What to do with over a half a trillion a year? Understanding the changes in the management of China's foreign assets

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The China Investment Corporation's $5 billion investment in Morgan Stanley and its $3 billion investment in Blackstone have attracted an enormous amount of attention. Together, though, Morgan Stanley and Blackstone account for less than 2% of the increase in the foreign assets of China's government in 2007. China added $427b to its reserves (after adjusting for valuation gains) and an estimated $17b to the foreign assets of the China investment corporation in 2007.[2] The state banks are on track to receive $60b from the government in 2007 – and it isn't clear if this total includes the potentially large sum of dollars the state banks may have been asked to hold to help limit overall reserve growth. Consequently, total foreign asset accumulation is at least $500b (Figure 1). It is likely closer to $600b. The record increase in China's foreign assets is all the more impressive as it came in the face of a commodity price shock that increased China's import bill.

The acceleration in the pace of Chinese foreign asset growth coincided with a policy decision to experiment with alternative ways of managing China's foreign assets. The creation of the China Investment Corporation (CIC) is but the most visible example of a broader trend. The foreign exchange managed by the state banks has increased as a result of the recapitalization of the China Development Bank (CDB) and the increase in the amount of foreign exchange that the state banks have borrowed from China's central bank, the People's Bank of China (PBoC).[3] Moreover, state firms also have been encouraged to increase their foreign investment.

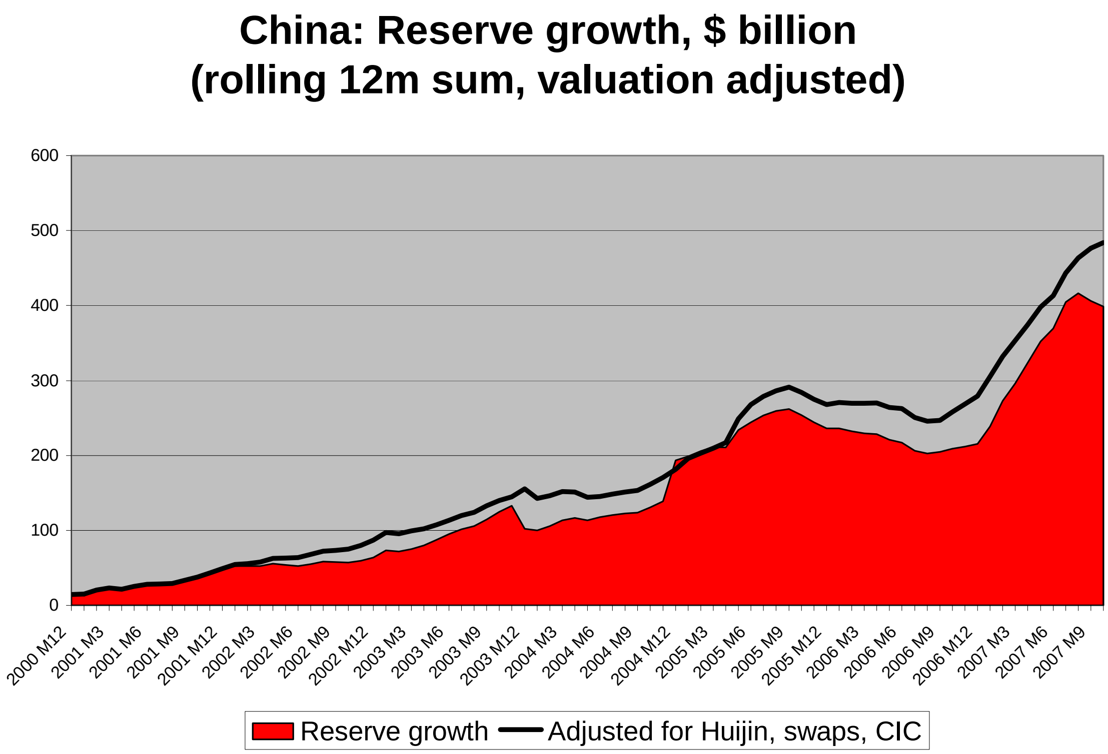
[1] The Council on Foreign Relations takes no institutional position on policy issues. All statements of fact and expressions of opinion contained in this publication are the sole responsibility of the author. The author would like to thank Logan Wright (Stone and McCarthy), who drew my attention to the PBoC data showing the aggregate foreign currency balance sheet of the banking system, Rachel Ziemba (RGE Monitor) for collecting data on the CIC's bond issuance and Arpana Pandey (CFR) for tabulating the US data on China's holdings of US assets. I have also benefited from an ongoing conversation with Stephen Green (Standard Chartered) on these issues; Stephen was the first to predict a large acceleration in Chinese foreign asset growth.

[2] This estimate is lower than many others because it only counts the CIC's foreign assets, not its stakes in the domestic banking system, and because it tries to account for the timing of the CIC's purchases of foreign exchange. The CIC raised roughly $80b in q3 and another $27b in q4. The final RMB 750b tranche – over $100b – of the CIC's initial RMB 1.55 trillion allocation does not seem to have been converted into foreign exchange in q4. However, the CIC spent $67b buying the assets of Huijin in q3 and $23b recapitalizing the banks in q4. I count the $23b as part of the foreign assets of the banking system. The $67b spent buying Huijin returned to the central bank and counts as part of China's reserves.

[3] Such borrowing generally seems to be done through foreign currency swaps with the central bank.

The consensus that China had enough liquid reserves, however, doesn't seem to be matched by a comparable consensus on how China should manage its rapidly growing external portfolio. The precise mandate of the institutions – like the CIC – that have been created to manage China's foreign assets has yet to be established. Existing institutions – whether the State Administration of Foreign Exchange (SAFE) or the state banks – are under pressure to increase the returns on their foreign investment. They too will likely experiment with new styles of asset management.

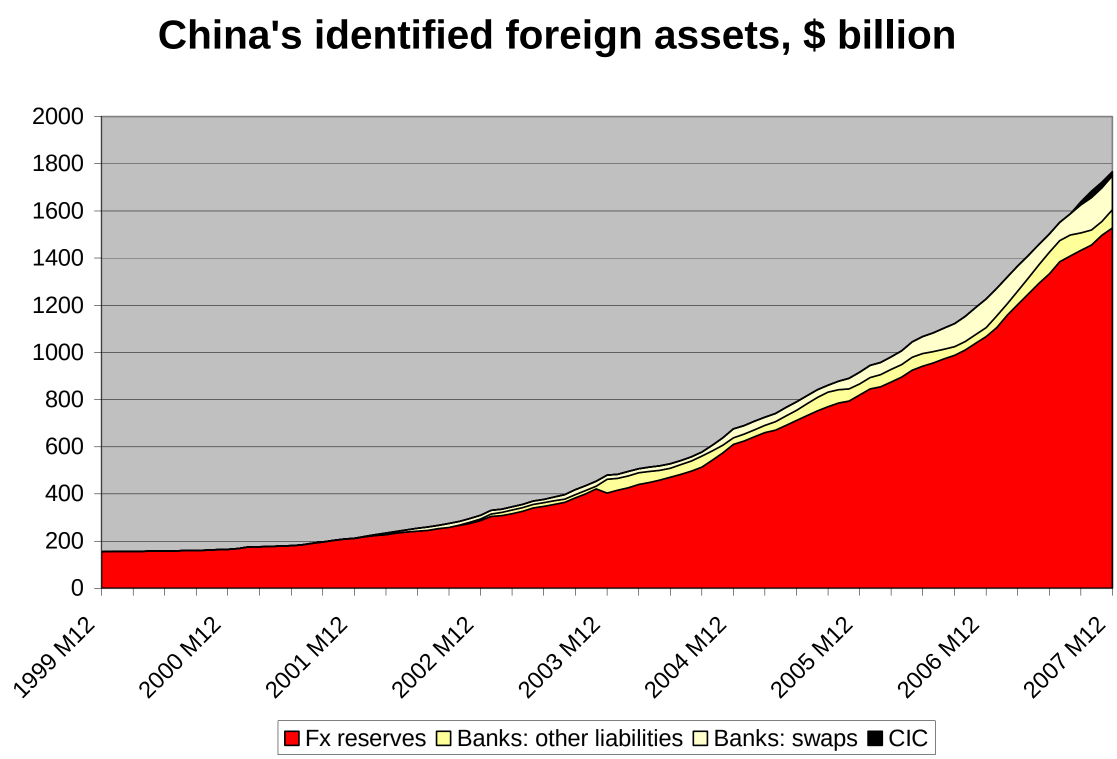
Figure 1: Reserve growth, after adjusting for the CIC and foreign exchange shifted to the state banks



The pace of growth in China's foreign exchange reserves – including foreign exchange that has been shifted to the banking system and to CIC – provides the best single measure for assessing the pressure on China's de facto crawling peg against the dollar. Strong reserve growth implies that China's scope for autonomous monetary policy is constrained, as China continues to place a higher priority on exchange rate stability than using monetary policy as tool for macroeconomic control. Rapid reserve growth – particularly from so-called hot money inflows – potentially limits China's ability to raise domestic interest rates to cool its economy at a time when the Federal Reserve is cutting US rates.

The way China's government opts to manage its large stockpile of foreign assets has enormous implications for China itself. A substantial share of China's domestic savings is being invested abroad by China's government, in ways that could easily produce significant losses – if only from the RMB's future appreciation – and in way are often not fully disclosed to China's own population.

Figure 2: The estimated foreign exchange assets of China's government



Here, as in other policy areas, China's domestic policy choices also have a profound impact outside of China. Both the size of China's existing foreign assets (Figure 2 and Table 1) and the stunning pace of growth in those assets are so large that changes in the way China manages its government assets will have a major impact on the composition of global capital flows. China will account for somewhat over a third – but a bit less than half -- of the $1.3 trillion (or perhaps more) increase in the assets of emerging market governments in 2007. Changes in the composition of Chinese demand could have a particularly large impact on the US. China's de facto crawling peg against the dollar likely forces China to invest most of its funds in the US. The buildup of China's dollar assets in 2007 likely was about equal to half of the United States current account deficit.

This paper is organized in three parts.

The first attempts to determine the overall pace of increase in China's foreign assets, taking into account the funds that have been shifted to the China investment corporation and the state banks. China has continued to add to its foreign assets at the strong pace of the first half of the year, but less of the increase is showing up in formal reserves. Hot money inflows – one measure of pressure on China's currency – have increased, however.

The second examines the investment strategies of the key institutions responsible for managing China's foreign assets – the CIC, the state banks and the SAFE.

The third examines – using the US data – the aggregate portfolio of China's state investors. The best US data comes from the annual survey of foreign portfolio investment in the US. Unfortunately, the most recent data point comes from June 2006 – well before recent changes in the institutional structure for the management of China's foreign assets. This limits its utility. However, the recent data – combined with the pattern of past revisions when the survey data is released – still provides some clues about the composition of Chinese demand.

The rapid growth of China's foreign assets is sure to be an ongoing source of controversy, both domestically and globally. The recent and long overdue acceleration in the pace of RMB appreciation combined with the sheer scale of China's foreign asset growth has generated pressure on China's authorities to increase returns. But China's willingness to accept losses in its quest for returns has yet to be fully tested. The new CIC has a board composed of all parts of China's bureaucracy, formally reports to the state council and has a mandate that includes supporting the outward expansion of Chinese state enterprises. It was not designed to be insulated from China's internal politics. Consequently, large investments from the CIC – or large equity investments by Chinese state firms that can draw on the backing of either the CIC or China's cash rich state banks – are almost sure to generate controversy in countries receiving Chinese funds.

