China: the myth of capital outflows

China’s FX reserve hit a historical high at $3.993 trillion in June 2014, and then reversed the direction and declined by $299 billion to $3.694 trillion in June 2015. During the same period, current account surplus totaled $325 billion. This would imply a large capital outflow, based on the below accounting identity (Nikolaos Panigirtzoglou et. al.: “Flows & Liquidity: EM capital flows reserve in Q2”, July 17):

\[ \text{Change in reserves} = \text{current account} + \text{capital and financial account} + \text{errors and omissions} \]

A standard practice to measure capital flows as the change in FX reserves (adjusting for valuation gain/loss) minus current account balance.

Nonetheless, capital outflow is not equivalent to capital flight. China’s financial reform, especially the exchange rate regime reform and the efforts for RMB internationalization, has led to structural changes in the FX dynamics. Hence, it is important to decipher the underlying drivers behind the recent capital outflow phenomenon.

**FX reserves dynamics**

The change in FX reserves is the starting point to derive capital flow measures. Certain adjustments need to be made for that purpose.

Following the standard practice, the valuation gains/losses need to be adjusted as the official FX reserve statistics are measured by current price. This is not an easy task, as China does not disclose the currency composition of its foreign reserves. Here we make a simple, but subjective, assumption that one third of China’s FX reserves are non-USD assets, and we use the US dollar index (DXY) movements to proxy the valuation change in non-USD assets. Between June 2014 and June 2015, DXY appreciated by 18% (USD appreciated by 21.1% against euro, 21.3% against Japanese yen, and 8.6% against pound sterling during this period), which implies that the valuation loss was about $229.4 billion in the past four quarters.
In addition, there is another specific issue to take into account, which is related to reserve asset utilization by the central bank. Below is a list of recently announced policy actions, for which the source of funding will likely come from FX reserves:

- In November 2014, China announced to establish the Silk Road Fund ($40 billion);
- China will be the largest shareholder in the newly established Asian Infrastructure Investment Bank (AIIB). The AIIB’s capital base is $100 billion and China will contribute a share of 30.34%;
- In the newly established New Development Bank (formerly referred to as the BRICS Development Bank), each of the five founding members will contribute $10 billion with an aggregate starting capital of $50 billion (which will be increased to $100 billion over time);
- Media reports that the PBOC will use reserves to re-capitalize two policy banks, the China Development Bank (CDB) and the Export-Import Bank of China (EXIM). Media reports two rounds of capital re-capitalization, the first round in April that totaled $62 billion ($32 billion into the CDB and $30 billion into the EXIM, by converting entrusted loans into stakes), and a second round in July of $83 billion ($48 billion into the CDB and $45 billion into the EXIM).

If adding these numbers together, China’s FX reserves will run down by $225 billion. In practice, we believe the bulk part of the reserve utilization has not been reflected in the data yet (due to implementation lag or the participation of other government agencies). The official data do not explicit state when the reserve funds have been withdrawn to supports these policy initiatives. The only relevant item is “other assets” in the central bank’s balance sheet, which shows an increase of $55 billion in the past four quarters (mainly in 2Q15). We use this as a proxy of reserve utilization by the central bank.

Taking into the valuation effect and reserve utilization, we calculate the “adjusted” change in FX reserves. In the past four quarters, cumulated decline in FX reserves was $229 billion.
A broad definition of capital flows
Following the standard practice, we define implied capital flows as the changes in FX reserves (after adjustment) minus current account balance. Our calculation showed that China experienced a remarkable capital outflow of $450 billion in the past four quarters. More specifically, capital outflows printed at $116.5 billion, $44.8 billion, $63.1 billion and $225.8 billion, respectively, between 3Q14 and 2Q15. The magnitude and the duration of capital outflows are unseen in China.

Is this an alarming signal? To answer this question, one should first look into the drivers of capital outflows. In our views, the change in capital flow dynamics in China has been driven by a list of factors, including the exchange rate regime reform, the efforts of RMB internationalization and corporate’s balance sheet adjustment.

We propose the below framework to quantify the various drivers of capital flow dynamics:

\[
\text{Implied capital flows} \equiv \text{changes in FX reserves (adjusted)} - \text{current account balance} \\
= \text{corporate balance sheet adjustment} + (\text{FDI-ODI}) + \text{cross-border RMB net payment} + \text{residual capital flows ("hot money")}
\]

1) Corporate balance sheet adjustment
An important driver of capital flow dynamics in recent quarters is the change in FX asset and liability management by the non-government sector, mainly corporate. From 3Q14 to 2Q15, FX deposits by enterprises and households rose $87.9 billion. In addition, the BIS international banking
statistics showed that, China’s cross-border debt reached the peak at $1.3 trillion in 3Q14, and then declined by $124 billion in 4Q14-1Q15. **The increase in FX deposits and the decline in foreign debt implied a total adjustment of $205 billion in the past four quarters.**

![Graph showing FX deposits and external debt](source: PBOC, BIS)

The corporate balance sheet adjustment happened for several reasons. First, it was driven by changing CNY expectations in the market. In 2014, CNY depreciated by 2.5% against the USD, reversing the one-side appreciation trend. The market sentiment shifted towards CNY depreciation expectation, before cooling off in 2Q15 after the PBOC sent a clear signal that CNY will remain relatively stable against USD.

