovery. The Chinese government might be unsure about the usefulness of one-off revaluation in tightening monetary conditions, given volatility in the global currency market, and concerned with the associated risk of encouraging even more capital inflows. Also, it is thought that any meaningful currency flexibility would first require that market-based interest rates play a greater role in the Chinese economy.

Money-market interest rates have tended to trade higher since mid-2003. Interbank money rates and repo rates are guided within a corridor by the PBOC. Since September these have shown higher average levels, partly under the influence of the technical factors described above. In March 2004, the PBOC hiked its own lending and rediscount rates by 63 and 27 basis points, respectively, widening the corridor for these money-market interest rates.

Bond yields, which are determined in a market dominated by banks, have risen sharply since mid-2003, from around 3% to around 5% for bonds maturing in 2011 (Graph 4). The rise appears to be in reaction to tighter liquidity and in anticipation of a possible new interest rate cycle. While it may be

⁵ The former interpretation would make sense of the otherwise anomalous move by the PBOC late last year to split the remuneration of reserves from a universal rate of 1.89% to the same rate for required reserves and a lower rate of 1.62% for excess reserves. This measure introduces a larger opportunity cost for holding excess reserves and over time should encourage inter-bank trading and ultimately make for more predictable demand for bank reserves.

⁶ Indeed the difference between an M2 target of 17% and an outcome of 20% is just 15% of the annual change in the "required reserves due to M2 growth" line on Table 2, something like RMB30 billion, or one-twentieth of even much reduced excess reserves.



tempting to ascribe the rise in yields to global bond market developments, weekly yield changes in the Chinese bond market show zero correlation with those in the US bond market.⁷

What would matter most in China, however, would be a change in the administered official benchmark lending and deposit interest rates, which could be viewed as the policy rates. While banks now have substantial room to negotiate lending rates above the benchmarks, and some room to agree to rates below the benchmarks, these rates still serve as reference in loan contracts. Moreover, the government still retains tight control over most renminbi bank deposit rates, although negotiated large local-currency deposit rates have been allowed of late. Thus, a move in the administered official benchmark lending and deposit rates would signal a real change in the official monetary stance. With record-low benchmark rates and changing inflation expectations, the market is watching closely for this signal. It can be argued that stable nominal rates in the face of higher inflation amount to a passive easing of real interest rates. The PBOC currently seems to take a wait-and-see stance and indicates that a 5% CPI inflation year-on-year, which would take the real lending rate to zero, may be a key threshold.

What has stayed the hand of the Chinese authorities on the benchmark interest rates? Partly it may be diagnosis: the ongoing debates about the balance of various risks in the economy. Even given agreement on the problem, a question remains whether higher interest rates can restrain the local investment drive, given soft-budget constraints in a partially reformed economy. In the first two months this year, spending on investment projects financed by the central government rose only 12% year-over-year. However, expenditure related to locally-funded investment projects rose some 60%, as local officials front-loaded spending in fear of tighter credit. At worst, higher rates would just lead households to boost their already high saving rate (currently at 40%), further restraining consumer demand and potentially worsening unemployment.

Other concerns also condition the policy stance. One is the possibility that the current investment cycle may already be approaching its peak. Thus the PBOC is likely to tighten only incrementally, in order to avoid accentuating a possible imminent downturn. Another consideration is that higher rates may attract further capital inflows (see the next section on capital inflows).

The effect of any interest rate hike is hard to anticipate. Comparisons across the G10 suggest that monetary policy transmits particularly strongly in economies with high levels of private debt in relation to GDP and a predominance of floating-rate finance. Most loan contracts in China used to allow interest rate adjustments only annually. Since early 2004, however, the PBOC has allowed contracting parties to negotiate the speed at which most loan rates adjust to benchmark rates. At this point, half or more of changes in the benchmark rates could pass through to loan rates within six months. Against this presumption of strong monetary policy transmission in a highly leveraged, floating-rate economy, however, must be set the uncertain effect of interest rate increases on spending on provincial pet projects. One modelling exercise suggests that over 12 months, a one percent rate hike could lower investment growth by 0.9% and trim GDP growth by 0.3%, implying that it may take benchmark loan rates alone at 20% to bring investment back to a more sustainable rate of 20% growth (Huang 2004)!

Dealing with capital flows

To what extent does the prospect of larger capital inflows constrain the Chinese authorities from raising benchmark interest rates? There is no doubt that they are concerned about this prospect. Equally, it is clear that these flows are responsive to interest rate differentials. Thus, the timing of any Fed moves may matter, and indeed the rise in US interest rates in this quarter in anticipation of Federal Reserve tightening has already relieved the pressure of capital inflows. It would be to ignore recent history, however, to see the potential response of international capital flows as necessarily precluding higher Chinese benchmark interest rates. Recall that, despite the unpleasant side-effect of capital outflows, Chinese interest rates were lowered well below their US dollar equivalents in 1999-2000. Moreover, extensive capital controls remain at the disposal of the Chinese government.