Table 1: Foreign assets of China's government

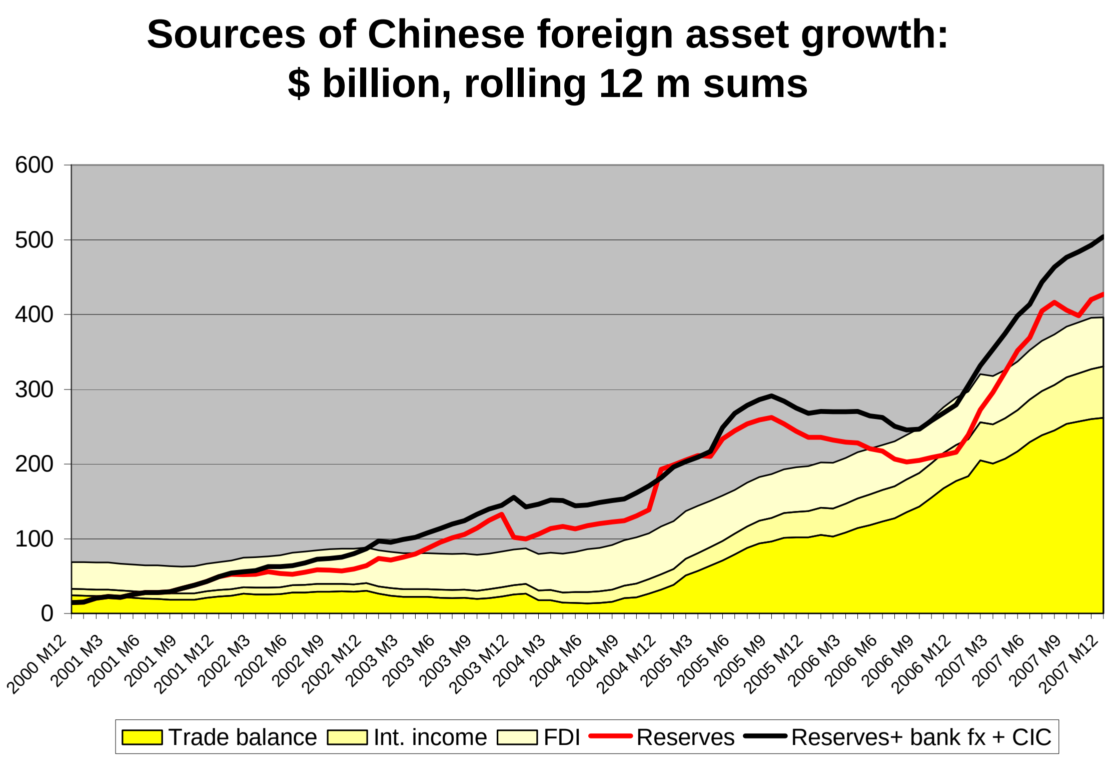
	Total foreign assets	2007 increase
Identified assets of China's government		
State administration of foreign exchange (SAFE)	$1,528b	$427b
China Investment Corporation (CIC), estimated foreign assets	$17b	$17b
State banks estimated fx liabilities to the central government – recapitalization/ swaps[4]	$221b	$60b
Subtotal (identified assets)	$1776b	$504
Possible additional foreign exchange holdings		
Banks' required reserves (held in dollars)	$108b	$108b
Foreign assets of state enterprises	?	?
Total (high-end estimate)	$1884b	$612

[4] The foreign assets of the banks have been estimated from their estimated foreign currency liabilities to the Chinese government. The banks recorded portfolio investment abroad is somewhat smaller: $166b at the end of November, 2007 -- down from $180b at the end of December 2006.

Section 1: The increase in China's foreign asset growth

The pace of China's reserve growth matters because it provides the best single measure of pressure on China's currency. Directly, it indicates how much intervention was required to limit the pace of RMB appreciation. Indirectly, it provides a measure of the expectations of private actors, as the gap between reserve growth and the underlying trade surplus, the income on China's foreign assets and FDI inflows provides a measure of the extent of "hot money" inflows (See Figure 3; the gap between the line showing adjusted reserve growth and the shaded area is one measure of hot money inflows). Consequently, the reserves data provides one of the best measures of the pressure China faces to adjust its *de facto* crawling peg to the dollar.

Figure 3: Reserve growth v. underlying inflows



The Chinese reserves data – even after adjustments are made for the rise in the dollar value of China's euro and pound reserves that are simply due to currency moves – poses a series of puzzles. Reserve growth was, by Chinese standards, quite slow in 2006 (Figure 3). The increase in China's trade surplus wasn't matched by a comparable increase in the pace of growth of China's foreign exchange reserves. In the first part of 2007, by contrast, reserve growth was extraordinarily fast. Even after (modest) valuation gains are stripped out, China added $131b to its reserves in q1 and $126b in q2 -- over twice the $54b quarterly average of 2006. In the second half of 2007, though reserve growth slowed dramatically: q3 reserve growth was $83b and q4 reserve growth was "only" $87b (Table 2). The fall in reserve growth was puzzling in light of the increase in China's trade surplus and the increase in the interest income from China's foreign assets.

However, both the acceleration in the pace of reserve growth in the first part of 2007 and the deceleration in late 2007 are deceptive. Large purchases of foreign debt by the state banks and – in all probability – other state-run financial institutions held down the pace of reserve growth in 2006. This likely represents an initial attempt to "outsource" some of the management of China's reserves to the state banks and other financial institutions. The deceleration in reserve growth in 2007 reflects the creation of the CIC as well as aggressive efforts to force the state banks to hold more foreign assets. Every dollar bought by the state banks is a dollar that the central bank doesn't have to buy.

Two caveats: First, interpreting the Chinese data remains an art. For this paper, I have drawn on the data the PBoC releases on the foreign currency balance sheet of Chinese banks to infer the growth in the banks foreign assets.[5] I have tried to match the PBoC's banking data to the balance of payments data and to Goldman Sachs' estimate of the foreign securities held by China's banks. However, there is a significant risk that my methodology doesn't get everything right. The advantage of the PBoC's data is that it provides a continuous and fairly current data series. My analysis also assumes that changes in the banks foreign currency balance – at least those that do not stem from the ongoing fall in household foreign currency deposits – reflect central bank policy more than changes in the desired foreign currency holdings of the banking system. And second, I am not sure that the various measures of the banks' foreign currency exposure are capturing the increase in the dollar holdings of the banking system associated with the central bank's (rumored) new policy of forcing the large state banks to hold a growing share of their required reserves in dollars.

Table 2: Quarterly valuation-adjusted reserve growth, $ billion.

	Q1 06	Q2 06	Q3 06	Q4 06	Q1 07	Q2 07	Q3 07	Q4 07
Reserves	**51**	**54**	**47**	**66**	**131**	**126**	**84**	**87**
State Banks	9.5	16	9	26	3	6	23	28
CIC							13	4
Total								
Trade surplus	23	38	50	68	46.5	66	73	76
Trade, interest, FDI	48	64	76.5	101	77.5	98	106	114
Implied hot money	12.5	6	-20.5	-9	56.5	34	14	5

[5] The banking system's foreign currency liabilities include liabilities to households and enterprises, liabilities to foreign counterparties and liabilities to the central bank. Such liabilities arise when the banks borrow foreign currency from the central bank – though in practice such borrowing would be structured as a swap – or when the central bank recapitalized the large state banks with its foreign currency reserves. The PBoC's banking data also reports on the bank's foreign currency assets. The banks' portfolio investments are likely primarily foreign securities. The banks foreign currency loans, by contrast, are likely with domestic firms. The banking data can be found at http://www.pbc.gov.cn/diaochatongji/tongjishuju/gofile.asp?file=2006S02.htm

2006

Chinese 2006 reserve growth was relatively slow. The rise in China's trade and current account surplus wasn't matched by a rise in reserve growth. At the time, this was interpreted as a sign that hot money inflows had slowed, reducing the pressure on China's currency.

However, it now seems likely that China began to shift the management of some of its foreign assets to the state banks and other state-run financial institutions in 2006. The balance of payments data indicates that institutions other than the central bank bought $108b of foreign debt in 2006, $45.4b in the first half of 06 and $64b in the second half. The $108b in 2006 purchases effectively doubled the foreign debt held outside the central bank, bringing the total to $228b at the end of 2006.[6] The rise in "portfolio" investment in the banking data suggests that the state banks accounted for most -- $42.9 of $45.4b of the purchases in the first half of the year, but only a small fraction -- $14.2 of $64b-- of the purchases in the second of 2006. The remaining roughly $50b in purchases likely came from other state-run financial institutions, whether life insurers or the social security fund.

Much of the increase in the banks' foreign portfolio seems to have been financed by a rise in their outstanding swap contracts with the central bank. The PBoC's banking data indicates that the banking systems total liabilities arising from the "sale and purchase of foreign exchange" rose from $50b to $123b over the course of 2006, a $73b increase. This line item also increased – though at a slower pace -- in 2004 and 2005. In 2004 and 2005, though, the rise in outstanding swaps was offset by a fall in the banks "other foreign currency liabilities"[7] so there was a much smaller rise the banking system's total foreign currency liabilities. By contrast, "other currency liabilities' did not fall as "purchases and sales of foreign exchange" rose in 2006, leading to a rise in the overall foreign currency liabilities of the banking system to the central bank. The blue line in Figure 4, which shows the 12m change in the sum of "other liabilities" and "purchases and sales of foreign exchange," rose strongly.

The rise in the banking systems' total liabilities from the "sale and purchase of foreign exchange" – likely currency swaps with the central bank – served two policy purposes.

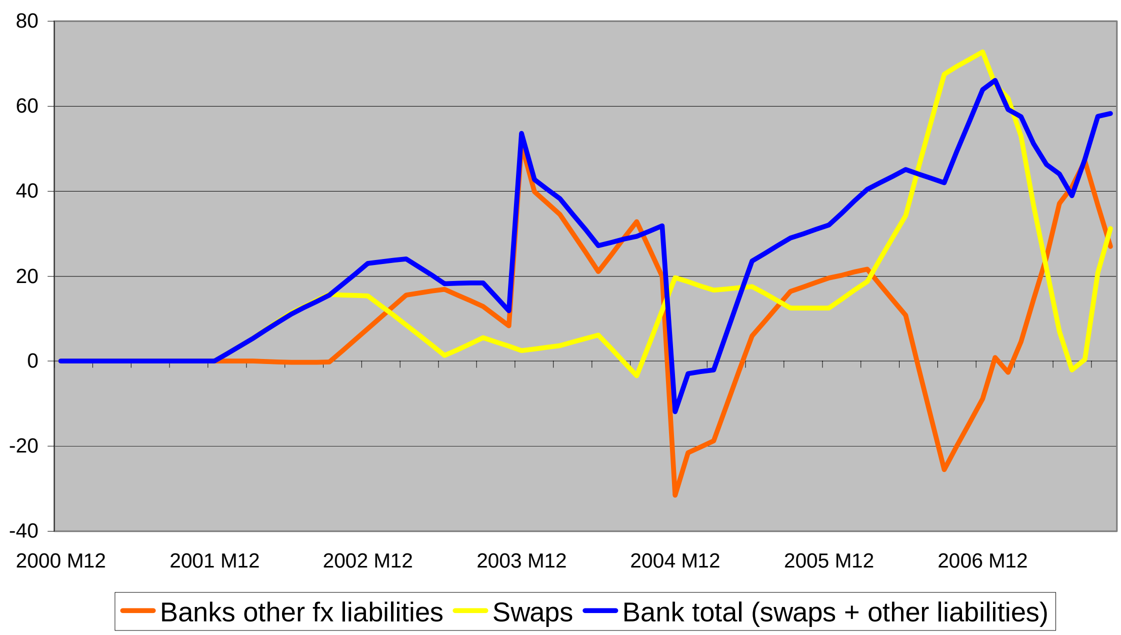
[6] Stephen Green of Standard Chartered notes that China's balance of payments data indicates $15b of debt purchases in the first half of 2007, which would bring China's total holdings up to $243b. Goldman Sachs (Ning Ma and Roy Ramos, "Chinese banks: Some Subprime Exposure Remains" August 2, 2007) estimated that the Chinese banks held $215b in forex debt securities, 76% of which ($164b) were denominated in US dollars. The PBoC's banking data shows $180.3b in fx denominated "portfolio investment" by the banks at the end of 2006 (slightly less than Goldman), and $196.5b at the end of q2 2007. The increase in the first half of 2007 is consistent with the increase reported in the balance of payments data.

