

**MONTHLY HIGHLIGHTS**

- Comparing with August 2016, TR/HKEX RXY Global CNH Index fell 0.46 per cent to 94.7, while the People's Bank of China (PBOC) USD/CNY Fixing decreased 0.19 per cent to 6.6778 in September 2016.
- HKEX's USD/CNH Futures notched an all-time record of open interest at 33,340 contracts (USD3.3 billion notional) on 30 September 2016. HKEX has by far the highest open interest level among global exchanges, representing about two-thirds of world's total.
- HKEX's Chief China Economist, Dr Ba Shusong, sees that whether or not market stabilisation can be achieved through FX intervention without undermining the offshore market's normal development and the RMB's internationalisation, the PBOC's ability in maintaining stable policy objectives and effective market communication will be decisive .
- In the Expert Corner, UBS Wealth Management's regional CIO Greater China and Chief China Economist, Dr. Yifan Hu, sees that for China to escape from the liquidity trap, it is imperative to motivate private investment by lowering costs.

**FROM THE CHIEF CHINA ECONOMIST'S VANTAGE POINT****Adjustment of Onshore and Offshore RMB Exchange Rate Spreads from the Perspective of the Management of RMB Exchange Expectation**

**Dr Ba Shusong, Chief China Economist, HKEX**

On 11 August 2015, the People's Bank of China (PBOC) announced a major enhancement to the RMB fixing mechanism. A basket of currencies was introduced as a reference to determine the current RMB fixing based on the previous day's interbank closing rates, in conjunction with market supply/demand factors and movements in other major currencies. The RMB exchange rate fluctuated to varying degrees onshore and offshore after the reform of the fixing mechanism, prompting the PBOC to implement a series of response measures which apparently proved to be effective. With the RMB on a depreciation path, the stability of onshore and offshore exchange rate spreads, the further development of offshore RMB-denominated financial products to expand the range of RMB investment products and increasing the tolerance of RMB exchange rate volatility while focusing on expanding the currency's two-way trading band will contribute to the flexible reaction to the offshore RMB exchange rate volatility and the further internationalisation of RMB.

**1. Characteristics of the offshore RMB exchange rate volatility in the wake of the currency reform in August 2015**

Firstly, policy factors affect market expectations, and the RMB has exhibited trends of periodic depreciation. In the context of an impending US interest rate hike, the currency reform in August 2015 may be seen as a precautionary adjustment against the depreciation pressure on the RMB. Ever since a basket of currencies has been used as reference for the RMB fixing, the onshore and offshore exchange rate spreads have gradually narrowed.

Secondly, the large spread between the onshore and offshore exchange rates has set off periodic arbitrage trading. Between 11 August 2015 and the end of 2015, the average daily spread of the onshore and offshore RMB exchange rates was about 440 basis points. On 6 January 2016, the spread widened at one time to about 1600 basis points. Such spread on the one hand reflected divergence in market expectations for the currency depreciation and on the other hand, it set off substantial arbitrage trades. Driven by the PBOC's policy measures, the exchange rate spread has narrowed in the first half of 2016 to a daily average level of about 161 basis points, reflecting improved expectations for the RMB exchange rate and effective control of cross-border arbitrage.

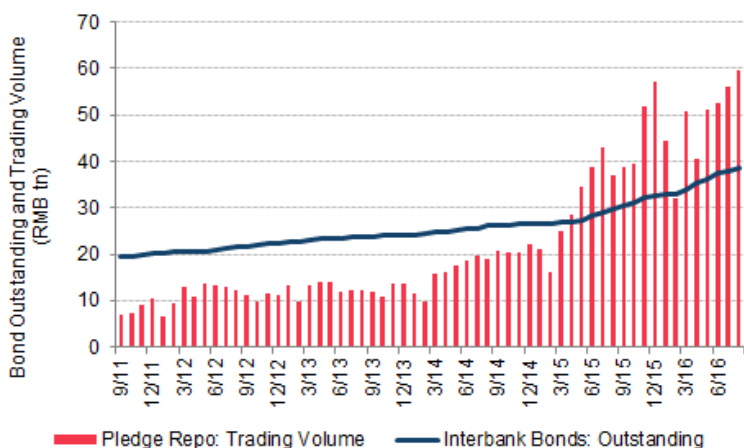
Thirdly, the volatility of offshore RMB exchange rate has increased substantially. Since the currency reform in August 2015, the offshore RMB FX market has become significantly volatile. In August 2015, the CNH volatility jumped to as high as 10.97 per cent. In January 2016, a fall of 400 to 500 basis points in the RMB exchange rate was even seen in a single day. While the rapid increase in the volatility of the offshore RMB exchange rate is attributable to international speculation on the high RMB volatility via RMB-related derivatives, the increased offshore volatility has affected the management of the RMB fixing in the onshore market.

**2. The PBOC relevant measures in response of the offshore FX market volatility and the evaluation of their impacts**

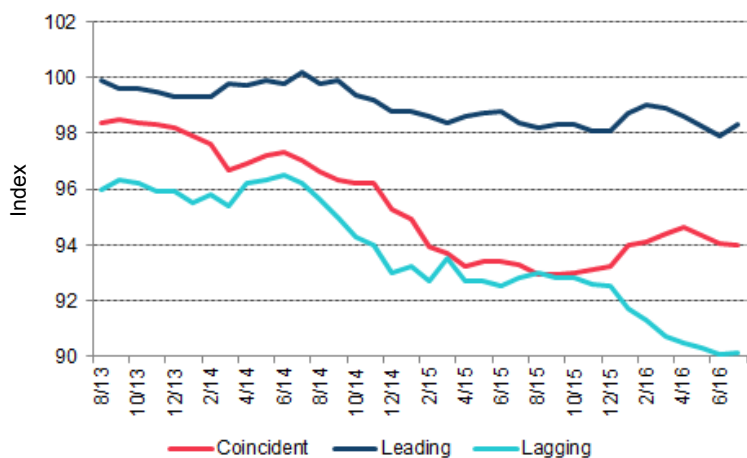
As the effects of market comovement strengthens, failure to effectively and promptly respond to the offshore FX market volatility will not only add to the difficulty of the onshore exchange rate management and the implementation of currency policies, but also increase the short-term depreciation pressure on the RMB and aggravate bearish sentiments. In the face of substantial exchange rate volatility and the arbitrage trading in the offshore market after the currency reform, the PBOC has responded with policy portfolio with multiple aspects and actively intervened in the FX market, and the outcomes have been satisfactory.

