

China Macro View

How Big Is the Risk of Capital Outflow?

- **Exchange rate volatility and rising US yield may trigger capital outflow** – The recent depreciation of CNY and continued QE tapering in the US will likely prompt the Chinese entities to cover their short FX positions, equivalent to a capital outflow. China's extensive capital controls make a rampant capital exodus unlikely, and we turn to the recent history to get a sense of possible size of capital outflow. Our base scenario envisages net non-FDI capital outflow of around \$200bn this year, similar to that of 2012. Under this scenario, we expect USDCNY spot to rise in the near term but fall to around 6.08 by year-end following a volatile path. We estimate that PBOC will need to inject about Rmb1tn liquidity on a net basis for the rest of the year, or cut RRR by 50-100bps to achieve 13-14% M2 growth.
- **Non-government sector has accumulated significant short FX position** – China's capital account balance swung from deficit in 2012 to surplus in 2013, driven by external borrowing and inflow of currencies and deposits. Partly as a result, China's non-government external debt increased by around \$130bn in 2013, and the net short FX position by China-based companies resumed and enlarged in 2013. BIS statistics suggest even higher exposure by China-related companies (including those operating overseas).
- **Predominantly short-term external borrowing poses risk of reversal** – During 2008-2013, long-term debt grew by 2.6% per year on average, while short-term debt (maturing within one year) surged by 24.5% annually. During the same period, BIS-reported short-term international claims on China soared by about 44% per year on average: in the first nine months of 2013, increase in short-term claims accounted for nearly 90% of the increase in total claims.
- **The size of capital outflow would affect currency movement and liquidity** – While CAB surplus continues to support CNY appreciation, the size of surplus suggest CNY is only moderately undervalued, and large-scale capital outflow could overwhelm the market movements at least in the short run. In addition, capital outflow would slow down base money creation and drain liquidity. We have considered two additional scenarios apart from the base scenario.
 - Balanced flow scenario: non-FDI capital outflow and inflow netting out each other. USDCNY may reach around 6.0 by year-end. PBOC can achieve M2 growth target without cutting RRR.
 - Significant outflow scenario: non-FDI capital outflow of around \$350bn. USDCNY may fluctuate around the current level. PBOC will have to cut RRR by about 200bps to achieve M2 growth target.

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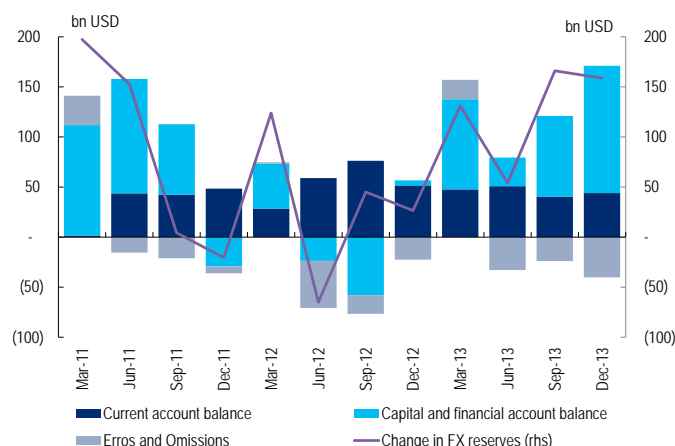
How Big Is the Risk of Capital Outflow?

FX: gov long position vs. non-gov short position

Double surplus in 2013 led to continued accumulation of FX reserves.