[7] The most likely explanation for the offsetting moves in "other" liabilities and "sale and purchase of foreign exchange" is that the PBoC allowed the state banks recapitalized with foreign currency reserves to hedge the resulting foreign currency exposure in advance of the RMB's revaluation.

The first leg of the swap contract involves the banks purchasing some of the central banks' foreign exchange with local currency, effectively taking the local currency out of circulation. This helped the central bank sterilize the rapid growth in its reserves. The banks' foreign exchange exposure though was limited by the central bank commitment to buy back the dollars placed with the banks at a predetermined exchange rate. Consequently, the expansion of the central banks' outstanding swap contracts with the banks allowed China to shift the management of some of its reserves to the banks without saddling the banks with the currency risk.

Figure 4: Annual change in the state banks' estimated foreign currency liabilities to the government

Bank foreign currency liabilities to the government: 12 m changes, $ billion

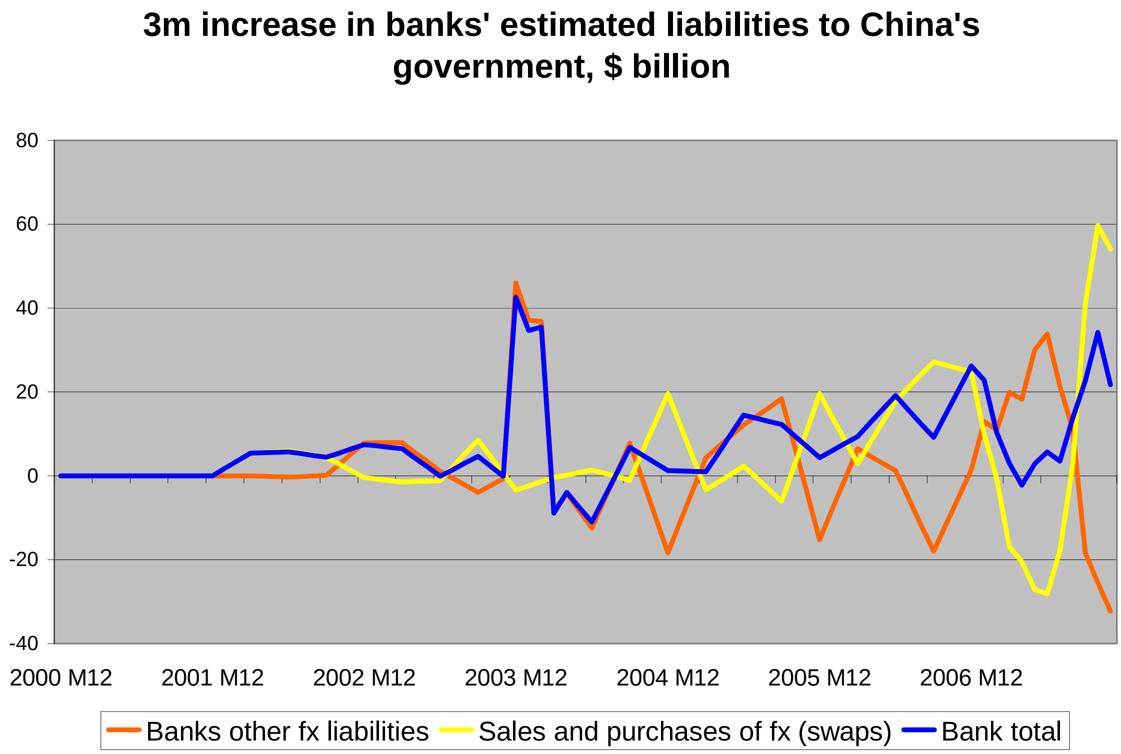


2007

The surge in Chinese reserve growth in the first half of 2007 reflects a decision – still never fully explained – to slow the growth in the foreign assets of the Chinese banking system. "Other foreign currency liabilities" and "purchases and sales of foreign exchange" in the banking data increased by $63b in 2006, but only $8-9b in the first half of 2007. The balance of payments data for the first half of 2007 also shows a large fall in the pace of "private" purchases of foreign debt (they only totaled $14b in the first half of 2007). The result – not surprisingly – was a strong acceleration in the pace of reserve growth.

This shift shows up strongly in higher frequency measures of the changes in total outstanding swaps/ other foreign currency liabilities in the banking system. Figure 5

plots the 3m change in outstanding swaps/ other foreign currency liabilities. It shows more dramatic changes in direction that the graph plotting 12m changes.
Figure 5: 3m change in the state banks' estimated foreign currency liabilities to the government



In the second half of the year, by contrast, Chinese reserve growth sharply decelerated.

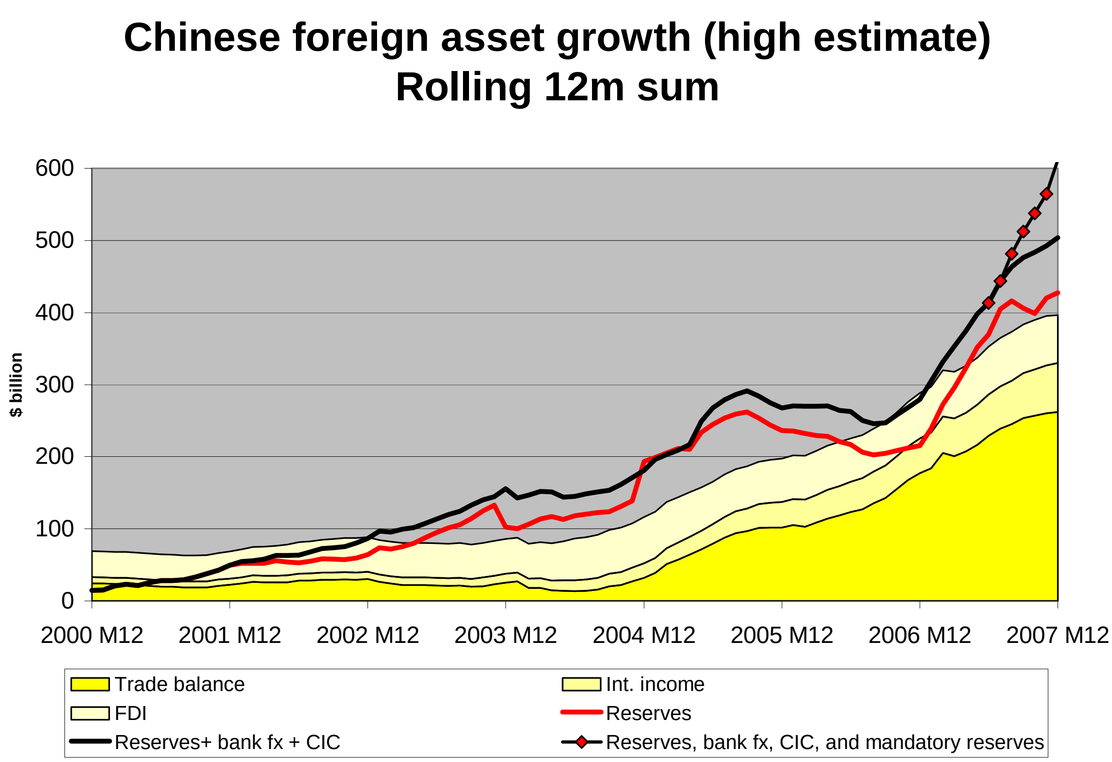
Adding in the (net) increase in the CIC's foreign assets doesn't radically change the story. The CIC's foreign assets increased by $13b in q3 – as $67b of the $80b it raised in q3 flowed back to the central bank with the purchase of Huijin. The CIC's foreign assets only increased by an estimated $4b in q4, as $23b of the $27b it is estimated to have raised was used to recapitalize China Development Bank and China Everbright Bank. Adding the increase in the CIC's assets to the reserves data brings the increase in China's foreign assets to $96b in q3 and $91b in q4 – a significantly slower pace than in q1 and q2 despite the rise in China's trade surplus (Table 2).

The deceleration in Chinese reserve growth in the second half of 2007 corresponds with renewed growth in the Chinese banking system's estimated liabilities to China's government (Figure 5, blue line). The sum of "other foreign currency liabilities" and "purchases and sales of foreign exchange" increased by $23b in q3, and by another $9b in October and November. The banks "other liabilities" should rise by at least another $20b in December as a result of the CIC's recapitalization of CDB.

The PBoC data showing the growth in what I believe are the banks' liabilities to the government, though, may not accurately capture the full increase in the banks foreign currency holdings. Even after adding in the identified increase in the bank's foreign assets, the growth in China's foreign assets is relatively modest – it would be roughly in line with the increase implied by the sum of China's trade surplus, the interest income on its foreign assets and the monthly FDI inflows (which only capture a fraction of total FDI inflows). The central bank seems to have required that the large state commercial banks purchase dollars to meet the post-July increases in the banks' mandatory reserves. The 300 bp increase in the banks reserve requirements between August and December (50 bp in August, September, October, November and 100bp in December) potentially forced the state banks to purchase $108b.

It isn't yet clear how this increase is showing up in the banking data reported by the central bank. If it isn't reflected in the banking data, total foreign asset growth could be approaching $600b (Figure 6, and specifically, the black line with red diamonds).

Figure 6: Growth in China's foreign assets growth v underlying inflows, including Logan Wright's estimate of the rise in the banks' required dollar reserves.