(to be continued on page 9)

**Fig 1: Chart of the Month: China's Monthly Interbank Loan Volume Now Exceeds Bond Outstanding**



**Fig 2: China's Macro-Economic Climate Index**



- The coincident index is the index reflecting the current basic trend of the economy, and it is calculated using the following data: (1) industrial production; (2) employment; (3) social demands (including investment, consumption and foreign trade); and (4) social incomes (including the government taxes, profits of enterprises and income of residents).
- The leading index is calculated using a group of leading indicators, which take a lead before the coincident index, and is used for forecasting the future economic trend.
- The lagging index is calculated using the lagging indicators, which lag behind the coincident index, and is mainly used for confirming the peak and trough of the economic cycle.

**TABLE 1**

China Key Economic Indicators	Current	Prior	Chg	Next Release Date
Real GDP (yoy %)	6.7	6.7	↔	19/10/2016
CPI (yoy %)	1.3	1.8	↓	14/10/2016
PPI (yoy %)	-0.8	-1.7	↑	14/10/2016
Industrial Production (yoy %)	6.3	6.0	↑	19/10/2016
FAI (yoy %)	8.1	8.1	↔	19/10/2016
Foreign Investment (yoy %)	5.7	5.7	↔	08/10/2016
CFLP Manufacturing PMI	50.4	50.4	↔	01/11/2016
PBOC Bankers Confidence Index	46.5	43.7	↑	TBC
PBOC Bankers Loan Demand Index	55.7	56.7	↓	TBC
Share of Payments via SWIFT in CNY (%)	1.86	1.90	↓	27/10/2016
Exports (yoy %)	-2.8	-4.4	↑	13/10/2016
Imports (yoy %)	1.5	-12.5	↑	13/10/2016
M2 Money Supply (yoy %)	11.4	10.2	↑	10/10/2016
Retail Sales (yoy %)	10.6	10.2	↑	19/10/2016
Consumer Confidence Index	115.2	111.5	↑	26/10/2016
Regulated Reserve Ratio (%)	17.5	18.0	↓	Infrequent
Official Foreign Exchange Reserves (USD bn)	3185.2	3201.1	↓	07/10/2016
Three-Month SHIBOR (%)	2.80	2.79	↑	Continuous
10-Year Gov't Bond Yield (%)	2.74	2.70	↑	Continuous
USD/CNY Exchange Rate	6.68	6.69	↓	Continuous
TR/HKEX RXY Global CNH Index	94.70	95.14	↓	Continuous

**CHART OF THE MONTH**

- Monthly transaction volume in China's repo market, which comprises short-term loans that use bonds as collateral, has surged and now exceeded total bonds outstanding. Banks and other investors have increasingly funded new bond purchases with short-term borrowing, essentially relying on the PBOC cash injections to keep borrowing costs low.

**REGULATORY/POLICY DEVELOPMENTS**

- The National People's Congress Standing Committee (NPCSC) approved the amendments to four laws regarding overseas direct investment on 3 September 2016. Effective from 1 October, the set-up of foreign investment ventures would be subject to filing arrangements as long as the relevant industry was not on the negative list for foreign investment, as compared to the current approval regime. China's Ministry of Commerce also released the implementation rules for consultation on 3 September 2016 regarding the filing procedures of foreign ventures.
- Chinese President Xi Jinping reiterated, at the opening address of G20 Summit on 3 September 2016, China's commitments to expanding access for foreign investment, carrying out market-based reform of the RMB exchange rate in an orderly manner, phasing in the opening of domestic capital market and continuing efforts to make the RMB an international currency and further internationalise China's financial sector.
- China will establish direct trading of RMB with the Saudi Arabian Riyal and United Arab Emirates' Dirham respectively, the China Foreign Exchange Trade System (CFETS) said in its statements on 23 September 2016. Both trading pairs will be effective from 26 September 2016. The move would bring the number of foreign currencies that are allowed direct trading with RMB to 16.

**MACRO ECONOMIC UPDATE**

- China's State Administration of Foreign Exchange (SAFE) said on 19 September 2016 that foreign exchange sales by banks fell to RMB21.7 billion (USD3.25 billion) in August 2016, sharply lower than July's RMB131.9 billion, suggesting easing pressure of capital outflows. Chinese companies raising funds offshore also offset some capital outflows, according to a SAFE statement released on 19 September 2016, with net inflows from their borrowing reaching USD6.1 million during the month.

**MARKET/PRODUCT DEVELOPMENTS**

- On 26 September 2016, HKFE Clearing Corporation Limited (HKCC) issued a new collateral policy which removed the requirement of at least 50 per cent of RMB margin requirement to be covered by RMB cash. Clearing Participants can now satisfy the RMB margin requirement by non-RMB (e.g. HKD or USD), subject to a limit of RMB 1 billion per Clearing Participant level.
- The National Association of Financial Market Institutional Investors (NAFMII) released the revised rules for credit risk-mitigation tools on 23 September 2016 to protect investors against bond or loan defaults. Apart from the existing CRMA (credit risk mitigation agreement) and CRMW (credit risk mitigation warrant), two new financial instruments, namely CDS (credit default swap) and CLN (credit-linked notes), are recently introduced to the market.

