

PBOC'S TRILEMMA

RMB Development

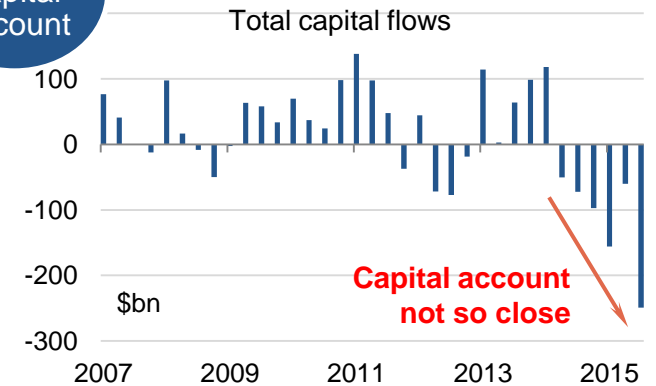
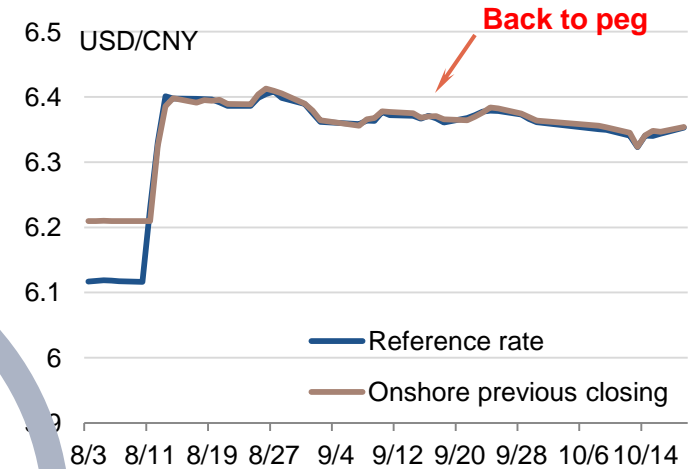
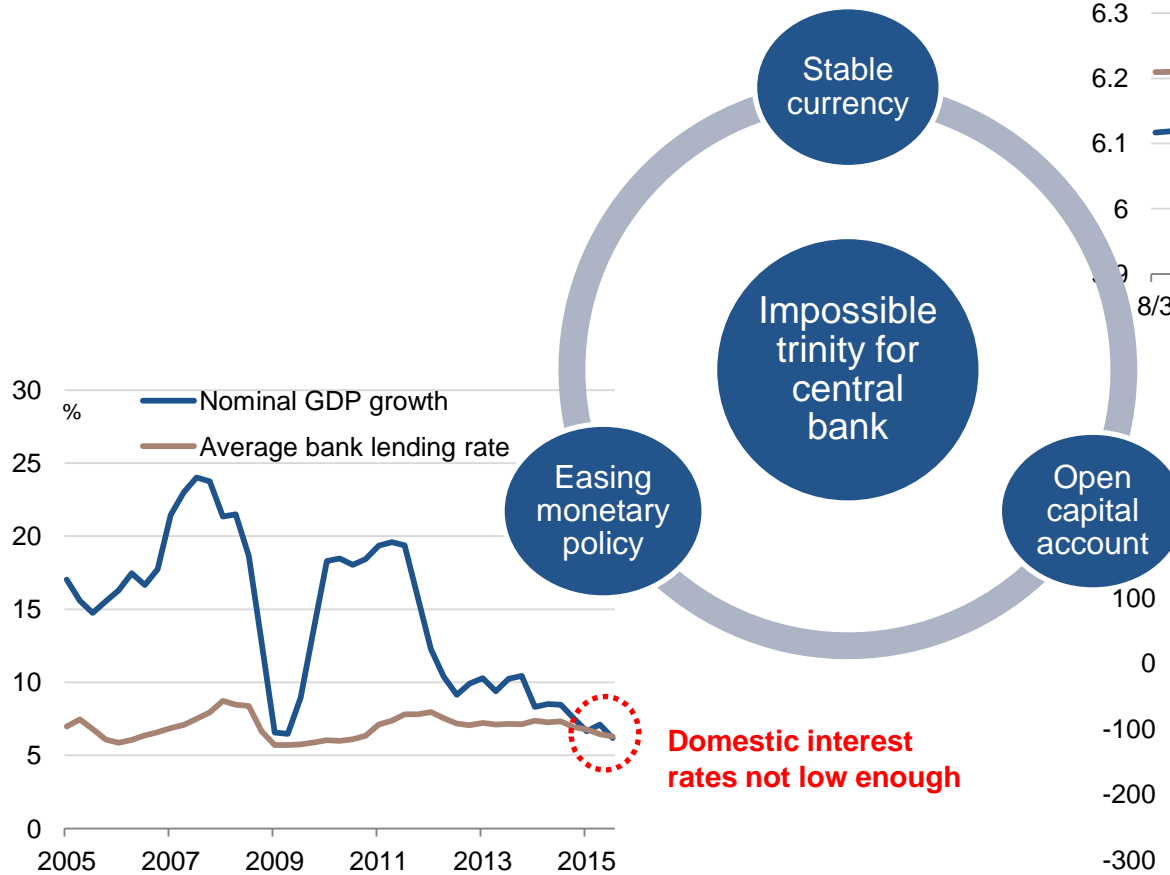
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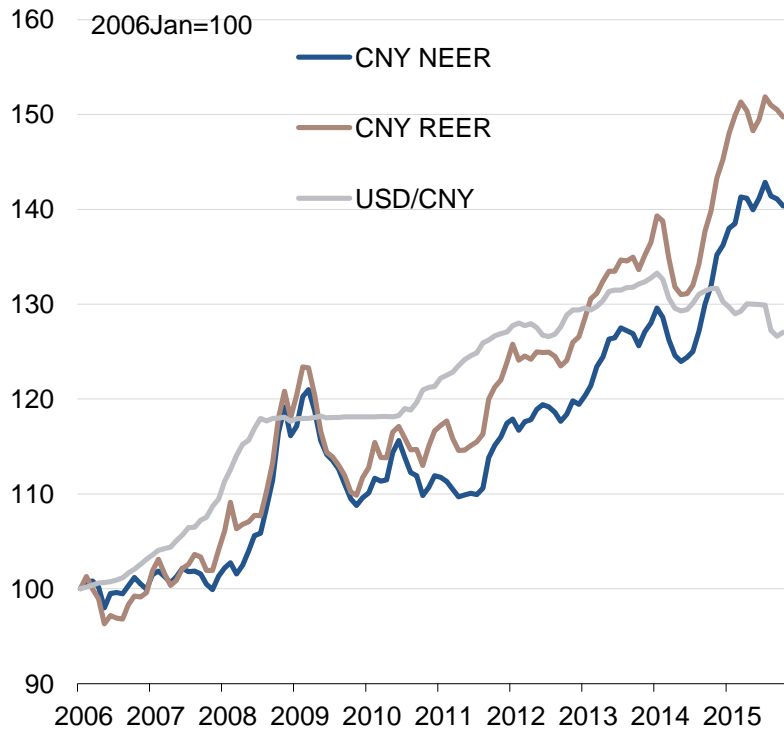
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PBOC STUCK IN THE IMPOSSIBLE TRINITY