⁷ Expectations of renminbi revaluation, as reflected in non-deliverable forwards (NDFs), do not seem to play a role, since Chinese bond yields rose above their US counterparts in the first quarter of 2004, when the non-deliverable forwards strongly pointed to appreciation of the renminbi. For an overview of Asian NDF markets, see Ma, Ho and McCauley (2004).



It's the capital account

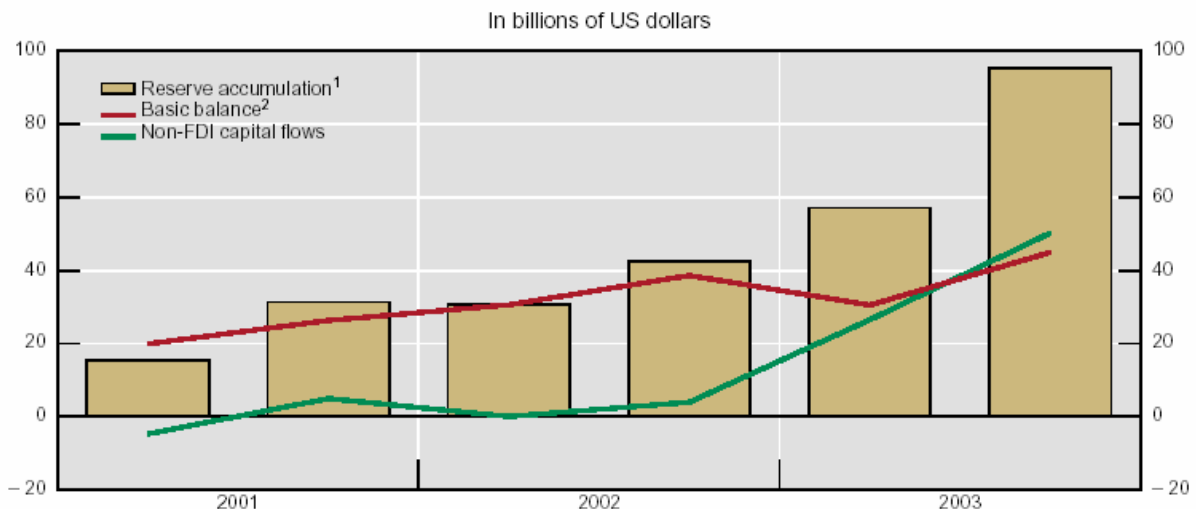
At the outset, it is important to recognise that the proximate cause of the acceleration in China's foreign exchange reserves is an inflow of capital. The underlying growth of China's official foreign exchange reserves accelerated, growing by some \$160 billion over the past twelve months to March 2004 or more than 10% of the country's GDP. China's rapid accumulation of foreign reserves has increasingly had much less to do with the surplus of the basic balance (defined as the sum of current account balance and net foreign direct investment balance), than with other capital inflows, including errors and omissions (Graph 5).

Several accounts give evidence of the pressure of capital inflows. Errors and omissions reached \$18 billion in 2003, reversing the earlier pattern of large outflows of a similar size. Remittance inflows jumped by more than 40% each year in both 2002 and 2003, suggesting that capital inflows through relatives are showing up in this current account item. The Chinese government, which has traditionally encouraged such dollar inflows, recently moved to require banks to report large remittance inflows.

The responsiveness of bank flows to interest rate differentials

To a considerable extent, this more rapid growth in official reserves and acceleration in non-FDI dollar inflows reflected China's shift from building up claims on the international banking system to drawing them down. The renewed inflow of international bank funds into China came in response to an increased demand there for foreign currency loans and to a reduced supply of foreign currency deposits as US dollar interest rates fell below their renminbi counterparts and the market expectations of a possible renminbi appreciation intensified. This foreign currency inflow in turn fuelled sales of dollars by the private sector to the authorities, helping to accelerate official foreign exchange growth (Ma and McCauley, 2002, 2003 and 2004).