## RMB FX MARKET DYNAMICS

### OFFSHORE USD/RMB

- In September 2016, USD/CNY fixings moved between 6.6513 and 6.6908, and CNH was trading 0.20 per cent higher versus the US dollar from a month ago. The PBOC set the CNY fixing to 6.6908 on 12 September 2016, the weakest level since the UK announced the results of the Brexit referendum.
- Fan Gang, a member of PBOC's Monetary Policy Committee, said on 8 September 2016 that a gradual RMB devaluation should be allowed as the US dollar is set to strengthen, and the moves to loosen the nation's capital borders should continue despite capital outflows.

Fig 3: Onshore/Offshore RMB Price Range

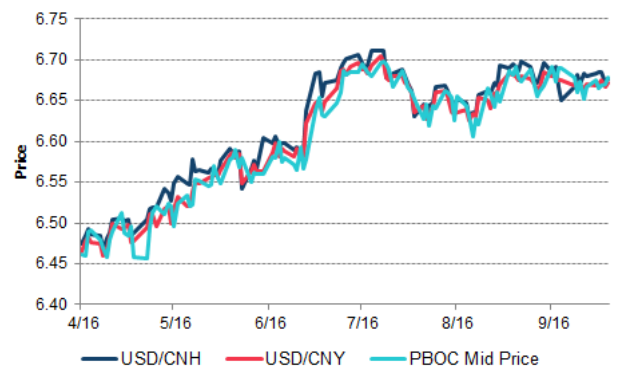


Fig 4: Implied Volatilities of OTC USD/CNH ATM Options

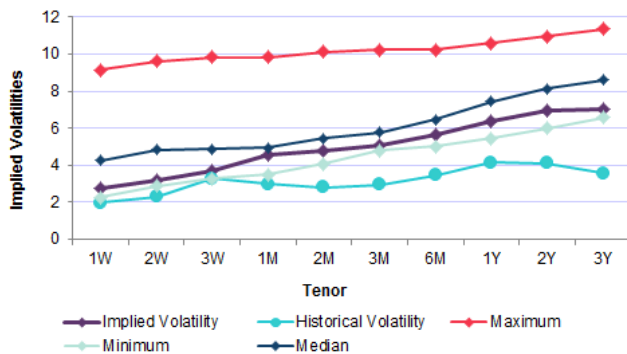
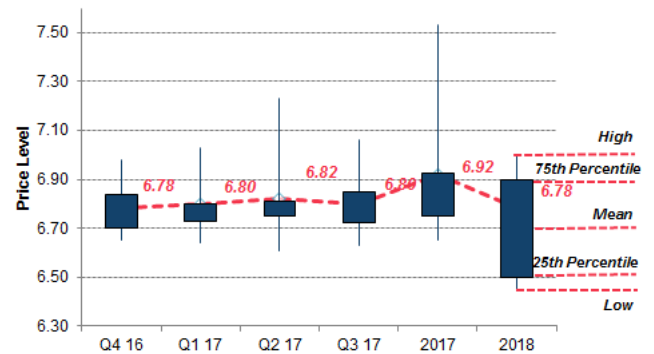


Fig 5: Market Forecasts for the Level of USD/CNH



## HKEX'S USD/CNH FUTURES

### PRODUCT HIGHLIGHTS

- Open interest (OI) was 33,340 contracts (US\$3.3 billion notional) as of the end of September 2016, an all-time record. HKEX has by far the highest open interest level among global exchanges, representing about two-thirds of world's total.
- Trading volume was 3,362 contracts (US\$336 million notional) on 28 September 2016, the highest in three months. The contract's average daily volume swelled to 1,599 contracts (US\$160 million notional) in September, its best level since the first quarter in 2016.
- Trading volume was highest in the Dec-16, Oct-16, and Jun-17 contracts, which accounted for 54.5 per cent of total volume in September 2016. Open interest concentrated in the Dec-16, Mar-17, and Jun-17 contracts, accounting for 70.9 per cent of total open interest at the end of September 2016.

Fig 6: USD/CNH Futures Turnover and Open Interest

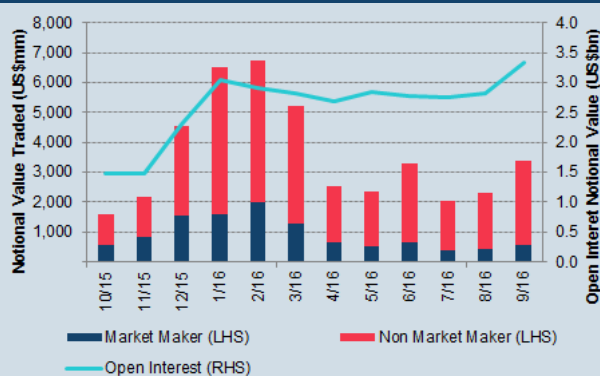


Fig 7: HKEX USD/CNH Futures Contract Provides Liquidity in Volatile Market

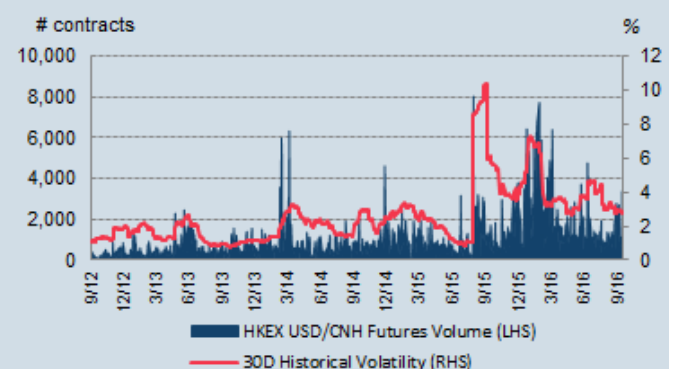


Fig 8: Breakdown of Volume by Contract Month (9/2016)

