Deutsche Bank
Markets Research

Asia
China

Foreign Exchange
Rates
Credit

Date
22 January 2016

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China Market Perspectives

Opening up the RMB bond market

- 2016 is the first year for China to implement its 13th five year plan and we expect the Chinese authorities to continue to roll out financial liberalization reforms with manageable risks. We believe financial deepening in the RMB bond market will accelerate in 2016 and with China gradually liberalizing bond market access, the RMB bond market is an emerging global asset class to facilitate investment diversification and financing demands on a global scale.
- 2016 will likely be even more challenging for Chinese economy. The current round of policy easing will exacerbate overcapacity and raise leverage, both are damaging in the long term. Downside pressure on growth may resurface, and force the government into further policy easing. We revise our baseline forecast for USDCNY market close rate to 7.0 by the end of 2016.
- We see an **N-shaped roadmap with front-loaded returns** in 1H16. We recommend starting 2016 with OW financials, industrials and IT, and suggest building core holdings in new-economy stocks and do tactical trades in old-economy plays.
- We maintain our long bias on RMB bonds/rates market in 2016. We forecast 10Y CGB yield to trade between 2.7% and 3.2%, 10Y CDBs between 3% and 3.6% in 2016 and 5Y NDIRS to range between 2.2% and 2.8%.
- We see value in buying USD/CNH call spreads. We are buyers of USD/TWD as a relatively cheap proxy for RMB. Given that policy in the region is increasingly driven by China, it will be a key source of uncertainty this year.
- We look for further deterioration in fundamentals and more negative rating actions due to the commodity cycle, China slowdown, and potentially a year of elevated event risk (M&As etc). We are selective and have a strong quality bias..

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China Overview

- Key theme: 2016 is the first year for China to implement its 13th five year plan and we expect the Chinese authorities to continue to roll out financial liberalization reforms with manageable risks. We believe financial deepening in the RMB bond market will accelerate in 2016 and with China gradually liberalizing bond market access by foreign investors and borrowers, the RMB bond market is an emerging global asset class to facilitate investment diversification and financing demands on a global scale..

- Economic outlook: China's economy had a tough year in 2015. 2016 will likely be even more challenging. The current round of policy easing may help to boost growth in Q4 2015 and Q1 2016, but it will exacerbate overcapacity and raise leverage, both are damaging in the long term. In mid- 2016 the government may face a policy dilemma again. Downside pressure on growth may resurface, and force the government into further policy easing.

- Our baseline forecast for GDP growth in 2016 remains 6.7%. We see 10% probability that GDP growth may be above 7% in 2016, 50% probability that it falls between 7% and 6.5%, 30% probability that it drops to the range of 6.4% and 6%, and 10% probability it falls below 6%. We see 20% probability the GDP growth to fall below 6% for four consecutive quarters sometime between 2017 and 2019.

- We revise our baseline forecast for USDCNY market close rate to 7.0 by the end of 2016, a depreciation of 7.9% from its market close of 6.49 on December 31 2015. We see 10% probability that CNY appreciates or stay flat against USD by the end of 2016, 15% probability that it depreciates by less than 5%, 55% probability it depreciates by more than 5% and less than 10%, 20% probability that it depreciates more than 10%.

- Equity strategy: We see an **N-shaped roadmap with front-loaded returns** in 1H16. We recommend starting 2016 with OW financials, industrials and IT, and suggest building core holdings in new-economy stocks and do tactical trades in old-economy plays.

- Fixed income strategy: We forecast that the overnight repo rate will ease towards 1.25%-1.5% and the 7D repo rate to 1.75%-2% in 2016. We forecast 10Y CGB yield to trade between 2.7% and 3.2%, 10Y CDBs between 3% and 3.6% in 2016 and 5Y NDIRS to range between 2.2% and 2.8%. Our curve risk is neutral to slight steepening considering liquidity and growth risk. We recommend buy 10Y CGBs at 3% (target 2.7%) and 10Y CDBs at 3.3% (target 3%) and receive 5Y NDIRS rates at above 2.5% (target 2.2%. We expect cash bond market demand to be supported mainly by commercial banks/policy banks, fund houses and insurance companies. Regarding onshore credit, we expect the IG sector to outperform and recommend adding allocation of liquid IG names.

- We believe imposing the reserve requirement on the onshore RMB deposits by the offshore financial institutions serves as the first step towards realigning the regulatory environment in the onshore and offshore RMB market, and we expect further relaxation of onshore interbank market access by offshore financial institutions which will both support the growth of offshore RMB market and drive the convergence trend between the onshore and offshore RMB pricing over the medium to long term. Although we think the near term liquidity impact on the new reserve requirement regulation is limited, the medium to long term uncertainties of intraday liquidity in the offshore RMB market may increase volatilities in the offshore RMB funding and the basis risk may rise, which will dampen bond market demand.

- Foreign exchange strategy: RMB weakness is not over yet. We see three reasons why it should continue; 1) further unwind of carry-sensitive trades, driven by widening interest rate differentials; 2) hedging of FX liabilities due to poor underlying fundamentals and rising credit risk; and 3) higher tolerance for currency depreciation by the Chinese authorities. They would result not only in a higher USD/RMB but also inevitably higher vol. We see value in buying USD/CNH call spreads. We are also buyers of USD/TWD as a relatively cheap proxy for RMB. The structural changes underway in the Chinese economy will have profound implications for Asia and rest of the world. And, not necessarily all bad. To be sure, given that policy in the region is increasingly driven by China, it will be a key source of uncertainty this year. And China will likely cannibalize more capital flows to the region as well. But it's rebalancing will also benefit its neighbors in some ways, including, for example, through more tourism, investment and capital exports.
- Credit strategy: Corporate credit fundamentals will likely deteriorate further–weighed by the commodity cycle, ongoing China slowdown, and potentially a year of elevated event risk (M&A, SOE reforms). We expect more negative than positive rating actions this year. At this point of the cycle, we have a strong preference for quality names (large, benchmark, central SOEs) and bond structures.
- Offshore RMB market: During 2015, with China's continued efforts to accelerate financial liberalization reforms, the offshore RMB market expanded at a robust pace in H1, with strong growth in RMB settlement and RMB trading activities. However, in the second half of the year, rising volatilities in the domestic equity market and foreign exchange market caused the growth of the offshore RMB liquidity pool, as well as the offshore RMB fixed income market, to slow down.
- Nevertheless, the offshore RMB market has achieved many important milestones and we highlight six key developments: 1) the RMB becoming the fifth global payment currency; 2) the opening up of the capital account; 3) the liberalization of RMB interest rates and RMB exchange rates; 4) the strengthening of the offshore RMB infrastructure and boosting of global financial cooperation; 5) the RMB will become the third largest global reserve currency in the IMF SDR basket, effective on October 1 2016; and 6) the offshore RMB liquidity pool has declined and the offshore RMB fixed income market has been stable, with strong issuance in Taiwan's Formosa bond market.
- In 2016, we expect offshore RMB market development to be supported by capital account liberalization polices, which will boost RMB cross-border investment flows and deposit growth. However, volatilities in the RMB exchange rates remain the key risk to the growth of the offshore RMB liquidity pool, which requires further enhancement in the offshore RMB liquidity provision mechanism and development of the offshore RMB asset market.
- Specifically, we expect the following policies and market developments in 2016: 1) Further two-way opening up of the capital account: we highlight six key policies. 2) To strengthen the global RMB clearing/settlement infrastructure, more RMB clearing banks will be appointed in the Americas, Europe and Africa. 3) China will improve global policy coordination with global central banks. 4) There will be more policies to promote RMB cross-border investment/financing activities in the Free Trade Zones. 5) We forecast key performance indicators in the offshore RMB market. 6) Onshore offshore basis risk will persist in H1 2016. 7) We expect the volatility risk on the CNH CCS curve to remain elevated and recommend trading the CNH CCS curve in a wide range -1Y between 2.5-6%.

Key theme: Opening up the RMB bond market

Introduction

Despite economic growth deceleration and challenges with economic structural rebalancing, China's domestic bond market witnessed remarkable developments and delivered a strong performance in 2015 thanks to many structurally and cyclically bullish factors. The size of the market, as measured by the outstanding notional amount, expanded by 34% YoY to RMB48.37tr by the end of 2015, the fastest pace of market growth since 2008. There were more than 1,9000 investable fixed income securities in 16 bond categories spanning from treasury bonds (CGBs), municipal bonds, Certificate of Deposits, PBoC bills, policy bank bonds, enterprise bonds, corporate bonds, panda bonds, ABS, convertible bonds and other credit bonds, etc. Gross issuance in the fixed income market amounted to RMB23tr, almost doubled from last year. In addition to the strong market supply, there were significant developments in product innovation, the soundness of market regulation and market infrastructure, the evolving dynamics of market-based interest rate and credit risk pricing, market openness, etc. The impressive market growth was underpinned by China's intensive efforts on financial liberalization reforms last year and the easing of monetary conditions. In this article, we review key market developments in 2015 and present our 2016 outlook both on the bond market as well as on interest rate reforms.

2015 year in review

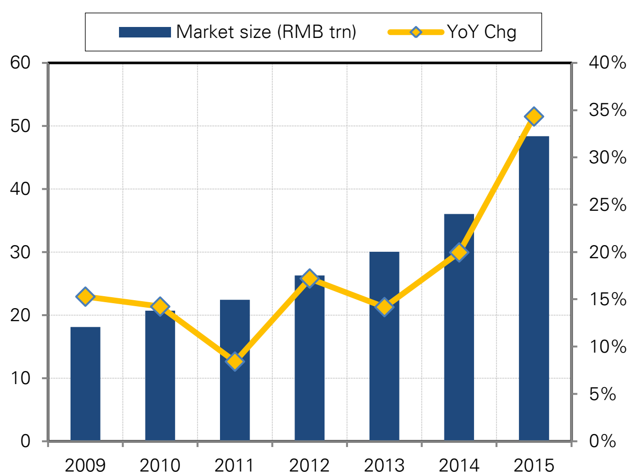
To best characterize China's bond market developments in 2015, we summarize the following eight key themes and illustrate them in detail.

1. 2015 saw the strongest pace of market expansion since 2008. In 2015, China's domestic bond market saw the fastest expansion since 2008 – the total outstanding notional amount of the fixed income market reached RMB48.37tr, up by 34% from 2014. Gross supply hit RMB23tr vs. RMB12.5tr in 2014 – of which, gross supply of interbank CDs, financial bonds, municipal bonds, and CGBs accounted for 23%, 18.6%, 16.7% and 9.2%, respectively, of the market, while supply of credit bonds by non-financial corporations accounted for 25% of the market. Net supply was RMB12.4tr, with 38% of the supply by the central or local governments, namely CGB (9%) and municipal bonds (29%), 19% by commercial banks via interbank CDs, 18% by financial institutions (financial bonds), and 24% by non-financial corporations. Annual net issuance of interbank CDs, municipal bonds, corporate bonds and ABS registered much stronger growth than other types of bonds, with annual growth rate of 404% YoY, 315% YoY, 111% YoY and 102% YoY from 2014, respectively.

2. The official launch of the municipal bond market and the implementation of local government debt limit marked the start of sustainable local government debt management. In 2015, China began to implement the New Budget Law by formalizing its local government debt management and establishing long term sustainable local government financing mechanism. Specifically, the government took five key steps: (1) the National People's Congress approved the 2015 local government debt limit at RMB16tr; (2) The municipal bond market was officially launched and the Ministry of Finance, the PBoC and the CBRC announced a series of administrative rules regulating the issuance and budgetary considerations of municipal bonds. The MoF carried out local government debt swap to manage outstanding local government debt and

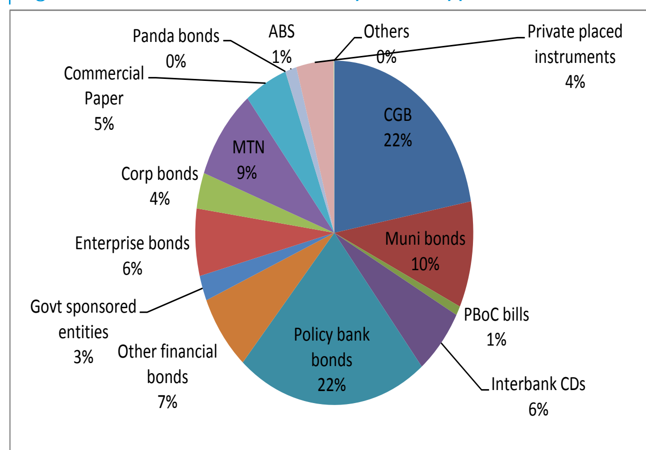
about RMB3.2tr in municipal bond was issued as a result of the debt swap. The average financing cost of local government debt has been reduced from about 10% to 3.5%, and the average life of the debt was extended from 3 years to 6.5 years; (3) Local governments completed RMB600bn new debt financing in 2015 via two types of municipal bond placements (RMB500bn general obligation bonds and RMB100bn special project bonds); (4) From 2015 onwards, local government debt balances have been included in the government's annual budget management, which not only improves the transparency of local government debt but also allows for effective monitoring and debt management by the National and local People's Congress; and (5) The MoF refined the local government risk evaluation and early warning system in order to prevent credit events and address liquidity/payment risks in a timely manner. These policies, in our view, reduced the credit risk associated with local government debt. Gross supply of municipal bonds in 2015 was RMB3.8tr and by the end of 2015, the size of the municipal bond market was RMB4.826tr (including bonds issued under the municipal bond pilot program prior to 2015), more than quadrupled from 2014 and accounted for approximately 10% of the RMB onshore bond market.

Figure 1: Bond market expansion fastened in 2015



Source: Deutsche Bank, PBoC, Wind

Figure 2: Market breakdown by bond types



Source: Deutsche Bank, PBoC, Wind

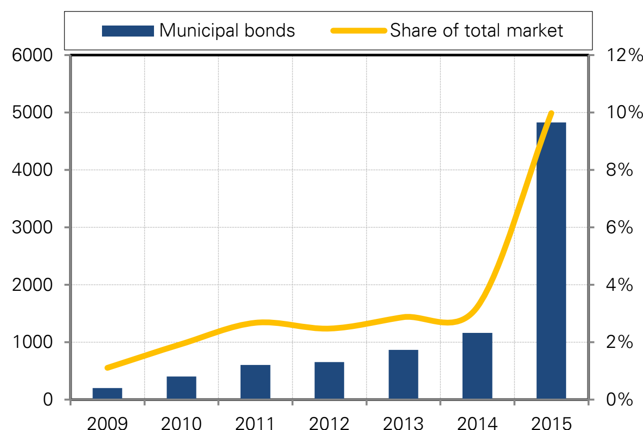
3. Rising corporate issuance in the bond market suggests the deepening of RMB onshore bond market to facilitate direct financing by corporations. China's corporate credit market expanded by 27% YoY in 2015 and gross supply of corporate credit bonds (including enterprise bonds, corporate bonds, medium-term notes, commercial papers, convertible bonds, privately placed bonds, etc) was RMB7.27tr, about 31% of the total gross supply in the market and net supply in the corporate credit market was c.RMB2.5tr. Equivalent to 29% of the RMB onshore bond market, the size of the corporate credit bonds stood at RMB14tr by the end of 2015, about six times the level it was in 2009, implying an average annual growth rate of 35% in the past seven years. Bond financing by listed corporations on the Stock Exchanges (corporate bonds or "Gongsi Zhai") was particularly active with net corporate bonds issuance having surged to RMB867bn in 2015 vs. only RMB72.6bn in 2014. The outstanding amount of corporate bonds rose to RMB1635bn, more than doubled from 2014. Specifically, corporate bond issuance by the property developers contributed to 43% of the gross corporate bond issuance in 2015.

We believe the rapid growth in China's corporate credit market in 2015 is the consequence of financial regulators having implemented a series of policy initiatives to promote direct financing in the bond market. These policy

initiatives include: (a) CSRC relaxed restrictions on the issuers of corporate bonds to all corporate entities and relaxed administrative controls over refinancing by property developers; (b) NDRC relaxed the limit on use of corporate bond proceeds to repay bank loans and promoted issuing enterprise bonds to support infrastructure projects; (c) NDRC simplified the approval process of enterprise bond issuance and relaxed credit rating requirement for issuers from AAA-rated to AA rated; (d) The PBoC simplified the ABS issuance through registration; and (e) onshore RMB bond market offered attractive financing costs to corporate borrowers following the 125bps cut in policy rates and 250bps cut in RRR in 2015, relative to onshore loan financing or offshore RMB market financing. .

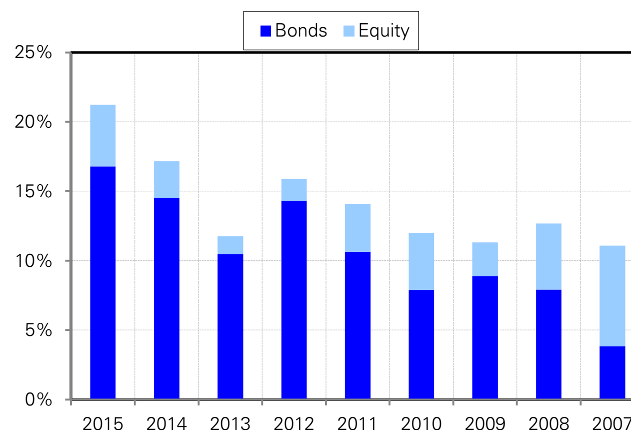
Indeed, direct financing in the bond market by non-financial corporations as a share of aggregate social financing rose to a record high of 16.5% in 2015, up from 14.5% last year and 8.9% in 2009. When we include equity financing, direct financing represented 21% of aggregate social financing in 2015 vs. 11.3% in 2009. Considering the steady new loans growth, we think the rising share of direct bond financing is partially due to the sharp slowdown of shadow financing, which only accounted for 1.8% of aggregate social financing in 2015. The fact that corporate credit market financing substituted shadow financing suggests that efforts on financial liberalization reforms began to bear fruits and that RMB onshore bond financing is increasingly accessible to corporate borrowers.

Figure 3: Outstanding municipal bonds (RMBbn)



Source: Deutsche Bank<PBoC, Wind

Figure 4: Share of direct financing in aggregate social financing by non-financial corporations(%)



Source: Deutsche Bank, PBoC

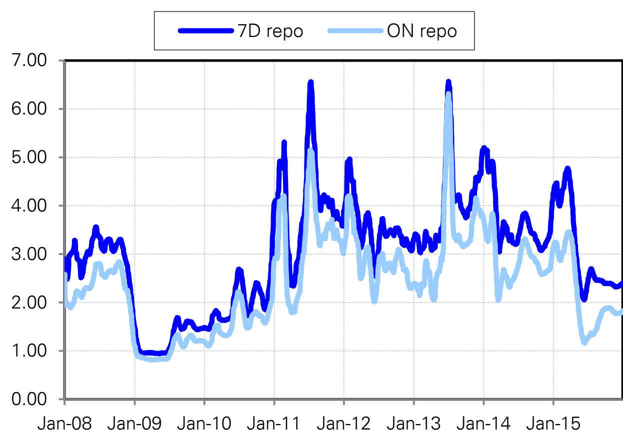
4. We note three interesting developments in RMB's interest rate term structure:

(a) Relative stability in money market rates vs. increasing volatility in long-term risk free rate. As a consequence of the 125bps policy rate cuts and 250bs RRR cuts, onshore bond market enjoyed quite a bullish run in 2015 when money market rates declined by 167bps (overnight repo) to 240bps (7D repo) and CGB bonds rallied by 110-120bps across the curve. However, compared with the policy easing in 2009, while overnight and 7D repo rates in 2015 were about 100-140bps higher than they were in 2009, the realized volatility (3M rolling) of the money market rates in 2015 was similar to where they were during 2009 (in some cases lower). The declining trend in the volatility of the money market rates has been very striking since 2014, especially considering that deposit rates are fully liberalized and cross border capital flows are more volatile. We believe the improving stability in money market rates in 2015 was because : (i)

domestic liquidity has been flush; (ii) more importantly, three structural factors, namely the removal of the 75% ceiling LDR ratio; the refinement on RRR assessment, and the experiment on establishing short-term interest rate corridor by the PBoC have effectively reduced money market volatility. We view this as a very positive development in the onshore RMB interest rate market as the stability of money market rates is crucial in ensuring efficient monetary policy transmission and is a necessary condition for reliable pricing in the interest rates and credit market.

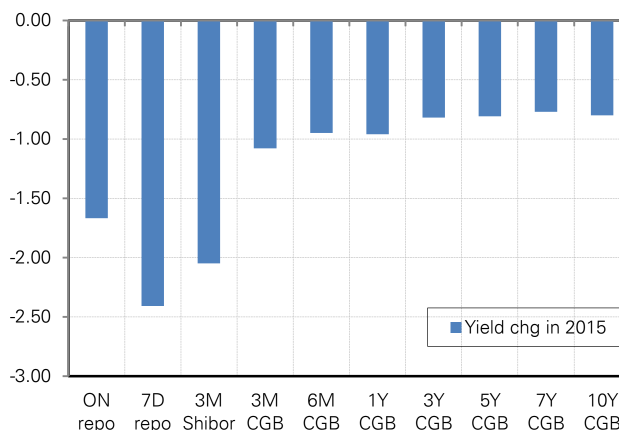
Stability in the money market rates has yet to translate into stability in the long-term yield. 10Y CGB yield fluctuated in the 2.85-3.5% range, close to where it was during 2008-2009, but the realized volatility of 10Y CGB yield at an average of 21% in 2015 was considerably higher than during 2009-2014. We think this is due to: (a) excessively high equity market volatility spilling over to the bond market; (b) higher turnover on the 10Y CGBs on better liquidity and on trading activities between the cash underlying and the 10Y CGB bond futures; (c) uncertainties in the demand for long-term CGBs given the supply risk of long dated municipal bonds; (d) uncertainties over China's long-term economic growth outlook; (e) the lack of policy tools to guide long-term risk free rates; and (f) marginal impact from volatility in long-term US rates.