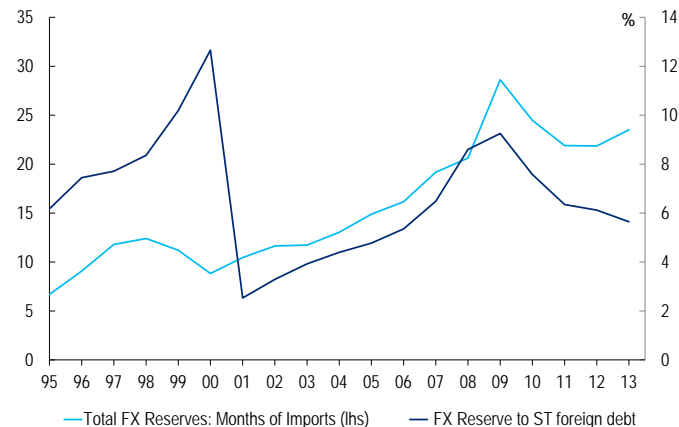
- According to the balance of payments (BOP) statistics, China's current account balance (CAB) remained in surplus in 2013, although surplus fell by 15% relative to 2012, and CAB/GDP ratio fell from 2.6% to 2.0%. Trade surplus increased compared with 2012, and the reduction of current account surplus can be attributed to enlarging deficit in trade in services (especially for tourism and transportation) and income (higher return for FDI vs. FX reserves).
- Capital account balance (KAB) swung from deficit in 2012 to surplus in 2013. The net inflow from FDI and portfolio investment increased steadily. The shift to KAB surplus was mainly driven by (i) loans, with loan liability changing from negative \$17bn (implying net repayment of external borrowing) in 2012 to positive \$93bn (net external borrowing); (ii) currencies and deposits (less outflow and more inflow).
- Errors and omissions remained negative and sizable (\$78bn), possibly reflecting capital outflows that were not captured by the official statistics (China maintains quite extensive capital account restrictions).
- FX reserves increased by \$433bn during the year, and reached a new record high of \$3.8tn. FX reserves covered more than 20 months of imports and 4 times of total external debt, and were considered more than adequate by policy makers (especially considering the low return on FX reserves).