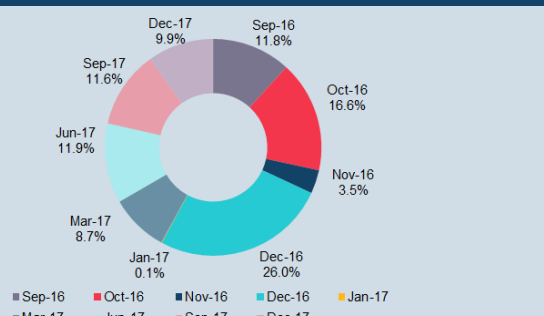
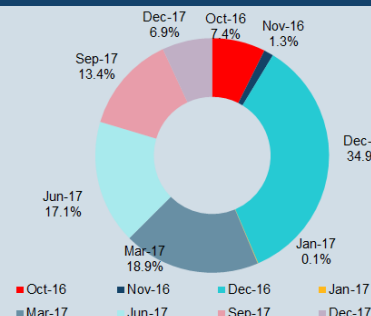


Fig 9: Breakdown of OI by Contract Month (30/9/2016)



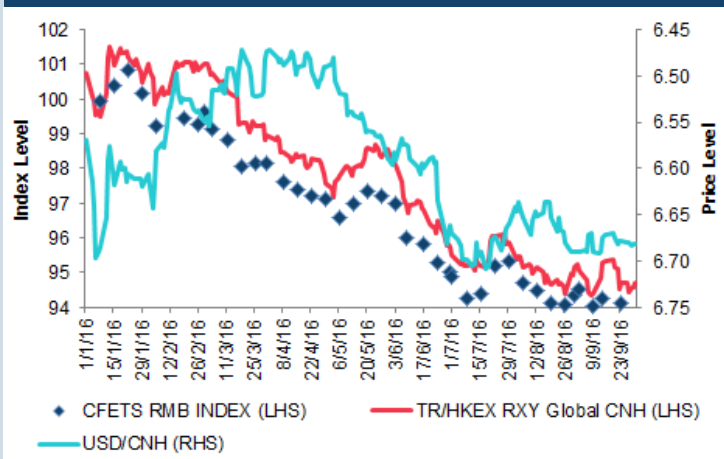
## TR/HKEX RMB CURRENCY INDICES (RXY)

- Comparing with August 2016, TR/HKEX RXY Global CNH index fell 0.46 per cent to 94.70 while the PBOC USD/CNY Fixing decreased 0.19 per cent to 6.6778 in September 2016.
- The largest contributor to the performance of the TR/HKEX RXY Global CNH Index in September 2016 was the JPY, which appreciated 2.28 per cent against the USD comparing with end of August 2016.

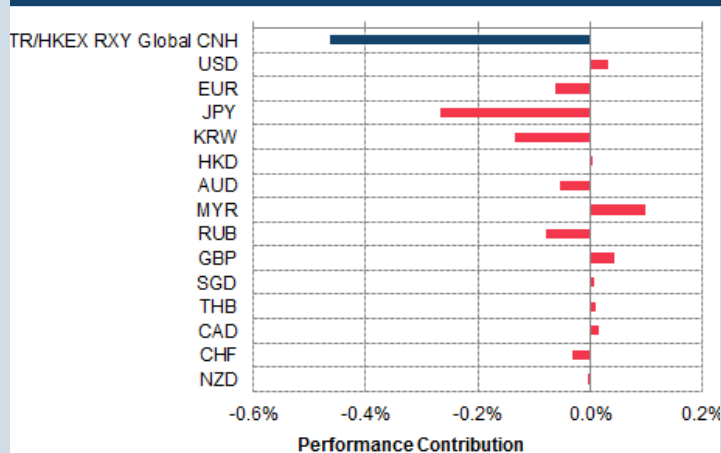
**TABLE 2: Summary Table for TR/HKEX RMB CURRENCY INDICES**

Indices	Return			Risk						
	2016/9/1 - 2016/9/30 (Month)	2016/8/1 - 2016/8/31 (Month)	Chg	MTD	YTD	30-Day Realized Volatility (as of 2016/9/30)	30-Day Realized Volatility (as of 2016/8/31)	Chg	Correlation with China Foreign Exchange Trade System (CFETS) RMB Index	Beta vs CFETS RMB Index
TR/HKEX RXY Global CNH	-0.46%	-0.74%	↑	-0.46%	-5.83%	3.95%	3.38%	↑	0.86	0.65
TR/HKEX RXY Global CNY	-0.46%	-0.68%	↑	-0.46%	-6.80%	3.43%	2.97%	↑	0.91	0.57
TR/HKEX RXY Reference CNH	-0.38%	-0.72%	↑	-0.38%	-5.58%	3.90%	3.22%	↑	0.85	0.62
TR/HKEX RXY Reference CNY	-0.38%	-0.65%	↑	-0.38%	-6.56%	3.57%	3.09%	↑	0.91	0.61