Figure 5: Money market rates (1MMA)



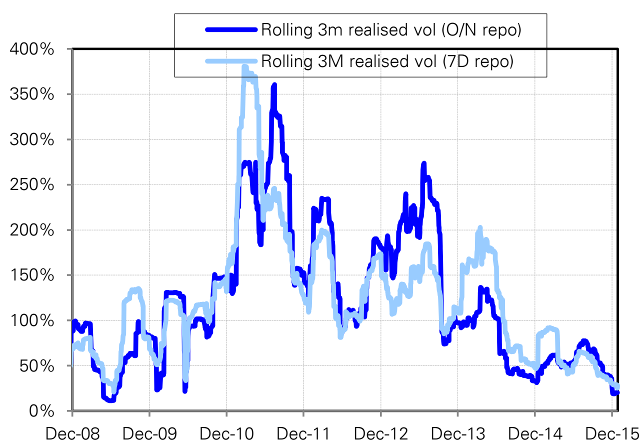
Source: Deutsche Bank

Figure 6: The bond rally in 2015 (%)



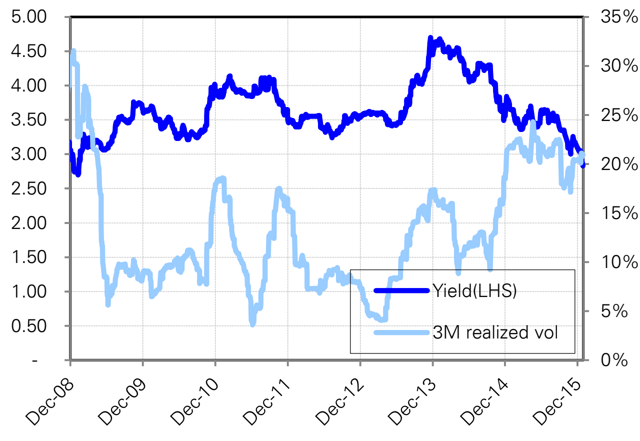
Source: Deutsche Bank

Figure 7: Money market rates are more stable



Source: Deutsche Bank, Bloomberg Finance LP

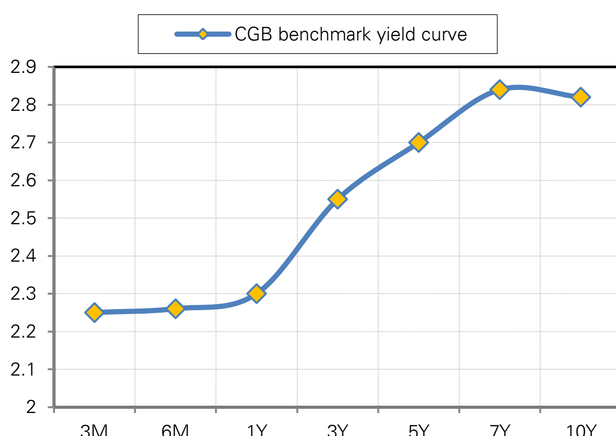
Figure 8: Falling 10Y CGB yield rising realized volatility



Source: Deutsche Bank, Bloomberg Finance LP

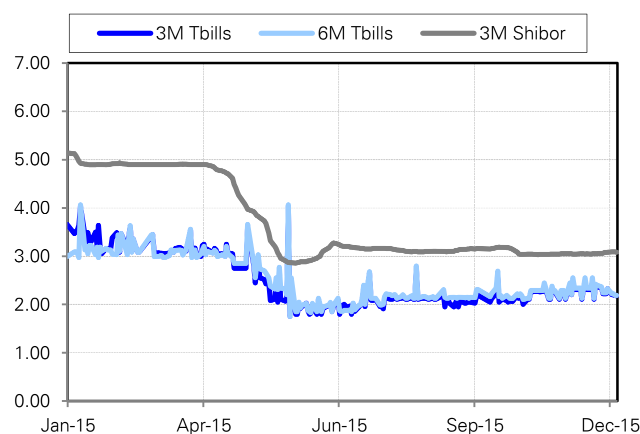
(b) The risk free yield term structure (CGB) has been extended to include the 3M and 6M treasury bills. One of the key objectives of interest rate liberalization is to develop an efficient interest rate/bond market and the foundation of interest rate pricing is risk free yield term structure. The Ministry of Finance has implemented three key measures over the past two years to improve the market pricing of the CGB yield curve. In November 2014, the Ministry of Finance started to publish the 1Y, 3Y, 5Y, 7Y, 10Y CGB yield term structure. In 2015, the MoF further populated the CGB yield curve by: (i) adding the monthly 6M T-bill auction since April with RMB125bn 6M bill issuance in 2015; (ii) adding the weekly 3M T-bill auction since October with about RMB130bn 3M bills placement in Q4; (iii) from November 27th, the MoF began to publish the 3M and 6M treasury bills yield on its website and extended the CGB benchmark yield term structure from 3M up to 10Y. Currently, the 3M-1Y sector of the CGB yield curve is quite flat, and the short-term T-bill yields are about 80bps-90bps lower than Shibor rates, which indicates the market implied liquidity premium of T-bills and the credit risk premium of large commercial banks.

Figure 9: RMB benchmark risk free yield curve (%)



Source: Deutsche Bank, MoF website

Figure 10: T-bill yields vs. interbank yield



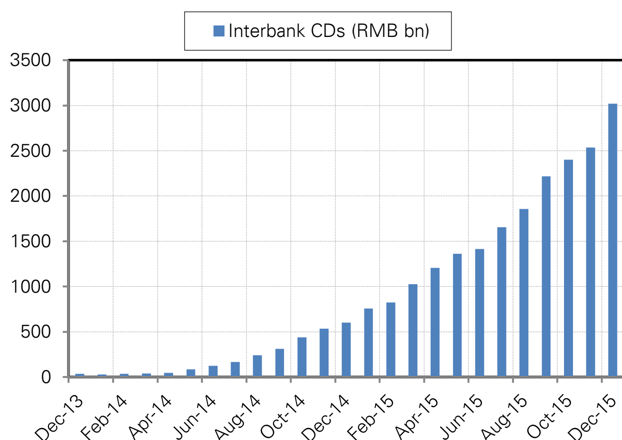
Source: Deutsche Bank, Bloomberg Finance LP

(c) Interbank CD rates are emerging as the new market based money market rates. As deposit rates have been fully liberalized, issuing interbank CDs has become an important source of market-based wholesale financing for commercial banks. In 2015, interbank CDs market grew at an "explosive" pace -- 280 commercial banks issued RMB5.3tr CDs (gross), which was about 5.9 times the amount issued in 2014 and about 23% of the total bond market supply in 2015. The interbank bank CDs market started in late 2013 and has now grown into a RMB3tr market, about 6.25% of the onshore RMB fixed income market and 4% of commercial banks total deposit base. We think two factors have contributed to the market growth: (i) the interbank CD program was expanded to corporate and retail investors and the issuers pool was expanded from ten financial institutions originally to 643 institutions by the end of December; (b) the interbank CDs market has benefited from flush liquidity and growing demand for money market instruments.

CD rates, as a measure of interbank funding cost, are emerging as new money market rates, albeit low secondary market liquidity for now. CD rates are primarily priced in reference to the Shibor rates as both are interbank funding rates; however, because the Shibor rates are based on quotes/pricing indications, and not necessarily tradable, the CD rates are more representative of the actual interbank funding cost. Comparing the 1Y CD rate (by national commercial banks) vs. the 1Y policy rate and 1Y Shibor, we think the behavior

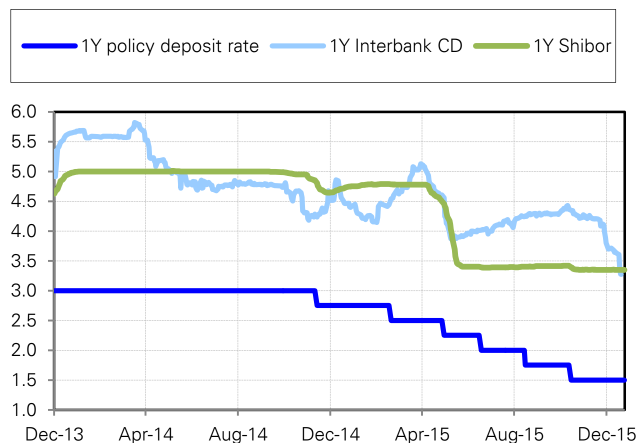
of the interbank CD rates is reasonable in that the trend of CD rates follows that of the policy rate, and it fluctuates around Shibor but had maintained the gap to Shibor until most recently. Furthermore, interbank CD rates by national commercial banks, joint-stock commercial banks and agriculture commercial banks have begun to differentiate (3.27%, 3.35% and 3.58% for 1Y respectively), reflecting both liquidity and credit risk premium.

Figure 11: Interbank CD market is now 6.25% of China's onshore bond market



Source: Deutsche Bank, Wind

Figure 12: Interbank CD yield vs. other key rates (%)



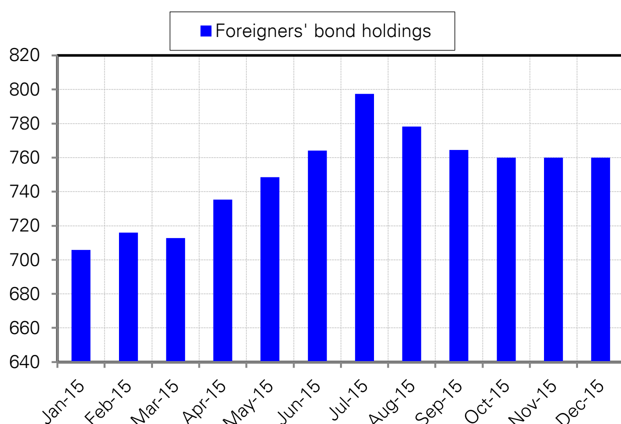
Source: Deutsche Bank, Wind, Bloomberg Finance LP

5. Opening up the RMB onshore bond market to foreign investors and foreign borrowers.

In 2015, the PBoC liberalized the onshore interbank bond market and FX market to foreign reserve managers. Foreign investors hold about 1.6% of China's domestic bond market as of the end of 2015. And foreign investors preferred sovereign and quasi sovereign assets (policy bank bonds), and they also have exposure to the corporate credits and money market instruments.

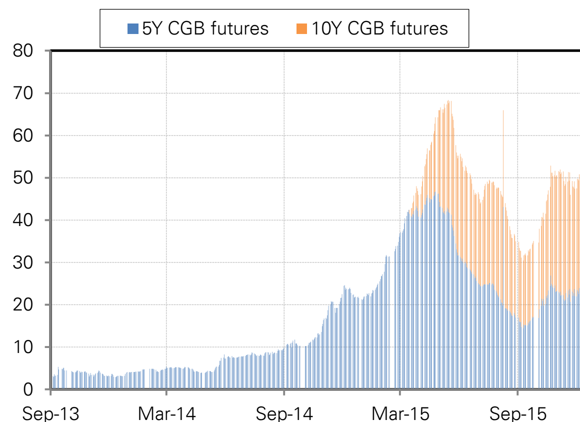
To boost RMB as a global funding currency, in 2015, China opened up the panda bond market by allowing offshore financial institutions (HSBC HK and Bank of China HK) and two foreign government (the Province of British Columbia of Canada, and South Korea government) to place a total of RMB11bn bonds in the onshore interbank market. Another offshore corporation (China Merchant Group Hong Kong) issued RMB500m commercial paper in October (out of a RMB3bn CP program).

Figure 13: Foreigners bond holdings (RMBbn)



Source: Deutsche Bank, PBoC

Figure 14: Open interests in CGB futures were up by 171% YoY



Source: Deutsche Bank

6. Product innovation enriched the pool of investable fixed income assets in the RMB onshore bond market. In addition to the municipal bond market, the interbank CD market, China introduced a few new fixed income securities/derivatives in the market. The RMB500bn ABS pilot program was completed successfully, and as a result, the ABS market doubled in 2015 to RMB630bn with 1,575 outstanding securities and a market share of 1.31%. In the interest rate derivatives market, the 10Y CGB bond futures were listed in China Financial Futures Exchange in March and the total open interests in the market were 2.7 times the level they were in 2014 when only the 5Y CGB futures were traded. In the corporate credit market, there were a few sizable deals in the convertible bonds, USD bonds market both in the interbank bond market and the Stock Exchanges.

Green financial bonds were introduced in the interbank bond market in December. The green financial bonds are bonds issued by financial institutions to finance medium to long term projects for environmental protection, energy savings, clean energy and clear transportation, etc. The developing green financial market is to explore direct financing for credit provision in the environmental protection projects/industries. In October, the Agriculture Bank of China debuted USD1bn green bonds in the London Stock Exchange.

7. We believe there are three important structural drivers which have boosted demand for the RMB onshore fixed income market. In 2015, demand side of the fixed income market underwent significant structural changes. (1) In April, the State Council decided that Social Security Funds can invest in municipal bonds and lifted the investment limits on enterprise bonds and municipal bonds from 10% to 20%; this change implies at least RMB150bn additional demand for municipal bonds and enterprise bonds. (2) In August, the State Council issued Administrative Rules on Basic Pension Fund Investment Management, which allows Basic Pension Fund to invest in the domestic capital market, and sets the investment limits on the fixed income market at no more than 135% of its net assets and on equities at 30%. (3) Strong growth in the domestic asset management industry. By the end of 2015, the total assets under commercial banks' wealth management funds grew by about RMB5tr YOY to RMB20tr. Total assets under management by domestic fixed income funds, money market funds, hybrid funds and QDII funds stood at RMB704bn, RMB4.58tr, RMB2.29tr and RMB52bn, up by 103%, 109%, 76% and 10%, respectively, from 2014. We view these structural changes as positive in that first, a more diversified investor base will greatly facilitate interest rate and credit risk distribution in the capital market; second, a more competitive and

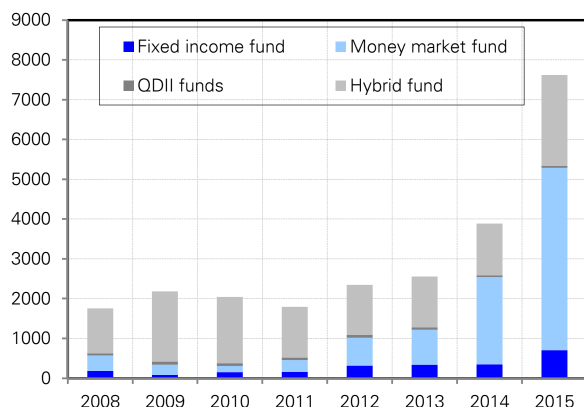
maturing asset management industry will better serve rising demand for money management domestically and improve financial resource allocation as interest rates are liberalized.

8. The introduction of deposit insurance scheme and the occurrence of credit bond default events have been instrumental in driving credit risk differentiation in the market and in nurturing the efficient risk management culture in the investment community. Another key aspect of financial market liberalization is to remove the implicit guarantees by the government on debt obligation/investment returns. Since 2013, we have observed a growing number of default cases in the bond market, the trust market and WMP market. In 2015, the introduction of deposit insurance scheme and the removal of interest rate controls have set the necessary regulatory and market conditions, which will promote the re-pricing of credit risk to drive efficient capital allocation in the financial market. Throughout 2015, there were several default events by private enterprises and SOEs; however, the SOEs defaults have largely remained technical as they were bailed out eventually. The direct impact of these credit events on the credit market is divergence in credit spreads between strong and weak credits. Despite the fact that all credit bonds have rallied on the back of monetary policy easing, weaker credits have notably underperformed – for example, spread differential between A-rated and AAA-rated 5Y enterprise bonds widened by 112bps during 2015. While we believe more default events and higher realized losses will be the key to more efficient credit pricing discovery, the gradual credit differentiation we observed in 2015 demonstrated that the credit market has started to adjust to the "new" credit environment which faces increasing pressure of credit events with potentially rising implied losses in the coming years. The process has been smooth so far thanks to the prudent management by financial regulators.

In contrast to the corporate credit market, there is a lack of credit differentiation among municipal bonds as most bonds have been issued at flat to the CGB curve. We think it reflects that commercial banks have been sacrificing their margins to help local government reduces debt servicing cost.

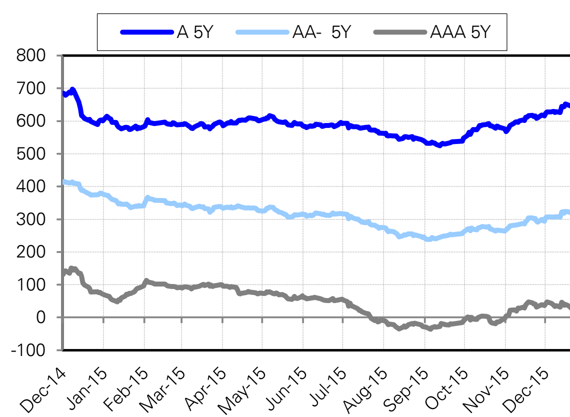
We summarize about 50 bond market developments as well as credit events in 2015 in the table below.

Figure 15: Asset under management by domestic funds (RMBbn)



Source: Deutsche Bank, Wind

Figure 16: Credit spreads of enterprise bonds (bps)



Source: Deutsche Bank, Wind

Figure 17: Review of key bond market development in 2015

Bond market reform/regulation refinements	
21-Jan	PBoC, CIRC issued Notice on the issuance of Tier 2 capital bonds by insurance companies
16-Feb	Shanghai Stock Exchange allowed bond pledged repo transactions in the Stock Exchange
16-Mar	MoF issued Administrative rules on general obligation municipal bonds and announced RMB1trn local debt swap program
30-Mar	Shanghai Clearing Corporation started to conduct bond net clearing business
1-Apr	The State Council permitted Social Securities Fund to buy municipal bonds and lift the investment cap of corporate bonds and municipal bonds from 10% to 20%; direct equity investment in POE also permitted
3-Apr	PBoC simplified ABS issuance regulation through registration
7-Apr	MoF issued Administrative rules on special project municipal bonds
24-Apr	Securities Association of China implemented negative list on private placed bonds and restricted 11 types of corporations to place corporate bonds privately.
8-May	MoF, PBoC and CBRC allowed a certain amount of municipal bonds to be issued via private placement under the local government debt swap program
15-May	NAFMII issued Guidance on information disclosure of placing ABS backed by personal auto loans and household mortgages in the interbank bond market
18-May	Jiangsu province kicked off the 2015 local government debt swap with RMB52.2bn municipal bond issuance
27-May	NDRC announced Notice to promote enterprise bond issuance in order to support key infrastructure projects
10-Jun	MoF announced the second RMB1trn local debt swap program
15-Jun	PBoC allowed private investment funds to open accounts in the interbank bond market
19-Jun	NDRC further relaxed corporate bond issuance regulation and allowed up to 40% bond proceeds to be used to repay bank loans and for operating purposes, and set up a green track for the approval of PPP-based bond financing
17-Aug	The State Council issued Administrative Rules on Basic Pension Fund Investment Management
29-Aug	China's local government debt limit management was officially implemented and the Standing Committee of the National People's Congress approved the 2015 municipal debt limit at RMB16trn.
15-Sep	NDRC removed quota approval for external debt issuance by Chinese corporations and implemented registration regulation.
30-Nov	NDRC issued Opinions on simplifying approval process of enterprise bonds issuance and relaxed credit quality requirement for enterprise bond issuance from AAA rated to AA rated.
22-Dec	Green bonds debuted in the interbank bond market
Monetary Policy actions	
5-Feb	PBoC cut RRR by 50bps for all financial institutions
1-Mar	PBoC cut policy rates by 25bps
20-Apr	PBoC cut RRR by 100bps for all financial institutions
11-May	PBoC cut policy rates by 25bps
28-Jun	PBoC cut policy rates by 25bps and cut RRR on a targeted basis.
25-Aug	PBoC cut policy rates by 25bps
6-Sep	PBoC cut RRR by 50bps for all financial institutions
24-Oct	PBoC cut policy rates by 25bps, 1Y policy deposit rate at 1.5%

Source: Deutsche Bank, PBoC, CBRC, CIRS, CSRC, NDRC, Shanghai Stock Exchange, Shenzhen Stock Exchange

Figure 17: Review of key bond market development in 2015 (cont'd)

Interest rate reforms

1-May	Deposit insurance scheme was launched
11-May	Deposit rate ceiling was lifted from 1.3x to 1.5x policy deposit rates
2-Jun	PBoC expanded the Certificate of Deposit program to non-FI institutions and retail investors.
24-Jun	The State Council approved the Amendment to the Commercial Bank Law and removed the 75% ceiling of loan to deposit ratio
30-Jul	102 institutions were permitted to issue Certificate of Deposits (from 9 institutions).
15-Sep	PBoC refined its reserve requirement regulation by adopting the average RRR assessment rule, instead of daily assessment and allowed up to 1% deviation for daily reserve from RRR
24-Oct	Deposit rates fully liberalized
2-Nov	China Merchants Group (Hong Kong) issued RMB500mn CP in the interbank bond market, the first panda bond issuance by non-FI offshore corporations.
27-Nov	MoF began to publish 3M and 6M T-bill yields, in an effort to extent the CGB yield term structure from 1Y,3Y,5Y,7Y and 10Y tenors.
7-Dec	243 institutions were permitted to issue large denomination Certificate of Deposits and 634 financial institutions were permitted to issue interbank CDs.

Capital account opening up

3-Jun	PBoC allowed access to onshore bond repo market by offshore RMB clearing banks, participating banks
14-Jul	PBoC liberalized access to onshore bond market by foreign reserve managers
22-Sep	PBoC approved HSBC and Bank of China (HK) to issue Panda bonds, and Panda bond program expanded to foreign financial institutions
25-Nov	PBoC approved 7 foreign reserve managers to access onshore interbank FX market

New product development

10-Feb	The first ABS backed by loans to micro firms was listed in the Shanghai Stock Exchange
20-Mar	10Y CGB bond futures began trading in the China Financial Futures Exchange
27-Apr	The first floating rate bonds using CDB yield as the benchmark rate (Yuchai MTN) was issued in the interbank bond market
13-May	The State Council approved RMB 500bn ABS pilot program and supported ABS to be listed in the Stock Exchanges
4-Jun	Zhoushan Harbour Group issued the first public placed corporate bonds by a non-listed entity in the Shanghai Stock Exchange
20-Nov	Export Import Bank of China issued USD1.36bn USD bonds in the interbank bond market, the largest onshore USD bond placement.
25-Nov	Shanghai Guosheng Group issued RMB5bn convertible bonds in the Shanghai Stock Exchange, the largest convertible placement in onshore Stock Exchange.