Figure 1. Balance of payments



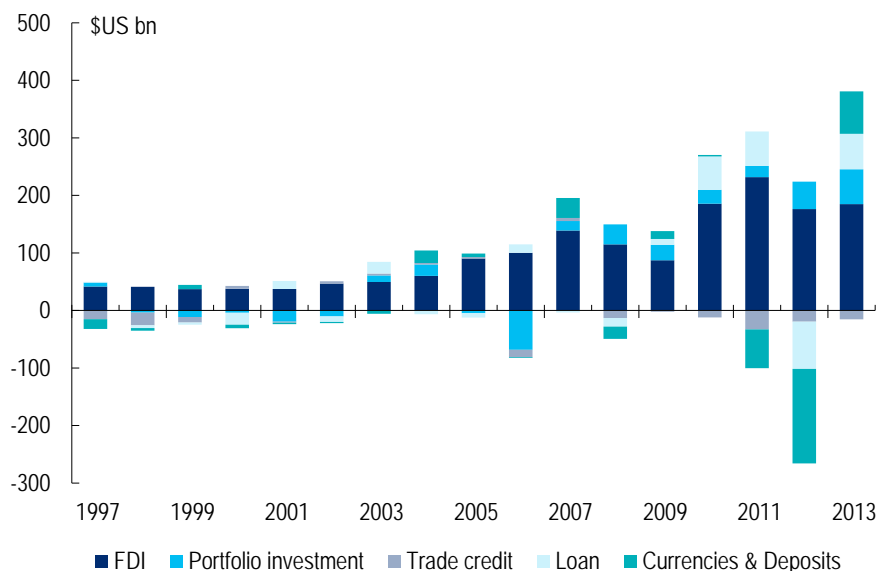
Source: CEIC and Citi Research

Figure 2. Reserve coverage of imports and external debt



Source: CEIC and Citi Research

Figure 3. BoP: financial account by components

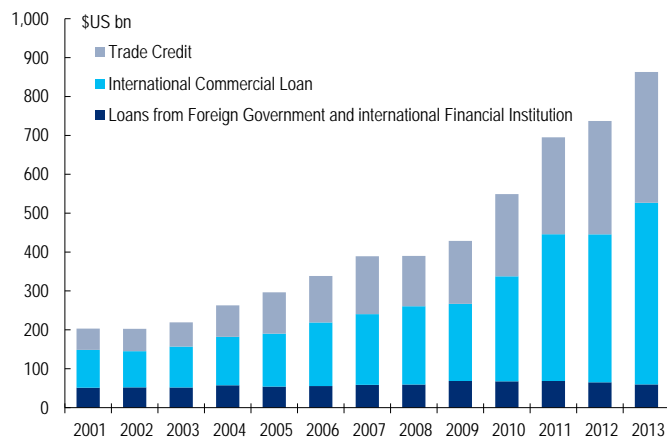


Source: CEIC and Citi Research

China's non-government external debt increased – Rising FX reserves appear to have emboldened the private sector to take more external debt, as RMB appreciated quite consistently during the year, and yields on on-shore instruments trended up. Reflecting capital inflows in the form trade credits and loans, China's non-government external debt increased by around \$130bn in 2013, while official external borrowing was virtually unchanged. External debt calculated by SAFE (based on residence) reached \$863bn at end-2013:¹ (i) external debt/GDP ratio remained low at 9.4% (relative to a widely accepted safety threshold of 20%); (ii) the ratio of external debt/exports of goods and services was 35.6% (relative to a widely accepted safety threshold of 100%); and (iii) the ratio of external debt service/exports of goods and services was 1.6% (relative to a widely accepted safety threshold of 20%). In other words, external debt remained at a comfortable level against a very high level of FX reserves.

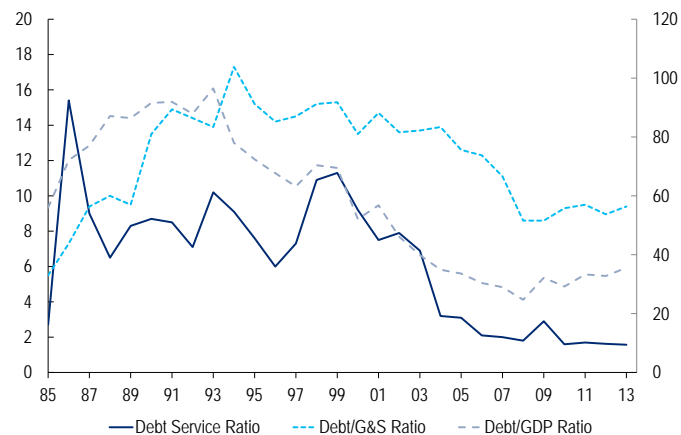
¹ External debt is usually defined based on the principle of residence instead of nationality. For example, external borrowing by a foreign-invested company operating in China is treated as China's external debt, while external borrowing by a Chinese company operating overseas is not treated as China's external debt.

Figure 4. Official statistics: foreign debt by components



Source: CEIC and Citi Research

Figure 5. External debt ratios



Source: WIND and Citi Research

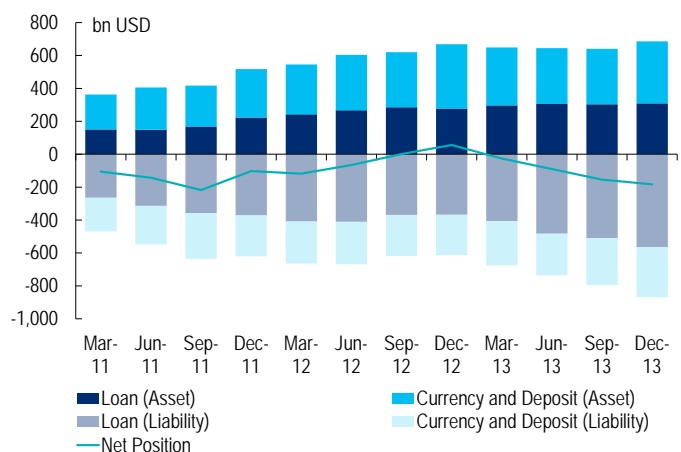
China's external balance sheet confirmed short FX positions of non-government sector – China's international investment position (IIP) shows total external assets arrived at nearly \$6tn at end-2013, dominated by FX reserves (65%). China's total external liabilities were roughly \$4tn, and FDI accounted for nearly 60% of the total. Apart from the gap between outward and inward FDI, the net position for loans was significantly negative. The combined position of loans and currencies & deposits shows a shift from short FX position to more balanced position by China-based companies in 2H of 2012 (CNY depreciated briefly against the USD around the middle of the year) but the short position resumed and enlarged in 2013, consistent with increasing external borrowing by the non-government sector.