**Fig 10: Performance: TR/HKEX RXY Global CNH, CFETS RMB Index and USD/CNH**



**Fig 11: Monthly Performance Contribution Breakdown: TR/HKEX RXY Global CNH (September 2016)**



## PRODUCT HIGHLIGHTS

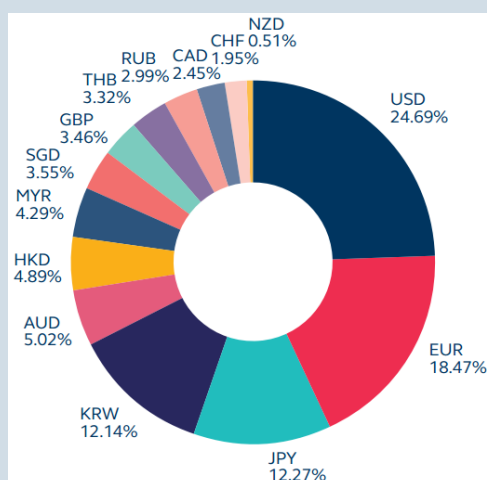
- The RXY indices offer independent, transparent and timely benchmarks for RMB against Mainland China's most important trade partners' currencies.
- The indices are calculated based on WM/Reuters foreign exchange rates (WM/Reuters FX Rates) and managed in accordance with the IOSCO (International Organisation of Securities Commissions) principles for financial benchmarks.
- The RXY indices are designed to be the basis for investment and trading products such as futures, options and exchange traded funds.

## METHODOLOGY

- Calculation Method:** Geometric Average
- Weighting Method:** Bilateral trade weighted with adjustment for Hong Kong re-exports
- Trade Data Source:** UN Comtrade, Hong Kong Census and Statistics Department
- Weighting Rebalance:** Annual review. Announcement in June, Implementation on the first business day of Q4
- Calculation Frequency:** Hourly
- FX Rate Data Source:** WM/Reuters FX Rates
- Base Date:** 100 as of 31 December 2014

**Fig 12: TR/HKEX RXY Global CNH Currency Index**

Index Weights: Valid Until 29 September 2017



For more details, a complete methodology document is available at: [financial.thomsonreuters.com/fxindices](http://financial.thomsonreuters.com/fxindices)

**TABLE 3: Index Weights**

Currency	RXY Global Currency Indices	RXY Reference Currency Indices	CFETS RMB Index
USD	24.69%	28.09%	26.40%
EUR	18.47%	21.03%	21.39%
JPY	12.27%	13.97%	14.68%
KRW	12.14%	0.00%	0.00%
AUD	5.02%	5.72%	6.27%
HKD	4.89%	5.56%	6.55%
MYR	4.29%	4.88%	4.67%
SGD	3.55%	4.04%	3.82%
GBP	3.46%	3.93%	3.86%
THB	3.32%	3.78%	3.33%
RUB	2.99%	3.41%	4.36%
CAD	2.45%	2.79%	2.53%
CHF	1.95%	2.22%	1.51%
NZD	0.51%	0.58%	0.65%



## OFFSHORE RMB AGAINST OTHER CURRENCIES

### EUR/CNH

- The CNH was trading 0.50 per cent lower against the EUR in September 2016 from a month ago, and remained in a relatively tight range of 7.42 to 7.52.
- The implied volatility of 3M OTC options fluctuated around 8 per cent in September 2016, as Markit's final manufacturing results improved over preliminary scores from 51.4 to 51.5, and ISM's manufacturing print also scored 51.5 in September, improving from August's 49.4.
- On the FX radar, the valuation factor was well above its historical average, while the carry, sentiment, and risk factors were below their historical average.

**Monthly CNH Performance vs EUR**

↓ -0.50%

**Implied Volatility**

8.2%

Fig 13: FX Radar\*

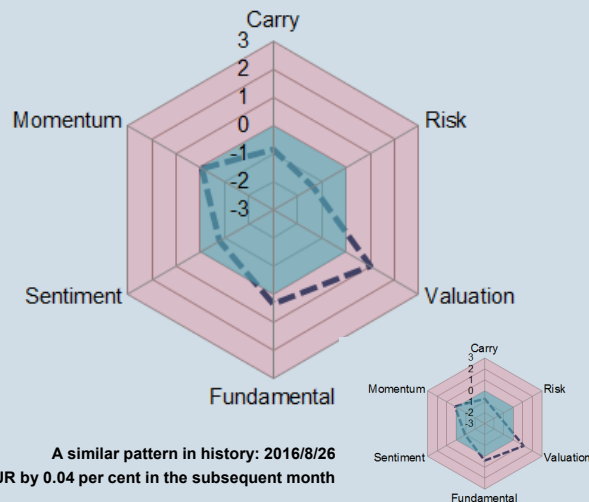


Fig 14: FX Volatility (3M Implied)

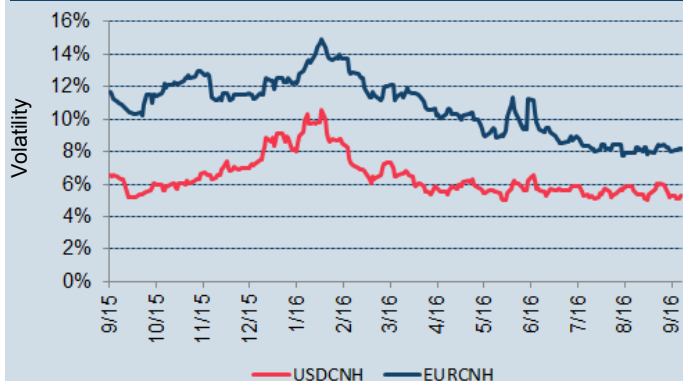
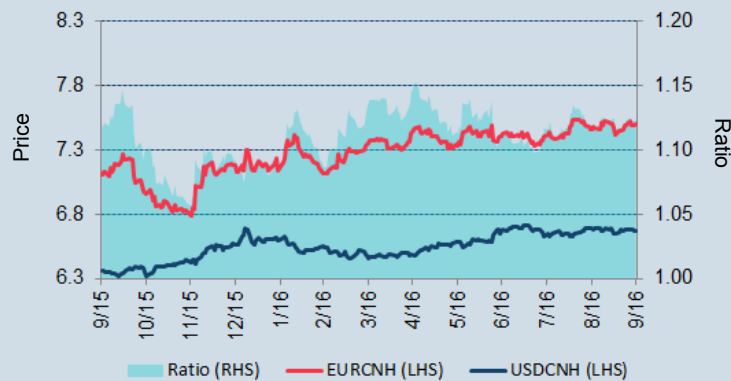