Second, the PBOC started the rate cut cycle in November 2014, and so far has cut policy rate four times. The rate cut, together with the changing CNY expectations, weakened the carry trade incentive that had been prevalent in the market. This caused the corporate to change their FX strategy, by increasing FX deposits and reducing foreign debt.

In addition, the PBOC made progress in exchange rate reform, by gradually reducing daily intervention in the FX market. That is, the PBOC is no longer the ultimate buyer/seller in the FX market. This was in part to support a shift towards a more market-oriented exchange rate regime, and in part to improve the FX asset allocation. Currently, the central bank holds large FX assets (in the form of FX reserves), but the non-government sector runs a large FX liability. The central bank aims to shift the FX asset holding into the non-government sector (“藏汇于民”). In that sense, the corporate balance sheet adjustment is a desirable outcome for policymakers.

(2) **Net direct investment (FDI-ODI)**

Another driver of capital flow dynamics is net foreign direct investment, i.e. FDI minus ODI. In recent years, the FDI into China has stayed relatively stable at around $120 billion, but ODI has accelerated from $69 billion in 2010 to $116 billion in 2014. The net FDI has narrowed significantly, and even turned negative in some quarters. In the past four quarters, net FDI registered a net outflow of $5.6 billion.
(3) Cross-border RMB net payment

Finally, the rapid growth in RMB internationalization has significantly reshaped the capital flow dynamics. Prior to that, current account surplus are mainly denominated in foreign currency, which means that all of them will be mapped into FX transactions between corporate/household and banks, and between commercial banks and the central bank, thus reflected into the change in FX reserves. In the new regime, an increasing share of trade is settled via RMB, causing a large discrepancy between current account balance and FX transaction figures.

Take a simple example. If China’s export is $300 billion and import is $250 billion, it will imply a trade surplus of $50 billion. Under the old regime, it will lead to an increase of $50 billion in FX reserves. However, if $50 billion imports are settled in RMB (and all exports are still settled in USD for illustration purpose), the FX payment for imports will decline to $200 billion, thus leading to an increase of $100 billion in FX reserves. In this case, using the standard calculation (FX reserve change adjusted by current account balance) will over-state capital outflows by $50 billion.

According to “RMB International 2015 Report” by the PBOC, the cross-border RMB settlement for trade increased from 2.95 trillion yuan in 2012 to 6.55 trillion yuan in 2014. In 2014, RMB settlements for exports was 2.73 trillion yuan, while RMB settlements for imports was 3.83 trillion yuan, with a net RMB outflow of 1.1 trillion yuan and the ratio of import/exports for RMB trade settlements moved down in 2014 to 1.4. Based on our estimate, the impact of cross-border RMB settlements could explain $105.6 billion out of the above-calculated $450 billion capital outflows in the past four quarters.
In summary, we estimate that capital outflows amount to $450 billion in the past four quarters (3Q14-2Q15). If excluding the impact of corporate balance sheet adjustment ($205 billion), net FDI ($5.6 billion) and the impact of RMB internationalization ($105.6 billion), the residual component (which is left unexplained in our calculation, or we can refer to as a proxy for “hot money”) was a net outflow of $133.7 billion.

Our calculation is subject to several sources of estimation errors. (i) We assume that China’s cross-border debt remained unchanged in 2Q15, based on waning CNY depreciation expectation and the pause in FX deposit increase. (ii) We use the FDI and ODI data provided by the Ministry of Commerce. The result could be very different if we use the direct investment data under the BOP statistics. In 3Q14-1Q15, Ministry of Commerce reported a net direct investment outflow of $5.1 billion, while BOP data reported a net direct investment inflow of $166 billion. The large discrepancy is perhaps due to the fact that Ministry of Commerce data only include new direct investment, while BOP data also include re-investment of FDI returns and other components. (3) Our calculation fails to take into account capital inflows/outflows disguised in the current account items, given that China’s current account is liberalized but not the capital account. For instance, anecdotic evidence points as over-invoicing of merchandise exports in 2013 (capital inflow excluded in our calculation) and suspiciously high service trade deficit in 4Q14 (capital outflow excluded in our calculation). Taking into account these factors could lead to significant changes in our baseline estimates.

Will capital outflow persist?
China is experiencing a regime-shifting in its BOP composition. The twin-surplus phenomenon (both current account and capital account) came to an end in 2014, replaced by a current account surplus and a deficit in capital and financial account (“China: capital outflows offset by current account surplus”, May 29). This will likely continue in the coming years.

Such a regime-shifting was driven by the exchange rate reform (reduced intervention by the central bank in the FX market), the change in CNY outlook, the impact of RMB internationalization, the changing role of China from a capital recipient to a capital exporter (e.g. One-Belt-One-Road), and other global and domestic market factors. Again, capital outflow is not equivalent to capital flight. For policymakers, it is important to monitor the underlying factors that have driven capital flow dynamics, especially now China is planning to push forward capital account liberalization and RMB will play a more important role in the global financial market.
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