Figure 6. International investment position, Dec 2013

Asset		Liability		Net Asset
Total Assets	5,937	Total Liabilities	3,965	1,972
Outward direct investment	609	FDI	2,347	-1,738
Security investment	259	Security investment	387	-128
Trade credit	399	Trade credit	336	63
Loan	309	Loan	564	-255
Currency and deposit	377	Currency and deposit	305	72
Other	104	Other	25	79
International reserves	3,880			3,880

Source: CEIC and Citi Research

Figure 7. Net position of loan and deposits

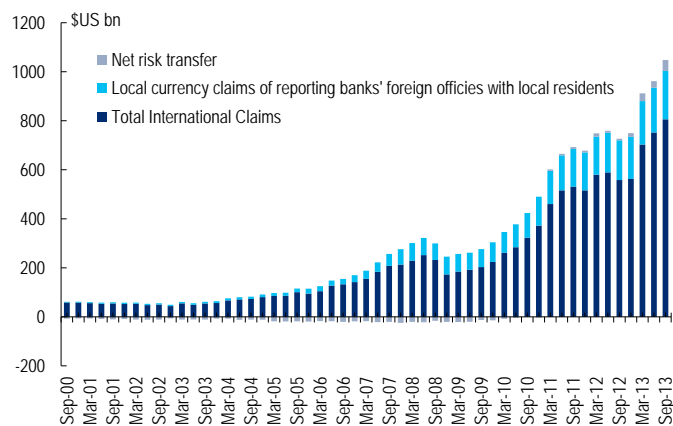


Source: CEIC and Citi Research

BIS statistics suggest even higher non-government exposure – The international banking statistics of the Bank of International Settlement have been a useful complement to the official statistics. According to BIS data, total foreign claims with regard to China (on an ultimate risk basis) reached \$1,048bn at end-Sep 2013. Specifically,

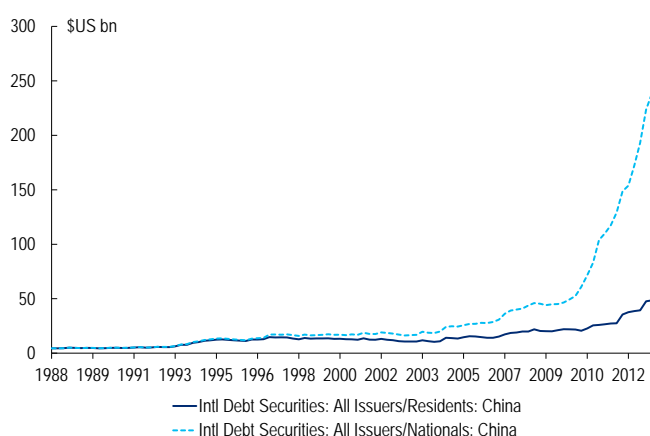
- Total international claims of reporting banks were \$806bn, including: (A) cross-border claims in all currencies; and (B) local claims in non-local currencies (for example a US bank's cross-border lending in China in all currencies and non-RMB lending in China by a US bank's affiliate in China). (B) is not captured in China's external debt statistics because the affiliate is regarded as a resident in China.
- Local currency claims of reporting banks' foreign offices with local residents (C) were \$197bn (for example RMB lending in China by a US bank's affiliate in China). (C) is also not captured in China's external debt statistics.
- The sum of (A), (B) and (C) is total foreign claims on a contractual basis.
- The difference between total foreign claims on an ultimate risk basis and on a contractual basis is the addition of: (D) net risk transfer. (D) reallocates claims from the country of the immediate counterparty to that of the ultimate borrower (the country where the guarantor of a financial claim resides or where the head office of a legally dependent branch is located (for example a US bank's lending to an affiliate of a Chinese company operating in the US). (D), which was \$44bn at end-Sep 2013, is not captured in China's external debt statistics because the affiliate under discussion is not a Chinese resident.
- In addition to foreign credit, international debt issuance by China-related companies also increased. As of end-2013, outstanding international debt securities issued by companies residing in China amounted to \$51bn while those issued by companies with Chinese nationality reached \$273bn, suggesting foreign affiliates of Chinese companies issued a large amount of debt securities in foreign countries, either to finance overseas business or to bring the money back to China.
- The BIS data are particularly useful in assessing the risks associated with debt raised by Chinese entities operating overseas.