Fig 15: Price Ratio: EURCNH / USDCNH



### AUD/CNH

- The CNH was trading 1.71 per cent lower against the Australian dollar (AUD) in September 2016 from a month ago, as the AUD was largely influenced by investor appetite for risk and demand for enhanced yields.
- The implied volatility rebounded to near 11 per cent in September 2016.
- On the FX radar, the risk, sentiment, and carry factors were below their historical average, while the valuation factor was above their historical average.

**Monthly CNH Performance vs AUD**

↓ -1.71%

**Implied Volatility**

10.7%

Fig 16: FX Radar\*

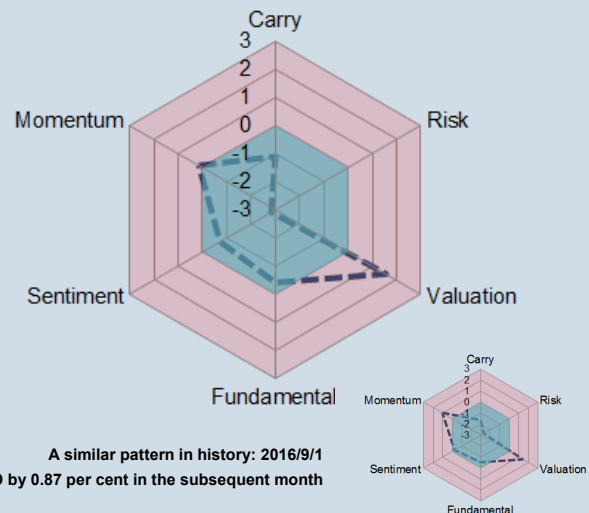


Fig 17: FX Volatility (3M Implied)

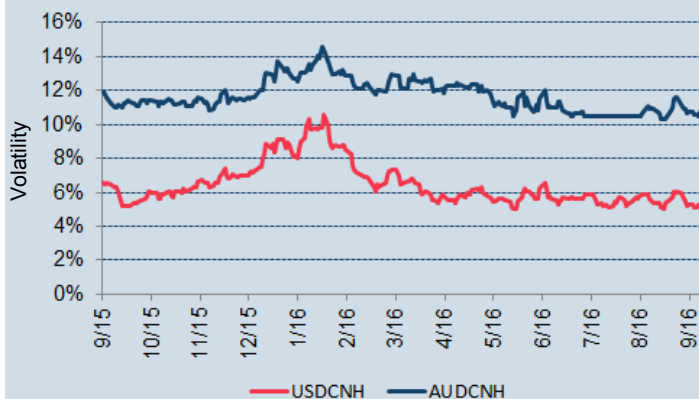
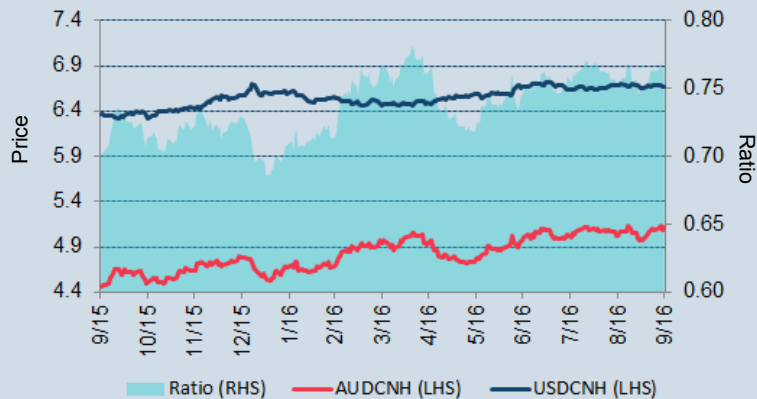


Fig 18: Price Ratio: AUDCNH / USDCNH



**JPY/CNH**

- The CNH was trading 1.81 per cent lower against the JPY in September 2016 from a month ago, on a key disappointment from relative inaction from the Bank of Japan.
- The 3-month implied volatility OTC options centered around 12 per cent in September 2016.
- On the FX radar, the risk, sentiment, and fundamental factors were above their historical average, while the valuation and momentum factors were below their historical average.

