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Speculating on the Yuan

Real and financial imbalances are currently building up in China. They are linked to major capital inflows that have only been partly sterilised by the central bank. Contrary to conventional wisdom, these inflows stem not just from current account operations or FDI. Apart from illegal foreign currency inflows, there is another channel which makes the financial account more permeable to capital inflows than is usually thought. Under these circumstances, a rise in Chinese interest rates aimed at reducing credit growth risks fuelling forex inflows. Higher interest rates would therefore not seem to be compatible with maintaining a fixed exchange rate. In the wake of the expected rise of US rates in 2004, international financial conditions will provide a window of opportunity that could permit scrapping Chinas currency peg, with only limited risks of the forex markets over-reacting.

Back in 1993, when China was planning on joining the WTO, it responded promptly to international pressure by replacing its dual exchange rate system by a unified scheme based on a basket of currencies. This regime lasted for only 18 months. In the spring of 1995, it was replaced by a peg on the dollar at a rate of CNY 8.277 to USD 1. The fixed exchange rate and a strong rise in interest rates helped to cut galloping inflation at the time (nearly 28% in October 1994) and to stabilise the Chinese economy. In 2003-2004, China recorded growth in credit and investment which is not sustainable over the medium term. Under these circumstance, it may be asked whether a rise in interest rates and/or an appreciation of the yuan would be most appropriate to bring about a soft landing?

Capital Inflows: an hidden channel

Since 1996, Chinas currency has been convertible for commercial operations on the current account. In contrast, restrictions apply to financial transactions by individuals and companies, both for capital inflows and outflows, and prior agreement for movements needs to be obtained from the State Administration of Foreign Exchange (SAFE)[1]. Foreign direct investment is strongly encouraged by the Chinese authorities, while portfolio investment by foreigners is permitted in Chinese bonds and shares. Short term capital inflows, however, are forbidden. China is therefore sheltered from the speculative behaviour of international financial investors, as was borne out by the way it was spared the contagion of the Asian crisis. But it would be a mistake to conclude that China is totally protected against speculative movements. Indeed, an examination of Chinas balance of payments allows the channel through which international monetary conditions affect this economy to be highlighted.

The current account surplus and foreign direct investments are the principal sources of China's increasing central bank reserves since 1994. But, these two flows only accounted for 25% of the accelerating pace of accumulating reserves between 2002 and 2003 (Table 1). Illegal capital inflows (errors and omissions) and portfolio investments are the main causes of this acceleration (respectively a quarter and more than a half). Illegal cross-border flows, linked to the large Chinese diaspora, have generated large capital outflows since the early 1990s due to fears of a depreciation of the yuan. But since 2002, these have given rise to significant net inflows. A similar turnaround in the trend of flows can be observed for portfolio investments since 2003.

Table 1 – China's balance of payments
(in billions of dollars)

	2000	2001	2002	2003	2003*
Current account	20.5	17.4	35.4	45.9	45.9
Financial account	2.0	34.8	32.3	52.8	97.8
FDI	*37.5*	*37.4*	*46.8*	*47.2*	*47.2*
Portfolio investment	*-4.0*	*-19.4*	*-10.3*	*11.4*	*11.4*
Other investment	*-31.5*	*16.9*	*-4.1*	*-5.9*	*39.1*
Errors and omissions	-11.9	-4.9	7.8	18.4	18.4
Change in Forex (official) reserves	-10.5	-47.3	-75.5	-117.0	-162.0

* Before recapitalisation of the two State banks ($45 billion)
Source : State Administration of Foreign Exchange (SAFE).

1. For an overview of the various regulations on foreign currency transactions decreed by the State Administration of Foreign Exchange (SAFE), see Zhang Xiaopu (2003), "Capital account management and its outlook in China", BIS Papers, No 15 April, p 19-24 and Guo Shuquing (2002), "Management of capital flows in the corporate sector: current situation and outlook in China", Peoples Bank of China, website.