Figure 8. Total foreign claims by BIS reporting banks



Source: BIS, Haver and Citi Research

Figure 9. International debt securities outstanding

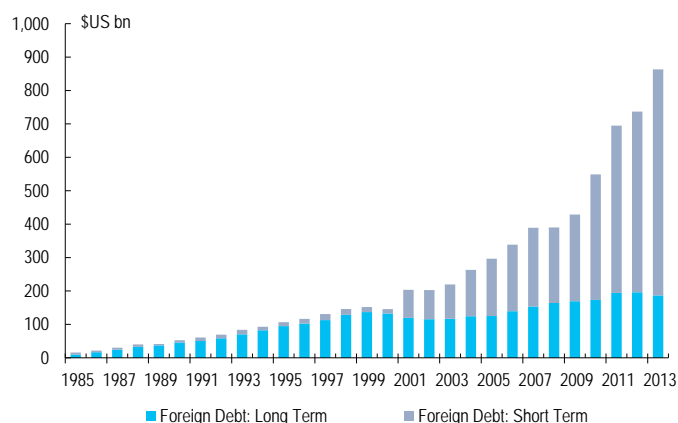


Source: BIS, Haver and Citi Research

Rising short-term debt and vulnerability to capital outflow

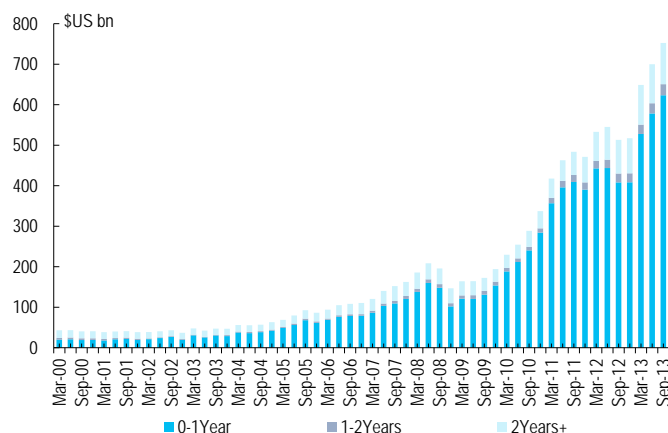
New external debt has been predominantly short-term – During 2008-2013, long-term debt grew by 2.6% per year on average, while short-term debt (maturing within one year) surged by 24.5% annually. In 2013, the increase in external debt (\$126bn) can be completely attributed to short-term debt. During the same period, BIS-reported short-term international claims on China soared by about 44% per year on average, relative to about 24% for longer-term claims. In the first nine months of 2013, increase in short-term claims accounted for nearly 90% of the increase in total claims.

Figure 10. Official statistics: short term and long term foreign debt



Source: CEIC and Citi Research

Figure 11. BIS statistics: short term and long term international claims on China