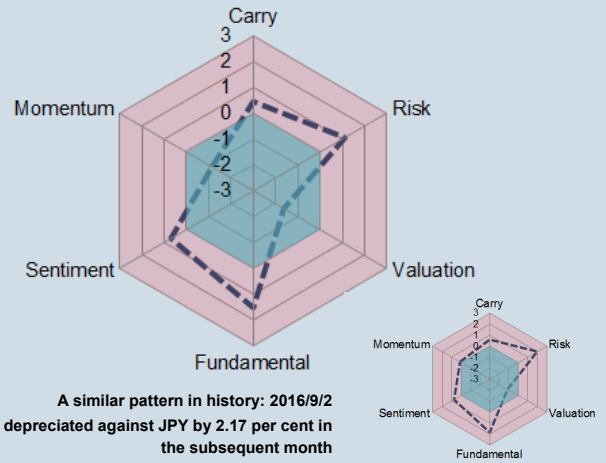
**Monthly CNH Performance vs JPY**

↓ -1.81%

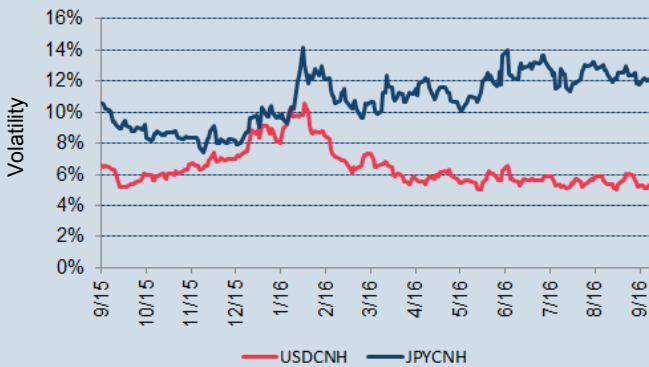
**Implied Volatility**

12.0%

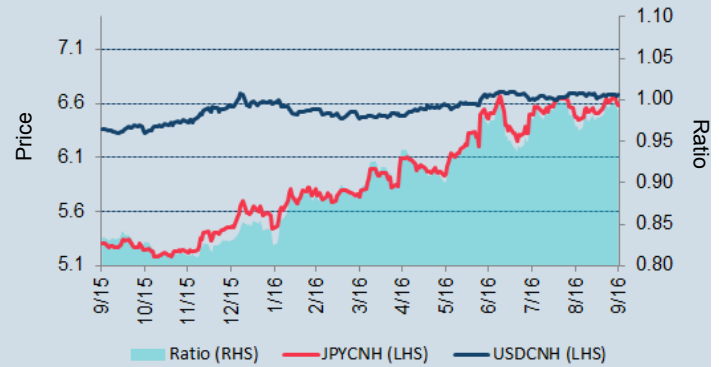
**Fig 19: FX Radar\***



**Fig 20: FX Volatility (3M Implied)**



**Fig 21: Price Ratio: JPYCNH / USDCNH**



**TABLE 4: Summary Table for RMB Currency Pairs**

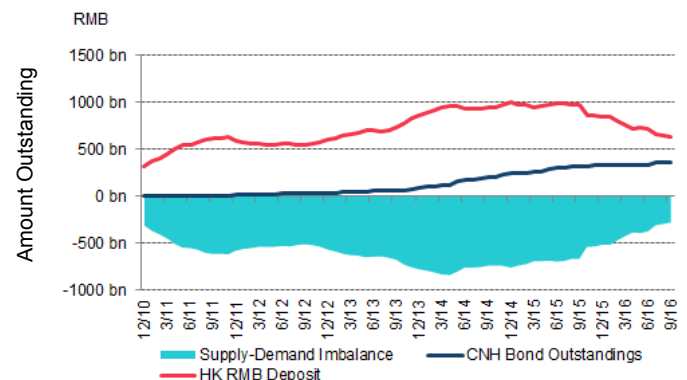
	Performance					Volatility					
	Sep	Aug	Chg	Prior 3 Month	YTD	Implied	Prior	Chg	Historical	Prior	Chg
USDCNH	0.22%	-0.92%	↑	-0.09%	-1.66%	5.2%	5.6%	↓	3.4%	3.5%	↓
EURCNH	-0.50%	-0.80%	↑	-1.29%	-4.49%	8.2%	7.9%	↑	6.0%	6.2%	↓
AUDCNH	-1.71%	0.05%	↓	-2.94%	-6.90%	10.7%	11.0%	↓	9.0%	9.8%	↓
JPYCNH	-1.81%	0.39%	↓	-1.91%	-20.90%	12.0%	12.7%	↓	13.5%	14.5%	↓

**OFFSHORE BOND MARKET DYNAMICS**

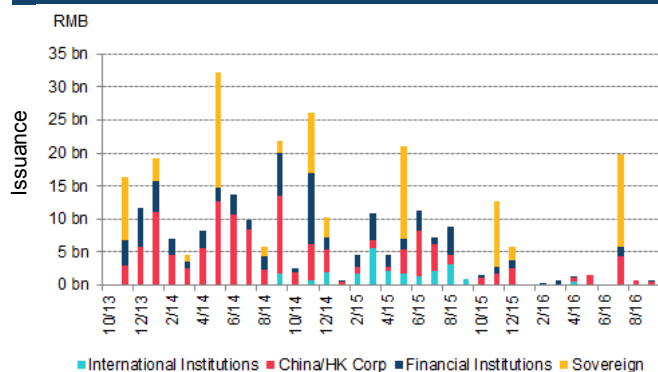
**OFFSHORE RMB BOND MARKET COMMENTS**

- RMB deposits in Hong Kong decreased by 2.1 per cent month-on-month to RMB652.9 billion in August 2016. The total remittances of RMB for cross-border trade settlement amounted to RMB398.8 billion in August 2016, compared to RMB407.5 billion in July 2016.
- The steady fall in Hong Kong's RMB deposits from the peak in December 2014 was driven by reduced time deposits, while demand and savings deposits have been more stable. This suggests a possible withdrawal pressure trend while depositors were holding the time deposits to expiry expecting the interest accrued to compensate for any capital loss.