Key credit events

7-Apr	Cloud Live Technology Group defaulted on the interest payment of its 7.78% corporate bonds listed on the Shenzhen Stock Exchange
25-May	Zhuhai Zhongfu Enterprises announced it was unable to repay its corporate bonds due on May 28th 2015 listed on the Shenzhen Stock Exchange
11-Nov	Shanshui Cement defaulted on its Super Commercial Paper due on November 12th 2015 and became the first corporation to default SCP.

Global Financing Initiatives

29-Jun	Asia Infrastructure Investment Bank was set up in Beijing

Source: Deutsche Bank, PBoC, CBRC, CIRS, CSRC, NDRC, Shanghai Stock Exchange, Shenzhen Stock Exchange

2016 outlook on the fixed income market and financial reforms

China unveiled the 13th five year plan in October last year and sets the objectives of financial structural reforms during 2016-2020. Over the next five years, we expect substantial liberalization on the financial market, capital account, exchange rate and interest rate pricing, as well as RMB internationalization.

2016 is the first year for China to implement its 13th five year plan and we expect China continues to roll out financial liberalization reforms with manageable risks. Since last October, we believe China has entered the next phase of interest rate reform, which will focus on developing efficient interest rates market and monetary policy reform. Specifically, we expect interest rate reform during the 2016-2020 to focus on four key issues:

1. Developing new policy rate targets, either the overnight rate or the 7D rate. To manage short-term interest rates, the PBoC has been experimenting with the interest rate corridor on short-term interest rates with the ceiling as the SLF rates, and the OMO reverse repo rates as the floor, and the width of the interest rate corridor is set at 100bps. We believe also that the PBoC has been tracking the money market rates increasingly closely to evaluate short-term interest rates transmission in the market. We expect the PBoC to establish a more transparent and robust market-based framework. We also expect the central bank to refine open market operations by offering more frequent (daily) open-market operations and by adding intraday liquidity facility to the interbank market. We believe availability of an intraday liquidity window from the central bank is the best way to manage the stability of RMB short-term interest rates, which is the key in efficient monetary policy transmission.

2. Developing market-based interest rate system to ensure monetary policy transmission. While policy deposit rates and lending rates still offer guidance on the market, marked-based interest rates such as repo rates, Shibor rates, CD rates, risk free rates (CGB yields), bank deposit rates, loan prime rates (LPR) will play increasingly important roles in determining RMB interest rate pricing. Deepening the liquidity and pricing efficiency in the money market, lending market and government bond market will be a key market development focus in order to ensure efficient monetary policy transmission. Over the next five years, we forecast CDs financing (interbank and retail) to grow fivefold to RMB10-12tr.

3. Developing monetary policy tools to guide medium to long-term rates. With interest rate pricing increasingly market driven, we expect the PBoC to develop new money policy tools to effectively influence RMB medium-to-long term interest rates and manage long term interest rate expectation. Since 2014, the PBoC has introduced medium-term liquidity facility (MLF), pledged supplementary lending (PSL), relending facility to guide the medium-to-long end of the domestic term structure and provide favorable financing to targeted sectors. We expect the central bank will continue to enrich its policy tool box by addressing inefficiencies in monetary policy transmission across the entire interest rate term structure. We expect interest rates on PBoC's various policy tools (short-term and medium-to-long term) to gradually replace the policy deposit rates and policy lending rates in the next three to five years.

4. Improving credit risk pricing efficiency and transparency. Another critical aspect of efficient monetary policy transmission is efficient credit risk pricing. The pricing of deposits, SHIBOR, CDs, prime loans as well as all other fixed income instruments relies on banks and corporate credit risk pricing. We expect China will continue to allow more credit events and to allow principal

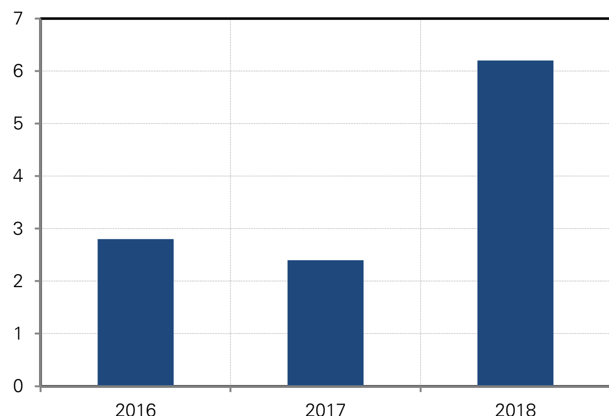
losses to occur sooner than later, provided such events do not pose systemic threats, as well as to explore market-based mechanism to absorb losses. On the other hand, given the system importance of commercial banks and municipal governments, we think defaults by the private sectors are more permissible in the near term than defaults by banks or municipal governments. As such, we are more likely to see material credit risk pricing differentiation on municipal bonds and commercial bank deposits after the local government debt swap is completed which we expect in the next three years.

We believe financial deepening in the RMB bond market will accelerate in 2016 and with China gradually liberalizing bond market access by foreign investors and borrowers, the RMB bond market is an emerging global asset class to facilitate investment diversification and financing demands on a global scale.

We forecast the size of onshore RMB bond market to grow by 20% YOY in 2016 and the size of the bond market as a share to nominal GDP to 79% in 2016 vs. 70% in 2016. Specifically, we envision the following seven main development themes:

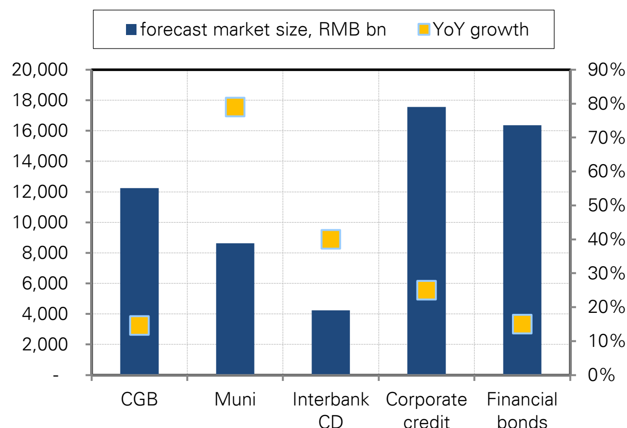
1. Municipal bond market will grow by 79% YoY in 2016 as we estimate RMB3tr issuance due to local debt swap and RMB800bn net supply. We expect the supply of municipal bonds continue to dominate the supply dynamics in the onshore bond market. Following the 2015 local debt swap, there remains RMB11.4tr local government debt swap to be carried out in the coming three years. Given the local debt maturity profile, it is likely the size of the debt swap will be RMB3tr, RMB2.5tr and RMB6tr from 2016 to 2018.

Figure 18: Local debt redemption schedule (RMBtr)



Source: Deutsche Bank, MoF

Figure 19: 2016 bond market forecast



Source: Deutsche Bank

2. CGB bond market and financial bond market will grow by 15% YoY in 2016 We expect fiscal deficit to be financed by a combination of CGB and municipal bond issuance. We forecast 2016 net supply of CGBs at about RMB1560bn, up by 39% YoY from 2015. We forecast the financial bond market to expand by 15% YoY to RMB16.4tr by the end of 2016.

3. We expect more financial institutions to access the interbank CD market for funding considering the low interest rate environment and the CD program expansion. We forecast the interbank CDs market will expand by 40% in 2016 and the share of interbank CDs in the bond market to rise to 7.5% from 6.25% in 2015.

4. Financing deepening in the corporate credit market will lead to 25% YoY in the corporate credit market in 2016 and we forecast the share of direct financing by non-financial corporations to stay at c.22%. We expect corporations will continue to take advantage of the structural relaxation of bond access and lowering financing cost to secure funding in 2016 both in the interbank bond market and the Stock Exchanges. We expect a modest pickup in the PPP-based enterprise bond issuance in 2016 as the relevant technical hurdles have been ironed out over time. The MoF has planned for about 206 PPP projects to be implemented from January 1st 2016. We also expect green bond issuance and development on other green financing market such as green corporate bond issuance.

5. Further opening up of the RMB bond market and promote RMB as a global investment and financing currency. We expect further relaxation of quota control under the QFII/RMB QFII program and RMB interbank bond market access program, particularly liberalizing market access by long-term institutional investors such as pension funds and insurance companies; we forecast RMB300bn QFII/RMB QFII/interbank bond new quota approval during 2016 and the total size of the investment program to be expanded by 10% in 2016.

We also expect the panda bond market to attract more foreign corporations, financial institutions and governments for financing going forward. We forecast RMB20bn net supply in the panda bond market in 2016 and the size of the panda bond market to grow to RMB150bn by 2020.

6. From a trading perspective, we maintain our long bias on RMB bonds/rates market in 2016 as we believe the overall demand and supply balances remain favorable. Specifically,

(a). Domestic liquidity outlook: We maintain our view that the central bank will keep domestic liquidity flush to help stabilize growth and support economic structural rebalancing. In addition to the four RRR cuts and 50bps cuts in policy rates that our economist is calling for during 2016, we also expect the PBoC to actively use its open market liquidity tools (SLF, MLF, PSL and open market auctions) to smooth liquidity volatility (with the interest rate corridor framework) and to provide liquidity to targeted sectors. We forecast that the overnight repo rate will ease towards 1.25%-1.5% and the 7D repo rate to 1.75%-2% in 2016.

(b). RMB cross asset correlation will remain high, but rates volatility will be relatively low and we expect asset volatility to renormalize in H2. In 2015, volatilities across all RMB assets (equities, bonds, and FX) rose substantially during Q2-Q3 due to excessive leverages in the equity market and RMB exchange rate reform measures. With regulators imposing various temporary measures to clean up/reduce equity leverages, the macro prudential measures on the FX market and monetary easing measures, asset volatilities are currently at relatively low levels compared with where they were during July-August last year. We expect RMB cross asset correlation to remain high although rates market will be relatively more stable. We expect most of these temporary market stabilization measures will be relaxed/removed over the next one to two quarters, and RMB asset volatility to renormalize in H2.

(c). Balanced allocation between fixed income and equity market: While the asset allocation shift between equity and fixed income market should be largely driven by valuation, investment flows at domestic fund houses and banks (wealth management products) were quite volatile and extreme in 2015 with sizeable inflows to bond funds in Q3; however, the lesson from the equity market turmoil in July 2015 is that asset allocation by both institutional and retail investors needs to be more balanced between the equity and fixed income assets. In addition, considering growth fundamentals will remain sluggish, we expect both equity and fixed income market to benefit from flush

liquidity and asset allocation demand. Furthermore, we expect the basis between the repo rates in the Stock Exchanges and the interbank market to narrow as the new IPO funding rules will be implemented in 2016, which reduces the risk of liquidity squeeze in the money market. As such, even in the event of equity market rally, we believe we are unlikely to see large outflows from the fixed income market into the equity market in 2016, which is supportive to demand in the fixed income market.

(d). Reserve diversification inflows to RMB bond market. With RMB inclusion into the SDR basket effective on October 1st 2016, and China having liberalized access to the interbank bond and FX market by foreign monetary authorities, supranational agencies and foreign governments, we are likely to see growing reserve diversification inflows to the RMB fixed income market. We forecast about RMB500bn bond market inflows from foreign investors in 2016.

(e). Credit risk remains high amid supply risk in 2016. We believe the ongoing pressure of capacity reduction in certain sectors makes credit events in the bond market, the trust market and the bank loan market inevitable in 2016. On the other hand, measures to simplify issuance procedures and promoting direct financing (recently by the NDRC) in the corporate bond market allow more corporations to access the corporate bond market for financing. In our view, the combination of credit event risks and supply risk will keep investors highly selective in credit exposures.

7 Risk of bond market leverages: As we expect money market rates to stay low and stable and risk free curve remains flat, the risk on the bond market in 2016 is the likely buildup of leverages in bond carry trades, especially with corporate credit exposures. Because the interbank bond market is much deeper and because the level of leverages by commercial banks and insurance companies are tightly regulated, we believe the bond leverage risk in the Stock Exchange market is worth monitoring in 2016, especially considering the risk of credit events and the liquidity risk in the Stock Exchanges. We expect bond market regulators to tighten the leverage funding condition (adjusting the discount rates in bond repo funding) to mitigate the overall bond leverage risk.

Trading recommendation:

We forecast 10Y CGB yield to trade between 2.7% and 3.2%, 10Y CDBs between 3% and 3.6% in 2016 and 5Y NDIRS to range between 2.2% and 2.8%. Our curve risk is neutral to slight steepening considering liquidity and growth risk. We recommend buy 10Y CGBs at 3% (target 2.7%) and 10Y CDBs at 3.3% (target 3%) and receive 5Y NDIRS rates at above 2.5% (target 2.2%. We expect cash bond market demand to be supported mainly by commercial banks/policy banks, fund houses and insurance companies. Regarding onshore credit, we expect the IG sector to outperform and recommend adding allocation of liquid IG names.

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Economic Outlook

China's economy had a tough year in 2015. 2016 will likely be even more challenging. The current round of policy easing may help to boost growth in Q4 2015 and Q1 2016, but it will exacerbate overcapacity and raise leverage, both are damaging in the long term. In mid- 2016 the government may face a policy dilemma again. Downside pressure on growth may resurface, and force pressure the government into further policy easing.

Our baseline forecast for GDP growth in 2016 remains 6.7%. We see 10% probability that GDP growth may be above 7% in 2016, 50% probability that it falls between 7% and 6.5%, 30% probability that it drops to the range of 6.4% and 6%, and 10% probability it falls below 6%. We see 20% probability the GDP growth to fall below 6% for four consecutive quarters sometime between 2017 and 2019.

We revise our baseline forecast for USDCNY market close rate to 7.0 by the end of 2016, a depreciation of 7.9% from its market close of 6.49 on December 31 2015. We see 10% probability that CNY appreciates or stay flat against USD by the end of 2016, 20% probability that it depreciates by less than 5%, 50% probability it depreciates by more than 5% and less than 10%, 20% probability that it depreciates more than 10%..

Significant policy easing cycle

China's economy had a tough year in 2015. 2016 will likely be even more challenging. The current round of policy easing may help to boost growth in Q4 2015 and Q1 2016, but it will exacerbate overcapacity and raise leverage, both are damaging in the long term. In mid-2016 the government may face a policy dilemma again. Downside pressure on growth may resurface, and pressure the government into further policy easing.

Growth will likely stabilize in 2016Q1

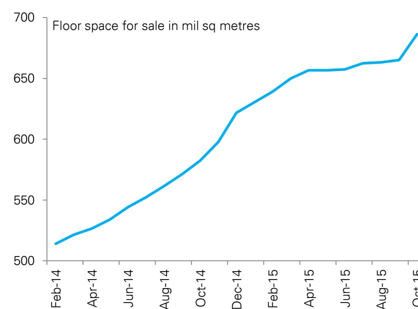
The economic difficulty that troubled China for most of 2015 may be arrested temporarily in Q1. The difficulty in 2015 was to some extent due to a large fiscal contraction caused by the decline of lands sales revenue in H1. Land auctions have rebounded strongly since mid 2015 because of policy easing (Figure 1). As growth of land sale revenue usually lags growth of land auctions by 1-2 quarters, the fiscal revenue has improved in Q4 2015 and will rebound further in Q1 2016. This will likely help GDP growth to pick up in Q4 and Q1.

Investment is still the channel to boost growth, in our view. Higher land sales in Q3 2015 indicate the weak property investment may finally show some signs of stabilization in Q4 and Q1. Growth of infrastructure investment may pick up again as land sales helps boost fiscal revenue. Property and infrastructure combined account for almost half of investment in China. Hence we expect investment growth may pick up modestly in Q4 2015 and Q1 2016.

Challenges may rise beyond 2016Q1

The rebound of land sales was driven primarily by policy easing rather than economic fundamentals. The property sector remains in an oversupplied condition, as indicated by a rising level of inventory (Figure 2). This round of rebound in land sales helps to address economic and fiscal pressure in the short term, but will exacerbate the oversupply problem in the property sector.

Figure 1: Rising housing inventory



Source: WIND, Deutsche Bank

The policy easing since mid 2015 also led to another undesirable outcome -- acceleration of leverage buildup. The growth of credit stock as measured by the total social financial picked up in Q3 to 12.5% yoy from 11.9% in Q2. Based on our estimate this is the first time it rebounded since 2014Q4. The rising leverage in the economy imposes financial risks. The authorities are clearly aware of this, but decided to focus on the short-term growth concern in H2 2015.

Given the undesirable side effects of policy easing, we believe the government may switch to a neutral policy stance in Q4 2015 once growth shows signs of stabilization. We expect the effect of policy easing will run out of steam in H1 and growth will then face downward pressure again.

Labor market dynamics may drive the policy outlook

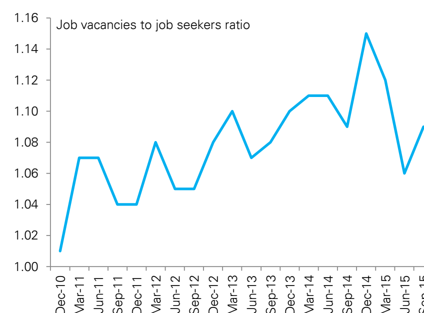
The key macro uncertainty in 2016 lies in the labor market. In spite of expectation of slower growth beyond Q1, the prospect of unemployment is unclear. The best indicator in the market about labor condition is the ratio of job vacancies to job seekers. This ratio dropped in H1 as growth slowed, which is intuitive as it suggested weak labor demand. But it surprisingly rebounded in Q3. Moreover the ratio has been above 1 for 20 consecutive quarters (Figure 3). This suggests the job market does not show signs of rising unemployment despite of the slower growth.

We understand why the labor market has been resilient, but we do not have full confidence it will stay so in 2016. The stable labor market reflects three factors. The labor force is shrinking, hence less pressure to supply side. The demand side has been boosted by a robust service sector which helps to absorb labor from the weak industrial sector. Moreover, the government managed to prevent large scale layoffs so far, despite the growth slowdown. This delays job destruction.

The labor market outlook is uncertain because the delayed job shedding may occur in 2016. The government started to send signals recently that it would tolerate more bankruptcy. Premier Li Keqiang mentioned the risk imposed by "zombie companies" on the economy in a State Council meeting in November. The lack of government intervention in the recent Shanshui cement bond default may also indicate the subtle change in government's thinking. The government recently mentioned the importance of managing the supply side of the economy, which suggests they may finally address the overcapacity problem more seriously.

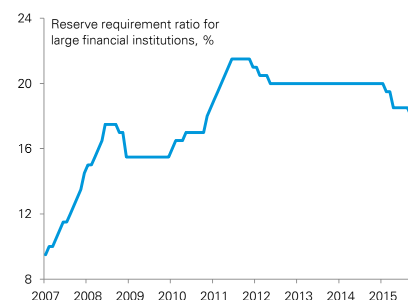
We believe it is the right policy to allow some "zombie companies" to go bankrupt. It will help improve the efficiency of the economy and avoid building up of bad loans down the road. The impact on labor market in the short term is difficult to forecast. We assume as a baseline case that there will be some signs of rising unemployment in the economy. In such a scenario we believe the government will respond by cutting interest rates twice in H2 2016, and expand fiscal spending.

Figure 2: Job vacancies to job seekers ratio



Source: WIND, Deutsche Bank

Figure 3: Reserve requirement ratio



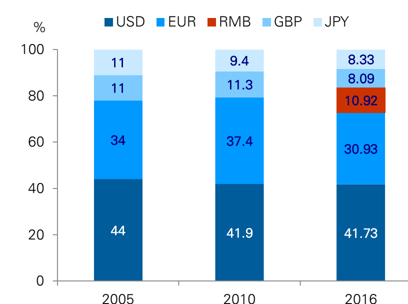
Source: PBoC, Deutsche Bank

There is room for policy easing in 2016, but with caveats

The government has the capacity to ease policies. On monetary front, the reserve requirement ratio is still quite high (Figure 4). We expect 4 RRR cuts in 2016. The one year deposit rate is currently at 1.5%. With inflation relatively low, the PBoC can cut the benchmark interest rates if downward pressure on growth intensifies. On the fiscal front, the total government debt is around 39.6% of GDP, not including the RMB8.6 trillion debt of local government financing vehicles, which has been recognized by the central government. This is lower than the level in major developed economies.

Further policy easing clearly has its costs. The leverage ratio of the economy will likely rise further and imposes higher financial risks. Loosening of monetary policy may delay the resolution of “zombie companies” and overcapacity problem further. The benefit of short-term growth stabilization will come with pains in the longer term, and the tradeoff is becoming increasingly unfavorable. There is room for easing in 2016, but this may come with a hefty price.

Figure 4: SDR basket



Source: IMF, Deutsche Bank

SDR inclusion is structurally positive

The SDR inclusion of the RMB on November 30 is a structurally positive development for China (Figure 5). The most significant macro implication is on reform outlook. The progress of structural reforms has been slow. There is doubt among investors about whether China is truly committed to market-oriented reforms. Such doubt heightened in the summer after what happened in the equity market. The SDR inclusion may work as a catalyst to boost the momentum of reforms in China. It indicates that the authorities are keen to integrate China's economy further with the global economy, which may help better align China’s domestic market operations with international best practices.

The size of capital inflows in the short term may not be high, as the SDR inclusion itself will only start effectively on Oct 1 2016. But China has opened its fixed income and foreign exchange markets to foreign central banks and sovereign wealth funds this year. We expect these institutions will start investing in 2016. Some argue that the market expectation of RMB depreciation may jeopardize the inflows. We do not think this is the key constraint, as central banks hold Euro and Yen assets despite these currencies also face depreciation expectation. In our minds, the key constraint is that the domestic market is not ready for foreign reserve managers yet. Infrastructure needs to be established, liquidity condition needs to improve, and rules need to be revised to facilitate trading. This will take time, but we have no doubt it is doable.