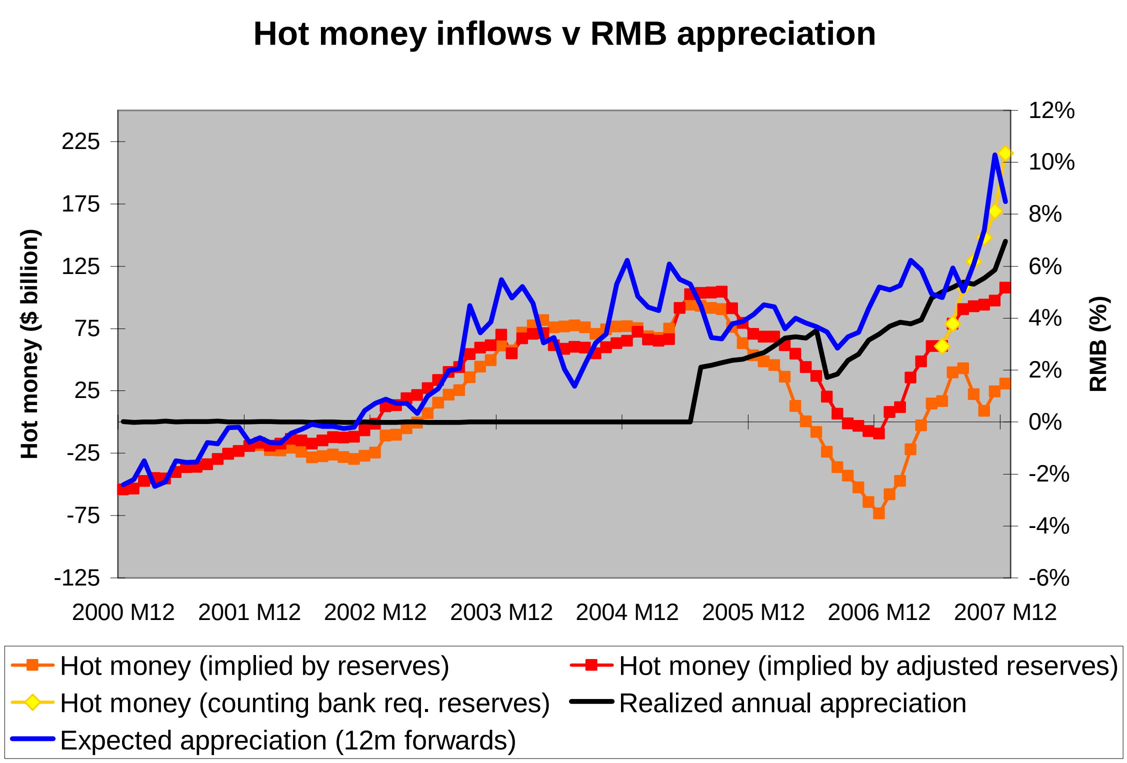
Just how much money is flowing into China?

Since formal reserve growth is significantly lower than the total increase in China's foreign assets, measures of hot money inflows derived from the reserves data tend to understate hot money inflows. Indeed, the unadjusted reserves data suggests very modest "hot money" inflows.   However, measures of hot money inflows derived from broader measures of the increase in China's foreign assets tell a different story, and indeed suggest that pressure from hot money inflows is now as strong as before the 2005 revaluation.

The resumption of strong hot money inflows makes intuitive economic sense: the rise in Chinese domestic interest rates, the fall in US rates and the acceleration in the pace of RMB appreciation have all increased the expected return on RMB holdings.   The offshore forward market now implies an annual expected appreciation of over 8% -- more than enough to make holding RMB more attractive than holding dollars.

Indeed, if the full increase in the state banks' dollar holdings from the policy decision to force the banks to hold a portion of their required reserves isn't already reflected in the banking data, the overall pace of hot money inflows would now be far higher than in late 2004 and early 2005 (Figure 7).

Figure 7: Various estimates of how money inflows



Section 2: The key institutions managing China's foreign assets

A. The China Investment Corporation (CIC)

Consensus on change, but not how to change

The decision to create the CIC reflected a consensus inside China that China had more than enough reserves and thus had the capacity to experiment with alternative ways of managing its foreign assets. The consensus – no doubt motivated by a desire to try to offset the losses associated with a faster pace of renmimbi appreciation and dollar depreciation – to seek higher returns than possible from a traditional reserves portfolio does not seem to have been matched by a consensus on how to obtain higher returns.[8]

There doesn't seem to have been a clear decision yet on what CIC will be, other than analogue to SASAC – the part of China's government that manages the state's equity stake in big state-enterprises -- for state banks.[9] It could evolve into:

- A strategic investor in a broad range of US/ European companies, just as it already has taken large stakes in Blackstone and Morgan Stanley.
- A source of support for Chinese SOEs looking to expand abroad. It participated in China Railway's offshore IPO and is rumored to be supporting Sinopec's outward expansion.
- A manager of passive equity portfolio that tries to fly below the radar screen and avoid attracting attention.

These different roles do not necessarily fit well together. The skills needed to manage a diversified portfolio of foreign equities may be quite different from the skills needed to manage controlling stakes in China's domestic financial institutions. Attempts to support the outward expansion of Chinese firms in strategic sectors – including the expansion of the state-oil companies – would fit poorly with the CIC's claim that its investments are motivated by purely commercial goals.

The CIC's internal structure almost assures that its investment decisions will be far more politicized than the management of China formal reserves by the central bank. All parts of China's bureaucracy are represented on its board – a legacy of the bureaucratic battles that accompanied its creation.[10] This could mean that the CIC will function as an intra-

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[8] Singapore's government investment corporation has disclosed returns in excess of the returns on a typical reserve portfolio; the large gulf funds do not disclose their returns, but several – especially ADIA – are rumored to produced large returns.

[9] The CIC took over Central Huijin's stakes in three large state banks along with its stake in [13] domestic brokers. It has recapitalized the CDB and China Everbright bank and is planning to recapitalize the Agricultural Bank of China.

[10] China's finance ministry has long argued that the central bank shouldn't be the sole manager of China's foreign assets. Japan's finance ministry, for example, manages far more of Japan's reserves than its central bank – and the US Treasury has responsibility for US foreign exchange policy and a large share of the United States external reserves. The Finance Ministry consequently viewed the creation of an investment authority as an opportunity to gain control over a portion of China's foreign reserves. It also

governmental coordinating committee for the management of China's non-reserve foreign assets – or it could mean that all decision making will effectively be concentrated in the CIC's top management, as the board will be unable to agree. Many decisions likely will need to be made by the top level of China's government, not by the CIC. The existing consensus that the CIC should do a bit of everything won't resolve the question of how much money the CIC should devote to, for example, a global equity portfolio and how much it should devote to supporting Chinese firms. The CIC's desire not to be responsible for a "second Blackstone" is also likely to lead the CIC to prefer investments with strong backing from China's top leadership.

Just how big is the CIC?

The easiest way to determine the size of the CIC – given that it has not embraced the high standard of disclosure set by Norway's government funds, or for that matter, Kazakhstan's stabilization fund – is to track the Ministry of Finance bond issues linked to its formation. The CIC raised 1.55 trillion RMB through bond sales: 600 billion RMB in August from a large sale to the PBoC, another 200 billion RMB from smaller bond issues to the public between September and December and a final 750 billion RMB from another large bond sale to the central bank in December. The RMB raised from these bond sales are not converted into foreign currency immediately. It seems like the 600b RMB bond was converted into foreign exchange in q3, the 200b RMB from the small bond issues in q4 and the last bond issue will be converted into foreign exchange in q1 2008.[11] Given the RMB's ongoing appreciation, the Ministry of Finance has every incentive to only buy foreign exchange when it actually needs the money.

These transactions raised at least $207b, with the majority obviously coming in q1 2008. However, $67b of this total was used to buy Central Huijin's assets from the PBoC in September and another $23b was used to recapitalize CDB and China Everbright bank in q4, leading to a smaller net increase in the CIC's foreign exchange holdings. Past recapitalizations have transferred the foreign exchange to the banks, with the government receiving equity in the bank in return. The CIC's total holdings will be further reduced when the CIC recapitalizes the Agricultural bank of China (ABC). Consequently, the CIC – by my estimates – had only about $17b in foreign assets at ($5b in Morgan

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believed that it had lost out relative to the central bank when the central bank reserves were used to recapitalize the state banks. The National Development and Reform Commission (NDRC) supposedly put forward a proposal to create an investment fund under its own leadership, as did the Commerce ministry. Influential economists close to the central bank argued that the easiest way to create an investment fund was simply to allow the PBoC to place some of its existing reserves with the new fund manager. The final compromise had the CIC report to the State Council rather than to any Ministry. However, the appointment of Lou Jiwei – a former deputy Finance minister – to head the CIC combined with the CIC's purchase of Central Huijin's stake in the state banks from the PBoC at book value created a strong perception that the CIC resulted in a net gain for the finance ministry. Stephen Green provided the best contemporary account of these battles in "The Real Deal on China's New Mega-Fund," Business Week, 26 March 2007, http://www.businessweek.com/print/globalbiz/content/mar2007/gb20070326_316425.htm

[11] Technically, the Ministry of Finance borrows in RMB, buys foreign exchange from the PBoC and then hands the foreign exchange over to the CIC to manage. As a result, the currency risk remains with the Finance Ministry.

Stanley; and $3b in Blackstone)[12] at the end of 2007, a total that should rise to around $77b by the end of q1 2008.

That is a fairly modest portfolio. However, BNP Paribas has argued – persuasively – that the CIC's ownership stake in China's large state commercial banks and the CDB implies that it already effectively controls a far larger foreign portfolio than is widely perceived. The banks collectively will have close to $270b in foreign exchange as a result of swap transactions with the central bank and past recapitalizations by the end of the year. The combined portfolio of the CIC and the state banks (covered in detail in the next section) consequently is likely already larger than the funds of the Kuwait Investment Authority, and almost as large the funds of Norway's government fund. If the ongoing increase in the banks foreign assets continues, the CIC and the financial institutions it owns will effectively soon constitute the second largest "sovereign wealth fund" in the world, after ADIA.

Of course, though, only a fraction – roughly $90b counting CDB recapitalization – of the foreign exchange managed by the state banks comes from the CIC. Most of the rest comes from the central bank through swap contracts with the PBoC ($144b outstanding at the end of November) or from the recent decision to force the banks to meet a portion of their reserve requirement by holding dollars. It isn't clear if the state banks in effect manage a portion of the CIC's portfolio or a portion of SAFE's portfolio.

Blackstone and Morgan Stanley

China's decision to invest in Blackstone in many ways defined the CIC's initial history, though it may ultimately be over-shadowed by the CIC's recent investment in Morgan Stanley. The decision to invest in Blackstone was made prior to the formal creation of the CIC, and presumably was made at the top levels of China's government. The precise motivation for the decision remains something of a mystery. Many involved in the CIC were also involved in the recapitalization of China's banks and knew the foreign investors who took pre-IPO strategic stakes did very well. China's leadership may have wanted to get into a "hot" IPO. China also may have hoped to form a strategic partnership with Blackstone, both by investing in some of Blackstone's funds and by drawing on Blackstone's expertise to help build up the CIC's own skill base. Blackstone's China team – and specifically Antony (Tony) Leung— the former finance secretary of Hong Kong, an independent director on ICBC's board and chairman of Blackstone Greater China– also had close ties with China's leadership.

Three things though are clear:

- The decision was made very quickly;
- China expected to receive credit for its investment in the context of the US-China strategic economic dialogue, in much the same way China gets credit for buying Boeings or Airbuses prior to state visits. China's government was disappointed

[12] The CIC presumably still carries its investment in Blackstone on its books at book value; its market value now would be closer to $2b.

that the US did not formally welcome the deal. US officials argue that this reflects a Chinese misreading of American politics, not any signals that they sent.

- And the subsequent mark-to-market losses – Blackstone fell 30% after its IPO -- generated a public outcry in China.