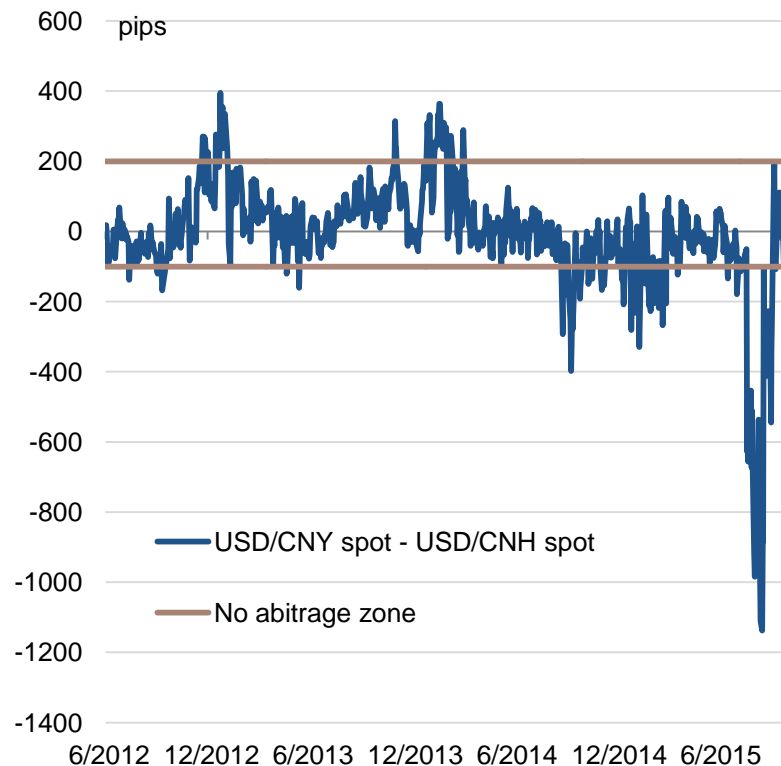


Source: PBoC, CEIC, SG Cross Asset Research/Economics

PERSISTENT DEPRECIATION EXPECTATIONS



■ RMB barely changed in EER terms

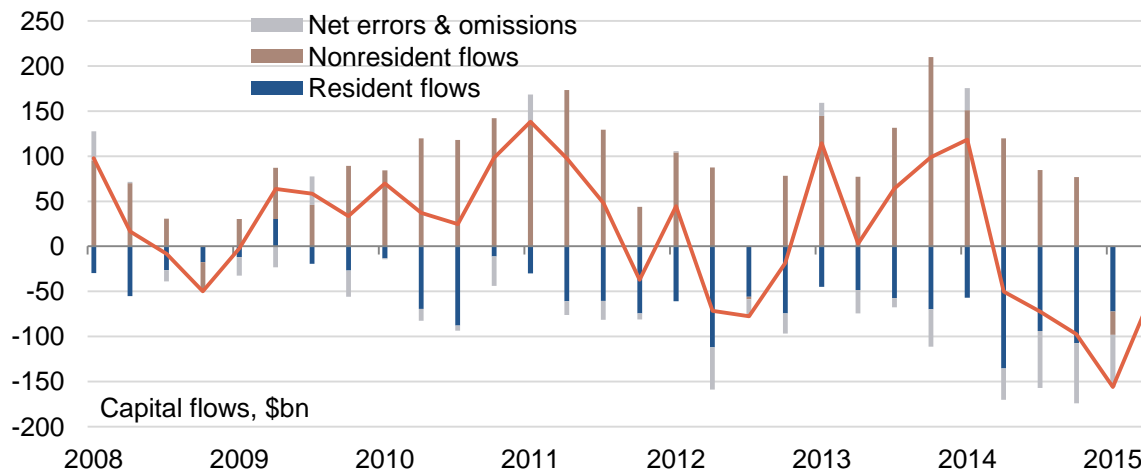


■ Depreciation pressure still well present

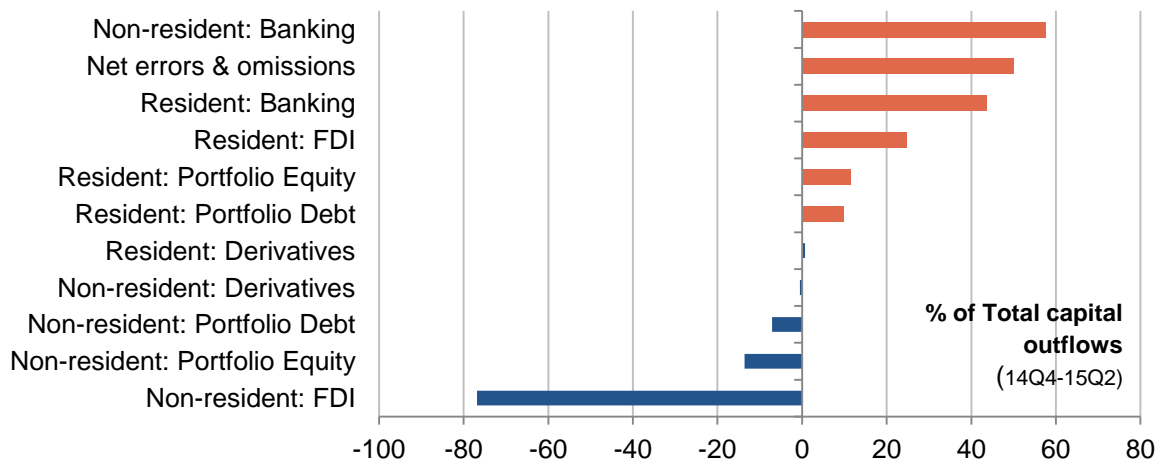
Source: PBoC, CEIC, Bloomberg, SG Cross Asset Research/Economics

RESIDENT FLOWS DOMINATE THE OUTFLOWS

■ Capital outflows started to intensify since Q4 2014

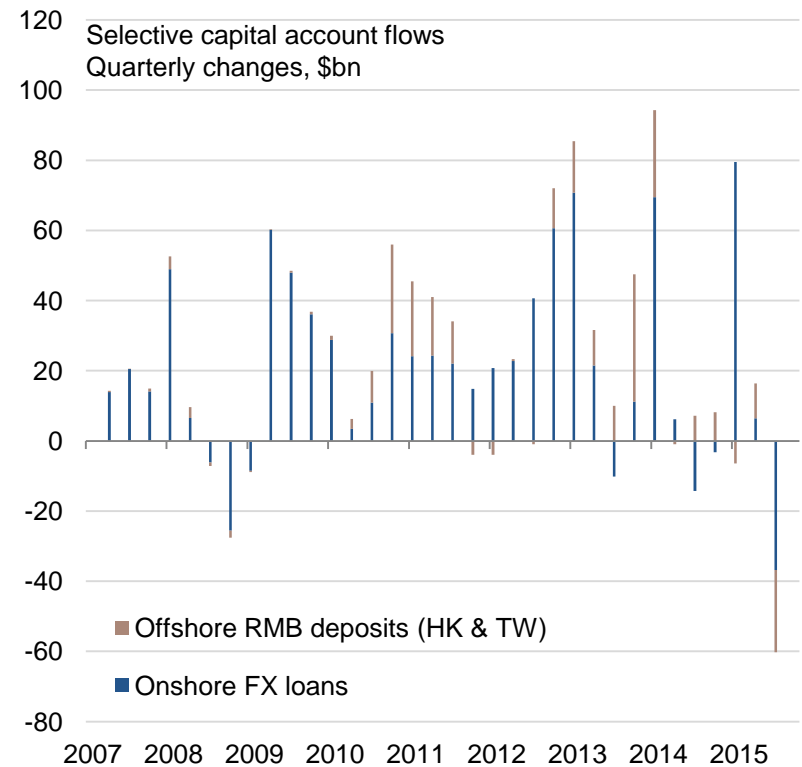
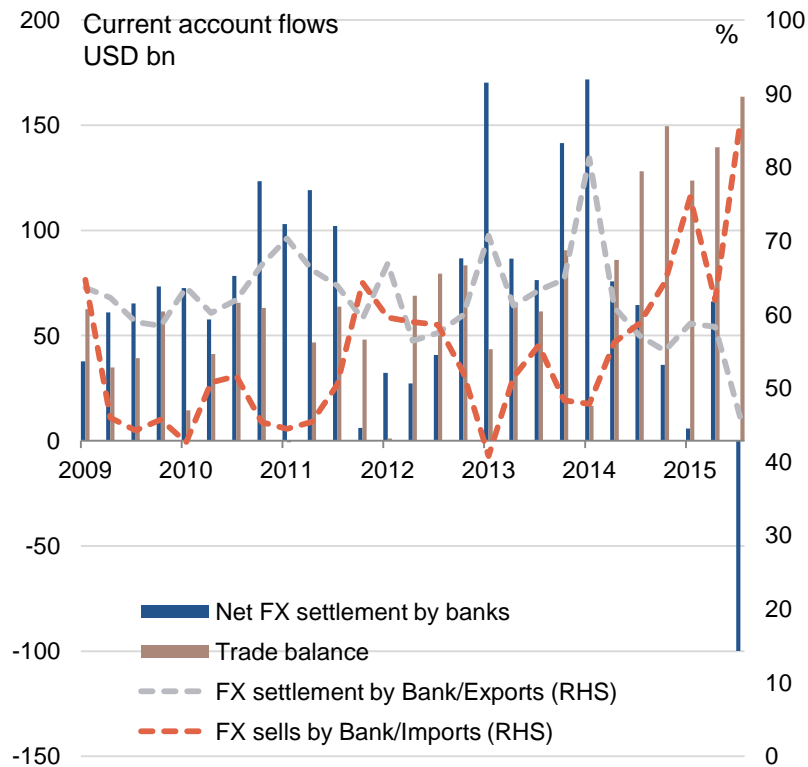