Figure 5: Selected economic indicators

	2014	2015F	2016F	2017F
Real GDP growth (%)	7.3	7.0	6.7	6.7
CPI inflation (%, avg.)	2.0	1.4	1.8	1.8
Current account balance (% of GDP)	2.1	3.3	2.8	2.5
USDCNY (eop)	6.2	6.4	7.0	7.0
Fiscal balance (% of GDP)	-1.8	-3.2	-3.5	-3.5
Government debt (% of GDP)	37.1	39.6	40.0	40.5
1-year deposit rate (%)	2.75	1.50	1.00	1.00
M2 growth (%)	12.2	13.6	12.7	12.4

Source: Deutsche Bank

How to think about tail risks in China

Investors and policy makers increasingly focus on the tail risks in China. But the conventional practice in the market is to forecast macro data under the most likely scenario only (the baseline). It does not quantify the tail risks explicitly.

In this note we lay out our forecasts on the "indicative" probabilities of all possible scenarios for GDP growth, exchange rate, interest rate, and inflation. The baseline forecasts are included as a special scenario.

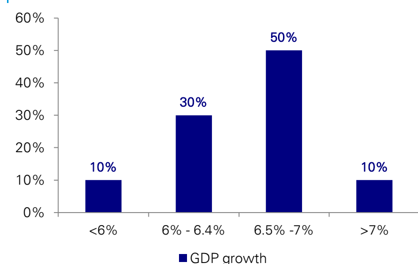
Our baseline forecast for GDP growth in 2016 remains 6.7%. We see 10% probability that GDP growth may be above 7% in 2016, 50% probability that it falls between 7% and 6.5%, 30% probability that it drops to the range of 6.4% and 6%, and 10% probability it falls below 6%. We see 20% probability the GDP growth to fall below 6% for four consecutive quarters sometime between 2017 and 2019.

We revise our baseline forecast for USDCNY market close rate to 7.0 by the end of 2016, a depreciation of 7.9% from its market close of 6.49 on December 31 2015. We see 10% probability that CNY appreciates or stay flat against USD by the end of 2016, 20% probability that it depreciates by less than 5%, 50% probability it depreciates by more than 5% and less than 10%, 20% probability that it depreciates more than 10%.

We expect two cuts of benchmark interest rates as our baseline case. We see 5% chance that there is no interest rate cut, 20% chance that there is one interest rate cut, 50% chance that there are two rate cuts, 15% chance there are three cuts, and 10% chance there are four or more cuts.

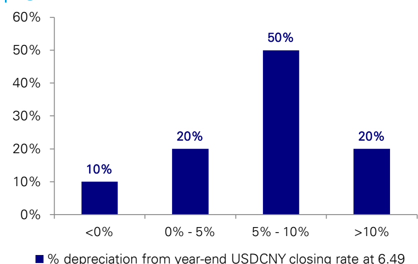
We also provide probability forecasts on CPI inflation. We emphasize these are "indicative" probabilities which to a large extent reflect our judgments. We discuss the key macro messages behind the probability forecasts in this report.

Probabilities of GDP growth in 2016



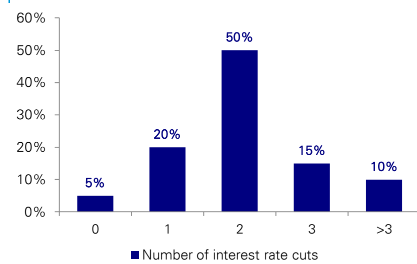
Source: Deutsche Bank estimates

Probabilities of CNY depreciation against USD in 2016



Source: Deutsche Bank estimates

Probabilities of interest rate cuts



Source: Deutsche Bank estimates

Why we need quantitative forecasts on tail risks

Both policy makers and investors increasingly care about risks in China. President Xi Jinping said on Oct 29 that "The next five years may be the period when risks in China continue to accumulate and even materialize… We must strengthen our capacity to monitor risks dynamically and provide warning signals in real time". He gave this speech in the fifth Plenum of Chinese Communist Party (CCP)'s 18th Congress, one of the most important meetings for CCP in 2015. His speech was released on Jan 1 in Qiushi, a government journal in China.

Many investors in the financial market may share the same view. There is a strong consensus in the market that China's economy faces more downside risks than upside. The downside risks have been widely discussed in the market and in the press. They include a rapid buildup of leverage, the excess capacity in many industries, the persistent deflation in producer price, the oversupply in the housing sector, etc. The issue of air pollution and the potential of policy mistakes also became topical in 2015.

The conventional approach to forecasting macro data focuses on the baseline, which is defined as the "most likely scenario". It is no longer adequate for investors. Prices for Chinese financial assets exhibited high volatility. Chinese stocks listed in Hong Kong are traded at low valuation despite of higher GDP growth in China. There is a clear disconnect between asset prices, which are sensitive to tail risks, and sell side GDP forecasts in China, which focuses exclusively on the baseline.

The conventional "baseline only" forecast is also misleading for policy makers. While they care about market expectation on China's economy, the macro forecasts in the market only focus on the baseline GDP growth, which is heavily influenced by the government's growth target. A complete story about market expectation should reflect investors' view about the tail risks.

Note that the tail risks and baseline forecasts can be positively correlated -- higher growth may incur higher risks, just like higher investment returns likely are associated with higher risks. We believe experienced investors care about the Sharpe ratio instead of just expected returns. In this sense, quantifying tail risks is critically important for policy makers.

One way to address this is to adopt a probabilistic approach to presenting our view on the risks more explicitly and quantitatively. Central banks and academic researchers have practiced a probabilistic approach to forecasting macro data for many years. In academia this is referred to as "density forecast". Many inflation-targeting central banks publish their "density forecasts" for inflation. There is a long list of academic literature on "density forecast", dating back to 1960s[1] (see survey by Tay and Wallis).

We launch a probabilistic approach to forecasting China in this report. In this approach we provide our view on the *indicative* probabilities across the full range of possible values of the macro variables we aim to forecast. To our knowledge this is the first time such an approach is practiced in China systematically on the sell side. We aim to forecast four key macro variables, namely GDP growth, CPI inflation, benchmark interest rates, and the renminbi exchange rate against the US dollar (onshore market closing rate).

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[1] See "Density forecasting: a survey" by Tay and Wallis, 2000, Journal of Forecasting Volume 19, Issue 4.

A probabilistic approach to forecasting China

Forecasts for growth, rates, inflation and CNY

The probability forecasts do not change our baseline forecasts. They include the baseline forecasts as a specific scenario. We lay out the forecasts as follow.

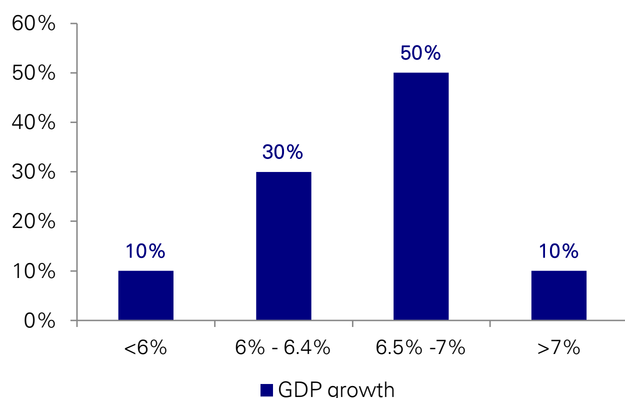
GDP forecasts:

- Baseline forecast. We continue to forecast 6.7% for 2016.
- Probability forecasts for 2016 (Figure 1). We see 10% probability that GDP growth may be above 7% in 2016, 50% probability that it falls between 7% and 6.5%, 30% probability that it drops to the range of 6.4% and 6%, and 10% probability it falls below 6%. We see 20% probability the GDP growth to fall below 6% for four consecutive quarters sometime between 2017 and 2019.
- Probability forecast for a sharp slowdown in 2017-2019. We see 20% probability the GDP growth to fall below 6% for four consecutive quarters sometime within the next three years.

Renminbi exchange rate forecasts:

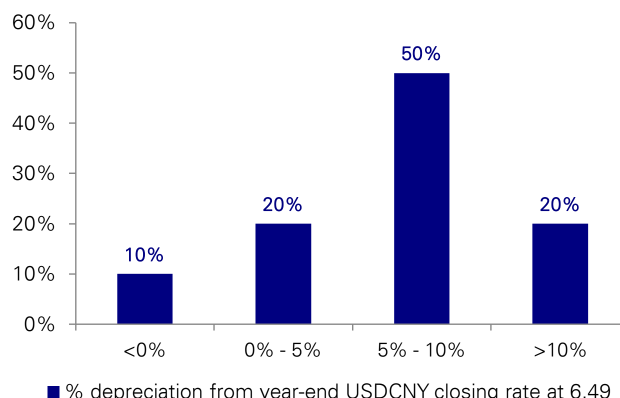
- Baseline forecast. We revise our forecast for USDCNY market close rate to 7.0 by the end of 2016 from 6.7. The revision partly reflects a slightly weaker CNY by the end of 2015 than we forecasted (actual: 6.49; DB forecast: 6.40).
- Probability forecasts for 2016 (Figure 2). We see 10% probability that CNY appreciates or stay flat against USD by the end of 2016, 20% probability that it depreciates by less than 5%, 50% probability it depreciates by more than 5% and less than 10%, 20% probability that it depreciates more than 10%.

Figure 1: Probability of GDP growth in 2016



Source: Deutsche Bank estimates

Figure 2: Probability of CNY depreciation against USD in 2016



Source: Deutsche Bank estimates

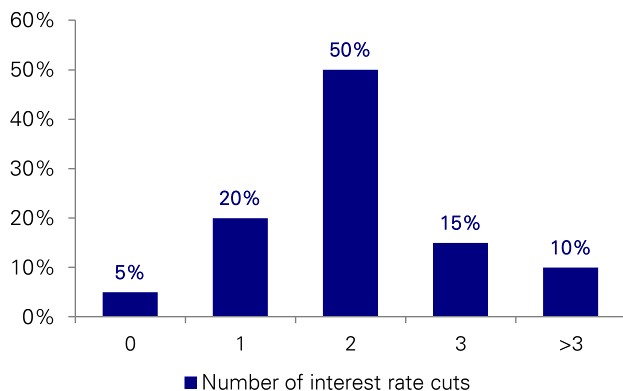
Interest rate forecasts:

- Baseline forecast. We expect two interest rate cuts in 2016.
- Probability forecasts for 2016 (Figure 3). We see 5% chance that there is no interest rate cut, 20% chance that there is one interest rate cut, 50% chance that there are two rate cuts, and 15% chance there are three cuts, and 10% chance there are four or more cuts.

CPI inflation forecasts:

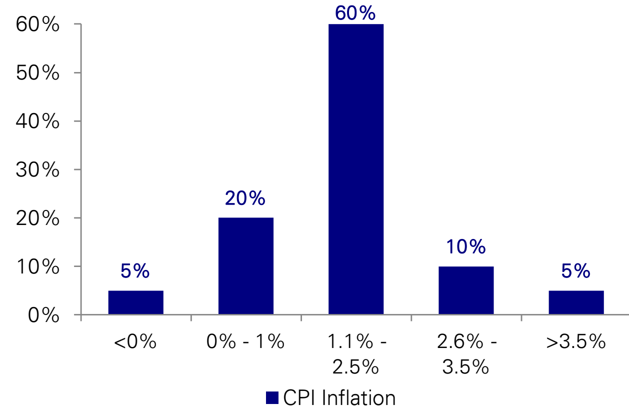
- Baseline forecast. We expect CPI inflation to be at 1.8%.
- Probability forecasts for 2016 (Figure 4). We see 5% probability that inflation drops below 0%, 20% probability it falls between 0 to 1%, 60% probability it falls between 1.1% to 2.5%, 10% probability it rises by 2.6% - 3.5%, and 5% probability it rises by more than 3.5%.

Figure 3: Probability of interest rate cuts in 2016



Source: Deutsche Bank estimates

Figure 4: Probability of CPI inflation in 2016



Source: Deutsche Bank estimates

Messages behind the forecasts

We try to convey the following messages through the probability forecasts above.

1. **We see risks that China's economy is tilted toward the downside.** We assign 40% probability that growth may drop below 6.5% in 2016, which implies the government may miss the growth target.

2. **We expect the risks will grow higher without a major change in policies**. We expect the probability of sub-6% growth to rise beyond 2016. This is based on the assumption that the progress of structural reforms remains sluggish, and the government continues to resort to a credit-driven approach to boost growth.

3. **We see risks to our policy outlook tilted toward more easing, both through interest rate cuts and through Renminbi depreciation**. This is natural as our growth forecasts are tilted to the downside. We do not provide explicit probability forecasts to M2 and bank loans, but we also see higher probability for these policy variables to surprise on the loose side as well.

4. **Inflation is not a major concern in 2016, which opens room for policy easing if necessary.**

Pros and cons of the probabilistic approach to forecasting

The obvious advantage of this approach is that it can address the downside risks explicitly and quantitatively. This is critically important in China. We hope our approach can help to connect GDP forecasts and asset prices. This is particularly useful when we sense the risks heightened or lessened. Note that we may revise the probabilities associated with our risks without changing the baseline growth forecast. This allows us to provide more timely information for investors, without twisting our baseline GDP forecasts frequently.

Another advantage of this "density forecast" approach is that it allows forecasters to tell a more subtle story. This is difficult to do with only a baseline case forecast. Consider the case if the government sets a growth target above market expectation and its potential growth. What should forecasters in the market do?

Under the "baseline only" approach, this imposes a dilemma. Revising up baseline forecast would send a misleading message to investors. Macro risks are already building up, and investors know it. The government's decision to keep growth target above its potential is like stepping on the gas when driving on a slippery road – it makes the car run faster, but also raises the chance of an accident. The baseline-only framework is a one-dimensional forecast which does not provide information on risks.

The "density forecast" framework is suitably designed to tell such a subtle story. A rational way to revise forecasts would be to raise GDP baseline forecast, push up the probability of sub-6% growth scenario in this year by maybe 5-10%, and hike the probability of sub-6% growth scenario for the next 3 years by 10-20%. Essentially the government decision is a tradeoff between short term gains and long term risks.

This "density forecast" approach is useful for policy makers. The discussion in the policy circle puts overwhelmingly high weight on the baseline growth outlook. For instance, some researchers in China debate intensively if China has the potential to grow by 8% a year till 2020. There is little discussion on the implication for downside risks associated with a high growth target. The government can arguably sustain growth in the short term by providing policy stimulus, but it obviously adds downside risks in the longer term.

This "density-forecast" approach also helps the communication between the government and the market. The government cares about market expectation on growth outlook when they consider growth target and policy options. The baseline-only approach feeds a misconception to the government that the market cares only about the baseline growth but not risks. If sell-side forecasts make it explicit that slower baseline growth in this year may be a good thing as it lowers downside risks in future years, the government may take such message.

One disadvantage of this approach is that the probabilities assigned to the tail risks are difficult to estimate. For instance, take the probability of sub-6% growth in 2016. China only has around 35 years of economic data that are useful for inference. For most of these years GDP growth stayed above 6%. Moreover, the structure of the economy changed significantly over these past years. Hence it is difficult to estimate precisely and quantitatively the probability of sub-6% growth, based on historical data.

Nonetheless, there are good reasons to consider such "fat tail" risks. Indeed the IMF staff forecast China's GDP growth to drop to 6.3% in 2016, which

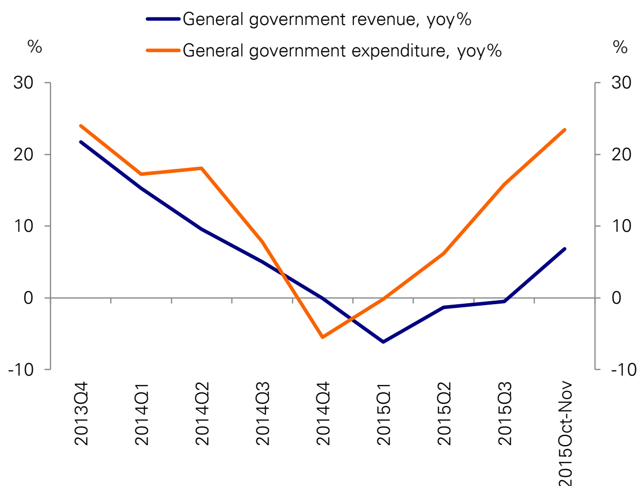
likely marks the first time in recent years where the IMF forecast is below the government target[2]. We believe the probability of sub-6% growth in 2016 is not trivial. In other words, it is difficult to argue if the chance is 10% or 15%, but we believe it is reasonable to argue that it is not less than 5%. We emphasize that these are "indicative probabilities". They may not be precise, but we hope they can be useful for investors.

Q&A on the "indicative" probabilities

Question 1: Why do you only assign 10% probability to the scenario of sub-6% growth in 2016? Isn't it too low?

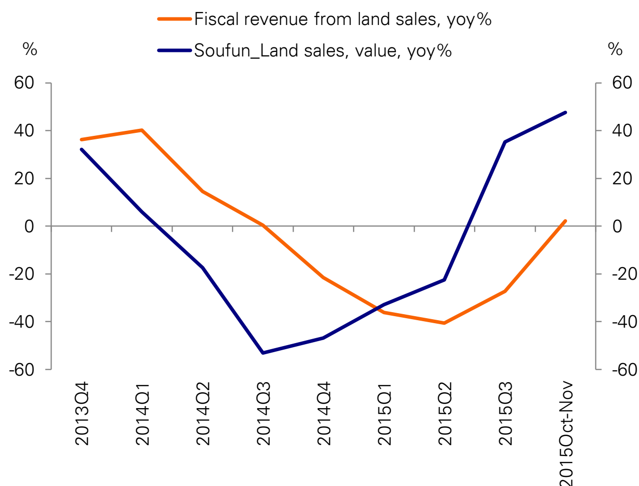
Answer 1: There are three reasons why we did not assign a higher probability. First, growth in H1 will likely be stable around 7% as the effect of policy easing in H2 2015 feeds through. In particular, total government revenue (including land sales) has picked up to 6.9% in Oct-Nov from -6.2% in Q1, -1.3% in Q2, and -0.5% in Q3 (Figure 5). This is primarily driven by a strong rebound of land sales revenue which grew by 2.2% in Oct-Nov compared to -40.6% in Q2 and -27.2% in Q3. As land auctions remained strong in Q4 (Figure 6), we expect land sales revenue will rebound further in H1, as the payment after auctions has a lag of 3-6 months (see our report The end of China's fiscal slide on October 8). If we are right that growth stabilizes around 7% in H1, it would take a huge drop of GDP growth in H2 to make the full year growth below 6%.

Figure 5: General government revenue and expenditure



Source: Deutsche Bank, WIND, MoF

Figure 6: Land sales auction vs. land sales revenue



Source: Deutsche Bank. CREIS, WIND, MoF

Second, there is room for policy to loosen and boost growth. The benchmark deposit rate is at 1.5%. The lending rate is at 4.35%. Inflation is not an issue. Fiscal deficit at central government level is around 3%. RRR is at 17.5%. The government can cut interest rates and RRR, and raise fiscal deficit. They can also loosen credit supply and boost quasi-fiscal spending through the policy banks as they did in 2015. There is no legislative constraint on their policies.

Third, there is high political pressure to achieve the growth target in 2016 and 2017. The Communist Party will go through a reshuffling of its leadership in

[2] The government has not announced the growth target for 2016. We believe the two likely choices are 7% and 6.5%. The target will be announced in the National People's Congress in March.

2017. Some of the senior leaders will retire due to age constraint. There is strong political incentive to keep growth stable ahead of such transition.

Question 2: Why do you believe it is possible at all to have growth below 6% in 2016? The 10% probability is too high.

Answer 2: Not all the risks can be expected and managed by the government. We list a few risks that are difficult to manage and may trigger surprises in growth.

- Pollution. The air pollution worsened in Q4. There is wide spread complaints in the general public. If the air pollution leads to epidemic, it may constrain the scope of potential policy easing.
- Policy mistakes. The economic and financial stress has reached a high level. This makes the economy highly dependent on the expansionary policies to sustain growth. It also makes the economy vulnerable to potential policy mistake. As an example the failure to control leverage in China's equity market in H1 2015 is arguably a policy mistake.
- Credit events. The rapid buildup of leverage in the corporate sector is alarming. So far defaults are rare, hence investors and banks continue to search for yield and lend to risky borrowers. But this practice cannot continue forever. Defaults will likely rise. It is hard to pinpoint a time, but when it happens it could trigger deleveraging in the corporate sector. Indeed the government has announced to address the problem of "zombie companies" in recent State Council meetings. This suggests the case of corporate default will probably rise in 2016.

Question 3: The GDP growth number is inconsistent with economic reality anyway. Why bother forecasting it? How big a deal is the sub-6% growth scenario?

Answer 3: We are fully aware of the divergence between the official data on GDP growth and other indicators such as electricity and sales by listed companies. Nonetheless we believe the sub-6% growth scenario is meaningful for analyzing the tail risks. Let's keep in mind that the Chinese authorities have decided to keep growth above 6.5% over the next five years. Sub-6% growth over 4 quarters means they miss the target by one year, which would be a serious issue. On a quarterly basis the last time China's GDP growth dropped below 6% was in 1991.

Also keep in mind that we are talking about a sustained slowdown. China had several episodes of sharp but brief slowdown – Q1 2009, Q1 2015(in nominal GDP terms), etc. But such episodes turned out to be rather brief as aggressive policy easing helped to stabilize the economy. A four-quarter-sub-6%-growth scenario implies either policy easing does not happen, or it happens but with little effects. In either case it is a quite worrying scenario.

Question 4: How do you come up with these probabilities?

Answer 4: As we emphasize on the front page of this note, these probabilities are "indicative". They convey our view on the baseline as well as the tail risks on both sides, quantitatively and explicitly. These probabilities are to a large extent based on our judgments, which come from our quantitative research in the past such as our project on the fiscal risks (see DB report China's unexpected fiscal slide, Jan 5 2015).

We'd prefer to rely on a statistical approach to come up the probabilities, but it is practically impossible due to lack of data. China's economy has been

growing above 6% for most of the past 40 years. Moreover, the problems China faces today are different from its challenges before 2008. We aim to provide more statistical underpinning to these probability forecasts down the road, as more data become available and we explore new methodologies.

Question 5: How do you know the probability of sub-6% growth in 2016 is 10%, rather than say 15%?