Losses on Blackstone didn't keep China from taking a large bet on Morgan Stanley, though it presumably contributed to the decision to structure the Morgan Stanley investment as a convertible bond rather than as a straight equity investment (limiting the risk of highly visible losses in the short-term).

However, Blackstone's disappointing initial performance did apparently reinvigorate an internal debate inside China on the wisdom of investing in larger Western firms rather than investing in large Chinese firms – along with the wisdom in relying on Blackstone for advice on the CIC's investment strategy. That debate does not seem to be over. Soon after the Morgan Stanley investment, press reports indicated that the CIC was not intending to focus exclusively on investments in large banks and that its broad strategy remained under review. Among the strategies still under consideration were additional investments in the natural resource sector.

Indeed, it still isn't clear whether the Blackstone and Morgan Stanley investments represent a strategy of taking minority stakes in large – or at least prestigious – American financial firms or a set of one-off investments driven by personal ties. Tony Leung has ties to China's top leadership from his stint as Hong Kong's Finance Secretary, and Morgan Stanley's Wei Sun Christianson and the CIC's Gao Xiqing were students together.

The public outcry over the fall in Blackstone's value, though, highlights one of the main risks facing the CIC: the gap between the public's expectation of gains and the high probability that the CIC will sustain losses. The CIC's funding structure – borrowing in RMB to invest abroad – means that it has to overcome a substantial financial headwind.

The Ministry of Finance borrows domestically to raise funds for the CIC at between 4 and 5%. This seems to be a subsidized rate, one that reflects sales to the central bank and arm-twisting the state banks. With inflation running at close to 7% and short-term interest rates rising, there is not a lot of demand for long-term bonds paying between 4 and 5%. The RMB appreciated by 7% against the dollar in 2007. It offshore forward market currently expects an additional 9% appreciation in 2008. If these expectations are realized, China's government would need a dollar return – net of fees – or between 13% and 14% just to break even.

Coordination with the central bank

The creation of the CIC separate from the PBoC and the SAFE to manage a portion of China's foreign assets and to in effect reduce the central bank's need to sterilize rapid reserve growth raises two obvious challenges:

- Do the CIC and SAFE coordinate the management of China's foreign assets, to assure, for example, that the CIC's desire to hold a more diverse foreign portfolio and the resulting sale of dollars doesn't generate additional pressure on the dollar? So long as China manages its currency against the dollar, it doesn't have an interest in contributing to dollar weakness. SAFE presumably does not want to hold more dollars to offset the CIC's dollar sales.
- Does the sale of Finance Ministry bonds to finance the CIC's foreign portfolio help the PBoC sterilize China's reserve growth by reducing reserve growth – as the sale of Finance Ministry bonds to the public to buy foreign currency would remove domestic currency from circulation? Or does it in practice make it more difficult for the PBoC to manage rapid foreign asset growth?

So far, the CIC has not been an effective alternative to central bank sterilization. The Finance Ministry has raised money for the CIC primarily by selling bonds to the central bank, rather than to the public. That doesn't help with sterilization unless the central bank can then substitute the sale of the bonds it bought to finance the CIC for the sale of short-term central bank bills. However, selling long-term fixed-rate debt – especially debt with a low coupon – in the face of rising inflation and expectations that short-term rates will rise has proved to be a challenge. As a result, the central bank apparently retains most of the bonds issued to finance the CIC on its own balance sheet.

Here there is an obvious conflict of interest between the Ministry of Finance and the People's bank of China. The Ministry of Finance would like to raise funds for the CIC at the lowest possible cost and not to cannibalize demand for other Ministry of Finance bonds. The PBoC wants the Ministry of Finance bonds to carry a market interest rate, and not to cannibalize demand for the PBoC's own bills. If the Ministry of Finance was selling bonds directly in the market – and not leaning on the banks to buy the bonds – the Ministry of Finance would help the central bank with sterilization but increase its own cost of funds. Conversely, selling the bonds directly to the central bank at a below market interest rate helps the Finance Ministry, but hurts the central bank.

So far almost all the bonds have instead been placed with the PBoC, in part because of concerns that the domestic market could easily absorb such a large increase in Ministry of Finance bonds. The bonds have been bought at par and carry a low-interest rate. That leaves the PBoC with two options going forward: selling bonds in the market at a discount (and taking a loss) or twisting the banks' arms to force them to buy the bonds at par. Neither option is attractive. As a result, the creation of the CIC hasn't helped the PBoC sterilize the huge increase in China's reserves – and in a lot of ways has made the central banks' job more difficult by forcing it to absorb long duration bonds at a time when there is little market demand for such bonds. Rather than selling the bonds into the market, the PBoC seems to have used the bonds as collateral in short-term repo transactions with the banking system.[13]

[13] Logan Wright of Stone and McCarthy reports that the central bank's repo transactions have increased strongly in the last part of 2007. The "carry" on these repos is positive, as the central bank in effect borrows short-term funds from the banking system at a rate that varies between 2.7 and 3.4% while it continues to receive the higher coupon on its long-term bonds. However, the net result is an ongoing

B. The State Commercial Banks

The rise in the banks' foreign currency liabilities to the central government

Starting in late 2003 – when the PBoC handed $45b of its reserves to Central Huijin to recapitalize two of China's four large state commercial banks (Bank of China and China Construction Bank)– the state banks have been used to manage a portion of China's foreign exchange reserves. Relatively little – apart from $15b for recapitalization of the Industrial and Commercial Bank of China (ICBC) – seems to have been handed over to the state banks to manage in 2005.

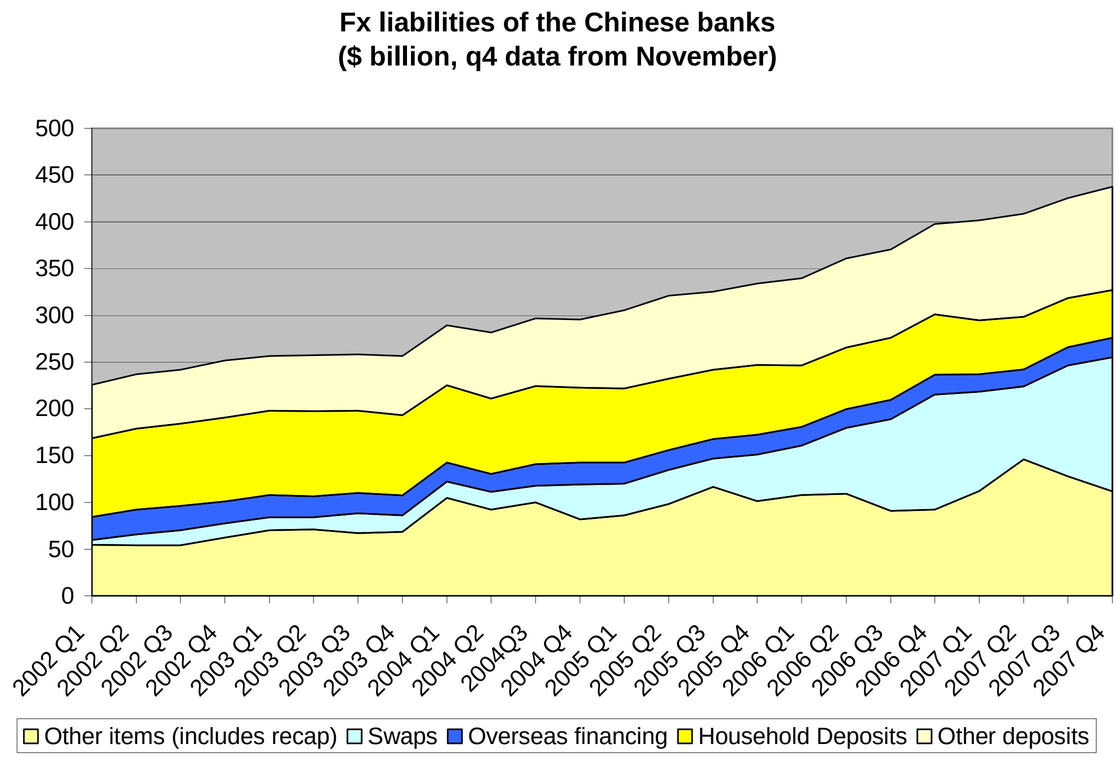
However, the foreign currency balance sheet of the state banks expanded dramatically in 2006 – and, after its growth slowed in early 2007, the foreign currency portfolio of the state banks has grown rapidly in the second half of 2007. The PBoC resumed the use of swap contracts: the banking system's outstanding swaps ("purchases and sales of foreign exchange") with external counterparties, likely the PBoC, fell from $123b at the end of 2006 to $78b in June, before rising back to $143b at the end of November. The CIC also injected $23b of foreign exchange into the banking system to recapitalize China Everbright Bank and China Development Bank.

In the past, swap contracts have been used to help the banks hedge some of the foreign exchange exposure resulting from the use of foreign currency reserves for their recapitalization. In 2004 and 2005, changes in "purchases and sales of foreign exchange" – likely swaps with the central bank – traded off with changes in the banks other foreign currency liabilities. In early 2007, by contrast, a fall in outstanding swaps was largely offset by a rise in other foreign currency liabilities. The precise split among different line items matters less than the overall direction of change.

Right now, the banks' total foreign currency exposure seems to be rising, as Figure 8 shows. The tan line – other bank liabilities – rises at the time of the initial $45b recapitalization of the Bank of China and China Construction Bank in 2003. The light blue line shows outstanding swap contracts. The darker blue line shows overseas financing – which has remained fairly stable over time. Household foreign currency deposits (the yellow line) have fallen over time, while enterprise deposits have increased.

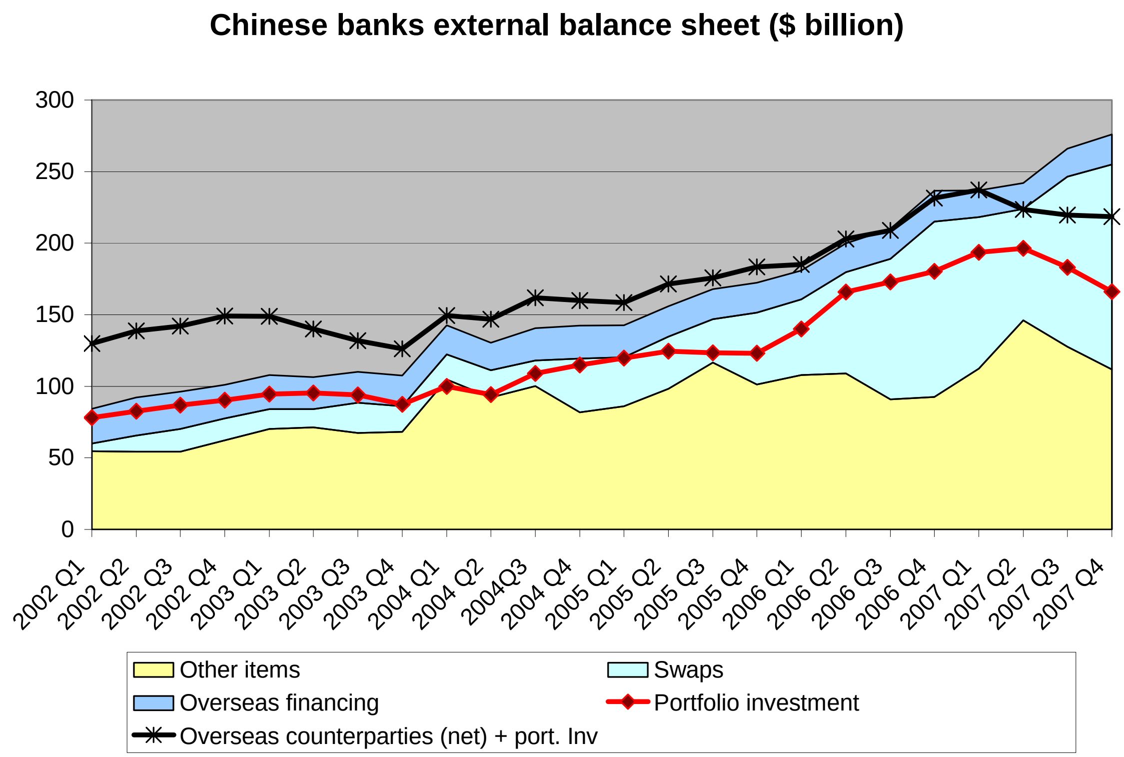
Figure 8: Foreign currency liabilities of the Chinese banking system (PBoC data)

increase in the overall stock of short-term liabilities, repos and central bank bills that the PBoC has to rollover.