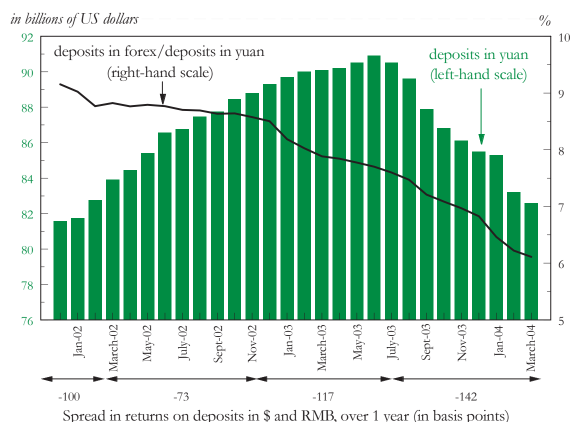
However, these figures hide the main source of forex inflows in 2003. In fact, at the end of the year, the central bank used $45 billion of its reserves to re-capitalise the Bank of China and the China Reconstruction Bank[2]. This sum was taken out of official reserves and transferred to a State fund created by the SAFE. The accounting counterpart of this operation was recorded in the "Other investments" heading of the balance of payments. Without this recapitalisation (Table 1, column 2003*), the rise in reserves would have been $162 billion, while the "Other investments" heading would have recorded a surplus of $39 billion. Between 2002 and 2003, the latter heading would therefore have accounted for half the acceleration in reserves.

Arbitrage and FX risk hedging behaviour by Chinese residents were the driving forces behind about half of these net $39 billion inflows, as is shown by an examination of the balance sheets of Chinas domestic and resident foreign banks.

Deposits and loans denominated in dollars by private agents with financial institutions in China are substantial: in March 2004, they stood at respectively $147 and $140 billion (each being equivalent to about a third of the central banks official reserves). Furthermore, they are sensitive to monetary conditions in the United States, insofar as the central bank passes on movements in US interest rates to dollar operations carried out in China. Thereby, interest rates on dollar operations fell below those on yuan operations in August 2001, favouring indebtedness in dollars and deposits in yuan. From 2002 onwards, the expectations of a yuan appreciation accentuated the differential of expected returns: a regular fall in the ratio of dollar deposits to yuan deposits by Chinese households is to be observed[3]. To protect themselves against capital losses in the case of an appreciation of the yuan, households have been cutting the absolute value of their deposits since June 2003 (Graph 1). As for companies, they have benefited from this context to run up debts on a massive scale ($27.4 billion in 2003), while their dollar deposits have remained stable, which have thus diminished relative to their yuan deposits (Graph 2).

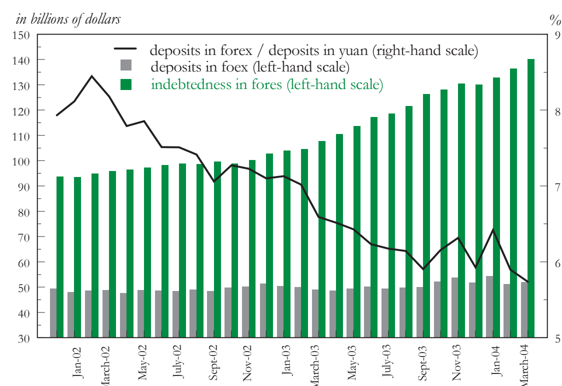
Such behaviour has had a significant impact on bank operations abroad and has modified the structure of their balance sheets in dollars. To meet the strong demand for loans in dollars by companies even as total foreign currency deposits have been falling, the banks had to repatriate funds, in 2003, which were invested abroad (cutting foreign lending by $16.5 billion) and to increase their foreign currency indebtedness (up by $5.9 billion –see Table 2)[4]. The fall in banks net foreign assets thereby led to capital inflows of $22.4 billion in 2003[5].

Graph 1 – Households' forex deposits



Source: People's Bank of China.

Graph 2 – Forex deposits and indebtedness by firms



Source: People's Bank of China.

Table 2 – Foreign assets and liabilities held by financial institutions in China
(in billions of dollars)

	End Dec. 2001	End Dec. 2002	End Dec. 2003	End Feb. 2004*
Total assets	216.6	258.0	268.9	295.0
Foreign assets (a)	*122.9*	*155.2*	*138.7*	*158.6*
Domestic loans in forex (b)	*93.7*	*102.8*	*130.2*	*136.4*
Total liabilities	177.4	197.9	201.9	206.7
Foreign liabilities (a)	*37.5*	*47.3*	*53.2*	*60.9*
Domestic forex deposits (b)	*139.9*	*150.6*	*148.7*	*145.8*
Assets – Liabilities	39.3	60.0	66.9	88.3

* includes the recapitalisation of two State banks.
(a) Chinese banking institutions and resident foreign banks in China.
(b) Chinese and foreign financial institutions in China.
Sources: IMF, IFS; People's Bank of China.