Answer 5: We don't. At this stage we cannot pin down the probabilities precisely. Instead these are "indicative" probabilities that reflect our judgment on risks to our forecasts. We have a strong view that sub-6% growth is a scenario that should not be ignored completely (say <5% probability). We also believe it is not a highly alarming risk scenario yet (say 30-40% probability).

Question 6: How to interpret these probabilities?

Answer 6: We think the probabilities are useful in two ways. The level itself conveys the message how likely we think each scenario is. The other, and probably more important, way is when we revise the probability forecasts. It sends a clear message. Looking back, the liquidity squeeze in 2013 and the buildup of leverage in the equity market in H1 2015 should have made us worry more about downside risks in the economy. The policy easing in H2 2015 should have made up less worried about growth in H1 2016, but worry more about growth beyond 2016. These events would have led to revision of the probabilities of sub-6% growth in these years and beyond.

Revise down the probability of large RMB devaluation

We initiated a probabilistic approach to forecast growth and USDCNY exchange rate on Jan 4 (see our report: How to think about tail risks in China). We thought there was a 20% probability that RMB may depreciate against the US dollar by more than 10% in 2016 (that is, USDCNY climbing above 7.14 by year end). We revise down this probability from 20% to 15%. We revise up the probability of 5-10% depreciation from 50% to 55%. There are four reasons for the revision.

First, the tail risk of large appreciation of the US dollar against Euro and the yen may have declined recently, as the market prices imply lower chance of Fed rate hikes. Assuming the PBoC is serious about the basket based exchange rate regime, this weakens the case of large devaluation of RMB against the US dollar.

Second, the political pressure may be building up in the global community against a large RMB depreciation. As our guest speaker David Dollar (former US Treasury representative in Beijing) pointed out in our Access China conference on Jan 12, China is actually gaining market share in global exports. It would be difficult for the global community to tolerate a sharp devaluation of the RMB. Indeed it was reported that the US Treasury Secretary had a phone call with a senior policy advisor, LIU He, over the weekend to discuss exchange rate issue. We think it is politically more difficult to devalue the RMB today than it was in December. For more discussion on China's export market share and its exchange rate, see our report *A New REER index for RMB* on Jan 5.

Third, the global financial market in turmoil makes a large devaluation of RMB potentially risky for Chinese and the global economy. So far the volatility in the financial market has not transmitted into the real economy as there is no sign of systemic risks. But a large devaluation is on investors mind as a potential risk. It could lead to more panic and capital outflows from China (including Hong Kong). It is better off from policy perspective to stabilize the market expectation at this environment.

Fourth, the PBoC decided over last weekend to impose RRR on interbank deposits related to offshore RMB. This decision is potentially damaging to the CNH market and the internationalization progress of Renminbi, at least in the short term. The PBoC is aware of this side effect. Nonetheless they implemented such policy. This reveals they are concerned about the potential systemic risks from destabilized expectation in the FX market, hence they chose to take effective actions to stabilize the market, despite undesirable side effects.

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Equity Strategy

*We see an **N-shaped roadmap with front-loaded returns** in 1H16. We recommend starting 2016 with OW financials, industrials and IT, and suggest building core holdings in new-economy stocks and do tactical trades in old-economy plays.*

Valuation no longer looks compelling

1. 2015 review

H-shares (MSCI China) lost 12% in 2015, due to a 6% contraction in 12m forward P/E and a 6% cut in 12m forward EPS, lagging A-shares, Japan, Russia, Europe and Korea, etc., but outperforming EM. Sector wise, **IT and transportation outperformed**, while energy, brokers and materials lagged.

2. 1H16 cyclical recovery

We expect the Chinese economy to stage **a cyclical recovery in 1H16**, based on the **1)** increasingly expansionary fiscal policy, **2)** recovering property investment, **3)** accelerating credit creation, and **4)** well-destocked industrial inventory. Also, according to our study on the five cycles in China, namely policy, liquidity, credit, equity and economy cycles, we expect **more loosening monetary, fiscal and property policies** until a cyclical recovery is more visible.

3. 2H16 structural reform

We think a modest growth improvement in 1H16 may be needed to allow policymakers to implement more growth-negative structural reforms in 2H16 without incurring any systemic risk. We think the reform implementation agenda may focus on **1) restructuring the old economy** through supply-side initiatives, including phasing out overcapacity, deepening SOE reform, destocking property inventory and encouraging private capital investment, and **2) boosting the new economy** further to build more sustainable demand growth engines, including consumption/services and industrial upgrades ("China Manufacturing 2025" and "Internet+ Strategy").

4. Earnings forecasts

We expect **MSCI China's earnings growth to dip to -3.5% in 2015**, due to a significant drag from upstream sectors, and we look forward to more evidence of improving operating cash flow, slowing capex and financial deleveraging as a response to softening aggregate demand. **We forecast 4%/6% earnings growth in 2016/17 for the index**, due to a modest pick-up in sales growth and profit margins, implying further downward revisions in current consensus.

5. Liquidity conditions

Our economists expect a gradual Fed rate hike. **Global financial conditions may remain benign in 1H16**, thanks to continued asset purchases by the ECB and BoJ, with a move towards the tightening end later in 2016. Domestically, we expect **an extended loosening bias by the PBoC** to maintain low onshore market rates. Our economists forecast two benchmark interest rate cuts and four RRR cuts in 2016, and see USD/CNY to depreciate modestly to 6.7 by end-2016. With regard to market liquidity, **China's financial integration** into the world should continue, with more cross-border channels encouraging two-way fund flows. We will watch closely RMB SDR inclusion, SZ-HK Stock Connect, QDII2, Mutual Recognition of Funds, MSCI inclusion, etc.

6. Market outlook

We believe **China's economy has been in the "New Normal" phase since 2012** and that we may continue to see cyclical recoveries amid the structural slowdown. Studying the past five market cycles, we find that, on average, rising episodes last two quarters, with a 32% valuation expansion from bottom to peak. Combining this market pattern with our macro, earnings and liquidity outlook, we expect **an N-shaped 2016 in Chinese equities, with front-loaded returns:** the MSCI China and the HSCEI could climb up as high as 71 and 11,600, respectively, in 1H16, gaining 23% from current levels, but by end-2016, the two indices could moderate to 64 and 10,000, respectively, implying a 10% full-year return for 2016.

7. Pendulum investment strategy

To gain from Chinese equities under the "New Normal", we suggest investors adopt a pendulum-type investment strategy, and focus on **1) building core holdings in new economy stocks** to gain from secular earnings growth, relying on bottom-up analysis on business models, competitive landscape, new product development etc., and **2) doing tactical trades in old economy names** to benefit from policy responses/intervention, according to top-down analysis on policy, liquidity, valuations, leading economic indicators etc. For the latter strategy, we believe it is important to **climb the wall of worry** and add cyclical exposure well before a crystal-clear economy recovery.

8. Sectors and stocks

We suggest starting 2016 with a cyclical tilt in portfolio construction, and recommend an **overweight position in financials, industrials and IT**, while underweighting telecoms, energy and consumer staples; we propose market-weighting consumer discretionary, utilities, healthcare and materials. Accordingly, we introduce our **2016 top-10 pick portfolio** with four core holdings in new economy sectors and six financial/cyclical positions. In the event that policymakers signal a shift in stance to pro-reform, we may reduce cyclical positions and add more new economy and defensive exposure.

9. Thematic ideas

We highlight four thematic screening ideas, including **1)** preferred new economy plays, **2)** MSCI inclusion beneficiaries, **3)** high dividend-yield plays, and **4)** names sensitive to RMB movements.

10. Risks

Key downside risks include 1) stronger-than-expected DM inflationary pressure, inducing tighter-than-expected global liquidity conditions, 2) an unexpected financial crisis break-out in a sizable EM economy, 3) the PBoC deciding to allow sizable (>10%) RMB depreciation, 4) a stronger- and wider-than-expected credit default in China, 5) geopolitical risks, including European political risks, the war in Syria, tensions with Russia, etc.

Key upside risks involve 1) stronger-than-expected DM demand recovery and productivity gains; 2) lower-than-expected inflation and looser-than-expected DM central bank monetary policy, 3) stronger-than-expected new economy growth in China.

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Fixed Income Strategy

The PBoC has stepped up liquidity operations this week with the objective of meeting short term liquidity ahead of the Chinese New Year and medium term liquidity demand as a result of capital outflows in the past two months. Rather than cutting RRR, the PBoC preferred to use targeted liquidity tools in order to keep money market rates stable while maintain flexibility in its liquidity operation in terms of tenor, targeted lending policies and interest rate guidance. Following about RMB1.4trn liquidity injection this week, we expect an additional RMB400bn medium term liquidity injection over the next one to two weeks to stabilize liquidity condition. We prefer to trade the CNY rates ranges with a long bias and think the recent correction in bond yields and rates may present an opportunity to add duration.

Further liquidity boost needed

PBoC uses MLFs, PSLs instead of RRR cuts to manage liquidity stability for now

In its meeting with commercial banks on the 19th, the PBoC decided to accommodate interbank liquidity demand according to the following steps:

a. to use reverse repo operations in the open market to meet short term liquidity demand during the Chinese New Year;

b. to supply about RMB600bn medium term liquidity via MLF (Medium term Liquidity Facility), SLF (Standing Liquidity Facility), and PSL (Pledged Supplementary Lending). (i) offer MLFs to financial institutions and cut the 3M MLF rates by 75bps (from last May) to 2.75%; (ii) to meet liquidity demand by qualified medium to small financial institutions via PSLs and the relending tool.

Since last week, the PBoC has stepped up its liquidity operations using various liquidity tools as listed in the table below:

Figure 1: Summary of PBoC liquidity operations

Date	Short term liquidity tools	Amount RMB bn
18-Jan	3D SLO	55
19-Jan	7D Rev repo	80
19-Jan	28D Rev repo	75
20-Jan	6D SLO	150
21-Jan	7D Rev repo	110
21-Jan	28D Rev repo	290
	Net injection of short term liquidity	465
Date	Medium term liquidity tools	Amount RMB bn
15-Jan	6M MLF	100
19-Jan	3M SLF	328
19-Jan	1Y SLF	82
21-Jan	3M SLF	117.5
21-Jan	6M MLF	117.5
21-Jan	1Y MLF	117.5
Net injection of medium term liquidity		862.5
Date		Amount RMB bn
19-Jan	9M Treasury cash depo	80
Net injection of medium term liquidity		80
Total net injection		1407.5

Source: Deutsche Bank, PBoC

These actions indicate that the central bank is executing liquidity operations according to the above plan and we believe the policy implications are:

1. Reducing the risk of liquidity squeeze around the Chinese New Year. With the Lunar New Year approaching and corporate tax payments, interbank liquidity demand usually pushes up money market rates. Recall in 2015, the money market rates moved up by about 120bps from its monthly average around the Lunar New Year. Following the experiment with the short term interest rate corridor last year, we think this year the central bank seems to have taken a more proactive stance in addressing liquidity risk ahead of the New Year. The PBoC has net supplied about RMB465bn short term liquidity this week and we expect about RMB400-500bn net short term liquidity supply in the coming weeks to ensure stable liquidity;

2. Using MLFs to substitute partially RRR cuts but we feel the market needs another RMB400bn medium term liquidity injection either via MLFs/PSLs or a 50bp cut in RRR. Given the RMB630bn reduction in FX purchases balance in December and the volatilities in the RMB exchange rate market in January, we estimate the PBoC may need to cut RRR by 100bps this month to replenish domestic liquidity. As the PBoC now seems to favor using the MLFs/PSLs/relending to supply medium term liquidity (the 75bps cut is in line with the policy rate cuts since May last year) with about RMB942bn injection done this week, we think it has to increase the amount of medium term liquidity injection by about RMB400bn, otherwise it is still necessary to cut RRR by 50bps to prevent interbank liquidity from tightening.

Combining liquidity operations with RRR cuts may be more effective in stabilizing bond market funding costs. Money market rates rose this week and the selling pressure on cash bonds in the past few trading sessions reflects both liquidity tightening and the market's disappointment over the delay in RRR cuts. While the MLFs and PSLs would allow the central bank to not only guide 3M and longer market interest rates but to maintain flexibility in liquidity injection in terms of tenor, targeted lending policies etc, for financial institutions, RRR cuts are obviously more cost efficient and of longer term. For this reason and given supply pressure in the bond market this year, we think further selling on cash bonds may tip the balance towards using a combination of MLFs/PSLs and RRR cuts in order to stabilize money market rates as well as bond market funding costs.

We prefer to trade the CNY rates ranges with a long bias and think the recent correction in bond yields and rates may present an opportunity to add duration. We reiterate our call to receive 5Y NDIRS at or above 2.8% and buy 10Y CGBs at or above 3.2%.

Market implications of the reserve requirement on the offshore RMB deposits

Offshore RMB deposits will be subject to reserve requirement from January 25th

On January 18th, the PBoC announced that effective from January 25th, onshore RMB deposits by offshore financial institutions will be subject to the reserve requirement. The PBoC has not clarified what RRR level will apply and we think offshore RMB participating banks are most likely to be considered large commercial banks, in which case the 17% RRR will apply and offshore RMB Clearing Banks are likely to apply an RRR of 15%. Such required reserve will be paid the standard interest rate on required reserves at 1.62% currently. Foreign reserve managers, foreign central bank and sovereign wealth funds are excluded from offshore financial institutions for the reserve requirement regulations.

We think there are five key market implications from this new regulation:

1. Imposing the standard reserve requirement on onshore RMB deposits by offshore RMB institutions is aiming to realign the reserve regulation between the onshore and offshore RMB market, which in our view is a major refinement to the RMB monetary policy and macro prudential regulation, and is fundamental in supporting the health growth in the offshore RMB market and developing RMB assets as a gradually maturing global asset class. Prior to this change, the reserve requirement for RMB deposits by offshore financial institutions was set at 0% temporarily due to technical reasons, however, the large gap in reserve requirement relative to onshore financial institutions on onshore RMB deposits (17% currently) had resulted in several market inefficiencies. First, assuming onshore and offshore funding costs and the lending margins (say 3%) are the same, such regulatory differences between the onshore and offshore RMB markets implies that offshore RMB lending rates are at least 110bps cheaper than the onshore RMB lending rates. As such, all else being equal, the offshore RMB lending impulse is naturally higher than the onshore market, which explains the strong growth of RMB cross border lending by offshore RMB financial institutions in the past few years, although such lending has slowed down since late 2014 as onshore monetary condition was relaxed. Secondly, regulatory differences caused offshore RMB deposits competition between RMB deposits placed with the Mainland Correspondent Banks (MCBs) and those with the RMB Clearing Banks. Without reserve requirement, MCBs can offer higher deposit rates (about 100-150bps higher) to attract offshore RMB deposits, than RMB Clearing Banks which were paid about 72bps per annum from the PBoC. We believe the reserve regulatory differences in the past have not only contributed to the growth in speculative demand for RMB deposits and assets, but more importantly, to the basis risk to persist between onshore and offshore RMB pricing.

Now by realigning the reserve regulation on RMB deposits by both onshore and offshore financial institutions, we think it will reduce the inefficiencies in the RMB market structure and narrow the basis between the onshore and offshore RMB pricing.

2. Understanding the near term and long term liquidity impact. We consider the following factors to understand the liquidity impact from the reserve requirement payment.

(a) The actual immediate payment due is much less than the market feared. We believe the base for RRR payment calculation is the onshore RMB deposits by offshore RMB financial institutions as of the end of 2015. Currently almost all RMB deposits by offshore financial institutions are deposited either via RMB clearing banks or Mainland Correspondent Banks onshore. We estimate total offshore RMB deposit base is roughly RMB1.5trn, and applying 15-17% reserve ratio, the RRR payment amounts to RMB240bn. However, considering the asset allocation by offshore financial institutions, we believe about two thirds of the RMB deposits have been invested either in RMB bonds or in RMB loans (onshore or offshore), and such assets have been absorbed to the onshore monetary system and for which the standard reserve requirement has been applied. We estimate the remaining RMB liquidity in the form of onshore RMB deposits (by offshore financial institutions) is likely to be about RMB500-600bn, and the immediate reserve payment due is about RMB80-100bn. In other words, about RMB140-160bn required reserve has been paid by onshore financial institutions.

(b). We believe the immediate liquidity impact on both the offshore RMB market and onshore market is very limited. As offshore RMB deposits are already in the onshore monetary system, and the RRR payment will be out of the onshore RMB deposits pool, offshore financial institutions most likely do not need to make RMB repatriation to the onshore market to meet the reserve requirement. Even considering a small portion of the onshore deposits are term deposits (low liquidity), given the fact that offshore RMB deposit rates (about 4%) are higher than the onshore rates (interest rates on short term wealth management product is about 2.7%), many offshore institutions have started to move onshore cash to the offshore market since early this month to manage the offshore RMB market liquidity.

As for the onshore market, given the flush liquidity condition, we believe the RMB80-100bn reserve payment will not tighten onshore liquidity in any meaningful way.
(c) However, the main medium to long uncertainties of imposing RRR on onshore RMB deposits by offshore financial institutions is the intraday liquidity risk in the offshore RMB market. First, after the RRR payment, about 15-17% of onshore RMB deposits by offshore financial institutions will be frozen by the central bank, this implies there is less liquidity (relative to the case of no RRR requirement) to carry out offshore RMB business. Secondly, we understand the central bank is more likely to evaluate the reserve requirement compliance on a quarterly basis based the deposit balances at the start of each quarter, and the reserve payment is only adjusted quarterly. However, on a daily basis, fluctuation in onshore RMB deposit balances would imply RRR refund or additional RRR payment, and combining with cash transactions as a result of cross border settlement and clearing, there is a need to deliver or receive RMB by each bank. Considering overall offshore RMB liquidity pool has shrunk by about 30% from its peak last year, and the likely pickup in RMB cross border activities for trade settlement and investment settlement, it is highly likely that some offshore banks may suffer from RMB cash shortage as their RRR refund will lag their RMB cash deliverable demand for cross border transactions. As a consequence, we expect increasing demand for offshore RMB interbank funding (cash or FX swap based), and higher volatility of offshore RMB liquidity as well as rising basis risk vs. the onshore RMB interest rate market.

3. Uncertainties with intraday offshore RMB market funding going forward will dampen demand for offshore RMB bonds. In the near-term, given most cash is paid onshore, the RRR payment does not have much impact on the offshore RMB bond market. Also given the offshore RMB bond yields are higher than onshore yield, for example, the offshore 5Y CGB yield is 4% vs. onshore 5Y CGB at 2.8%, and of poor secondary market liquidity in the offshore bond market, it is unlikely that offshore RMB bonds will sell off to make the cash payment. But the risk of intraday liquidity going forward may force offshore financial institutions to prepare for a stronger cash RMB liquidity buffer, which may reduce their investment in offshore RMB bonds with low secondary market liquidity. Moreover, offshore RMB bond market (tracked by S&P DB Offshore RMB Bond Market Index) has sold off by 100bps to 5.8% (average yield in the offshore RMB bond market) following the offshore RMB liquidity squeeze since December and the bond market will price in more funding risk premium going forward.

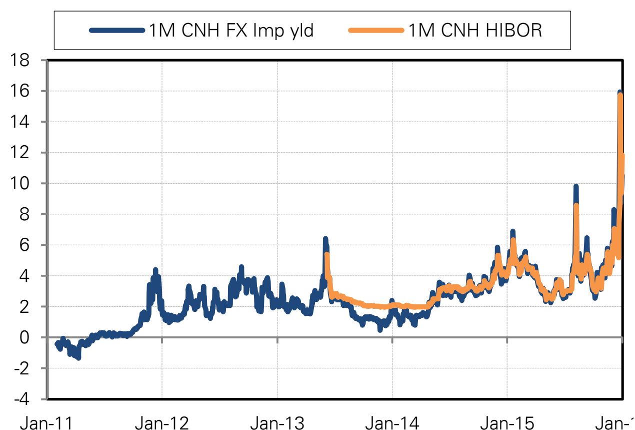
4. Policy outlook: We believe the RRR regulation change is the first step in realigning onshore and offshore RMB market regulation, and the next step in our view will be to open up onshore liquidity channels to help offshore financial institutions to manage their offshore RMB liquidity risk. We have argued in the past that the structural weakness in the offshore RMB market is the lack of central bank RMB liquidity access by offshore financial institutions. Now both onshore and offshore financial institutions are subject to the RRR regulations on their onshore RMB deposits, we expect offshore financial institutions would be granted the same liquidity access (open market operations, various central bank liquidity tools and interbank repo funding and interbank uncollateralized funding etc) as onshore financial institutions at a later stage. Opening up the RMB cross border liquidity channels will drive the onshore and offshore RMB market pricing towards an eventual convergence when RMB is fully convertible, and fully realigning the RMB deposit regulation will help develop the offshore RMB market into a sustainable market which is complementary to the onshore RMB market in facilitating RMB investment and financing activities.

5. In our view, the new reserve requirement will have two main impacts on the offshore RMB interest rates. First, MCBs may cut interest rates on offshore RMB time deposits. We estimate the RRR charge will imply on average about 40bps opportunity costs for onshore MCBs, which will translate into lower offshore RMB time deposit rates (from 4% to 3.6%) that they can offer to offshore financial institutions. Secondly, new reserve requirement implies higher floor on the offshore RMB money market rates (Nostra accounts).

Currently offshore RMB deposits at the RMB Clearing Bank in Hong Kong earn 72bps from the PBoC, and with the required reserve likely to earn 1.62% (needs further clarification by the PBoC), we think the floor of offshore RMB money market rate is up by 14bps to 0.86%.