The liability side of the bank's foreign currency balance sheet can be matched to the asset side. The growth in "purchases and sales of foreign exchange" (likely the banking systems net foreign currency swap position with the central bank) and "other items" (the line item that seems to increase when the central bank used its reserves to recapitalize the banks) generally has matched the growth in the banks' external assets: "portfolio investment" and "net business with overseas counterparties" (Figure 9).

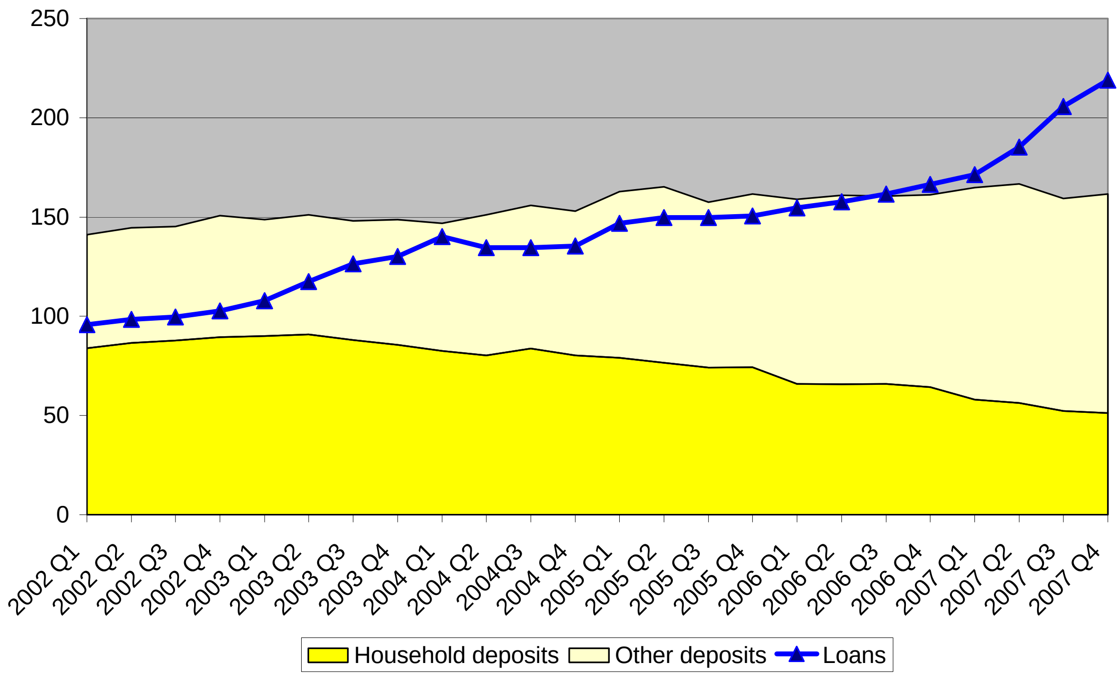
Figure 9: Sources of financing for the state banks' external portfolio (PBoC data)



However, the banks' recorded portfolio investment has fallen after q2, despite the continued increase in the banks' available foreign currency financing. Portfolio investment -- $163b at end of November – was down over $30b from the June peak. The recent rise in outstanding swaps seems instead to have helped finance a rise in foreign currency loans in the face of the ongoing fall in domestic foreign currency deposits. Foreign currency loans, likely to state enterprises, are up $33b from June to November (Figure 10). It also -- at least anecdotally -- has offset a reduction in the banks' ability to borrow abroad. As of November, though, the PBoC has not reported a fall in the banks "overseas financing."

Figure 10: Domestic foreign currency deposits v domestic foreign currency lending (PBoC data)

Chinese banks: Domestic fx deposits and loans, $ billion



State firms have a strong incentive to use dollar financing to finance domestic investment and benefit from the RMB's appreciation. However, the central bank has no interest in seeing the state banks use money borrowed from the central bank –or funds from the recapitalization – inside China. That would return the money, indirectly, to the central bank – as the sale of the foreign exchange borrowed from the banks for RMB would increase reserves. Moreover, an expansion of foreign currency lending works against the government's policy of restraining borrowing to help cool China's economy. Consequently, it is likely that at least loan growth has been matched by a buildup in the foreign assets of state enterprises.

The management of the banks' foreign currency security portfolio

The Chinese data provide no information about the kind of foreign securities that the Chinese banks have bought. Goldman Sachs indicates that 75% of the foreign securities held by the banking system at the end of 2006 were denominated in dollars. Goldman estimated that the banks held $215.0b of foreign securities at the end of 2006, slightly more than the $180.3b in the PBoC data, and that $164.1b of the 215.0b total were invested in dollar-denominated securities. The Bank of China held over half the total, with a lower dollar portfolio share (70%) than the other banks (86%).[14] The gap

[14] The Bank of China held $90.1b of dollar debt at the end of 2006, out of a $128.7b of total foreign debt securities (it also recently disclosed $9.7b of US "subprime" exposure). CCB held $39.3b of dollar securities and $41.7b of foreign securities. ICBC held $25.6b in dollar debt out of $28.4b of foreign securities (with $1.2b in subprime exposure).

between the PBoC data and the Goldman data may reflect the investment of the banks' IPO proceeds offshore.[15] The accounting of IPO proceeds remains murky.

Interviews with an admittedly very limited set of Chinese bank treasurers suggests a preference for floating rate debt, as the banks benchmark their dollar portfolio to LIBOR and a dislike for low-yielding US treasuries. That hints that the Chinese banks have been buying US dollar-denominated corporate debt. The Chinese state banks – and particularly the Bank of China, which has the largest foreign currency portfolio – have disclosed over $10b in exposure to US subprime housing debt.[16]

Do the state banks hold even more dollars that now appear in the banking data?

The banking data may not capture all of the recent increase in the banks' foreign assets. The PBoC seems to have required the large state banks to hold dollars rather than RMB to meet a portion of their required reserves -- a policy change that, in conjunction with restrictions on the bank's ability to borrow from abroad, forced the banks to buy large sums of foreign exchange in the market. Logan Wright of Stone and McCarthy estimates that the state banks have to buy $18b for every 50 basis point increase in their reserve requirements. That implies that the large State commercial banks had to buy aside $18b in August, $18b in September, $18b in October, another $18b in November and $36b in December, for a combined $108b. Denis McMahon of Dow Jones has confirmed that the big state banks bought large quantities of dollars in the market. Details though remain murky – in part because only the large state banks seem to have been required to buy dollars to meet the rise in their reserve requirement. The guidance to buy foreign exchange was provided informally.

In theory, the increase in the banks required holding of dollar reserves (at a time when dollar deposits are falling) should result in a mismatch between the banks foreign currency assets and their foreign currency liabilities. Yet such a mismatch has yet to appear in the data. This could reflect the authorities' embarrassment that they are forcing the banks to take on so much currency risk. Regulators generally want their banks to avoid large positions in the currency market, not to take them. It could reflect undisclosed hedges. Or it could indicate that I am not reading the foreign currency balance sheet of the banking system correctly.

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[15] Goldman's $215b total implies that the banks account for the majority of all Chinese holdings of foreign debt, which totaled $228 b at the end of 2006 (NIIP data).

[16] Logan Wright's examination of the annual reports of the state banks suggests that the long-term swap contracts that the Bank of China and China Construction Bank entered into with the PBoC in early 2005 to hedge the foreign currency exposure from the use of reserves in the recapitalization expired in 2007. ICBC's swaps expire in 2008. He calculates that $40.5b of BoC/ CCB swaps should expire in 2007, roughly $3.375b a month. The actual fall in outstanding swaps was more like $7b a month in the first half of 2007, and Wright's story cannot explain the rise in outstanding swaps in the later half of the year. The fall in outstanding swaps doesn't seem to be associated with a contraction in the banks foreign currency balance sheet or a reduction in their overseas portfolio investment, but rather a rise in other foreign currency liabilities. Nonetheless, the fact that the growth in the banks stock of swaps and other foreign currency assets stabilized had an impact – as the banks, at least briefly, were no longer absorbing a portion of the overall increase in China's foreign assets.

If the banks have indeed bought large sums of foreign exchange and if those purchases are not reflected in the banks reported foreign currency balance, total foreign asset growth in the banking system in the second half of 2007 would rise by $108b, with a corresponding increase in total Chinese foreign asset growth an estimated hot money inflows.

C. The State Administration of Foreign Exchange (SAFE)

The State Administration of Foreign Exchange (SAFE) – itself part of the PBoC – still manages the bulk of China's external assets. Even with the creation of the CIC and the increase in the foreign currency balance sheet of the state banks, it added around $430b to its portfolio in 2007. Shifts in the way it manages its enormous portfolio could have a far larger impact than the increase in the foreign currency balance sheet of the state banks or the creation of the CIC.

SAFE is subject to many of the same pressures facing the CIC. Sterilization costs are rising – both because domestic interest rates are rising and because reserves are growing faster than money demand, increasing the ratio of interest paying liabilities to the foreign assets on the central bank's balance sheet. The PBoC's recent reliance on increases in reserve requirements rather than net bill issuance – mandatory reserves pay a lower interest rate than bills – provides indirect evidence of the pressures it is facing.

Even with rising sterilization costs, the PBoC is still profitable on a cash flow basis, as a large share of the PBoC's liabilities do not pay interest (cash is a central bank liability). Consequently, the PBoC still collects more interest income on its assets than it pays on its liabilities. However, the increase in the pace of RMB appreciation – while necessary to create the long-term conditions for a more independent monetary policy and a useful component of the PBoC's strategy for combating the rise in inflation – implies capital losses in excess of the central bank's interest income.

The creation of the CIC – a bureaucratic rival to SAFE – has added to this pressure. SAFE has a bureaucratic incentive to show that there is little need to shift additional funds to the CIC, as it can – it given sufficient freedom – achieve comparable returns at lower costs. China's leadership presumably is counting on such bureaucratic competition to increase overall returns.