■ Top three outflow accounts: deleveraging, shadow diversification, formal diversification



Source: SAFE, CEIC, SG Cross Asset Research/Economics

CAPITAL OUTFLOWS OVERWHELM TRADE SURPLUS

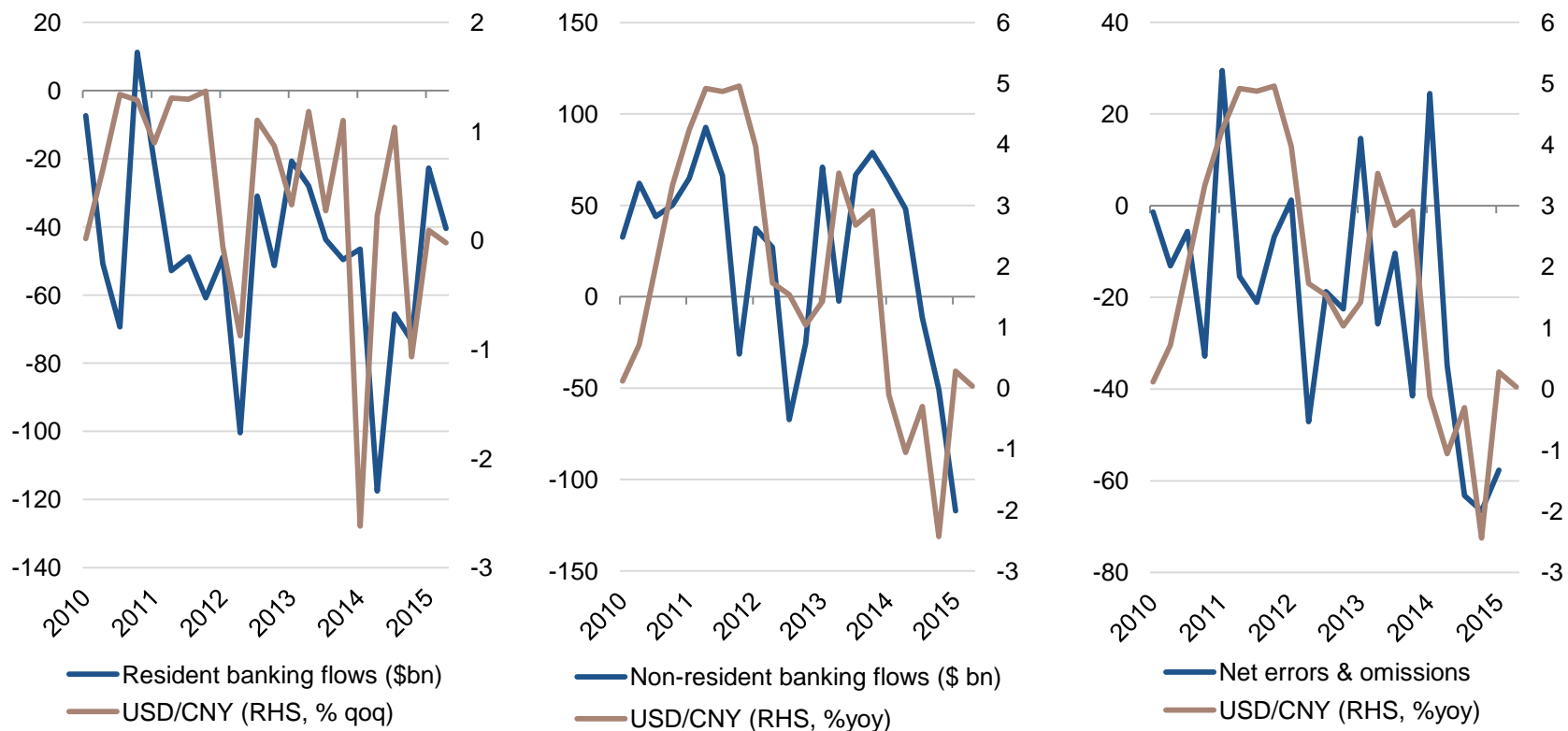


■ Settlement behavior highly sensitive to the currency movement

■ Banking flows dominate the capital account

Source: PBoC, CEIC, Bloomberg, SG Cross Asset Research/Economics

MAJOR OUTFLOWS ALL FROM CHINESE AND SENSITIVE TO FX

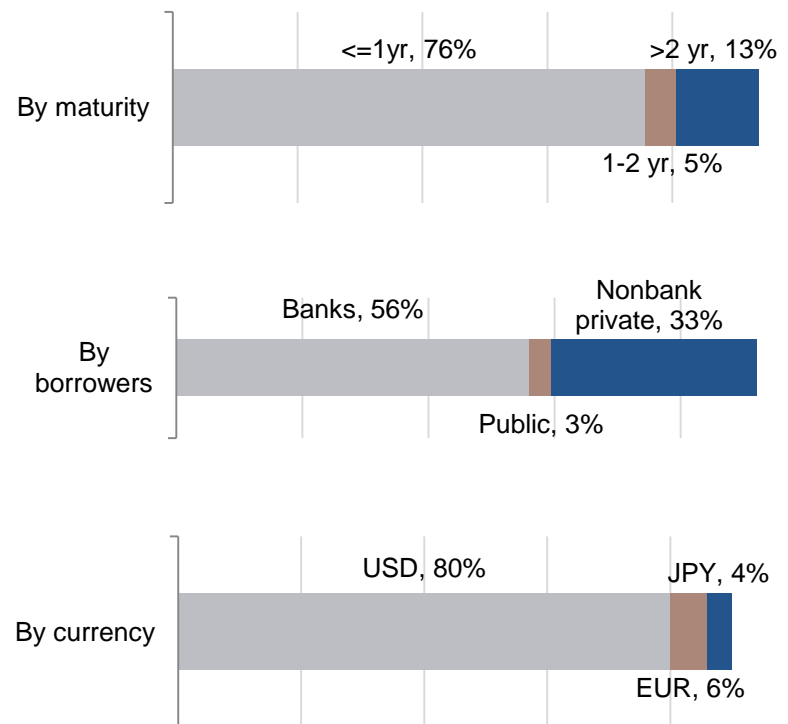
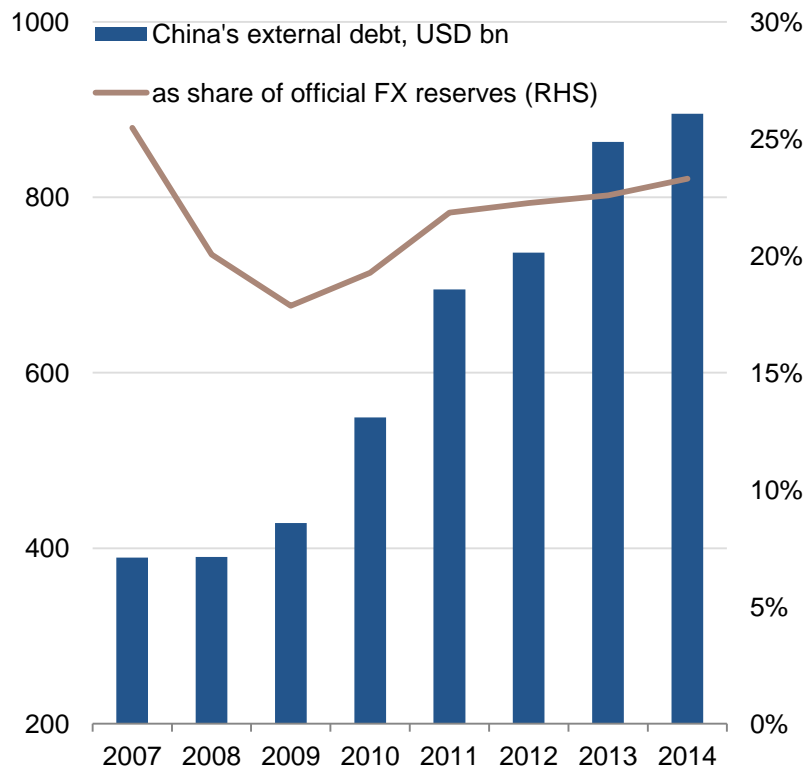


■ Capital controls introduced after RMB regime change:

- A limit of RMB100k per year introduced for individual's overseas cash withdraw via UnionPay