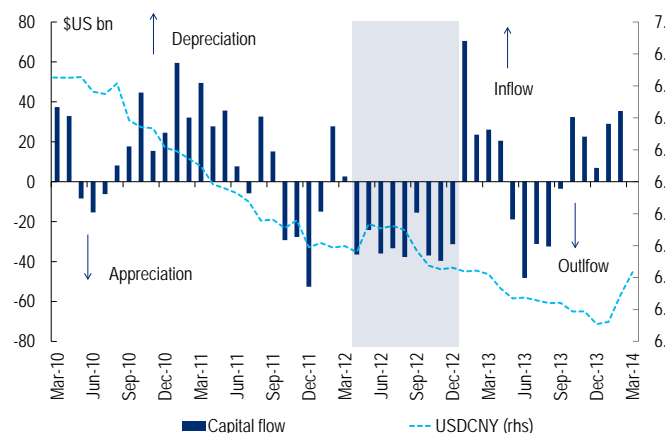


Source: BIS, Haver and Citi Research

The accumulation of short-term debt can be associated with carry trade – There is evidence that steady CNY appreciation in recent years and interest rate differential between China and advanced economies have encouraged economic entities to borrow abroad (in FX) and invest in on-shore assets (in CNY). In other words, the Chinese firms tend to dollarize their liabilities to benefit from cheap FX borrowing and higher CNY returns.

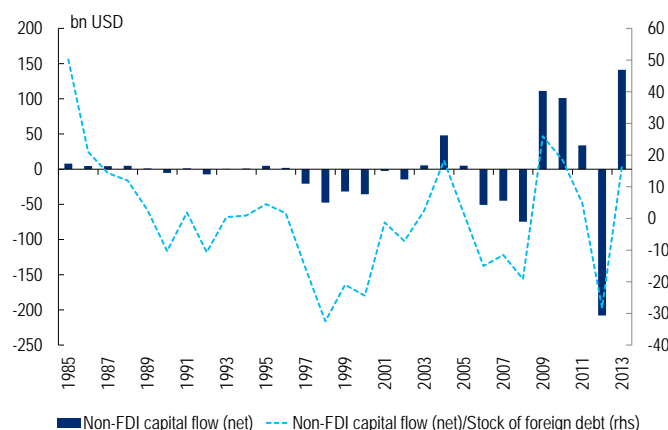
Exchange rate volatility and rising US yield may trigger capital outflow – China experienced capital outflow in 2Q and 3Q of 2012. The outflow appears to be related to the widening of the CNY trading band in Apr and a period of CNY depreciation against the USD during May-Aug. The recent depreciation of CNY and further widening of the CNY trading band will likely prompt the Chinese entities with short FX positions to accumulate FX assets or reduce FX liabilities, leading to an outflow under the capital account. Recovery in the US and QE tapering may push up US interest rates, adding impetus to capital outflow.

Figure 12. CNY volatility vs. Capital flows



Source: Bloomberg, CEIC and Citi Research

Figure 13. Non-FDI capital flow



Source: CEIC and Citi Research

We consider three scenarios of capital outflow and risks seem manageable against a high level of reserves – China still maintains extensive capital account controls, and can tighten restrictions when necessary. According to a recent IMF study,² a tightening of outflow restrictions is effective in countries with good macroeconomic fundamentals, well-functioning government, and comprehensive pre-existing controls. China broadly meets these criteria, which reduces the chance of a rampant capital exodus. However, it is not inconceivable for economic entities to reverse their short FX position. Lacking comparable international experience, we turn to China's recent history to get a sense of possible size of capital outflow. In USD terms, net non-FDI outflow was the highest in 2012 (about \$200bn); relative to external debt stock, the net outflow was the highest in 1998 (about 33%) during the Asian financial crisis. We therefore consider the following three scenarios:

- **Base scenario:** we assume net non-FDI outflow of roughly \$200bn in 2014. This is equivalent to the outflow (BOP) that took place in 2012, and would reverse the net short FX position built in 2013 (under loans and currencies & deposits in IIP). Under this scenario, China's FX reserves would increase by about \$260bn in 2014, benefiting from basic balance surplus (current account surplus plus net FDI inflow).
- **Balanced flow scenario:** we assume non-FDI inflow and outflow would net out each other in 2014. Given signs of net capital inflow in 1Q, this scenario envisages some net non-FDI outflow for the rest of the year. Under this scenario, China's FX reserves would increase by about \$450bn.
- **Significant outflow scenario:** we assume net non-FDI outflow of about \$350bn. This would wipe out the addition of short-term international claims on China (BIS statistics) since the beginning of 2011. The ratio of net outflow to the broader definition of external debt (BIS total foreign claims on an ultimate risk basis, \$1,048bn at end-Sep 2013) would match the peak of 33% reached in 1998. Under this scenario, China's FX reserves would increase by roughly \$100bn in 2014.