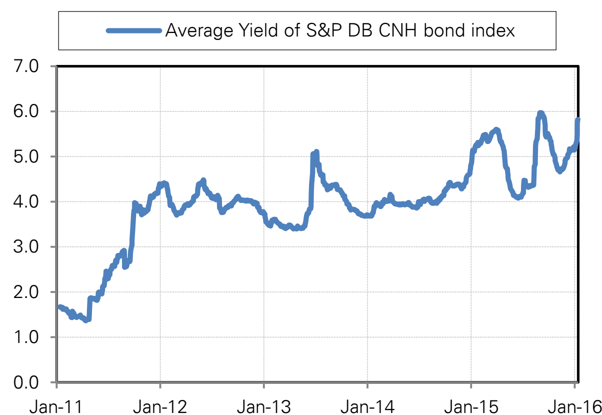
In conclusion, although we think the near term liquidity impact on the new reserve requirement regulation is limited, the medium to long term uncertainties of intraday liquidity in the offshore RMB market may increase volatilities in the offshore RMB funding and the basis risk may rise, which will dampen bond market demand. We estimate the offshore term deposit rates may drop by 40bps and the floor of offshore RMB deposit may be lifted by 14bps following this regulatory change. We believe imposing the reserve requirement on the onshore RMB deposits by the offshore financial institutions serves as the first step towards realigning the regulatory environment in the onshore and offshore RMB market, and we expect further relaxation of onshore interbank market access by offshore financial institutions which will both support the growth of offshore RMB market and drive the convergence trend between the onshore and offshore RMB pricing over the medium to long term.

Figure 2: The offshore RMB funding squeeze (%)



Source: Deutsche Bank, Bloomberg Finance LP

Figure 3: Offshore bond market sold off (%)



Source: Deutsche Bank, Bloomberg Finance LP

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Foreign Exchange Strategy

RMB weakness is not over yet. We see three reasons why it should continue; 1) further unwind of carry-sensitive trades, driven by widening interest rate differentials; 2) hedging of FX liabilities due to poor underlying fundamentals and rising credit risk; and 3) higher tolerance for currency depreciation by the Chinese authorities. They would result not only in a higher USD/RMB but also inevitably higher vol. We see value in buying USD/CNH call spreads. We are also buyers of USD/TWD as a relatively cheap proxy for RMB.

The structural changes underway in the Chinese economy will have profound implications for Asia and rest of the world. And, not necessarily all bad. To be sure, given that policy in the region is increasingly driven by China, it will be a key source of uncertainty this year. And China will likely cannibalize more capital flows to the region as well. But it's rebalancing will also benefit its neighbors in some ways, including, for example, through more tourism, investment and capital exports.

RMB weakness in not over

The latest round of FX reforms from the Chinese authorities has had two key features: (1) a change to the USD/CNY fixing methodology in August, with an intent to align the spot and fix rates (although this resulted in CNY devaluation); and 2) introduction of a CNY effective exchange rate basket (in December) to shift market perception of FX management from bilateral USD/CNY to a trade-weighted focus. Although these are positive steps towards making CNY a more international and market-driven currency in the medium term, the short-term consequence we feel is a weaker RMB accompanied by higher volatility.

One, with China encouraging the market to shift its focus to a trade-weighted basket of currencies, the authorities are sending a clear message that should USD strengthen against its trade-partner currencies, they would be willing to accommodate USD strength against CNY as well, and the same should not be seen as a devaluation tactic. In other words, CNY weakness against the USD can/will be tolerated as long as CNY vs. the basket is "basically stable". Recent price action (see chart) supports this thesis. We believe USD/CNY has potential to reach 7.0 this year without the authorities getting overly concerned. Using DB's 2016 global FX forecasts, the CNY CFETS index would remain ~100 even if USD/CNY reached 7 by the end of the year, as China's trade partner currencies are likely to weaken even more.

Two, given the various challenges of rebalancing the economy, the Chinese policymakers, we feel, are shifting priority to growth as against currency stability. In 2015, the authorities undertook monetary and fiscal easing, while attempting simultaneously to keep USD/CNY stable through intervention and various macro-prudential measures. It's a tenuous strategy, as China came face-to-face with an impossible trinity - monetary easing and a gradual opening of the capital account were in direct conflict with its desire to keep USD/CNY stable. As the focus shifts to stabilizing growth, the authorities are likely to ease monetary policy more actively, even at the expense of a weaker currency. DB Economics expects the Fed to hike rates by 75bp this year, versus 50bp of cuts by the PBoC.

This large policy divergence will put further upward pressure on USD/CNY, as narrowing rate differentials encourage carry-seeking trades to unwind and

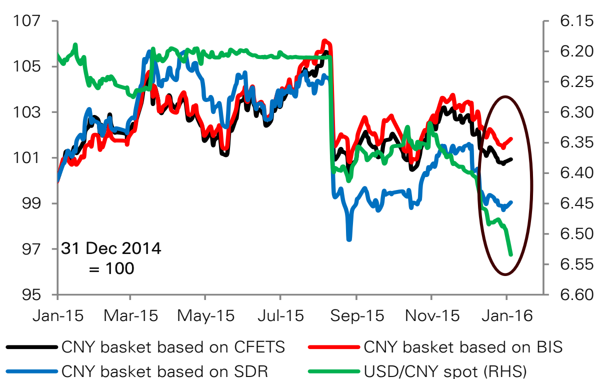
support onshore repayment and refinancing of USD liabilities. A simple historical relationship would suggest that for every 100bp of narrowing in rate differentials, USD/CNY tends to move higher by 30 big figures.

Finally, FX outflows will likely persist and remain an important driver of RMB weakness this year. In 2015, China recorded about $700bn of FX outflows despite having a sizeable current account surplus. In 2016, we believe this will be repeated, considering: 1) growth headwinds are unlikely to dissipate; and 2) corporate are likely to continue to unwind FX liabilities. Extrapolating the latest total foreign claims reported by BIS (through June 2015), we estimate the total amount of FX claims at around $800bn as of end-2015. During the Asian Financial Crisis in 1997/8, the FX liabilities of Hong Kong, which has a pegged FX regime, fell ~30% while those of Korea, which has a flexible FX regime, fell ~55%. Assuming China stays with a managed rate of depreciation, this would suggest ~$300bn of FX liabilities could still need to be delevered. This is only marginally smaller than the current account forecast of $314bn from DB Economics. And there are other possible outflows to consider, like: 1) increased desire for domestic investors to buy more offshore assets, evident in an increase in services deficits; and 2) further unwind of carry trades, evident in China's widened E&O deficit over the past two years. Put together, we expect outflows to continue to overwhelm inflows, putting upside pressure on USD/CNY.

We see risk of RMB weakness being front-loaded in first half of the year, because 1) current account surpluses tend to be smaller in 1H vs. 2H; 2) seasonal economic data tends to be weaker in the first half; 3) expectations that the Fed will hike more actively in 1H (two 25-bp hikes) while the PBoC could cut more actively; and 4) ahead of CNY's official entry into the IMF's SDR basket on 1 October.

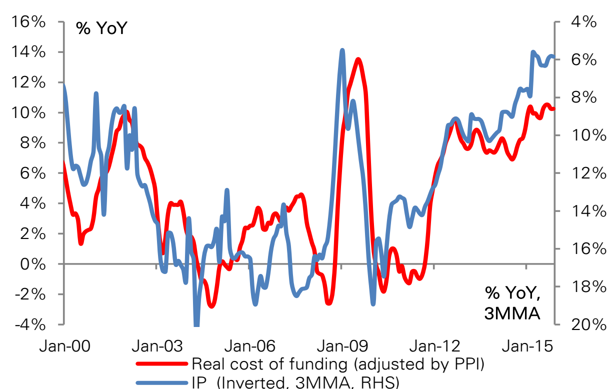
We favor buying 6M USD/CNY 6.85/7.15 call spreads to express our view that RMB weakness is not yet over. We also see value in buying USD/TWD as a proxy trade to CNY, given the close economic links between the two economies and the high beta exhibited by TWD to CNY.

Figure 1: CNY depreciation against the USD will likely be accommodated as long as CNY is stable vs. the basket



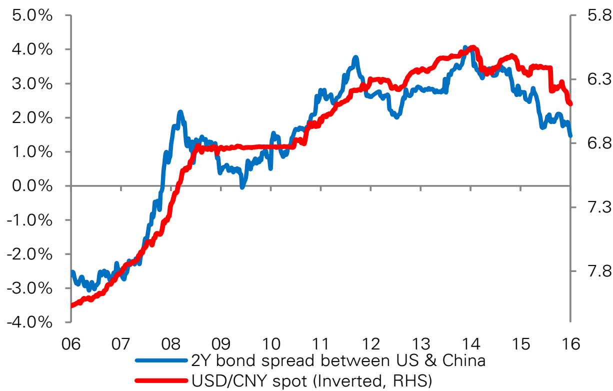
Source: Deutsche Bank, IMF

Figure 2: The real cost of funding in China remains too high and policy easing has not been quite as effective



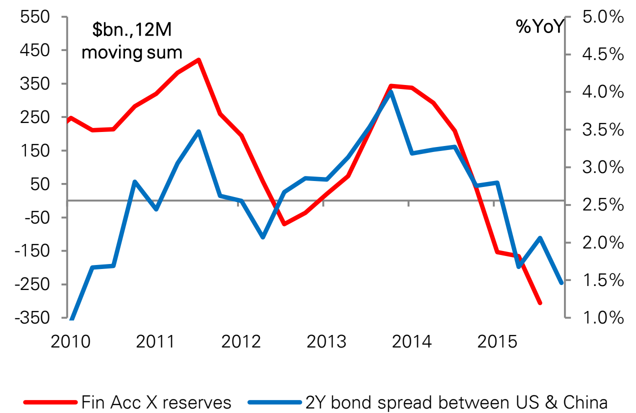
Source: Deutsche Bank, BIS

Figure 3: Narrowing in US-China rate spreads will add to upside pressure on USD/CNY



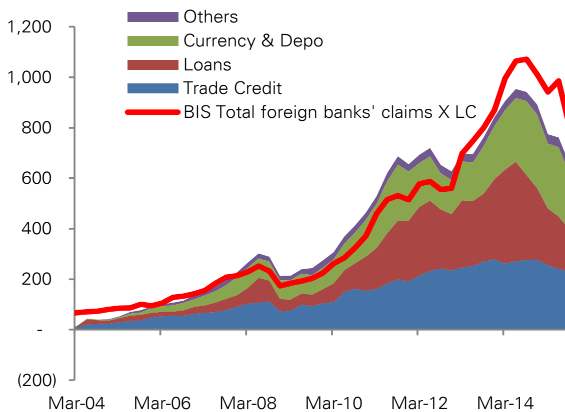
Source: Deutsche Bank, IMF

Figure 4: …by encouraging more capital outflows



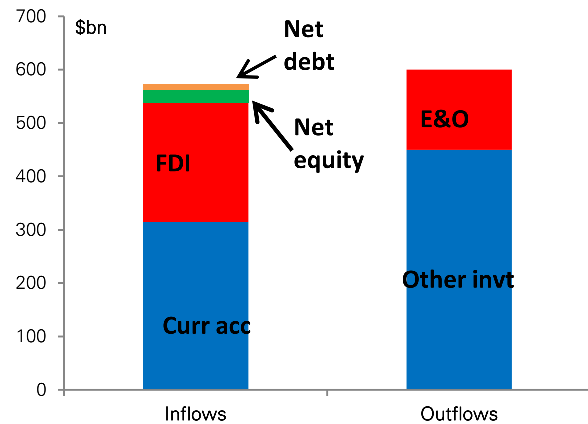
Source: Deutsche Bank, BIS

Figure 5: FX liabilities in China are declining but remain large and further adjustments are still likely



Source: Deutsche Bank, IMF

Figure 6: Outflows from China should still be large enough in 2016 to recycle sizeable inflows



Source: Deutsche Bank, BIS

Impact of RMB volatility on Asia

2016 will be the year China exerts a more pronounced gravitational pull on global markets, and particularly Asia. The sheer size of China's economy, its appetite for commodities, and its influence over global supply chains increasingly mean that changes in RMB outlook in particular would be key for rest of the region.

First, the beta between RMB and Asian FX is likely to likely to remain high, and possibly increase further. Already, since the shift in the currency regime in August 2015, and further loosening of controls, Asian FX beta to RMB has picked up notably (see chart). This trend could possibly magnify in 2016. For the first time since 1994, the RMB is likely to depreciate more notably. Our baseline is for USD/CNY to test the 7 handle, implying ~8% depreciation. Such

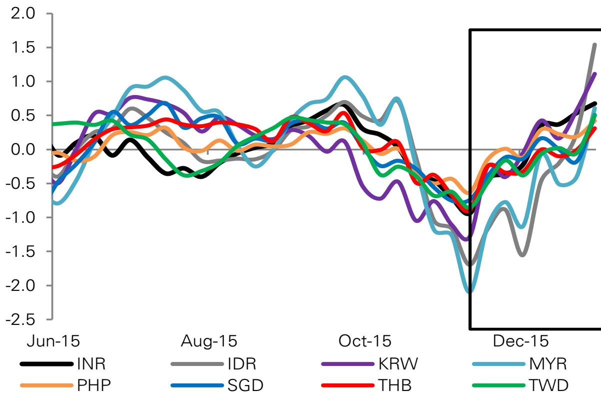
a move will likely not only influence Asia FX beta to the RMB, but should also make the RMB the most important source of volatility for global markets. Note that the ongoing widening in CNH-CNY spot basis has increasingly become a lead indicator for global volatility conditions (see chart). With the basis remaining elevated and rising, global implied volatility is likely to trend higher.

Second, in a change from the past, we see Asia's monetary and currency policy outlook increasingly gravitating toward China rather than just the US. Looking back at the last Fed hike cycle in 2004, Asian currencies were able to strengthen against the USD soon after the first Fed hike because the Asia business cycle at that time was more in sync with the US. In fact, EM Asia growth was stronger than overall developed market growth back then (see chart), given that the US, which was the key source of demand for Asian products, was growing strongly. This provided room for Asian policy makers to raise policy rates in tune with the Fed, attracting capital flows and helping support Asian currencies and equity markets. This is not the case this time around. Following the global financial crisis in 2008/09, EM Asia has increasingly relied on China as a key source of growth. This is particularly true for Korea and Taiwan, for which China is the largest trading partner. With China struggling for now with the concurrent pains of structural reforms and cyclical headwinds, it is dragging lower with it EM Asia's business cycle too, particular via the export linkages. The resultant disinflationary pressures effectively force policymakers in the region to align their macro policy with that of China rather than the US. Singapore, Taiwan and Korea are maybe the more significant examples of where policy makers are likely to be more inclined to loosen policy in the face of ongoing easing by the PBoC.

Third, as China opens up access to its domestic financial markets, it will likely cannibalize some of the portfolio flows directed towards rest of Asia, and in particular given its inevitable inclusion into various global equity and debt benchmarks. We estimate that foreigners currently own around 2% of China's capital market, ~$120bn of the $4tr bond market (as of September) and $83bn of the $8tr equity market. This is far lower than China's EM Asia peers, and suggests that there is significant room for global investors to own more China assets. According to the MSCI, a full inclusion of China A-shares could increase its weight in the MSCI EM to ~43% (see chart). This would mean ~$450bn of portfolio inflows into China with FTSE's full inclusion leading to an additional $120bn. The biggest losers would be Taiwan and Korea. Similarly, as China progresses with its capital account liberalization, it is likely to become a part of various fixed-income benchmark indices, for example, the GBIEM family. The more likely losers in this instance would be the ASEAN markets of Indonesia, Thailand and Malaysia.

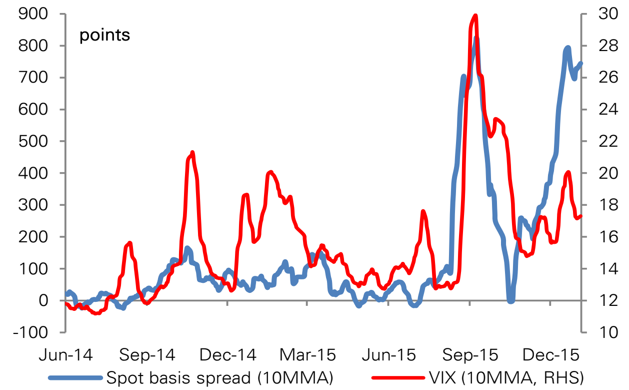
Not all of the fallout from China is negative, though. The rebalancing underway in China, and its financial market reforms, carries potential benefits for rest of the region too. As the Chinese economy shifts away from investment towards consumption, its current account is rebalancing too. Imports of goods have slowed along with industrial activity, and in part because of vertical integration. But its import of consumer goods (e.g. consumer electronics) and tradable services (e.g., tourism and business services) has gone up. One third of China's trade surplus is now recycled via services, up from 10% five years ago. Korea, Taiwan and Thailand stand out as the main winners on tourism, and to a lesser extent Japan and Singapore. 50% of the growth in Thai tourist arrivals in the last five years is coming from China (see chart), with Chinese total arrivals increasing by more than six times over this period. Similarly, China's capital account liberalization should benefit other Asia by way of greater Chinese outward direct investments (ODI) and infrastructure financing. Rather than being a competitor with other EMs for FDI flows from advanced economies, China is more likely to become a major long-term capital exporter to the rest of EM.

Figure 7: Rising beta between EM Asia FX and USD/CNY



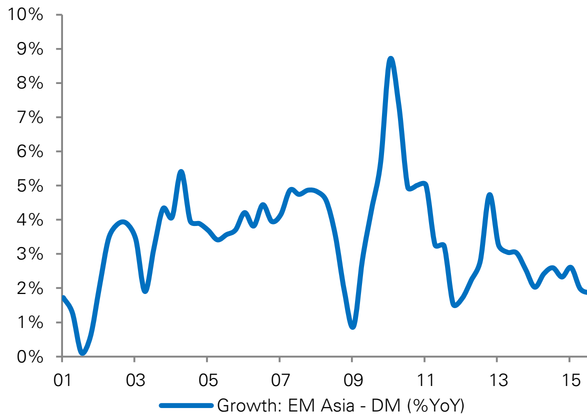
Source: Deutsche Bank, BIS

Figure 8: The CNH-CNY basis spread is becoming a leading indicator of global vol



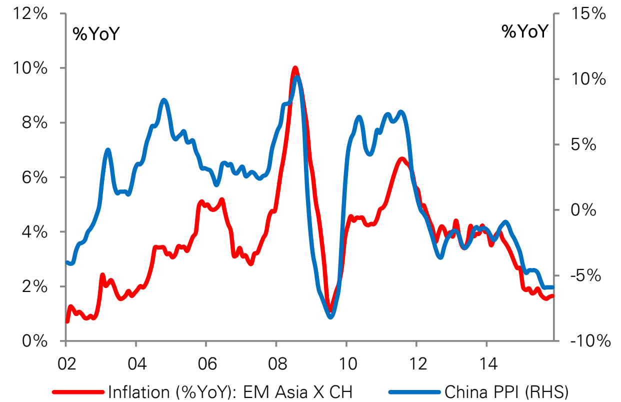
Source: Deutsche Bank, PBoC

Figure 9: EM Asia was growing much faster versus DM at the time of the last Fed tightening cycle



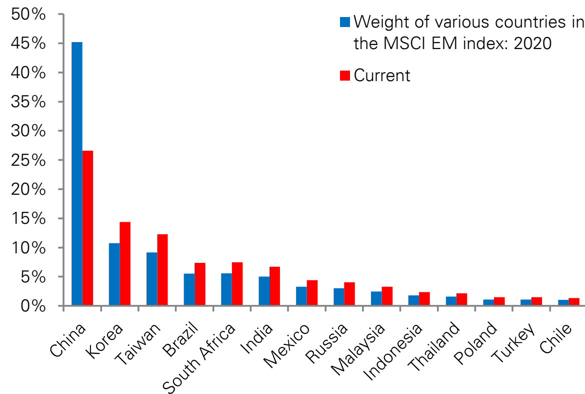
Source: Deutsche Bank, BIS

Figure 10: China's economic slowdown is exporting disinflationary pressures to the rest of Asia



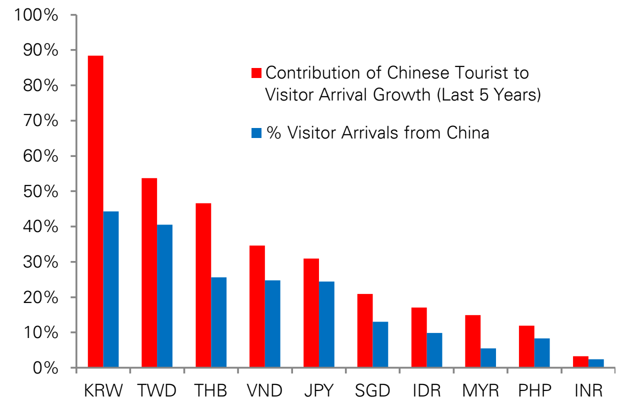
Source: Deutsche Bank, PBoC

Figure 11: As China opens up its capital account, it will likely cannibalize capital flows meant for other EM



Source: Deutsche Bank, BIS

Figure 12: Korea, Thailand & Taiwan gained from Chinese tourism



Source: Deutsche Bank, PBoC

Credit Strategy

China IG Corps

- *Corporate credit fundamentals will likely deteriorate further–weighed by the commodity cycle, ongoing China slowdown, and potentially a year of elevated event risk (M&A, SOE reforms). We expect more negative than positive rating actions this year. At this point of the cycle, we have a strong preference for quality names (large, benchmark, central SOEs) and bond structures.*
- *China IG valuations are not cheap at the current juncture especially after the US IG sell-off in December. We see room for China AA Oil spreads to widen in the near term given how tight they are versus DM peers (which may have re-pricing effects across China IG) but any material weakness will probably be offset by the technicals behind China credits.*
- *Indeed we believe technicals for IG could remain supportive thanks to the infamous 'onshore bid', general flight to quality, and large redemption pipeline as we edge closer to 2017. The RV between China and US could become less relevant if the 'localization' of China credit becomes a sustainable trend.*
- *Whilst we are fundamentally negative we believe IG corporates are still better positioned to deal with headwinds relative to HY. We are overweight IG Corps from a portfolio perspective.*
- *We kick off the year feeling tactically cautious in China Oil (especially CNOOC). The spread pickup against DM comps has narrowed, but the strong technicals behind China paper may prevent a material widening in the sector. In the near term, we see scope for modest widening in China AA Oil but remain constructive over the long run as spreads still overcompensate for default risk. We also like select corporate perps with good structures and are overweight China property in IG. We remain reluctant to follow the 'onshore bid' in chasing weak regional SOEs/LGFVs given our quality bias. Stick to large, blue chip corporate, listed companies that offer transparency. Overweight China property. We still like China Tech and expect the fundamental thesis to remain intact but worry about a re-pricing if China Oil moves wider in the near term. Curves are generally still steep across China IG with the 10yr offering better value.*

China corporate fundamentals: trends and outlook

- Almost all sectors were able to preserve/improve their margins last year due to lower raw material prices, cost structure adjustments, and/or greater cost discipline. Aggregate China IG Corp EBITDA Margins (excl TMT) expanded to 16.1% in 1H15 from 13.1% in FY14. Utilities benefitted from the low fuel cost which saw EBITDA margins expand to 27.7% in 1H15 from 18.0% in FY14. Conglomerates' EBITDA margins compressed from 22.4% in FY14 to 21.8% in 1H15, partly driven by COFCO's higher exposure to low-margin agricultural trading business and falling margin of Beijing Capital Group's property business.
- **Credit metrics trend was mixed.** LTM gross leverage showed meaningful improvement in TMT, Equip Manufacturing, and Utilities but was visibly weaker in Engineering & Construction (E&C), Infrastructure, Metals & Mining (M&M) and Oil & Gas (O&G).