- Banks must keep the equivalent of 20% dollar reserves for clients' FX derivative positions
- Closer monitoring of individual FX conversion under the \$50k annual quota

Source: SAFE, CEIC, SG Cross Asset Research/Economics

EXTERNAL DEBT OVERALL MANAGEABLE



■ Total size of external debt still manageable

- <10% of GDP
- 1/4 of official reserves

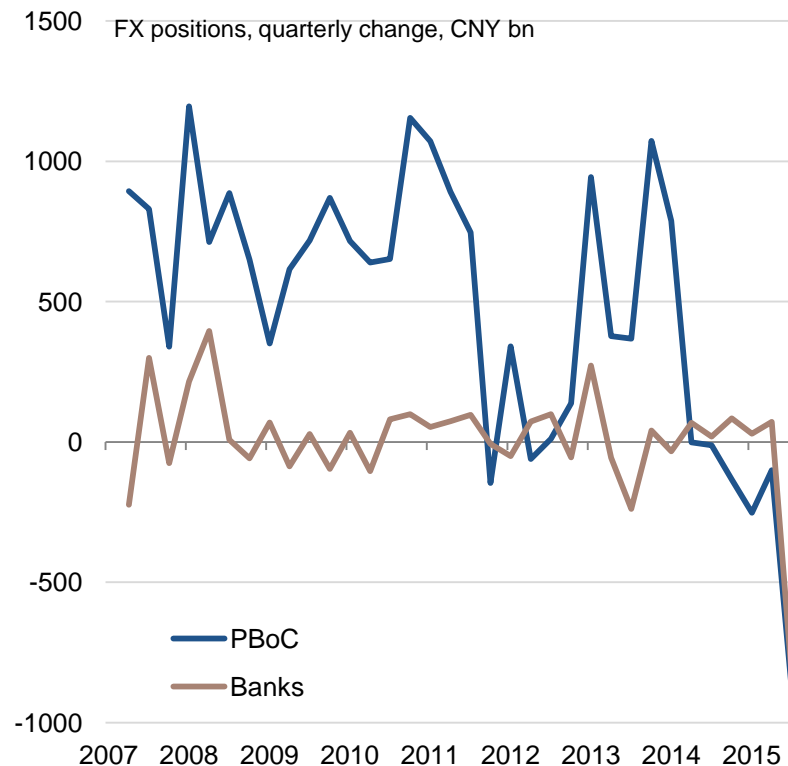
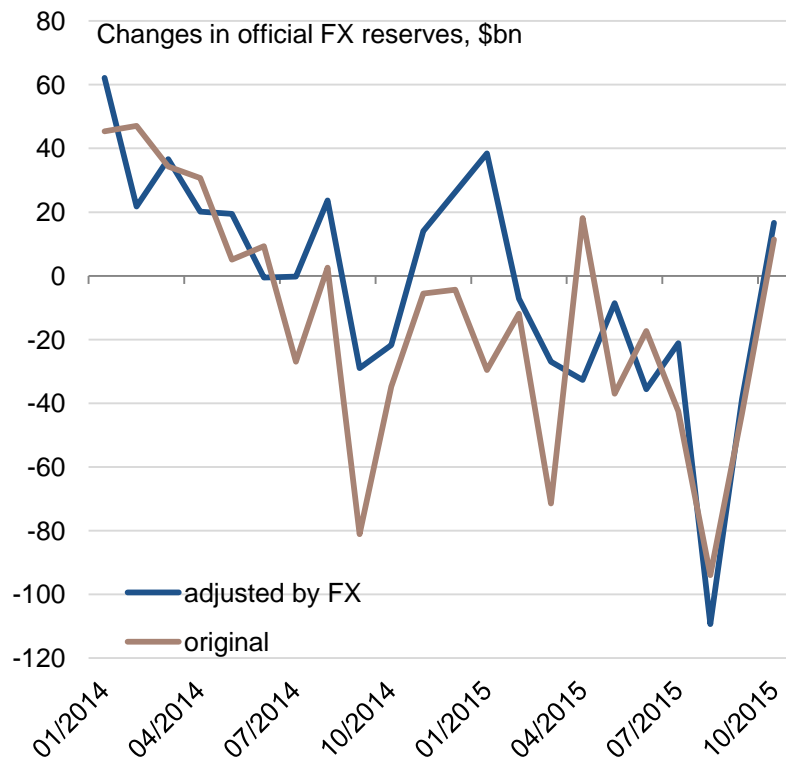
■ Short duration => roll-over risk

■ Unhedged => FX mismatch

■ Developers' debt small in size but may have outsized impact

Source: SAFE, CEIC, BIS, SG Cross Asset Research.