² Effectiveness of Capital Outflow Restrictions, Christian Saborowski, Sarah Sanya, Hans Weisfeld, and Juan Yopez, IMF Working Paper WP/14/8, Jan 2014.

Implication for USDCNY and money supply

We forecast CAB surplus of around 2% of GDP this year, supporting CNY strength – Although headline exports fell by 3.4%YoY in 1Q, we estimate actual export growth in the 4-7% range after removing distortions from over-invoicing in early 2013. PMI new export order has improved recently, suggesting better external demand as the US recovers from the soft patch related to the severe winter weather. More positive export momentum also appears to be confirmed by recent improvement in China's port throughput and export growth in Korea and Taiwan. For the year as a whole, we expect global growth to pick up from 2.5% in 2013 to 3.1% in 2014, with growth in advanced economies accelerating by nearly 1ppt. On the other hand, domestic demand is likely to remain sluggish under less accommodative macro policies. As a result, exports will likely accelerate and import growth may remain lackluster, leading to higher trade surplus.³

The size of capital outflow would affect currency movement and liquidity – While CAB surplus continues to support CNY appreciation, the size of surplus suggest CNY is only moderately undervalued, and large-scale capital outflow can overwhelm the market movements at least in the short run. In addition, money supply in China has been heavily reliant on PBOC's FX purchases, and capital outflow would slow down base money creation and drain liquidity.

- Base scenario. Despite non-FDI capital outflow of around \$200bn, CAB/GDP of 2% and FX reserve accumulation of \$260bn would make currency depreciation indefensible. We expect USDCNY spot to fall to around 6.08 by year-end following a volatile path. According to our estimate, to have M2 grow by 13-14%, PBOC will need to inject about Rmb1tn on a net basis for the rest of the year (cutting the repo balance to zero and adding reverse repo of more than Rmb500bn). Alternatively, PBOC can choose to cut RRR by 50-100bps.
- Balanced flow scenario. The absence of non-FDI capital outflow and FX reserve accumulation of \$450bn would add to appreciation pressures. USDCNY may reach around 6.0 by year-end. Our estimate shows PBOC can achieve 13-14% M2 growth without cutting RRR.
- Significant outflow scenario. Sizable capital outflow almost offsets CAB surplus and net FDI inflow, and USDCNY may fluctuate around the current level. We estimate that PBOC will have to cut RRR by about 200bps to achieve M2 growth of 13-14%.

³ For processing trade, which makes up about 30% of total trade, better exports should be associated with better imports of intermediate goods. For other trade, weak domestic demand would depress imports. The overall effect could be underperformance of imports relative to exports.

Figure 14. China: balance of payments (In millions of USD, unless indicated otherwise)