Nonetheless, the State Administration on Foreign Exchange's ability to make large changes in its portfolio is limited. It is such a large player in the market that it would face great difficulty selling a meaningful share of its existing holdings without moving the market against it. Its willingness to accept the risk of large losses also seems limited. It was quite happy to be able to disclose, for example, that it had no subprime exposure over the summer – something that would not have been possible if it had taken additional risks. Above all, the currency composition of SAFE's portfolio is likely constrained by China's continued adherence to a de facto dollar peg. Large dollar sales that put pressure on the dollar would weaken the RMB absent a faster pace of RMB appreciation and thus conflict with the central bank's core monetary policy objectives.

There are nonetheless unconfirmed rumors that SAFE has taken positions in the commodity market and in certain equity markets. Recent indications that SAFE's Hong Kong office – SAFE investments – had quietly taken stakes in a number of Australian banks are consistent with these rumors. SAFE likely holds a much broader range of currencies as part of its reserve portfolio than central banks who limit themselves to the dollar, euro, yen and pound. SAFE is even rumored to have considered an allocation to hedge funds. However, a few billion here and a few billion there has little impact on its overall risk exposure. SAFE's enormous $1.5 trillion dollar portfolio is still dominated by holdings of US treasuries and agencies.

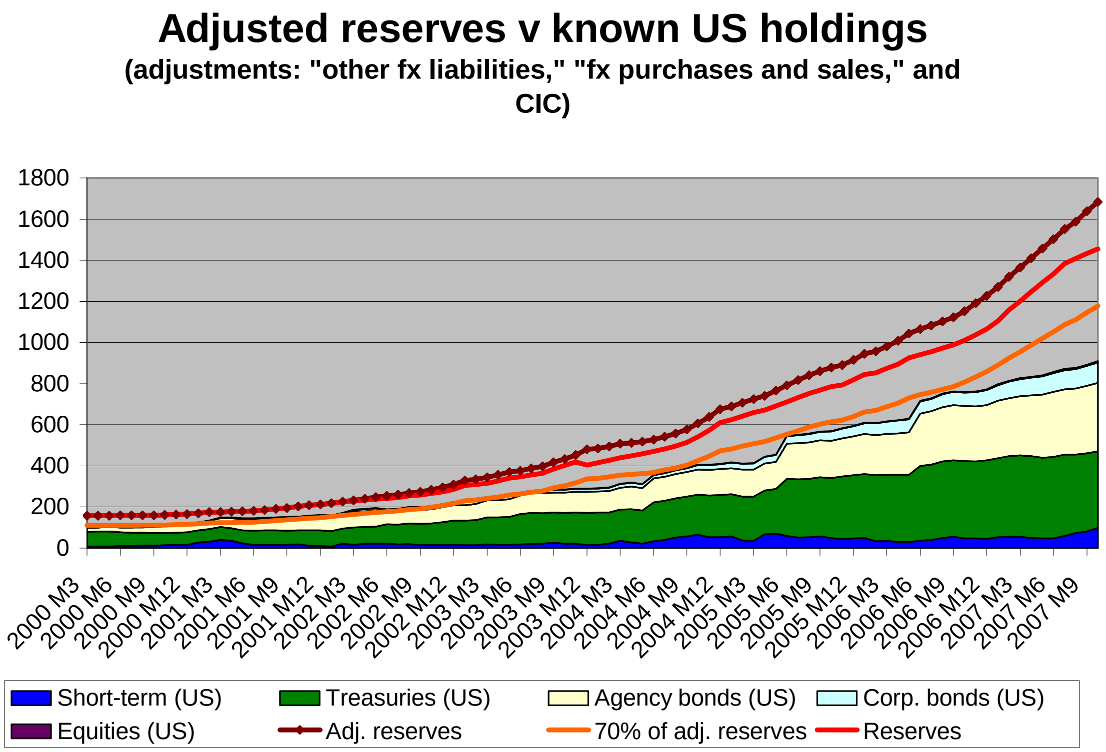
Section III. The composition of China's external portfolio

Neither SAFE nor the CIC disclose their external portfolio. Consequently, the best data on China's overall portfolio – a portfolio clearly dominated by SAFE's portfolio – comes from the annual US survey of foreign portfolio holdings of US securities. There is no comparable European data source.

The US data though has two important limitations. First, the survey data only comes out once a year, and it appears with a long lag. The most recent data currently available shows China's holdings at the end of June 2006. Preliminary data for June 2007 will be available in March. The higher frequency US data – the Treasury International Capital (TIC) data on the sale of US securities to foreigners – tends to systematically understate China's purchases. The increase in Chinese holdings between the annual surveys has consistently been about two times larger than the increase in Chinese holdings implied by the higher frequency TIC data. Second, the survey data does not capture all Chinese holdings. The survey data wouldn't pick up any funds that China has outsourced to foreign portfolio managers. It wouldn't pick up any Chinese investment in an offshore CDO that had in effect sold claims on a pool of US asset-backed securities. The US data also does not capture short-term dollar deposits in the global banking system or the Bank of International Settlements – though in China's case, such deposits are likely small.

Nonetheless, comparing China's identified reserves – both reported reserves and a total that includes the CIC's foreign assets and the funds shifted to the banking system – to Chinese holdings of US assets is instructive (Figure 12). The data from June 2006 onwards comes from adding the net purchases reported in the monthly TIC data series to total survey holdings. A similar technique was used to fill in the data points in between past surveys. China's holdings of US assets are broken into short-term holdings and holdings of long-term Treasuries, Agency bonds, corporate bonds and equities.

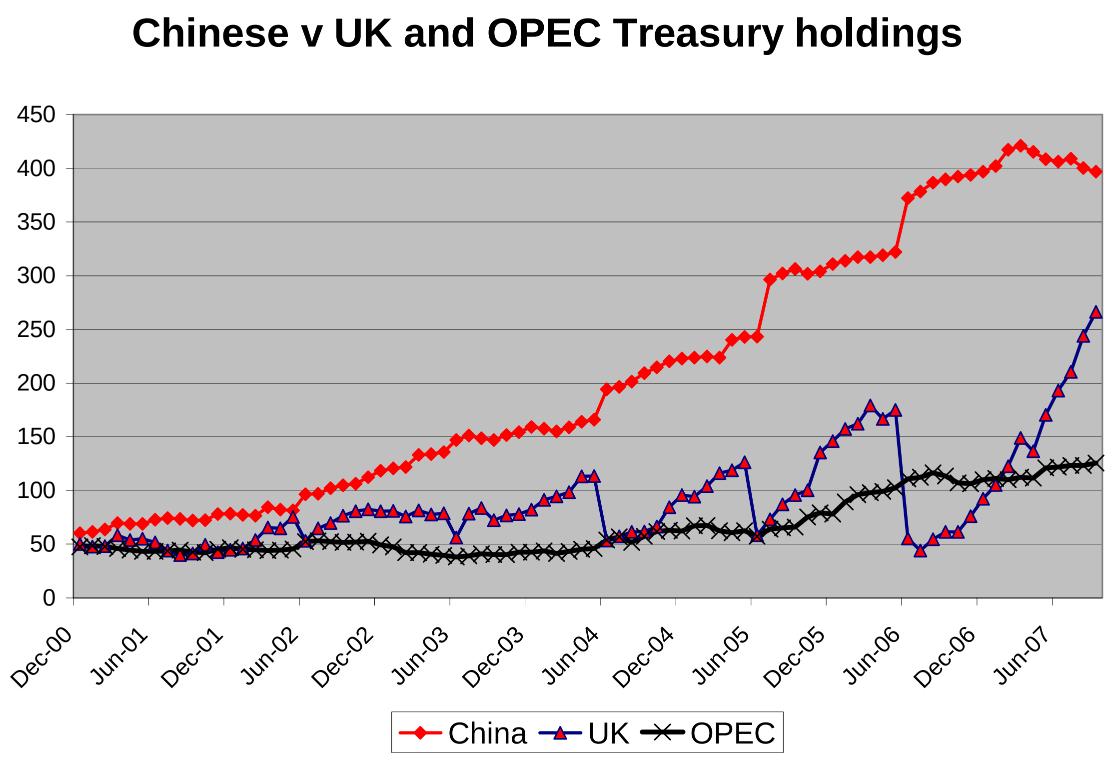
Figure 12: China's US holdings (US Treasury data)



The orange line represents the dollar claims consistent with a 70% dollar share of China's broad portfolio. The survey data – when it has been released – has consistently brought China's total holdings up toward this level. The next survey data should also lead to a substantial increase in China's holdings of US debt. Indeed, taking into account the past pattern of revisions, it is quite likely that China currently holds well over $1 trillion of claims on the US.

The pattern of survey revisions shows up clearly in a chart that plots the UK's holdings of Treasuries against China's holdings and the Gulf (Figure 13). Recent surveys have revised the UK's holdings down, and revised China's holdings up. The US transactions data records the sale of US bonds to European banks who then sell their bonds to China as a sale to a private European bank. The survey by contrast picks up the secondary transactions that lead to a rise in overall Chinese holdings.

Figure 13: Foreign holdings of US treasuries (US Treasury data)



Even after taking into account the likely upward revisions in China's Treasury holdings that will accompany the next survey, it does seem like China is reducing the share of its overall portfolio held in US Treasuries. But rather than reducing the dollar share of its portfolio, it has increased its holdings of US Agency bonds. Within the Agency market, China has been a particularly large buyer of "Agency" MBS – mortgage backed securities from private issuers that carry a credit guarantee from the Federal Agencies. These bonds have more "pre-payment risk" and technical complexity than the Agencies own bond issues, and consequently are often avoided by other central banks. As of June 2006, China held around \$107b of Agency MBS relative to \$148b of direct Agency bonds. But between June 2005 and June 2006 China's holdings of Agency MBS increased by \$51.5b, while its holdings of the Agencies own bonds only increased by \$32b. There also has been a steady increase in Chinese holdings of US corporate debt.

It is also possible to compare recorded US purchases to the ongoing flow coming out of China, not just to compare the total stock of China's reserves to the stock of its holdings. Here though it is critical to recognize the impact of the survey revisions. Figure 14, which plots the change in China's reserves (adjusted for valuation gains) to the change in China's holdings of US assets including the upward revisions that occur every June looks very different from Figure 15, which is based on the unrevised data.