MORE INTERVENTIONS THAN MEETS THE EYE



■ Q3 2014-Q3 2015: China's official reserves declined by \$230bn

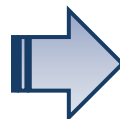
■ The actual amount of interventions could be twice the size

Source: PBoC, CEIC, Bloomberg, SG Cross Asset Research/Economics

LIBERALISATION SEQUENCING ISSUES

Financial market liberalisation sequence

- **IMF recommendation:**
Currency flexibility >>
Capital market deepening >>
Capital account liberalisation
- **China's practice:**
Capital account liberalisation >>
Capital market deepening >>
Currency flexibility

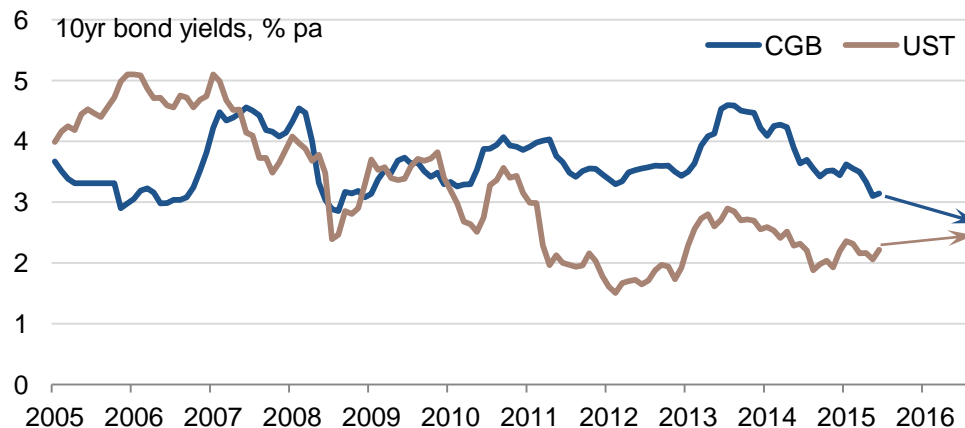


Capital account liberalisation sequence

- **IMF recommendation:**
Inflows >> outflows
Long-term >> short-term
Direct>credit >> portfolio
- **China's practice:**
Follow the text book, but much slower on
outflows liberalisation

**Now the problem is ... not ideal timing
for increasing currency flexibility**

- **Currency no longer undervalued**
- **Structural deceleration**
- **Interest rate differential to vanish**
- **Official FX reserves not unlimited**



Source: SAFE, CEIC, IMF, SG Cross Asset Research/Economics

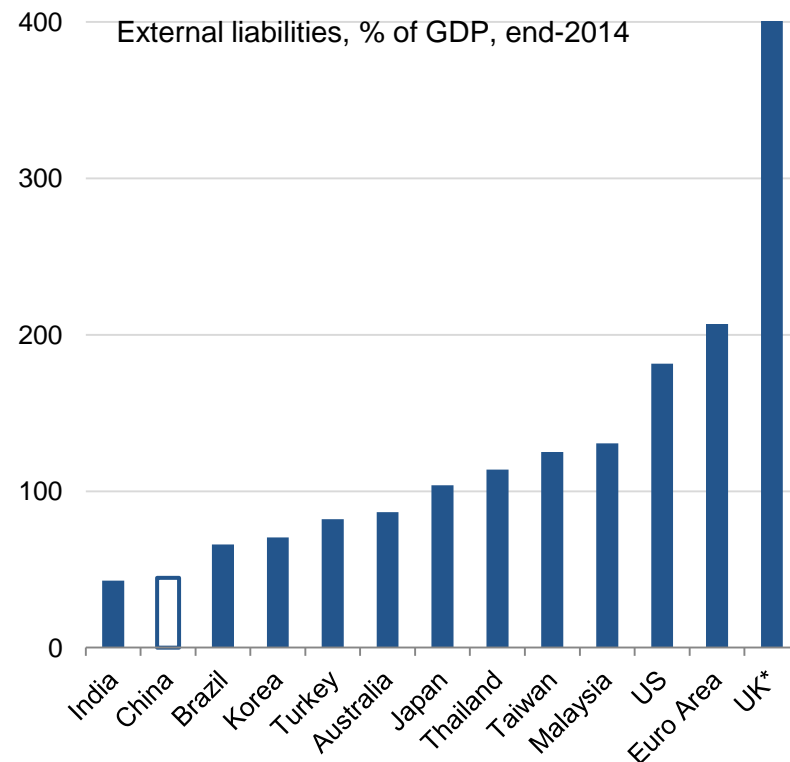
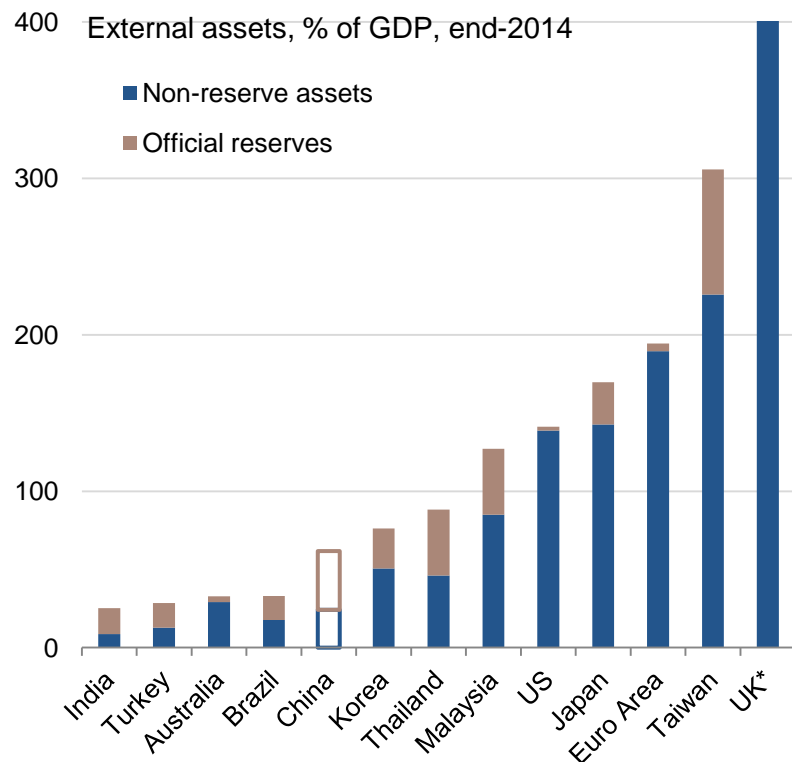
PROGRESS OF CAPITAL ACCOUNT LIBERALISATION

-- Nonresident; -- Resident; -- Two-way

	Current account	Capital account		
		Direct	Banking	Portfolio
2000-2012	<u>Aug 11</u> : RMB settlement for trade nationwide	<u>Oct 11</u> : Eased controls on RMB settlement for FDI & ODI		<u>Nov 02</u> : Launched QFII: allow foreign institutional investors (IIs) in exchanges <u>Apr 06</u> : Launched QDII: allow domestic IIs to invest in overseas securities <u>Aug 10</u> : Launched PBoC Channel: allow foreign CBs, RMB clearing /participating banks in interbank bond market, subject to quotas
2013-2015			<u>Jan 13</u> : Initiated cross-border loans <u>Feb 14</u> : Launched the pilot on cross-border RMB cash pooling in the Shanghai FTZ, enabling MNCs to centralize RMB treasury management; <u>Jun 14</u> : expanded nationwide <u>Feb 15</u> : Allowed companies in the Shanghai FTZ to freely borrow offshore under a macro-prudential risk management framework <u>Oct 15</u> : Launched Cross-border Interbank Payment System (CIPS)	<u>Mar 13</u> : Allowed QFII investors in interbank bond&FX market <u>Nov 14</u> : Launched SH-HK Stock Connect <u>Jun 15</u> : Allowed offshore RMB clearing/participating banks to source liquidity from interbank bond market <u>Jul 15</u> : Launched Mutual Fund Recognition w. HK <u>Jul 15</u> : Switched to registration-based access for foreign CBs, SWFs and international financial organizations in interbank bond market, including IRS & FRA; <u>Sep 15</u> : in interbank FX market
Next			To achieve full RMB convertibility in Shanghai FTZ	To set up SZ-HK Stock Connect To expand (R)QFIIs and eventually phase out quota management for nonresident long-term portfolio flows To launch QDII2: allow domestic individual investor to invest overseas securities