2. *S*ee, "State Bank recapitalization in China" (2004), Global Financial Stability Review, Chap II, p 40, IMF, March.
3. G. Ma & R. MaCauley (2003) show that, for the period running from June 1999 to December 2001, the choice of deposit denominations (in dollars or in yuan) depended on both exchange rate expectations and on the spread between the returns on dollar and yuan deposits with one year maturity. In fact, 90% of forex deposits in China are in dollars: see G. Ma & R. MaCauley (2003), "Opening Chinas capital account amid ample dollar liquidity", *BIS Papers*, No15, April, p 25-34.
4. In March 2004, the growth of dollar denominated borrowing accelerated at an annual rate of 29.9%, compared to 20.1% for borrowing in yuan, whereas the fall in deposits during the first semester of 2004 continued: -$1.95 billion compared to -$1.9 billion for the whole of 2003.
5. The importance of net foreign assets held by banks in China shows that the financial account of China's balance of payments is far from being closed to capital outflows, if these are initiated by domestic and residentforeign banks in China.

Raising Rates: An Ambivalent Response

According to the Director of SAFE, capital inflows have accelerated in 2004: they reached a level of $12 billion per month during the first quarter, dipping slightly to $11 billion in April[6]. Despite having a current account deficit during this period and the tightening of controls on capital inflows[7], the central bank's reserves increased by $36.5 billion in the first quarter of 2004.

Since 2002, the accumulation of forex reserves has led to a rise in the central money supply and over-abundance of liquidity in the banking system, as the central bank has been slow to sterilise forex inflows: only 24% of such inflows were neutralised by bond issues in 2002, compared to 61.4% in 2003 and 96.6% during the first quarter of 2004. Despite such greater sterilisation efforts[8], the Chinese monetary authorities do not seem able to control the evolution of liquidity and credit. Indeed, the money supply in March 2004 continued to rise at a pace of 19%, the growth of credit was more than 20.7% (more than 10 percentage points above target), while fixed capital investments showed explosive growth of over 43%.

The current expansion of credit is leading to over-capacity in certain sectors (property, steel, cement etc.) and may well lead to increasing bad loans in the banking system over the medium term and ultimately to growing risks of insolvency. This would be all the more problematic as China, on joining the WTO committed itself to opening entirely its banking sector to international competition as of 2006, be it for forex or yuan transactions. It is therefore urgent to dampen such credit growth. Quantitative restrictions on investment projects have already been put into place, but their impact is insufficient. There could be room to raise interest rates: currently, the real interest rate on one-year deposits is 1.5%, which is far below the rate of real GDP growth (estimated at between 7% and 9%). But a rise in interest rates would only have a limited impact insofar as investment decisions by local government and state enterprises are not foremost determined by costs. Furthermore, any such rise in interest rates is likely to lead to significant capital inflows, as the debt and deposit behaviour of private Chinese agents is sensitive to the interest rate spread with the United States.

As the financial account is relatively open to capital inflows, China cannot pursue an autonomous monetary policy while at the same time maintaining its dollar peg. If a partial liberalisation of capital outflows may be envisaged to compensate for forex inflows[9] –the Chinese authorities have moved very modestly in this direction– it would not resolve the dilemma of Mundells "incompatibility triangle". The only way out of this dilemma would be an appreciation of the yuan sufficient to stop speculation.

Abandoning the Currency Peg: a Window of Opportunity

The Chinese monetary authorities have announced that they are moving towards pegging the yuan to a basket of foreign currencies[10]. Such a regime would provide some flexibility for the yuan should the central bank allow the exchange rate to react to market forces, while still intervening by buying or selling foreign currencies, if the yuan strays too far from its desired fluctuation range. In the present context, it is highly likely that the yuan could appreciate.

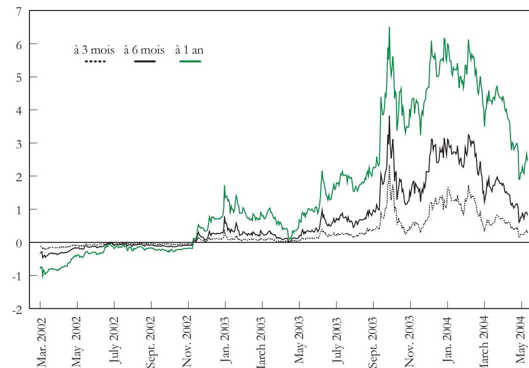
An argument which is often put forward to justify keeping the fixed exchange rate regime in China relates to the weakness of its banking system: a prior condition to introducing more flexibility in the exchange rate, would be an improvement of the banking sector' balance sheet in order to cope with the opening of the financial account. But this argument is off the point, as it implicitly associates exchange rate flexibility with the liberalisation of financial transactions. To be sure, a pure float is incompatible with the maintenance of capital controls. But a managed float can accommodate a partial opening of the capital account[11]. The only risk to the banking system is related to the structure of its forex balance sheets. If total assets in foreign currencies are far greater than liabilities (currency mismatch), then an appreciation of the exchange rate will lead to capital losses in the aggregate balance sheet of the banking system. Table 2 shows that this gap amounted to $88 billion at the end of February 2004. But by taking into account the recapitalisation of the two banks, which increased their equity by $45 billion, then the currency mismatch only amounts to $43 billion. In this case, a 10% appreciation of