- Outlook: We believe the credit fundamentals of **M&M and O&G** will be tested further in FY16 in the absence of a strong recovery in commodities – which could lead to more negative rating actions. **Infra and E&C** may see a better 2016 driven by China's OBOR initiatives. **Consumer Staple** names could remain under pressure (from a sales volume perspective) in the near term on low consumption and fierce competition, but margins should still benefit from low raw materials prices. We expect the **Utilities** sector to remain stable with lower fuel costs offsetting subdued volume demand from industrial activities. **TMT (Internet)** should remain well positioned for FY16 given strong earnings and cash generation momentum. Overall the macro backdrop still warrants most sectors to remain prudent on cost/capex with stronger emphasis for cash preservation which should keep a lid on debt growth. **Event risk** is potentially another key driver for 2016 partly given low oil prices, rising corporate activity in the property sector, and accelerating pace of SOE reforms in China. A theme we explore bit more later.

Figure 1: Key credit ratios by sector

	EBITDA Margin (%)			LTM gross leverage (x)			Gross Debt/Total capital (%)		
Sector	FY13	FY14	1HFY15	FY13	FY14	1HFY15	FY13	FY14	1HFY15
Conglomerate/Inv. Co.	20.9%	22.4%	21.8%	4.1x	4.9x	4.8x	52%	55%	56%
Consumer	11.0%	11.3%	12.4%	2.0x	2.3x	2.2x	36%	36%	34%
Engineering & Const.	5.8%	6.3%	6.8%	5.9x	5.7x	6.1x	61%	61%	61%
Equip. Manufacturing / Auto	14.8%	11.4%	14.3%	3.1x	3.5x	2.9x	33%	38%	34%
Infrastructure	41.4%	39.9%	43.0%	13.5x	13.7x	14.5x	49%	47%	48%
Metals & Mining	12.5%	13.4%	15.7%	3.3x	4.0x	4.6x	42%	44%	44%
Oil & Gas / Chemicals	11.4%	11.6%	13.2%	1.6x	1.7x	1.9x	31%	32%	30%
Property	19.8%	19.6%	19.6%	4.6x	5.5x	5.6x	51%	54%	52%
TMT	18.3%	17.9%	17.9%	1.7x	2.9x	1.9x	27%	32%	48%
Utilities	16.5%	18.0%	27.7%	3.3x	3.3x	2.6x	42%	42%	41%
Aggregage	**12.8%**	**13.3%**	**16.2%**	**3.1x**	**3.5x**	**3.4x**	**43%**	**44%**	**44%**
Aggregage (excl TMT)*	**12.6%**	**13.1%**	**16.1%**	**3.2x**	**3.5x**	**3.5x**	**44%**	**45%**	**44%**

Source: Deutsche Bank, company data. Note: FY of TMT ends in March while FY of other sectors ends in Dec. We calculate ratios in FY14, FY15 and 1HFY16 for TMT companies instead of FY13, FY14 and 1HFY15. Our sample includes 76 China IG corps (both listed and unlisted)

- China IG property developers' aggregate revenue was yoy flattish in 1H15, largely driven by a sluggish contracted sales performance in 2014. Overall we would say that the sector's credit profile was largely stable throughout 2015 with some notable bifurcation between strong and weak BBBs.

- Looking ahead, we expect the fundamental trend for IG property developers to remain broadly positive in 2016 on back of ongoing supportive government policies and easier funding conditions. However, our sector credit view calls for slightly more caution towards late-2016 as the ongoing cyclical recovery in physical sales may ease after various rounds of policy loosening. We favour developers with a strong SOE background, lower funding costs, a diversified product offering, and a strong project execution track record. If recent trend was any guide, increasing corporate actives in the sector may serve as another credit catalyst in the year ahead.

Possible credit rating actions in 2016

- We expect more negative (than positive) rating actions this year (be it in rating cuts or outlook changes) as rating bias turns negative on a prolonged commodity down cycle and an ongoing slowdown in China. We group the possible rating change candidates by sector groups below. Unsurprisingly the negative list is dominated by mining plays (**Chalco, Baosteel, China Gold, Minmetal, Yanzhou Coal**). We think the risk of a **CNOOC and COSL** downgrade increases in the absence of a meaningful

recovery in Brent. The risks for **CNPC and Sinopec** are manageable given the existing buffer within their standalone credit profiles. We are mindful of some weak BBB property names given the potential 'fallen angel' risks at the bond rating level – but we believe that overall the downside risk is manageable for **Greenland Group** (given recent share placement and cutback from energy trading). Ownership changes at **Vanke and Sino-Ocean** Land are not immediate rating triggers but do add a layer of uncertainty around their LT strategy and financial policy.

- On the positive side there isn't much to cheer about. We think **Mengniu and ENN Energy** have room to de-lever via positive FCF generation; whilst **China Railway Group** could see an upgrade upon a merger with a higher-rated SOE peer.

Figure 2: Likelihood of Rating Actions

Company	Ticker	Rating (M/S/F)	Outlook/Watch	Company	Ticker	Rating (M/S/F)	Outlook/Watch
Possible positive rating action				Possible negative rating action			
				Conglomerate / Investment Co.			
China Mengniu Dairy Co	CHMEDA	Baa1/ A-/ NR	Stable/Stable/NR	AVIC International Holding Corp	CATIC	Baa3*-/BBB-/BBB+	RPD/Stable/Stable
China Railway Group	CHRAIL	NR/ BBB+/ BBB+	NR/Stable/Stable	Beijing Capital Group Co	BEICAP	Baa2/BBB/BBB	Stable/Neg/Stable
ENN Energy Holdings	XINAOG	Baa3/ BBB/ BBB	Pos/Stable/Stable	COFCO (Hong Kong) Ltd	COFCO	A3*-/A-/A-	RPD/Stable/Stable
				TMT			
				Baidu Inc	BIDU	A3/NR/A	Pos/NR/Stable
				Metals & Mining			
				Aluminum Corp of China (Chalco)	CHALUM	NR/BBB-/BBB+	NR/Neg/Stable
				Baoshan Iron & Steel Co	SBSG	A3/A-/A-	Stable/Stable/Stable
				China Gold International Resources	CGGCN	NR/BBB-/NR	NR/Neg/NR
				China Minmetals Corp	MINMET	A3/NR/BBB+	Stable/NR/Stable
				Yanzhou Coal Mining Co	YZCOAL	Ba3/BB/BB-	Stable/Stable/Neg
				Oil & Gas / Chemicals			
				CNOOC Ltd	CNOOC	Aa3/AA-/A+	Stable/Stable/Stable
				China Oilfield Services	COSL	Baa1/A-/A	Stable/Stable/Stable
				Kunlun Energy Co Ltd	KUNLEG	A1/A+*-/A	Stable/RPD/Stable
				Shanghai Huayi Group Co	HUAYI	Baa2*-/BBB/BBB-	RPD/Neg/Neg
				Property & Retailing			
				China Vanke	VANKE	Baa1/ BBB+/ BBB+	Stable/Stable/Stable
				Dalian Wanda Commercial Property	DALWAN	Baa2/BBB+/BBB+	Stable/Neg/Stable
				Greenland Group	GRNLGR	Baa3/ BBB-/ BBB-	Neg/Neg/Stable
				Sino-Ocean Land	SINOCE	Baa3/ BBB-/ BBB-	Stable/Stable/Stable
				China Overseas Grand Oceans Group	COGO	Baa2/BBB-/BBB	Stable/Neg/Stable
				Golden Eagle Retail Group	GERGHK	Ba1/BB-/BB+	Stable/Stable/Stable
				Yuexiu REIT	YXREIT	Baa2/BBB/NR	Neg/Stable/NR

Source: Deutsche Bank, S&P, Moody's, Fitch

SOE reforms – a theme here to stay

- **Pace accelerated into end of 2015:** We have witnessed a growing list of corporate activity since 2014 and believe SOE reforms will remain an ongoing theme for China IG in the years to come. As highlighted in the official press release in December 2015, China's Central Economic Working Conference emphasized cutting excess capacity in the economy and mentioned that capacity reduction should rely more on mergers rather than bankruptcy. Whilst this suggest that the government is mindful of the implications around factory closure to unemployment and bank NPLs, consolidating problematic sectors such as steel and coal may take longer than what one would hope for. Defaults is widely expected to rise but central SOEs that are viewed systemically important will still be supported (our base case).
- **Flurry of activity:** Following up on CITPAC's reorganization and Sinopec's sale of its Retail unit in 2014, we saw a flurry of activity in later part of 2015. We summarize the key Central SOE reform events in 2015 below. Mergers/restructurings usually have profound credit impact on the entities that are involved. Overall we believe mergers and restructuring will continue to affect

  - Industries that face excess capacity (metals & mining),
  - Sectors that are strategically less important or more competitive, and
  - SOEs that have significant overlap in operational role/functions (eg Railway, Shipping).

- We started the year with 112 Central SOEs but now down to 108 after the merger activities over the past year. Amongst the Central SOEs involved in a reorganization/restructuring event this year, CNPC and Minmetal are the USD bond issuers in our space.
  - **Minmetal:** The impact on MINMET is credit positive. The merger is expected to improve efficiencies and lower China Minmetal's debt leverage as MCC's leverage whilst high is still lower than Minmetals. Furthermore, the acquisition will likely raise Minmetal's strategic importance to the state.
  - **Railway E&C space:** The possible merger was reported by local press earlier which was subsequently denied by both companies. We think a merger between CHRAIL and RLCONS will financially benefit the former more but not a game changer for ratings. However a merger will likely raise their strategic importance (given enlarged size and monopolistic power) of the combined group, in our view.
  - **Oil and Gas**: We continue to think that a merger between the large oil and gas companies is unlikely as it represents a backward step in the reform process.
- **Key credit implication:** At the macro level, SOE reforms ought to encourage better allocation of capital/resources, and enhance state returns of state investments. At the micro level, it should improve firm wide efficiency, promote transparency and raise competitiveness although all these may take some time to realize. In the near term the backdrop of potentially more corporate activity in the SOE space should raise awareness in differentiating credits that will likely remain strategically important to the state versus those that are less so. Change of Control (CoC) clauses and their respective trigger levels will also become more relevant for credit investors against this backdrop.

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Figure 3: Recent major central SOE Mergers / Restructurings

Companies involved	Sector	Current status	Comments
China National Petroleum Corp (CNPC) (中国石油天然气集团公司)	Oil & Gas	In process	On 24 Dec 2015, PetroChina announced that it would consolidate three pipeline operationers into a single company, PetroChina Pipelines Co.. The total value of the pipelines is RMB281.4bn. After the transaction, shareholdings in that company will include: PetroChina Co., 72.26%; Guolian Fund, 5.33%; the National Council for Social Security Fund, 4.4%; Taikang Life Insurance Co., 4.08%; Baoshan Iron & Steel Co., 3.52%; and New China Life Insurance Co., 3.46%. On 28 Dec 2015, PetroChina and its 58.33% owned subsidiary, Kunlun Energy, announced that it will aquire 100% interest of Kunlun Gas from PetroChina for a consideration of RMB14.8bn.
China Ocean Shipping (Group) Company (COSCO) (中国远洋运输（集团）总公司) China Shipping (Group) Company (中国海运（集团）总公司)	Transportation Transportation	In process	On 11 Dec 2015, Central SASAC announced that the State Council had approved the asset restructuring of the two state shipping giants. The two groups have announced restructruing plan on container-shipping operations, and ports and oil-tanker-shipping operations.
China Minmetals Corp (中国五矿集团公司) China Metallurgical Group Corp (MCC) (中国冶金科工集团有限公司)	Metals & Mining Metals & Mining	No details disclosed	On 8 Dec 2015, Central SASAC announced that the State Council had approved the merger of the two companies. MCC would become a wholly owned subsidiary of China Minmetals Corp. No further details of the transaction have been disclosed. S&P has placed BBB-rated MCC on credit watch positive.
Nam Kwong (Group) Company Ltd (南光（集团）有限公司) Zhuhai Zhen Rong Company (珠海振戎公司)	Conglomerate Oil & Gas	No details disclosed	On 1 Dec 2015, the State Council had approved the merger of state oil trader Zhuhai Zhenrong Corp and Macau-based conglomerate Nam Kwong Group. Zhuhai Zhen Rong Co would become a wholly owned subsidiary of Nam Kwong (Group) Co Ltd. Details of the restructuring have not been announced yet.
China Power Investment Corp (CPIC) (中国电力投资集团公司) State Nuclear Power Technology Corp (SNPTC) (国家核电技术有限公司)	Utilities Utilities	Finished	On 4 Apr 2015, SNPTC announced that the company planned to merge with CPIC into State Power Investment Corp (国家电力投资集团公司). On 29 May, the plan was approved by the State Council. On 15 July, State Power Investment Corp was officially established.
China Northern Locomotive and Rolling Stock Industry (Group) Corp (中国北方机车车辆工业集团公司) CSR Group (中国南车集团公司)	Railway Railway	Finished	On 31 Dec 2014, the two top train makers, CSR Corp Ltd (CSR) and China CNR Corp Ltd (CNR) announced merger plans. On 1 Jun 2015, CSR has finished replacing the shares of CNR and renamed the combined company CRRC Corp Ltd (中国中车股份有限公司). On 28 Sep 2015, SASAC announced that the establishment of CRCC Group (中国中车集团公司).

Source: Company, public news, Bloomberg Finance LP, Deutsche Bank

Offshore RMB Market Monitor

- During 2015, with China's continued efforts to accelerate financial liberalization reforms, the offshore RMB market expanded at a robust pace in H1, with strong growth in RMB settlement and RMB trading activities. However, in the second half of the year, rising volatilities in the domestic equity market and foreign exchange market caused the growth of the offshore RMB liquidity pool, as well as the offshore RMB fixed income market, to slow down.
- Nevertheless, the offshore RMB market has achieved many important milestones and we highlight six key developments: 1) the RMB becoming the fifth global payment currency; 2) the opening up of the capital account; 3) the liberalization of RMB interest rates and RMB exchange rates; 4) the strengthening of the offshore RMB infrastructure and boosting of global financial cooperation; 5) the RMB will become the third largest global reserve currency in the IMF SDR basket, effective on October 1 2016; and 6) the offshore RMB liquidity pool has declined and the offshore RMB fixed income market has been stable, with strong issuance in Taiwan's Formosa bond market.
- 2016 is the first year of China's implementation of the 13th five-year development plan, and we expect offshore RMB market development to be supported by capital account liberalization polices, which will boost RMB cross-border investment flows and deposit growth. However, volatilities in the RMB exchange rates remain the key risk to the growth of the offshore RMB liquidity pool, which requires further enhancement in the offshore RMB liquidity provision mechanism and development of the offshore RMB asset market.
- Specifically, we expect the following policies and market developments in 2016: 1) Further two-way opening up of the capital account: we highlight six key policies. 2) To strengthen the global RMB clearing/settlement infrastructure, more RMB clearing banks will be appointed in the Americas, Europe and Africa. 3) China will improve global policy coordination with global central banks. 4) There will be more policies to promote RMB cross-border investment/financing activities in the Free Trade Zones. 5) We forecast key performance indicators in the offshore RMB market. 6) Onshore offshore basis risk will persist in H1 2016. 7) We expect the volatility risk on the CNH CCS curve to remain elevated and recommend trading the CNH CCS curve in a wide range -1Y between 2.5-6%.

2016 Key forecasts

USDRMB Spot	7.0
RMB cross border trade settlement	RMB9.4trn or 35% of China's global trade volume
Average daily FX trading volume	USD 8-10bn spot, USD8bn fwds, USD600mn CCS and USD1.5-2bn FX options
Offshore deposit base	RMB2.5trn
RMB net bond supply	RMB50-100bn
CNH bond total return	4% (CNH), -4% (USD)

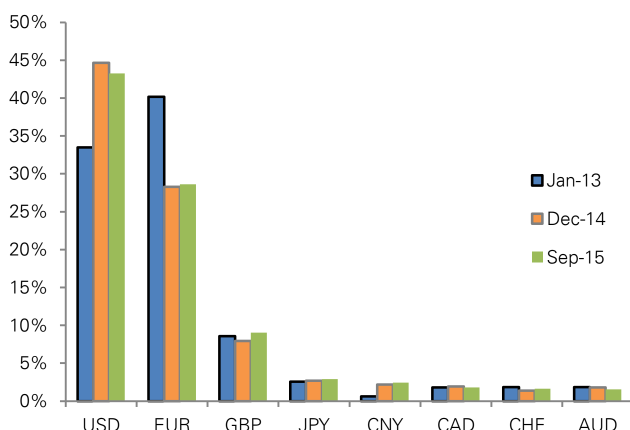
Source: Deutsche Bank

Offshore RMB market 2016 outlook

During 2015, with China's continued efforts to accelerate financial liberalization reforms, the offshore RMB market expanded at a robust pace in H1, with strong growth in RMB settlement and RMB trading activities, although in the second half of the year, rising volatilities in the domestic equity market and foreign exchange market caused the growth of the offshore RMB liquidity pool, as well as the offshore RMB fixed income market, to slow down. Nevertheless, the offshore RMB market has achieved quite a few important milestones (see Figure 7); and below we highlight six key developments.

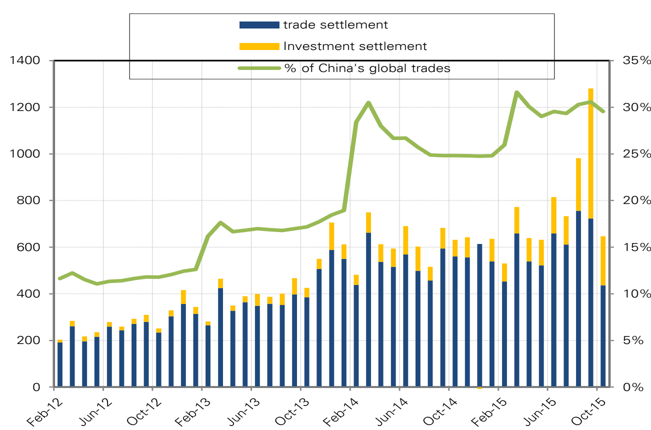
1) The RMB has become the fifth global payment currency: RMB cross-border settlement volume rose by 24% YTD YoY during January to October to RMB7.67trn. Specifically, RMB trade settlement YTD YoY was up by 10% to RMB5.90trn, driving the share of RMB settlement in China's global trade to 29% (in line with our revised-up expectation of 30%) from 22% in 2014. RMB investment settlement volume surged by 123% YTD YoY to RMB1.77trn by the end of October, primarily attributable to RMB FDI settlements (roughly two thirds of the RMB investment settlement). According to SWIFT, RMB became the fifth global payment currency in September 2015, with a share of 2.45% in global payments, up from 2.17% by the end of 2014.

Figure 1: RMB ranked fifth in global payments by SWIFT



Source: Deutsche Bank, SWIFT

Figure 2: RMB trade settlement accounts for 29% of China's global trade during Jan-Oct 2015



Source: Deutsche Bank, PBoC

2) Opening up of the capital account: In 2015, China continued to pursue two-way opening up of the capital account by broadening the investment channels and the financing channels for global investors and government agencies as well as corporations. In particular,

(i) China liberalized access to the interbank fixed income (in July) and foreign exchange market (in November) by long-term investors, such as foreign monetary authorities, in order to facilitate RMB investment for reserve management purposes and to prepare for RMB inclusion into the SDR basket (for details, please refer to *Offshore RMB Market Monitor – Opening up interbank FX market*, published November 27, 2015, and *Liberalizing bond market access by foreign reserve managers*, published July 15, 2015).

(ii) China expanded the RMB QFII program to four countries in South America, Asia and Europe and increased the RMB QFII quota in South Korea and Singapore. The total RMB QFII quota is about RMB1.1trn with RMB437bn having been granted to 153 foreign institutions by the end of November.

(iii) To facilitate RMB financing by offshore institutions, in 2015, China opened up the panda bond market by allowing two offshore financial institutions (HSBC HK and Bank of China HK) and two foreign governments (the Province of British Columbia of Canada, and the South Korean government) to place a total of RMB11bn panda bonds in the onshore interbank market.

(iv) The main development in the fund management industry was that the China Securities Regulatory Commission (CSRC), Hong Kong's Securities and Futures Commission, the PBOC and SAFE announced the Mainland – Hong Kong Mutual Recognition of Funds (in May and in November), which opened up the onshore and Hong Kong fund management market to investors in both markets.

(v) The expansion of the "Stock Connect" program to other global financial hubs: after the successful launch of the Shanghai-Hong Kong Stock Connect program in late 2014, in 2015 the Shanghai Stock Exchange (and China Financial Futures Exchange) continued to expand their cooperation with the Stock Exchanges in major global financial centers. For example, Deutsche Boerse launched the joint venture "China Europe International Exchange" to trade RMB-denominated offshore products in November. The London Stock Exchange and the Shanghai Stock Exchange are evaluating the possibility of launching a stock connect program which makes it easier for Europe-based investors to invest directly into China's capital market.