Source: Chinese government, SG Cross Asset Research/Economics

DE FACTO OPENNESS STILL LIMITED



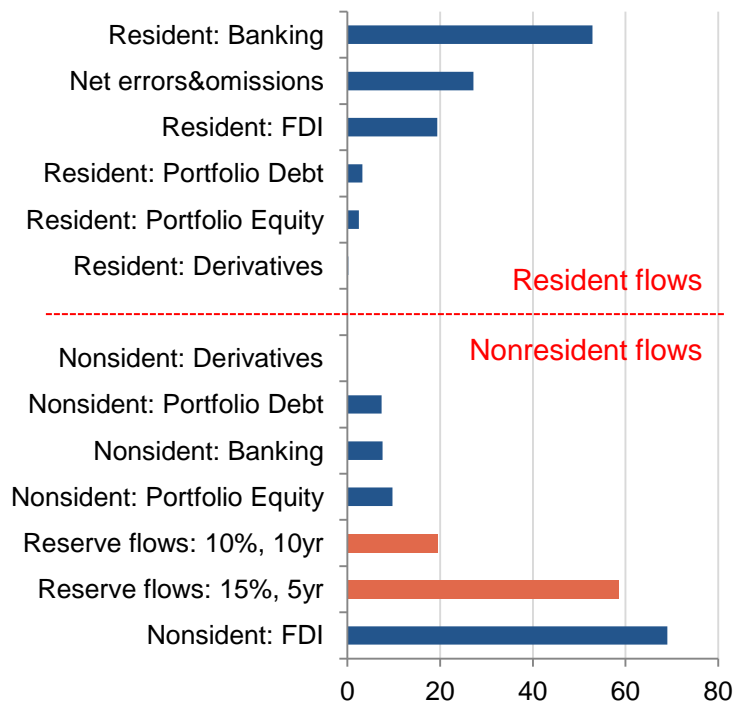
- Non-reserve assets only 25% of GDP
- Future trend: non-official outflows to replace official outflows

- External liabilities less than 50% of GDP
- Future trend: expansion of long-term portfolio inflows

* UK's external assets and liabilities both around 550% of GDP. Source: SAFE, CEIC, IMF, SG Cross Asset Research/Economics

SDR INCLUSION NO GUARANTEE FOR RESERVE CURRENCY STATUS

Average size of quarterly flows, since 2010, \$bn



- Limited inflows in the short-term
- Long-term impact subject to China's liberalisation progress

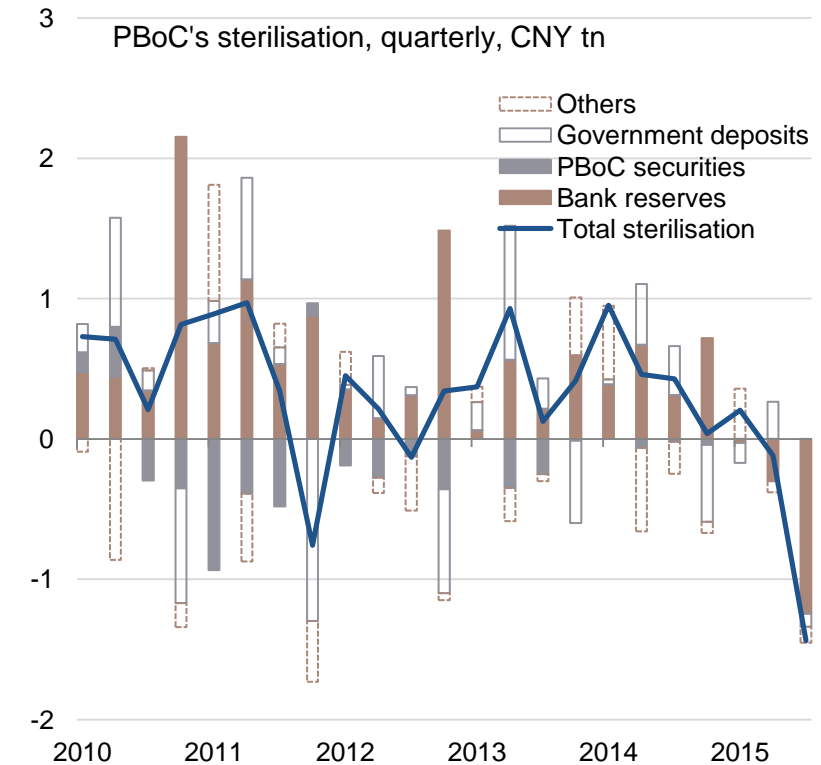
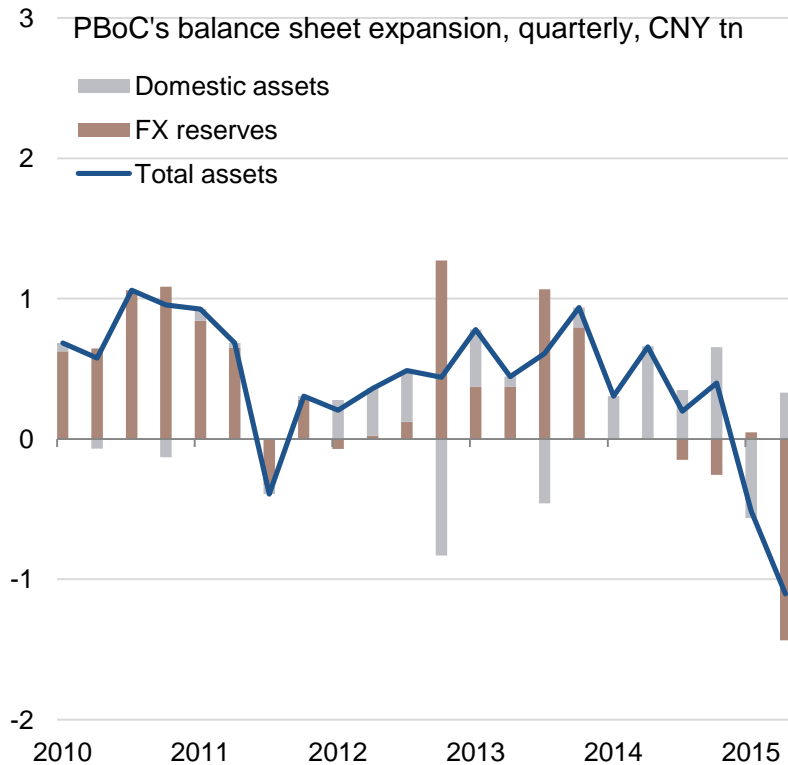
Implication of further liberalisation

- If no change in official reserves, Current account surplus = Capital account deficit
- If China doesn't run current account deficit, China will be a capital exports and RMB a funding currency on balance
- That is, Resident outflow > Nonresident inflows
- For the currency, the short-term question is how fast Chinese FX diversification will take place.