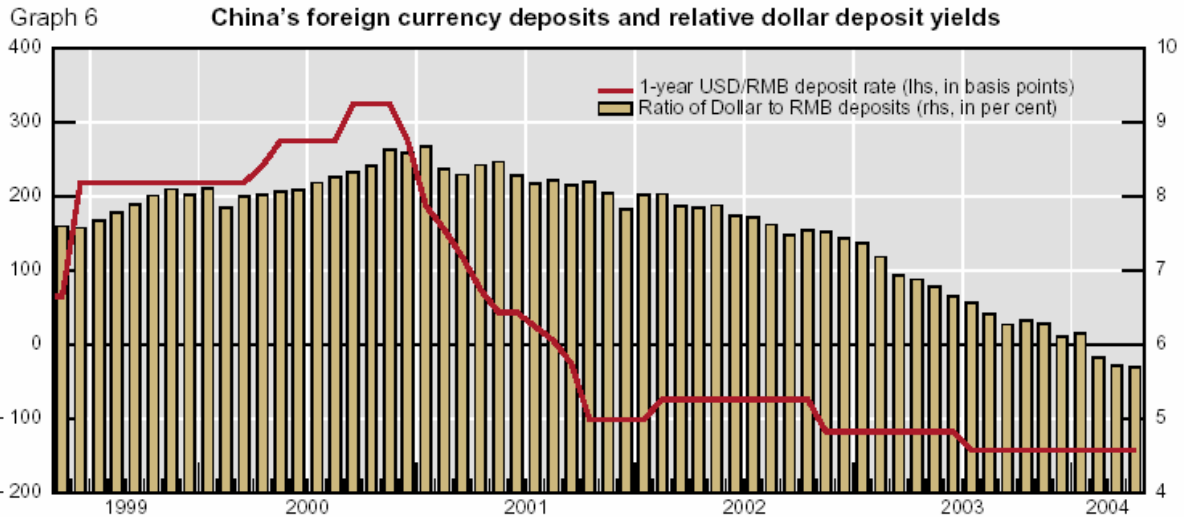
Graph 5 **China's basic balance, non-FDI capital flows and reserve accumulation**



¹ Adjusted for valuation effect and the \$45bn bank recapitalisation in 4Q03. ² Sum of current account balance (adjusted for net current transfers) and net FDI balance. ³ Includes net current transfers, and errors and omissions.

Sources: CEIC; BIS estimates.

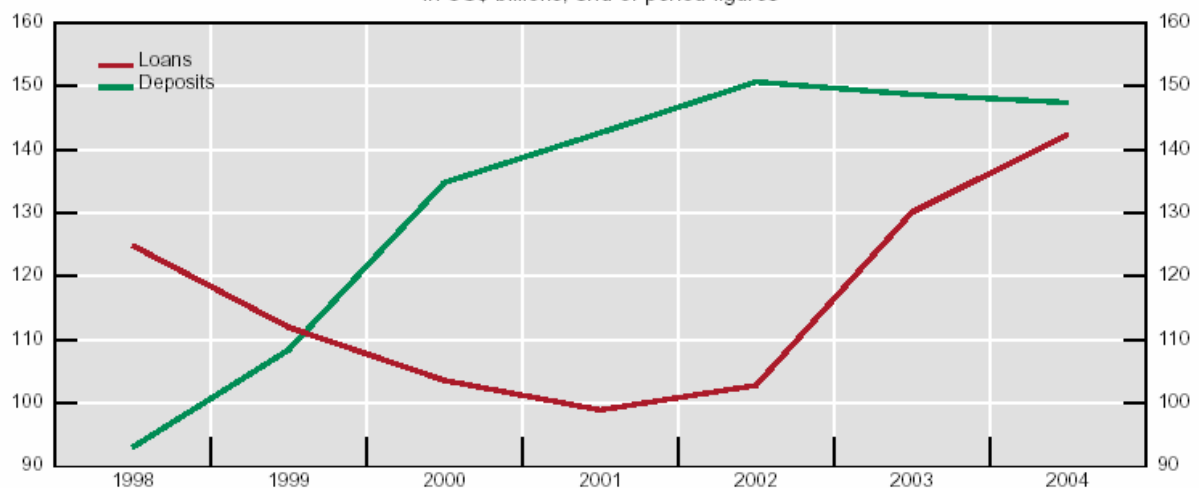
Transactions of Chinese residents with Chinese banks in foreign currency have shifted from building up net long dollar positions to reducing them since 2001, when US short-term interest rates began their fall to recent low levels. Before 2001, households and firms were building up their foreign currency deposits in banks in China (Graph 6), while firms were retiring foreign currency loans. Thereafter, households and firms slowed their accumulation of foreign currency deposits and in 2003 even reduced them. In 2002, firms in China again started rapidly to step up their borrowing in foreign currency (Graph 7). These shifts responded to the decline of US short-term interest rates to levels below their Chinese equivalents. Any consideration of possible revaluation gains on long renminbi/short dollar positions only added to the interest rate incentives to acquire renminbi deposits or borrow dollars.



Note: The onshore dollar deposit rate is for small deposits (USD 3 millions of less).

Sources: The People's Bank of China; authors' own estimates.

Graph 7 Foreign currency loans and deposits at banks in China
In US\$ billions; end-of-period figures



Note: Data for 2004 refer to April.

Sources: The People's Bank of China; authors' own estimates.