3) Liberalizing RMB interest rates and RMB exchange rates. In the second half of the year, China swiftly took a number of bold steps in liberalizing RMB interest rates and exchange rates – for example, reforming the RMB exchange rate formation mechanism to be increasingly transparent in August, fully liberalizing RMB deposit rates in September; experimenting with the interest rate corridor and establishing macro prudential measures. Furthermore, at the end of October, financial regulators approved the plan for the pilot program of financial liberalization reforms in the Shanghai Free Trade Zone which sets the stage for a series of policy initiatives in capital account convertibility to be launched in Shanghai, including possibly the QDII 2 program.

These policy steps not only demonstrated China's strong commitment to financial liberalization reforms, but more importantly, paved the way for China to make the transition in its monetary policy framework and exchange rate policy framework, which will be increasingly market-oriented and to make the RMB fully convertible in 2020.

4) Strengthening offshore RMB infrastructure and boosting global financial cooperation. This year, the PBoC signed MoU with five foreign central banks on RMB clearing agreements and entered/renewed RMB cross currency swap agreement with eight foreign central banks. As of now, the PBoC has signed RMB cross-currency swaplines with 32 foreign central banks with a total notional amount of RMB3.3trn. Moreover, the PBoC placed its first offshore PBoC bills in London and the MoF issued RMB26bn sovereign bonds to meet offshore investment demand.

The launch of China's Cross-Border Interbank Payment System (CIPS, Phase I) in October was a key development in promoting RMB internationalization, as it established the first global RMB clearing/payment system. The CIPS uses real time gross settlement and adopts the global ISO20022 message standard in transiting payment information. It covers RMB business hours from Asia Pacific to Africa and Europe. Initially, 19 domestic and foreign banks directly connected to the CIPS, while another 38 domestic banks and 138 foreign banks in the offshore market connected indirectly to the CIPS. Over time, we expect more members to join the CIPS which will improve the RMB cross-border payment efficiency.

5) The RMB will become the third-largest global reserve currency in the IMF SDR basket, effective on October 1, 2016.

The Executive Board of the IMF voted on November 30, 2015 to include the RMB as a fifth currency in the Special Drawing Rights (SDR) basket, along with the US dollar, the euro, the Japanese yen and the British pound. The new SDR basket with the RMB will be launched on October 1, 2016, to provide a lead time for the IMF, its members and other SDR users to adjust to the change.

The RMB's weight of 10.92% will put it ahead of the Japanese yen (8.33%) and the British pound (8.09%), but behind the US dollar (41.73%) and the euro (30.93%). Compared with the current basket, the euro will see the biggest drop in its weight (6.47%), followed by the British pound (3.21%) and the Japanese yen (1.07%). The US dollar's weight stays almost unchanged (0.17%).

We expect the RMB's SDR inclusion to boost the medium- to long-term demand for RMB bonds and we forecast foreign reserve managers will potentially hold up to 5% of China's domestic bond market over the next three to five years (implying about RMB3trn reserve money inflows) and we forecast about 10% of global foreign reserves to be invested in the RMB bond market. While the inflows are largely to the onshore bond/FX market, the offshore RMB market will be affected by such inflows as onshore offshore bonds/FX pricing difference will bring more relative value opportunities.

6) The offshore RMB liquidity pool declined and the offshore RMB fixed income market has been stable with strong issuance in Taiwan's Formosa bond market:

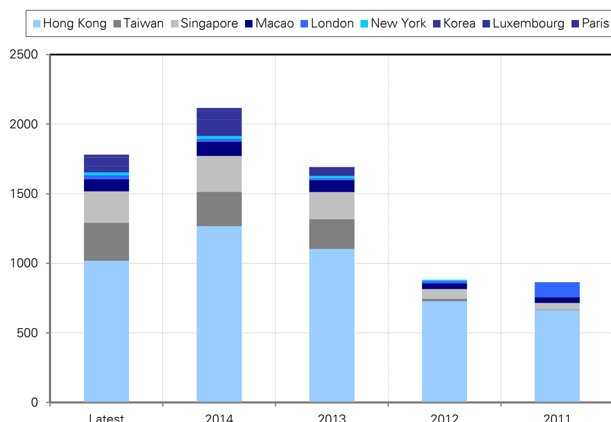
The offshore RMB deposit base declined: We estimate the offshore RMB liquidity pool fell by about 15% from 2014, to RMB1.8trn by the end of November. With the exception of Taiwan where RMB deposits grew by 29% from 2014 to RMB320bn in October, almost all other centers saw about a 10-17% drop in their deposit base. We believe a few factors have contributed to the shrinking offshore RMB liquidity: (a) uncertainties over RMB valuation against the USD (about 4.3% depreciation against the USD YTD) and surging volatilities in the offshore RMB FX market post the August 11 revaluation made RMB investment less appealing, especially to short-term oriented and leveraged investors; (b) offshore RMB demand for the equity/Stock Connect program weakened following the equity market turmoil in July; (c) macro prudential measures introduced since August resulted in inefficiencies in RMB liquidity transmission from the onshore to the offshore RMB market.

Offshore RMB fixed income market has been stable: Gross supply in the offshore RMB market was RMB340bn in 2015 (by the end of November), down by 39% from 2014. Net supply of bonds fully offset net supply of CDs, therefore the size of the offshore RMB fixed income market is unchanged at about RMB760bn. The net supply was well below our projection of RMB250bn and we believe the stagnant growth in the offshore RMB fixed income market in 2015 reflects: (a) fear of further weakening in the RMB exchange rate; (b) tightening in offshore RMB liquidity and easing in onshore financing conditions reduced demand for offshore RMB bond financing (for example, real estate developers financed mostly onshore in this year); and (c) the opening up of the Panda bond market to offshore investors shifted financing demand to the onshore market, given the relative cheap financing cost onshore; (d) weakening demand for trade financing as export and import growth slowed, thus reducing offshore RMB CD issuance.

One spotlight in the offshore RMB fixed income market is the surging supply in Taiwan's RMB Formosa bond market, thanks to the relaxation of insurers' investment restrictions. In the past, Taiwan insurers' investments in offshore RMB bonds counted towards their overseas investment quota. In February this year, however, Taiwan's financial regulator removed the Formosa bonds from insurers' overseas investment quota, i.e. Formosa bond investment is treated as domestic investment. Demand from insurers for medium- to long-dated RMB Formosa bonds led to strong supply of RMB Formosa bonds from global banks and corporations. On a YTD basis, we estimate RMB Formosa bond net supply of RMB31.8bn, up by 53% from 2014, and that it accounted for about 70% of the offshore RMB net bond supply in 2015.

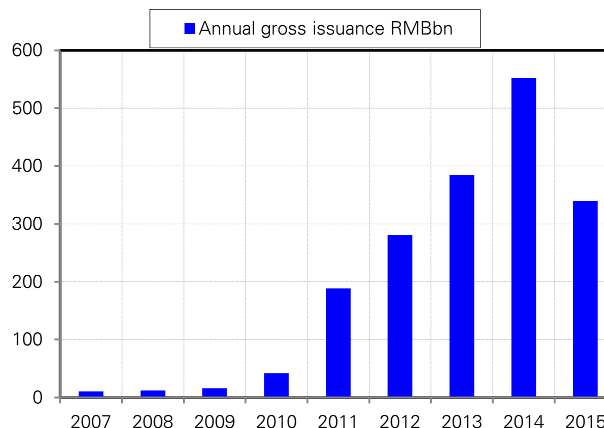
CNH credits have underperformed Asia IG USD bonds. The CNH bonds tracked by S&P and DB's CNH Bond Index returned 3.30% YTD in CNH but lost 0.96% in USD terms, and underperformed USD-denominated Asia IG credit at a YTD total return of about 2.8%.

Figure 3: RMB deposit balances (RMB bn)



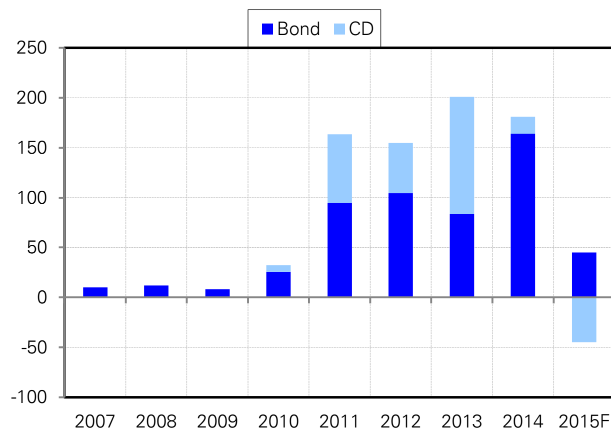
Source: Deutsche Bank, various central bank websites

Figure 4: Annual gross issuance in the offshore RMB market (RMB bn)



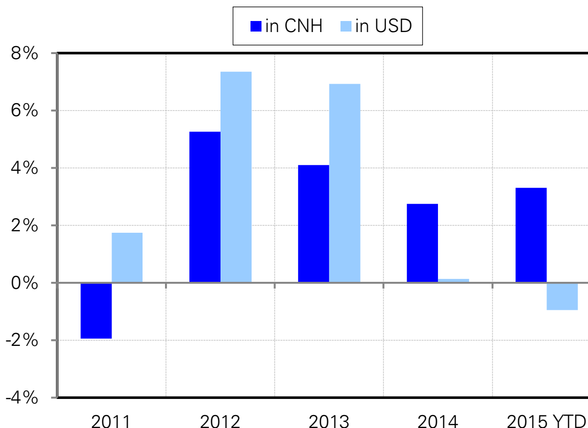
Source: Deutsche Bank, Bloomberg Finance LP, 2015 figure is as of end of November

Figure 5: Annual net issuance in the offshore RMB fixed income market (RMB bn)



Source: Deutsche Bank, Bloomberg Finance LP

Figure 6 Annual total return comparison



Source: Deutsche Bank, Bloomberg Finance LP

Figure 7: Review of key development milestones in 2015

Date	
Expansion of RMB QFII program	
29-Apr-15	Luxembourg received RMB50bn RQFII quota
25-Jun-15	Chile received RMB 50bn RQFII quota
27-Jun-15	Hungary received RMB 50bn RQFII quota
30-Oct-15	South Korea's RQFII quota increased from RMB80bn to RMB120bn
17-Nov-15	Singapore's RQFII quota increased from RMB50bn to RMB100bn
23-Nov-15	Malaysia received RMB50bn RQFII quota
Capital market access	
14-Jul-15	PBoC liberalized onshore interbank bond market access by foreign central banks, monetary authorities and SVFs
22-Sep-15	HSBC HK and Bank of China HK placed first panda bonds onshore.
6-Nov-15	PBoC and SAFE announced the Mutual Recognition of Mainland - HK securities investment funds
25-Nov-15	PBoC grants interbank FX market access to seven foreign monetary authorities
27-Nov-15	British Columbia issued RMB6bn RMB Panda bonds
08-Dec-15	South Korea placed RMB3bn Panda bonds
RMB Exchange Rate Reform	
11-Aug-15	Reform of the RMB daily fixing mechanism to be more market-driven
8-Oct-15	China adopts the IMF SDDS standard in macroeconomic statistics reporting
30-Oct-15	China and South Korea agreed to prepare for onshore RMB direct trading with KRW
9-Nov-15	Onshore interbank FX market starts RMB and CHF direct trading
Offshore Market Infrastructure	
22-Dec-14	PBoC signed MOU with Bank of Thailand on RMB clearing arrangement
20-May-15	MoF placed RMB12bn sovereign bonds in Hong Kong
25-May-15	PBoC signed MOU with the Central Bank of Chile on RMB clearing arrangement and appointed China Construction Bank (Chile) as the RMB clearing bank
27-Jun-15	PBoC signed MOU with the Central Bank of Hungary on RMB clearing arrangement and appointed Bank of China Hungary as the RMB clearing bank
15-Jul-15	PBoC appointed Bank of China, Johannesburg Branch as the RMB clearing bank in South Africa
17-Sep-15	PBoC signed MOU with the Central Bank of Argentina on RMB clearing arrangement and appointed ICBC Argentina as the RMB clearing bank
27-Sep-15	PBoC signed agreement with the Central Bank of Georgia on establishing RMB cross currency swapline
29-Sep-15	PBoC signed MOU with the Central Bank of Zambia on RMB clearing arrangement and appointed Bank of China (Zambia) as the RMB clearing bank
8-Oct-15	Launching of RMB CIPS system (Phase I)
20-Oct-15	PBoC placed the first offshore PBoC bills (RMB5bn) in London
26-Nov-15	MoF placed RMB10bn sovereign bonds in Hong Kong
30-Nov-15	China Construction Bank Zurich branch was named by the PBoC as the RMB clearing bank in Switzerland
RMB Cross Currency Swap Agreements	
22-Dec-14	PBoC signed 3Y RMB70bn swapline with Bank of Thailand
18-Mar-15	PBoC signed 3Y RMB1bn swapline with the Central Bank of Suriname
25-Mar-15	PBoC signed 3Y RMB1bn swapline with the Central Bank of Albania
10-Apr-15	PBoC signed 3Y RMB30bn swapline with South Africa Reserve Bank
10-May-15	PBoC renewed 3Y RMB7bn swapline with the Central Bank of Belarus
7-Sep-15	PBoC signed 3Y RMB3bn swapline with Tajikistan Central Bank
20-Oct-15	PBoC expanded the 3Y swapline with the Bank of England from RMB200bn to RMB350bn

Source: Deutsche Bank, PBoC

Figure 7: Review of key development milestones in 2015 (cont'd)

16-Nov-15	PBoC expanded the 3Y swapline with the Central Bank of Turkey from RMB10bn to RMB12bn
Financial reform in the Free Trade Zone	
30-Oct-15	PBoC and top financial regulators announced the plan for financial liberalization reforms in Shanghai Free Trade Zone
03-Dec-15	The State Council decided that Guangdong, Tianjin and Fujian FTZ to focus on pilot financial reforms in promoting RMB usage, capital account convertibility, RMB cross border investment/financing

Source: Deutsche Bank, PBoC

2016 is the first year of China's implementation of the 13th five-year development plan, and we expect offshore RMB market development to be supported by capital account liberalization polices, which will boost RMB cross-border investment flows and deposit growth. However, volatilities in the RMB exchange rates remain the key risk to the growth of the offshore RMB liquidity pool, which requires further enhancement in the offshore RMB liquidity provision mechanism and development of the offshore RMB asset market. Specifically, we expect the following policies and market developments in 2016:

1) Two-way opening up of the capital account: To enhance the attractiveness of the RMB as a global reserve currency and to prepare for the operation of the new SDR basket (including RMB) from October 1, 2016, we believe China will step up its efforts to liberalize capital market access for both offshore and onshore investors by:

(i) Refinements to the macro prudential policy framework and possible relaxation in some macro prudential measures (such as cutting the 20% FX reserve requirement for onshorpe FX forward purchases to around 5%) and reopen the onshore-offshore RMB liquidity flow mechanism (interbank repos);

(ii) Broadening cooperation between China's Stock Exchanges with global Stock Exchanges, with the possible launch of the Shenzhen-Hong Kong Stock Connect program, more products launches via the China Europe International Exchange, and more concrete planning on the likely London-Shanghai Stock Connect program;

(iii) Expansion and relaxation of quota control under the QFII/RMB QFII program and RMB interbank bond market access program, particularly liberalizing market access for long-term institutional investors such as pension funds and insurance companies. We forecast RMB300bn QFII/RMB QFII/interbank bond new quota approval during 2016 and the total size of the investment program to be expanded by 10% in 2016.

(iv) Further opening up of the Panda bond market to foreign corporations and governments and freer access to the offshore RMB market by onshore corporations and local governments. While the relative RMB financing cost comparison between the onshore and offshore market will fluctuate, and it seems RMB financing onshore is cheaper, we believe the policy direction is to promote direct RMB financing both in the onshore and offshore markets and lower market access costs for corporate and government borrowers. We expect financing activities to be more active in 2016.

(v) Possible launch of the QDII 2 program (outward bound capital market investment by qualified domestic institutional investors (individual investors)) in late 2016 or sometime in 2017. Considering the policy priority of stabilizing the balance of payment conditions over the next two to three quarters, we expect China will be prudent in launching new investment schemes, which may worsen the balance of payment conditions; therefore, we think the QDII 2 program is likely of low priority in 2016.

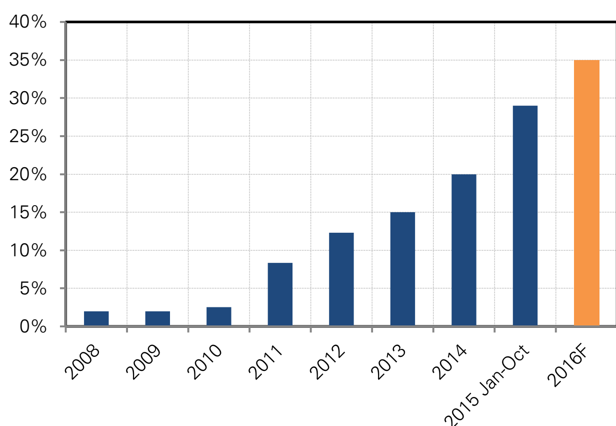
2) As a way to strengthen the global RMB clearing/settlement infrastructure, more RMB clearing banks will be appointed in the Americas, Europe and Africa in 2016. With the CIPS I already operational, we expect more RMB clearing banks to be appointed in the Americas, Europe and Africa in 2016. In particular, we may see some breakthrough of RMB business in the US, following the formation of the Working Group on US RMB Trading and Clearing in November. Development of RMB business in the US has lagged other places for obvious reasons; and

3) China will improve global policy coordination with global central banks. We believe the RMB inclusion into the SDR basket, the market reaction to RMB's one-off revaluation last August, the likely opening up of China's capital account in the next five years and the ongoing efforts to implement the One Belt One Road strategy underscore the rising externalities of China's macroeconomic policies to the global economy. Thus, it is increasingly imperative for China to improve its policy coordination with other countries both to enhance global and RMB liquidity provision and to develop the global macro prudential policy framework to address vulnerabilities in the global financial system and ensure sustainable growth of the global economy. We expect China to continue to provide RMB liquidity by securing bilateral RMB cross-currency swap agreements with other nations in 2016.

4) More policies to promote RMB cross-border investment/financing activities in the Free Trade Zones. Shanghai FTZ recently announced its plan to deepen financial reforms in the zone and the State Council decided at its early December meeting that that Guangdong, Tianjin and Fujian FTZs will focus on deepening cooperation between Guangdong-Hong Kong-Macao, developing financing and leasing business and promoting financial cooperation between the Mainland and Taiwan respectively. We expect more pilot programs to be launched in these FTZs on implementing the negative list approach and developing RMB cross bordering financing and investment opportunities.

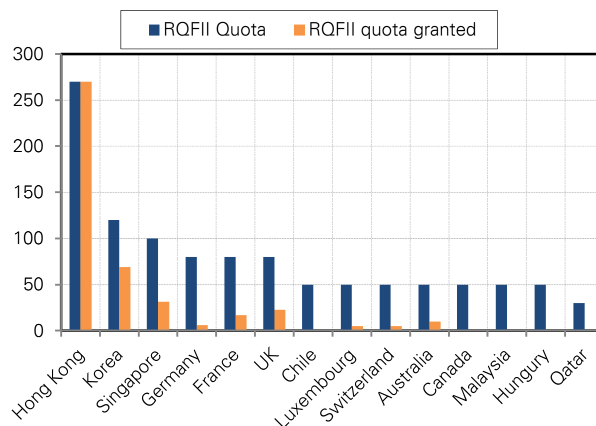
5) Offshore RMB market development forecast: We forecast growing RMB adoption in global trade settlement to drive RMB trade settlement volume to about 35% of China's global trades in 2016, up from 29% in 2015. We also expect growth of RMB investment settlement flows to outpace that of trade settlement flows and total RMB cross-border settlement volume to grow by 10% YoY to RMB9.4trn.

Figure 8: RMB trade settlement to rise to 35% of China's global trade in 2016



Source: Deutsche Bank, PBoC

Figure 9: RQFII quota vs. quota approval (RMB bn)



Source: Deutsche Bank, SAFE

We expect the offshore RMB deposit pool to recover, albeit slowly, to RMB2.5trn by the end of 2016, due to volatilities of the RMB exchange rate. We forecast net issuance in the offshore RMB fixed income market to grow only modestly in 2016 at RMB50-100bn because of the relatively unattractive funding cost compared with the onshore market and relatively weaker demand, particularly in the offshore credit market. We forecast the offshore RMB bond market to deliver a 4% total return in RMB and roughly flat in USD terms in 2016, slightly better than in 2015 as we think the market has corrected and consolidated at the current level (the average yield at around 5% according S&P DB CNH index), which appears cheap for long-term investors.

6) Onshore offshore basis risk will persist in H1 2016: We expect the tightness in offshore RMB liquidity to persist for some time and we expect the basis between onshore and offshore money market rates to narrow only after positioning in the offshore RMB FX market becomes more balanced. The basis between the onshore and offshore RMB pricing will remain volatile for the next two quarters in our view because of the lack of market activities to drive onshore and offshore pricing convergence. As and when some of the macro prudential measures are lifted later in the year, we will see renormalization of the offshore RMB liquidity, which is the key to reviving offshore RMB financing activities in the bond market.

7) Offshore RMB CCS view: We expect the volatility risk on the CNH CCS curve to remain elevated in 2016. First, onshore and offshore money market/FX basis risk will keep the front end volatile; secondly, offshore RMB money market rates will stay relatively high (vs. the onshore curve) against the backdrop of offshore RMB weakness; thirdly, there is an absence of strong liability swap flows on the back of RMB bond issuance into USD, which pulls down the back end of the CNH CCS curve; lastly, market liquidity has been drying up at the long end of the CNH CCS curve. We recommend trading the CNH CCS curve in a wide range -1Y between 2.5-6%.

Figure 10: 2016 key forecasts

USDRMB Spot	7.00
RMB cross-border trade settlement	RMB9.4trn or 35% of China's global trade volume
Average daily FX trading volume	USD 8-10bn spot, USD8bn fwds, USD600mn CCS and USD1.5-2bn FX options
Offshore deposit base	RMB2.5trn
RMB net bond supply	RMB50-100bn
CNH bond total return	4% (CNH), 0% (USD)

Source: Deutsche Bank

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Appendix 1

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GRCM2016PROD035166