	FDI	Portfolio: Equity	Portfolio: Debt	Credit: Loans
<u>External Assets, excl. official reserves</u> (% of GDP)				
China	7.2	2.5	1.6	3.6
G4 average	50.9	37.4	42.9	25.3
<u>External Liability</u> (% of GDP)				
China	25.9	3.6	1.4	5.5
G4 average	42.2	41.6	52.8	28.0

Source: PBoC, CEIC, Bloomberg, SG Cross Asset Research/Economics

SELF-INFLICTED QUANTITATIVE TIGHTENING

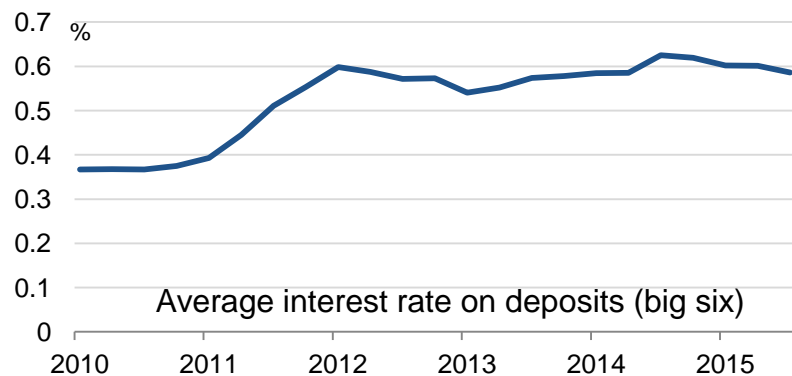
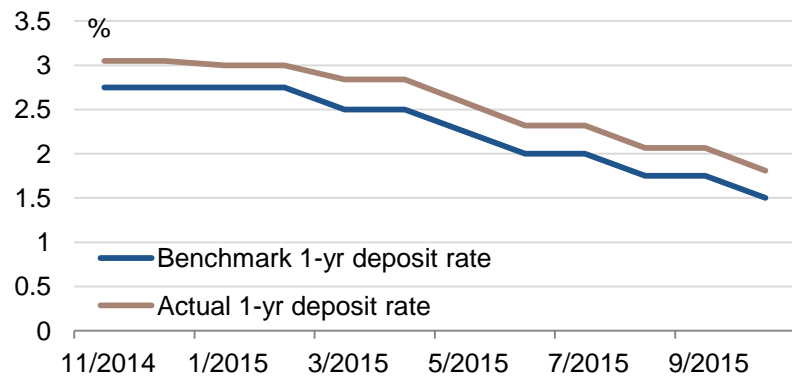


■ PBoC's balance sheet is now shrinking

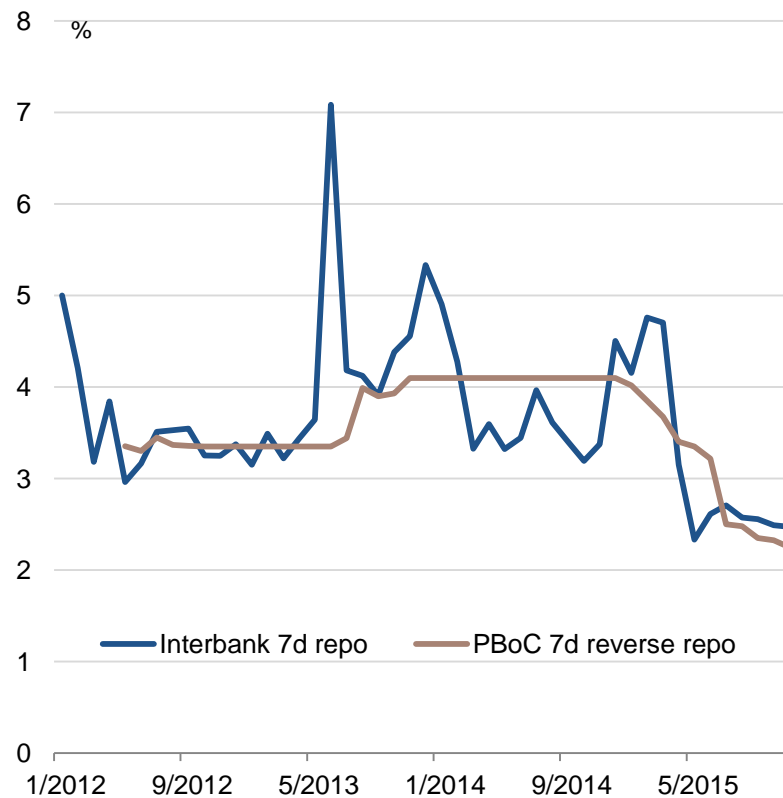
■ RRR cuts are barely keeping up

Source: PBoC, CEIC, SG Cross Asset Research/Economics

FEWER RATE CUTS CAN MEET THE EYE



■ **Benchmark deposit rate cuts have not brought down banks' interest rate expenses much**



■ **And the interbank rates barely changed since mid-2015**

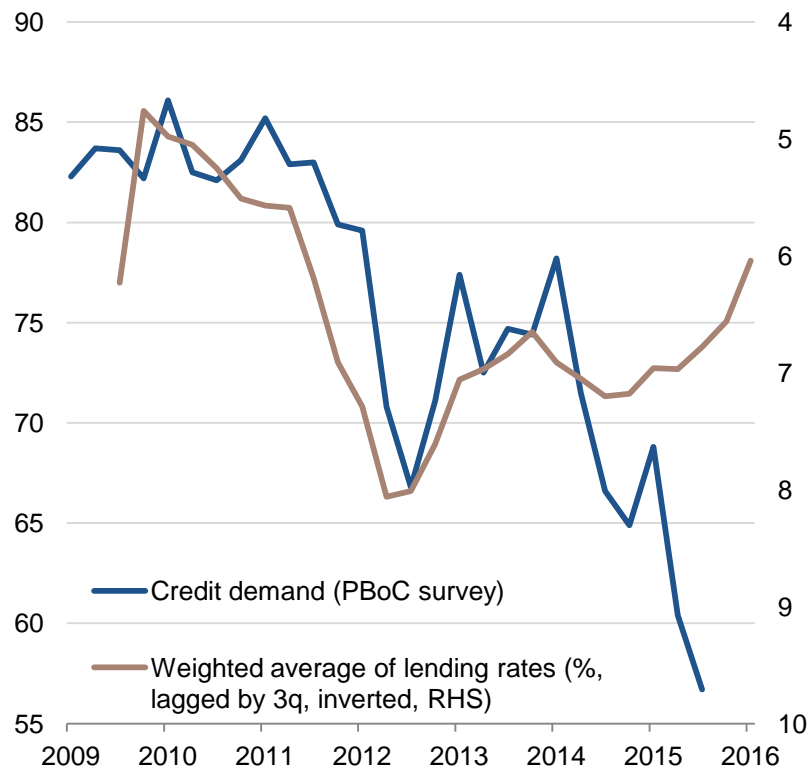
Source: PBoC, Bloomberg, SG Cross Asset Research/Economics.