Accommodating this shift, BIS area banks went from acting as an outlet for surplus dollars in China to serving as a source of dollars needed to fund foreign currency loan growth in the country, against the background of reduced domestic deposits of foreign currency by Chinese residents (Table 3). In particular, China swung from providing \$6 billion to the international banking system in 2002 to withdrawing \$23 billion in the first three quarters of 2003 (both figures are adjusted for exchange rate changes). Such dollar borrowing can increase official reserves either as a result of direct dollar sales against the renminbi by the Chinese non-bank sector or, more indirectly, by financing their delayed payments for imports and accelerated receipts from exports. A two-month average of such leads and lags in trade payments would potentially give rise to a capital inflow of some \$140 billion, or more than 80% of the foreign reserves accumulation over the past twelve months.

In response to increased demand for dollar loans from foreign-invested enterprises, foreign banks operating in China might also have borrowed more offshore. This could help explain the latest move by the Chinese government to impose a quota on offshore borrowing by foreign banks operating in China, which is in line with the existing restrictions on Chinese banks.



Table 3

Changes in China's foreign currency liquidity flows

	1999	2000	2001	2002	2003 ¹	1999–2003 ¹
	In billions of US dollars					
Sources ²	38.0	45.7	58.8	67.9	71.3	281.7
Foreign exchange reserves	9.7	10.9	46.6	74.3	97.5	239.0
Deposits in onshore banks ³	15.4	26.4	7.9	15.8	–2.6	62.9
Less loans of onshore banks ³	12.9	8.4	4.3	–22.2	–23.6	–20.2
Uses ²	25.7	55.0	45.4	71.6	33.2	230.9
Net claims on BIS reporting banks	10.7	33.6	–4.2	5.8	–22.8	23.1
<i>of which: on banks in Hong Kong SAR</i>	3.8	14.4	–4.2	2.2	–7.2	9.0
Net purchases of US debt securities ⁴	15.0	20.4	44.1	65.3	56.0	200.8
Treasury bonds and notes	8.2	–4.0	19.1	24.1	19.1	66.5
Agency bonds	8.3	18.8	26.0	29.3	24.3	106.7
Corporate bonds	0.5	0.8	6.7	6.0	3.5	17.5
Money market instruments	–2.0	4.8	–7.7	5.9	9.1	10.1
Net purchases of German securities	1.4	2.0	1.8	0.9	.	6.1
Net purchases of Japanese securities	–1.4	–1.0	3.7	–0.4	.	0.9

¹ To September 2003. ² Sources do not include the corporate and non-deposit finance sectors; uses are also incomplete. ³ At both domestic and foreign banks. A decline of onshore loans adds to sources, while an increase, as in 2002–03, subtracts from sources. ⁴ Latest US Treasury data suggest that for the full year 2003, Chinese official and banking sectors continued their net purchases of US Treasury (\$30.5 billion), agency (\$29.6 billion) and corporate (\$4.6 billion) debt securities.

Sources: The People's Bank of China; Deutsche Bundesbank; Hong Kong Monetary Authority; Bank of Japan; US Treasury; BIS; authors' estimates.

The lesson of 1999-2000

The last cycle of tightening by the Federal Reserve in 1999-2000 presented a tough choice to Chinese policy-makers (McCauley and Mo, 2000). Entering 1999, banks in China were paying the same rate, almost 4%, on US dollar and renminbi one-year deposits. In the spring, as US dollar Libor rose in anticipation of a tightening of policy rates, dollar deposit rates in China were raised above 4%, to a higher level than renminbi rates for the first time. In mid-year renminbi one-year deposit rates were dropped to just above 2%. At its widest, the gap between onshore dollar and renminbi deposit rates was over 3%. A key observation is that interest-rate setting in China not only permitted a gap to open up between US dollar and renminbi rates, but actually contributed to it.

The resulting dollarisation of deposits in China and associated capital outflows during this episode were by no means comfortable developments from the perspective of the Chinese authorities. Such capital flows, however sizeable, were not sufficient to eliminate the interest differentials or to deprive the Chinese authorities of the ability to set interest rates well below those on US dollar placements. If a 300 basis point disadvantage for renminbi deposits was bearable in the year 2000, it would seem difficult to argue that a widening of the current 150 basis point advantage is unbearable now. While higher US policy rates will, within limits, make monetary policy-making in China easier, they should not be expected to determine it.



Conclusion

The Chinese government has responded to the recent increased economic imbalance with a mix of administrative, credit, prudential and liquidity measures, in the hope of slowing the economy down in a measured and selective fashion. The PBOC intended early on to take a more vigorous stance in response to the recent cyclical upswing. To date, it has not yet resorted to the price instruments of exchange rate and benchmark interest rates for a variety of reasons. Already, there are early signs of some easing of the pace of economic activity in China. Unusually large cross-border flows in recent years, which have been sensitive to both interest rate differentials and currency expectations, constrain but do not determine monetary policy in China.

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