6. See interview accorded by Guo Shuqing, deputy-governor of the central bank and Director of the SAFE, to the *Financial Times*, 23 April 2004.
7. In order to prevent speculative, illegal forex inflows, the SAFE authorities tightened both the rules relating to forex transactions by companies in January 2003, by non-residents in February 2004, and by Chinese residents as of April 2004. In particular, it is henceforth necessary to prove the legality of funds when opening any account or deposit with a significant amount of foreign currency.
8. The monetary authorities were slow to identify the consequences of liquidity over-abundance in the banking system on the distribution of credit. The required reserve ratio was raised once in September 2003, and twice more in April 2004. The reluctance of banks to buy low-yield sterilisation bonds at the end of 2003 also demonstrates that any sterilisation policy is not sustainable in the medium term. See The Financial Times, 30 December 2003, p10.
9. In addition, the liberalisation of financial accounts in Latin America and in East Asia has shown that it is often associated with major financial crises; see A. Icard (2003), "Capital account liberalisation in China: International perspectives", *BIS Paper*, No15, April, p14-18.
10. In the interview with *The Financial Times*, Guo Shuquing announced that the yuan would pegged to a basket of currencies, but did not say when. He also stated he favoured greater yuan flexibility, "We dont think that a fixed system is good. We think that a floating system is good", *The Financial Times*, 23 April 2003.
11 B. Eichengreen (2004), "Chinese Currency Controversies", University of California, Berkeley, April, <http://emlab.berkeley.edu/users/eichengr/research/asiancurrencies7jun9-04.pdf >.

the yuan would lead to a loss of $4.3 billion, equivalent to a 0.16% fall in total assets of the banking system. Abandoning the peg would only entail relatively minor risks for the Chinese banking system, even though these losses are likely to be concentrated in certain large banks which are authorised to carry out forex transactions or in foreign-owned banks. In contrast, the potential losses for the central bank are likely to be much greater[12].

If ever there is an ideal moment to abandon a fixed exchange rate, then the international financial environment is particularly favourable now. A window of opportunity will for China to scrap its peg on the dollar with limited risks of exchange rate overshooting, once US interest rates start to rise. The potential appreciation of the yuan is presently limited by the expectations of a rise in US rates. The improvement of the US labour market since April 2004 has made a tightening of US monetary policy more likely before the end of the year. An increased demand for dollars by international investors, who will once again be attracted by short term US securities, will favour an appreciation of the greenback, despite the structural pressures for the dollar to fall which are linked to the current account deficit. The euro and the yen, which will almost certainly be included in the currency basket of the yuan peg, are currently depreciating against the dollar. As a result, international financial conditions are all the more likely to exercise a neutral influence on the evolution of the Chinese currency once the peg will be abandoned, as the weight of the dollar will be less dominant in the basket. In fact, the Non-Deliverable Forward market already shows a decreasing rate of appreciation for the yuan: in mid-May 2004 the expected appreciation at a one-year maturity had fallen to 2.2%, compared to 6% last February (Graph 3)[13].

Graph 3 – The expected appreciation of the yuan
(in %)



Source: Datastream.

If it is possible to envisage to scrap immediately the peg within this context, it would nevertheless be prudent to wait for US rates to rise. Such a rise would limit the incentives for private Chinese agents to take on dollar debt and to reduce their deposits in dollars. Forex inflows through this channel would therefore be contained, or even turned around if the deg

ree of policy tightening in the US is significant. This will all the more reduce the amount of foreign currency that the central bank will have to acquire to control the appreciation of the yuan at the time of the exchange rate regime change.

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12. See "The Asian Central Banks and the Dollar", *La Lettre du CEPII*, No 230, January 2004. The central bank has recently undertaken a major diversification of its reserves, notably by investing more in European bonds, which should limit its potential losses.
13. Such expectations are given by the Non-Deliverable Forward market on the yuan which emerged shortly after the Asian crisis, outside Chinese territory. Its characteristics are to not implicate the yuan in the settlement of contracts, but only the dollar and to be accessible only to non-residents.

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