PBOC'S NEW POLICY TOOLBOX

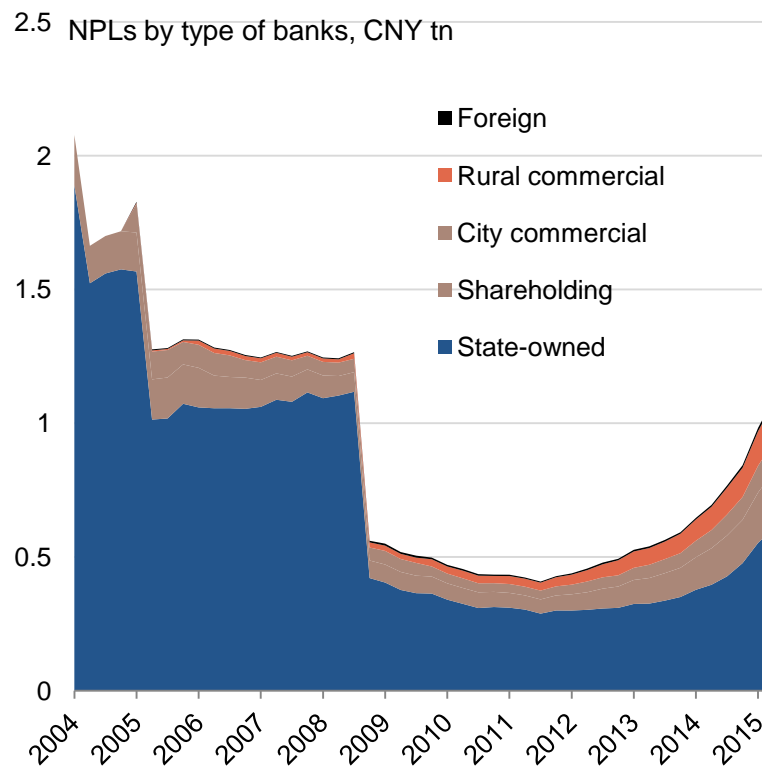
Instruments	Duration	Frequency	Latest implementation
<u>Short-dated</u>			
Regular Open Market Operation (OMO)	most frequent: 7-, 14-day others: 21-, 28-, 91-day	Auction usually held on Tuesdays and Thursdays. PBoC usually gauges demand one day before an auction.	Latest injection: 7-day reverse repo, late Oct 2015, 2.25%; 14-day reverse repo, 29 Sep 2015, 2.70% Latest withdrawal: 14-day repo, 25 Nov 2014, 3.2%
Short-term Liquidity Operation (SLO) - OMOs with shorter durations to supplement the regular OMOs	O/N to 7-day	Irregular	Latest injection: 6-day reverse repo, 31 Aug 2015, 2.35% Latest withdrawal: 5-day repo, 27 Feb 2014, 3.40%
Standing Lending Facility (SLF) - short-term liquidity offered by the central bank at the request of financial institutions	O/N and 7d for small- and medium- sized financial institutions 1m to 3m for policy banks & big commercial banks	Irregular, upon request	Latest injection: Mar15, for those institutions that meet certain macro-prudential criterion: o/n 4.5%, 7-day 5.5%; or 100bp higher for those which fall short.
Bank reserves - depository institutions' required or excess reserves at the central bank	N/A	N/A	Injection: required reserve ratio cuts on 23 Oct Rate on required reserves: 1.62% Rate on excess reserves: 0.72%
<u>Longer-dated</u>			
Medium-term Lending Facility (MLF) - medium-term liquidity offered to qualified commercial banks and policy banks at below-market rates	3- and 6-month	Irregular; upon request, can be granted via auctions	Latest injection: 6-month MLF of CNY 105.5bn, Oct 2015, 3.35% Injection in Q2: 3-month MLF of CNY 384.5bn, Apr 2015, 3.50%
Pledged Supplemental Lending (PSL) - long-term liquidity provided for development projects such as shanty town renovation	3-year	Irregular	Injection: PSL of CNY 52.1bn to China Development Bank, Sep 2015, 2.85%
Relending with credit asset collaterals - similar to PSL but allows local banks to use high-quality loans as collateral, thus aimed at smaller banks without enough bonds to apply for PSL	Less than two years	Irregular	Amount granted in the two pilot provinces in 2014: PBoC Guangdong branch provided CNY1.68bn in 2014, with one-year interest rate 3.5% PBoC Shandong branch provided CNY0.85bn
Other forms of relending - targeted at small banks without enough bonds to apply for PSL; some programmes required no collateral	Less than two years	Irregular	N/A

Source: PBoC, SG Cross Asset Research/Economics

MONETARY POLICY TRANSMISSION IMPAIRED



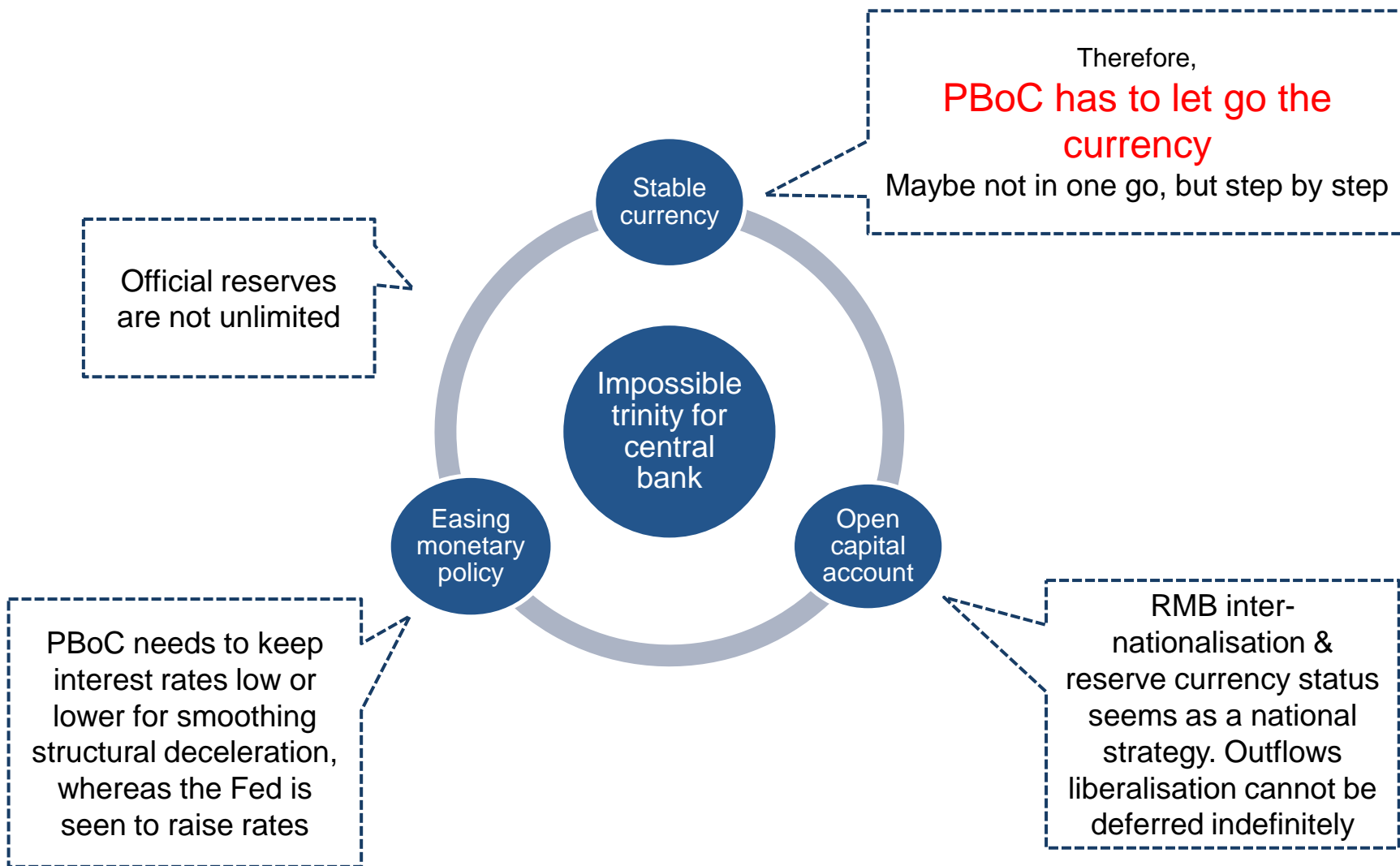
■ Lack of credit demand, despite lower borrowing cost



■ NPL cycle continues to burden banks

Source: PBoC, CEIC, SG Cross Asset Research / Economics

PBOC WAY OUT OF THE IMPOSSIBLE TRINITY



Source: PBoC, CEIC, SG Cross Asset Research/Economics

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- 7 sector teams in the Top 3

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