	2009	2010	2011	2012	2013
Current account balance (CAB)	243,257	237,810	136,097	215,392	182,807
Trade balance	249,511	254,180	243,549	321,595	359,890
Exports	1,203,798	1,581,417	1,903,821	2,056,887	2,218,977
Imports	(954,287)	(1,327,238)	(1,660,272)	(1,735,292)	(1,859,087)
Service balance	(29,380)	(31,156)	(61,645)	(89,750)	(124,510)
Receipts	129,476	162,165	186,009	191,430	206,018
Payments	(158,856)	(193,321)	(247,654)	(281,180)	(330,528)
Income (net)	(8,533)	(25,899)	(70,318)	(19,887)	(43,839)
Receipts	108,251	142,424	144,268	167,037	185,505
Payments	(116,783)	(168,324)	(214,585)	(186,924)	(229,344)
Current transfers (net)	31,659	40,686	24,511	3,434	(8,733)
Receipts	42,645	49,521	55,570	51,167	53,162
Payments	(10,986)	(8,835)	(31,060)	(47,733)	(61,895)
Capital and financial account balance (KAB)	198,470	286,865	265,470	(31,766)	326,203
Capital transfers	3,939	4,630	5,446	4,272	3,052
FDI (net)	87,167	185,750	231,652	176,250	184,972
Inbound investment (net)	131,057	243,703	280,072	241,214	258,216
Inflows	162,900	265,380	314,184	272,272	311,447
Outflows	(31,843)	(21,676)	(34,112)	(31,058)	(53,231)
Outbound investment (net)	(43,890)	(57,954)	(48,421)	(64,963)	(73,244)
Inflows	4,171	7,607	17,407	23,354	36,402
Outflows	(48,061)	(65,560)	(65,828)	(88,317)	(109,646)
Portfolio investment	27,087	24,038	19,639	47,779	60,547
Equity	(11,530)	22,928	6,413	31,932	30,064
Assets	(40,647)	(8,429)	1,104	2,029	(2,531)
Liability	29,117	31,357	5,308	29,903	32,595
Bond (Debt)	38,618	1,110	13,227	15,847	30,483
Assets	38,121	787	5,144	(8,420)	(2,822)
Liability	496	324	8,083	24,267	33,305
Other investment	80,276	72,446	8,733	(260,068)	77,633
Trade credits	(2,188)	(12,120)	(32,931)	(19,486)	(15,330)
Assets	(34,271)	(61,635)	(70,958)	(61,812)	(60,266)
Liability	32,082	49,515	38,027	42,326	44,937
Loans	10,162	58,063	59,786	(82,116)	61,496
Assets	3,095	(21,041)	(45,275)	(65,332)	(31,947)
Liability	7,066	79,105	105,061	(16,784)	93,443
Currencies and deposits	13,610	2,334	(67,248)	(164,165)	73,747
Assets	2,035	(58,013)	(115,531)	(104,789)	(2,014)
Liability	11,575	60,347	48,283	(59,376)	75,762
Other	58,693	24,169	49,126	5,700	(42,281)
Assets	47,555	24,428	48,160	253	(42,302)
Liability	11,138	(259)	966	5,447	21
Errors and omissions	(41,383)	(52,936)	(13,766)	(87,074)	(77,631)
Overall balance	400,344	471,739	387,801	96,552	431,379
Financing					
Change in reserve assets ("-" indicates increase)	(400,344)	(471,739)	(387,801)	(96,552)	(431,379)
of which: change in FX reserves	(382,051)	(469,556)	(384,818)	(98,673)	(432,696)

Memo items (In billions of USD)

Basic balance (CAB plus net FDI)	330	424	368	392	368
Stock of FX reserves	2,399	2,847	3,181	3,312	3,821
Stock of foreign debt	429	549	695	737	863

Source: SAFE and Citi Research

Figure 15. China: international investment position (In billions of USD)

	2009	2010	2011	2012	2013
Asset	3,437	4,119	4,735	5,213	5,937
Outward Direct Investment	246	317	425	532	609
Security Investment	243	257	204	241	259
Equity	55	63	86	130	153
Debt	188	194	118	111	105
Other Investment	495	630	850	1,053	1,189
Trade Credit	144	206	277	339	399
Loan	97	117	223	278	309
Currency and Deposit	131	205	294	391	377
Other	122	102	55	46	104
Reserve	2,453	2,914	3,256	3,388	3,880
o/w: Foreign Exchange	2,399	2,847	3,181	3,312	3,821
Liability	1,946	2,431	3,046	3,347	3,965
Foreign Direct Investment	1,315	1,570	1,907	2,068	2,347
Security Investment	190	224	249	336	387
Equity	175	206	211	262	298
Debt	15	18	37	74	89
Other Investment	442	637	891	943	1,231
Trade Credit	162	211	249	292	336
Loan	164	239	372	368	564
Currency and Deposit	94	165	248	245	305
Other	23	22	21	38	25
Net Asset	1,491	1,688	1,688	1,867	1,972
<u>Memo items</u>					
Loan and currency & deposit, net					
Loan, net	-66	-121	-149	-90	-255
Currency and Deposit, net	37	40	46	146	72

Source: SAFE and Citi Research

Appendix A-1

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