Figure 14: 12m change in China's holdings of US assets (including survey revisions) v. China's reserve growth (adjusted for valuation gains, the CIC and transfers to state banks)

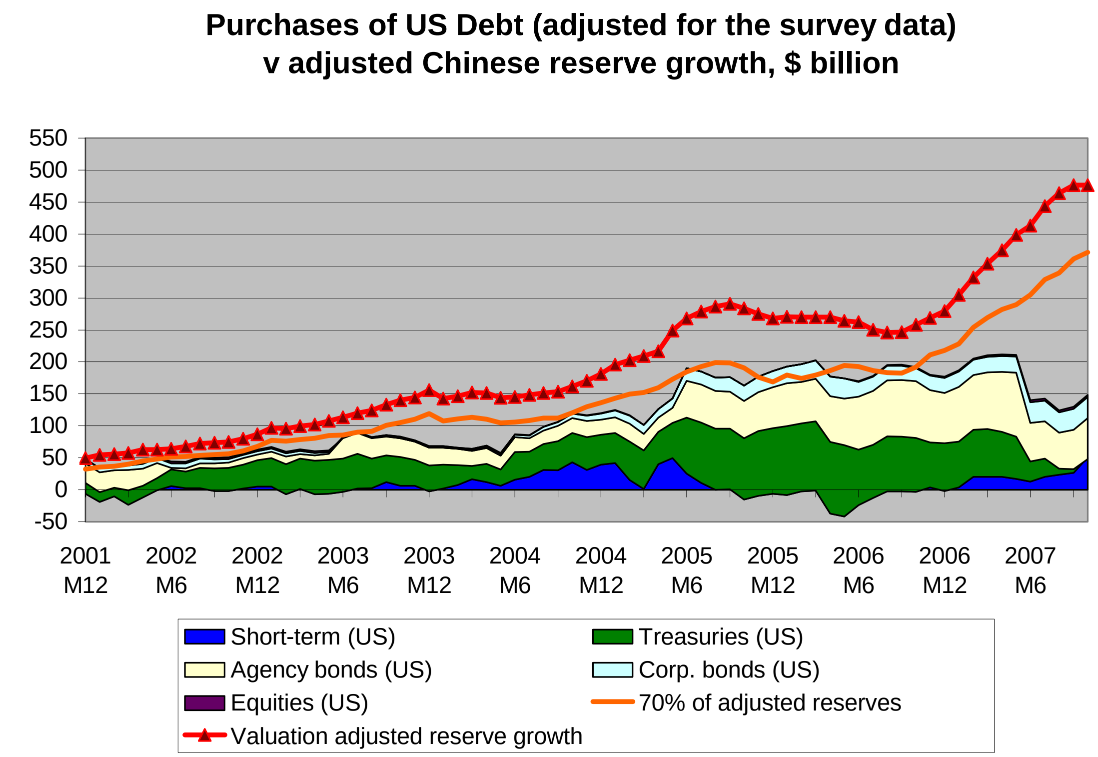
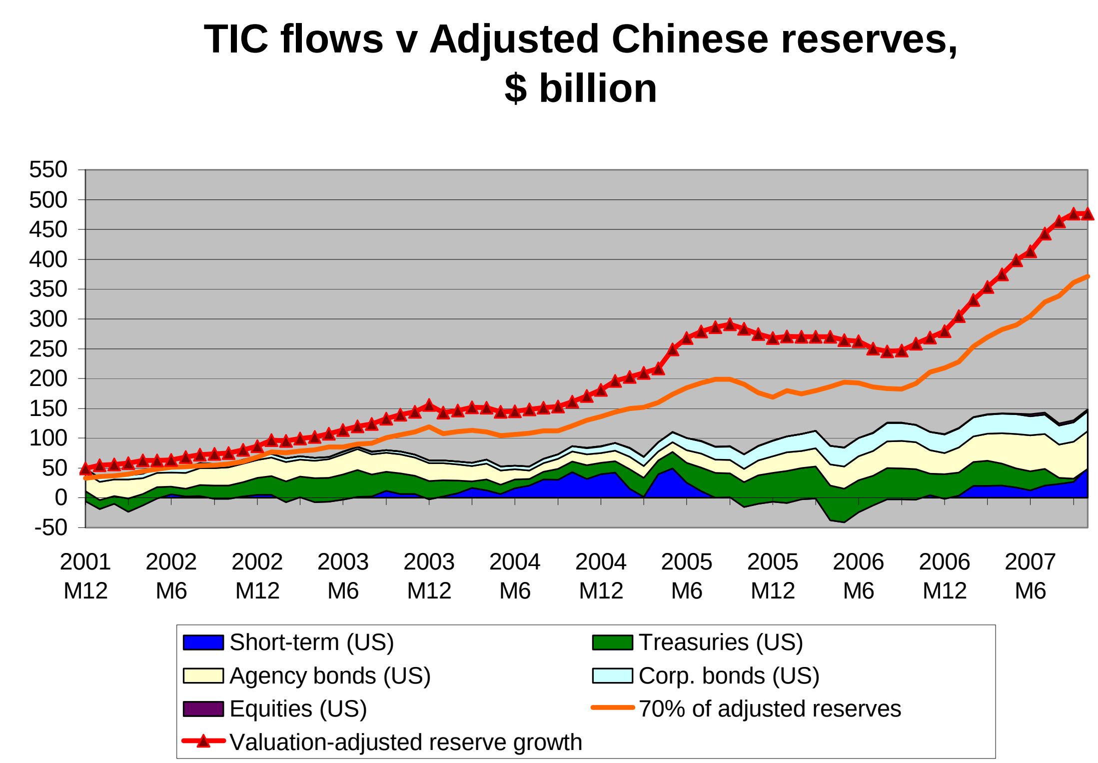


Figure 15: 12m cumulative purchases of US assets (unrevised data) v. China's reserve growth (adjusted for valuation gains, the CIC and transfers to state banks)



The high frequency recent data consequently needs to be interpreted with caution, as it undoubtedly will be subject to large revisions. In the past though the revisions have tended to be proportionate to the recorded flows – the total got revised up, but the split between different kinds of US long-term assets didn't change that much. Consequently, the high frequency data can be used – with caution – to guess changes in the pattern of Chinese demand.

Two trends stand out. First, there has been a pronounced shift away from Treasuries – with total Treasury holdings peaking in March 2007, and then slowly falling. China's Treasury holdings will be revised up when the new survey data comes out, but it does seem like the ongoing shift toward agency and corporate bonds has continued. Second, there has been a marked fall in all long-term Chinese purchases – and a rise in short-term holdings. This likely reflects a decision by the SAFE to increase its liquid short-term holdings in anticipation of a large transfer of funds to the CIC. The fall in purchases by Chinese banks – which stopped adding to the "portfolio" holdings in June – may also play a role.

However, it is worth repeating that the share of the increase in China's foreign assets that now shows up in the United States monthly flow data is now very small. China's total holdings are up about $150b over the last twelve months of data, relative to $450-500b of reserve growth. It is possible that the fall in the share of China's reserve growth that shows up in the US data reflects a decisive shift away from dollars. If China really was just adding $150b to its overall dollar holdings, China would need to have sold $300-350b of dollars and bought a comparable amount of euro, pound, yen, Canadian dollar and Australian dollars. This seems unlikely, as such large sales would have attracted a great deal of attention. It is far more likely that the US data simply is failing to pick up a growing share of China's purchases. It is though quite likely that China hasn't bought enough dollar-securities to keep the dollar's share in its overall portfolio from falling slightly, especially in the face of the ongoing rise in the dollar value of China's holdings of euros and other currencies. To sustain a stable 70% dollar share in its broad portfolio, China would have needed to have increased its dollar holdings by at least $375b.

Conclusion: Looking toward 2008

Sustaining China's current exchange rate policy – one based on a measured pace of RMB appreciation against the dollar – likely will require that the government of China continues to intervene heavily in the foreign exchange market. China's current account surplus continues to rise. Private investors generally prefer to hold RMB rather than dollars – a fact that is unlikely to change when US rates are falling, Chinese rates are rising and the RMB looks set to continue to appreciate against the dollar. Consequently, almost all outward flows from China come from China's government. The only obvious private demand for foreign assets is for Chinese stocks listed in Hong Kong, which trade at a discount to the same stocks listed in Shanghai.

Indeed, expectations of RMB appreciation are now so established that even government investors in China would rather avoid taking on exchange rate risk – though this is only possible in another part of the government assumes the exchange rate risk. The desire among all parts of China's government desire to minimize their own exchange rate exposure – and, to in effect, pass the currency risk to another part of the government -- is only one of many sources of tension among those now managing China's foreign assets. The PBoC doesn't particularly want to manage a growing foreign portfolio, but if China's foreign portfolio is going to grow, it would rather have the SAFE manage the funds than outsource management to the CIC. SAFE reports to the PBoC; the CIC is run by a former deputy finance minister and reports to the State Council.

The PBoC's concerns are not simply a reflection of its desire to defend its "turf" – or the tensions created by the fact that the CIC will pay more than SAFE, even if pays far less than international fund managers. The easiest way to improve the CIC's relative performance is to shift some of its costs to the PBoC – whether by delaying the purchase of foreign exchange until after the RMB has been allowed to rise or by selling the PBoC bonds at a below-market rate. Issuing bonds at a below-market interest rate to the PBoC though makes market-based sterilization more difficult, as the PBoC would need to take a loss if it sold the bonds in the market at their true market price. Conversely, SAFE could increase its relative returns by quietly buying say Australian stocks before the CIC makes a large allocation to Australia. SAFE and the PBoC are both represented on the CIC's board, but the CIC's ability to coordinate effectively with the rest of China's government is still unproven.

The CIC itself faces daunting challenges. The CIC was intended to improve the returns China generates on its foreign assets. Yet it was created at a point in time when RMB appreciation is expected to accelerate, creating large currency losses. To generate the kind of returns needed to offset the RMB's appreciation – the CIC could need returns, net of fees, as high as 14%. Generating such returns requires taking substantial risks. However, the government's tolerance for large losses, and that of the public, is not at all proven. The likely result: the CIC's top management will take are those large risks explicitly authorized by the top levels of China's government.

The CIC's initial funding was largely used to purchase of Huijin (the central bank's bank recapitalization vehicle) and to complete the recapitalization of the large state banks. The CIC's investment in Blackstone and Morgan Stanley are small relative to the CIC's investment in the state banks. In 2008, though, the CIC will need to start investing large sums outside the state banking system. It is not yet clear that the CIC – or for that matter the Politburo – has an agreed strategy for investing these funds. Some want the CIC to focus on higher external fund managers and building up its in-house portfolio management skills; other want the CIC to support the outward expansion of China's state firms.

The size of China's portfolio is growing incredibly rapidly, and its currency regime assures that this portfolio will be concentrated in the state's hands. The placement of this huge sum in foreign markets would be certain to generate controversy even if it were entirely invested in bonds. China is now so big that it impacts any market it touches. But as China's state moves into investments that potentially give it more control, the tensions associated with China's outward investment will only increase. The outward expansion of Chinese state firms – who are likely to want to take controlling stakes – likely will produce more controversy than even the CIC.

There is no sign yet that the Chinese foreign asset growth has peaked, and only ambiguous signs that the pace of increase in China's broad foreign portfolio has slowed. China's government – in all of its guises – will likely add $600b to its foreign portfolio in 2008, and perhaps increase its dollar holdings by $400b. China's impact on the US financial market consequently could quickly be more important than its impact on the US goods market. The dollar value of US exports of financial assets to China's government almost certainly now exceeds the dollar value of the goods the US imports from China.

China seems to have made a strategic decision to diversify the management of the government's assets across a range of state institutions – the CIC, the state banks and even large state firms – as well as to take on more risk. As a result, Chinese demand will soon have an impact on a broader range of financial markets. The large headline purchases of 2007 – Blackstone, Morgan Stanley, Barclays (from the CDB) – are only the beginning of this reallocation. China though has not made any comparable commitment to increase the transparency of its foreign investments – and indeed, the combination of a desire not to overpay for foreign assets and the rivalry among China's state investors has created pressures for less transparency. It is getting more difficult to track the total increase in China's foreign assets, let alone the scale of Chinese flows to different markets.

China's desire for higher returns could easily come into conflict with concerns about China's impact on the market, or concerns about the extent of Chinese ownership of specific sectors. The scale of Chinese state investment is unprecedented. So far, though, China has not been willing to take concrete steps to address the global concerns its outward investment in non-traditional reserve assets is likely to generate.