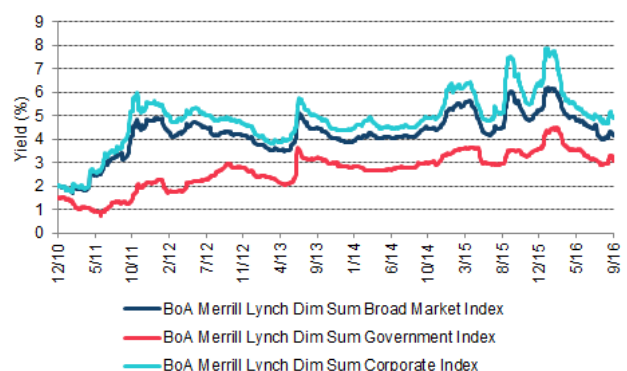
**Fig 22: Offshore RMB Deposits vs Dim Sum Bonds**



**Fig 23: Offshore RMB Bond Issuances by Issuer Type**



**Fig 24: Dim Sum Bond Performance**



## ONSHORE RMB BOND MARKET COMMENTS

### ONSHORE BOND MARKET DYNAMICS

- Onshore bond issuance increased 14 per cent to RMB 2.9 trillion in September 2016 from RMB 2.6 trillion in September 2015. Certificates of deposit (CDs) issuance in September 2016 was up 90 per cent from a year ago.
- China Construction Bank Corp. forecasted bonds denominated in Special Drawing Rights would swell to 5 billion SDR units (US\$7 billion) in China in the next few years, after the world's first sale of such debt in three decades. The World Bank issued 500 million SDR units (US\$698 million) of three-year notes in China's interbank market on 1 September 2016, the first sale of debt in the International Monetary Fund's alternative reserve assets since the 1980s.

Fig 25: MoF T-Bonds Yield 5Y: Onshore vs Offshore (%)

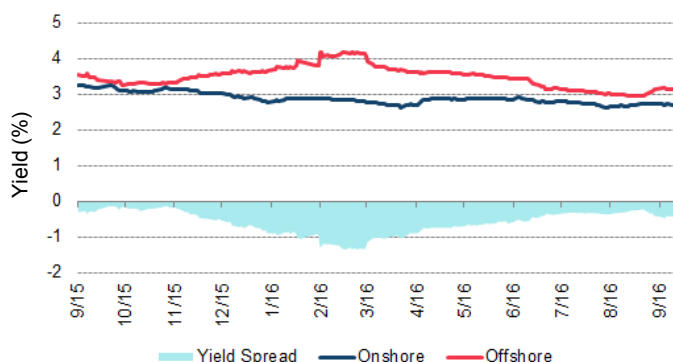


TABLE 5

Key Figures on Interbank Market Cash Bond Transactions (classified as per bond types, for September 2016)

Bond Type	Number of Deals	Trading Value(RMB 100M)	Yield to Maturity(%)
Policy Financial Bond	44,097	48,326.89	2.8367
Treasury Bond	11,597	12,697.96	2.5579
Medium-term Note	12,050	8,020.90	4.9001
Corporate Bond	8,732	4,816.37	4.3850
CDs	8,387	21,125.34	2.9865
Commercial Paper	13,238	10,844.56	3.3454
Central Bank Paper	2	4.65	2.3661
Others	4,326	6,033.43	3.6024
<b>Total</b>	<b>102,429</b>	<b>111,870.10</b>	<b>3.1482</b>

Fig 26: MoF T-Bond Outstanding Split by Tenor

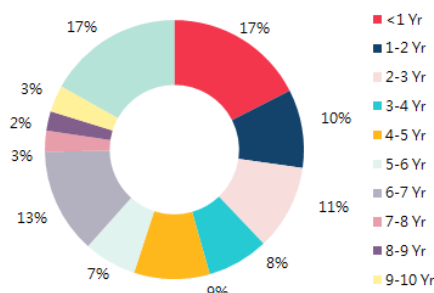


TABLE 6

NAFMII Guidance for Non Fixed Income Debt Issuing (as of 2016/9/28)

	1Yr	MoM	3Yr	MoM	5Yr	MoM	7Yr	MoM	10Yr	MoM	15Yr	MoM	20Yr	MoM	30Yr	MoM
AAA+	2.89	↑	3.39	↓	3.58	↓	3.98	↓	4.23	↓	4.86	↓	5.05	↑	5.30	↓
AAA	3.10	↑	3.48	↓	3.77	↓	4.29	↓	4.53	↓	5.17	↓	5.50	↓	5.80	↓
AA+	3.31	↑	3.87	↓	4.20	↓	4.77	↓	5.17	↓	5.80	↓	6.20	↓	6.54	↑
AA	3.76	↓	4.34	↓	4.67	↓	5.44	↓	5.68	↓	6.55	↓	6.91	↑	7.38	↓
AA-	5.07	↓	5.70	↓	6.08	↓	7.18	↓	7.58	↑	8.21	↓	8.61	↓	8.91	↓

NAFMII – National Association of Financial Market Institutional Investors

Fig 27: Foreign Participation in the CIBM Market

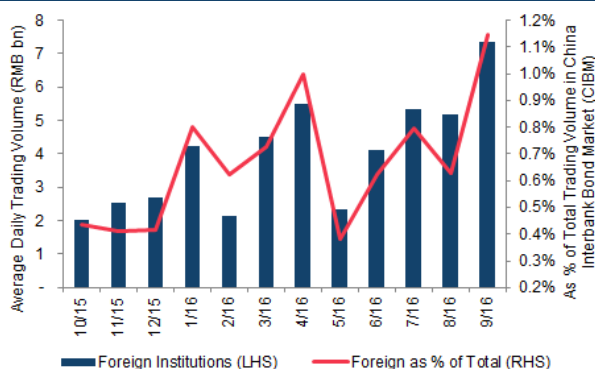


Fig 28: Onshore Bond Holdings by Foreign Institutions

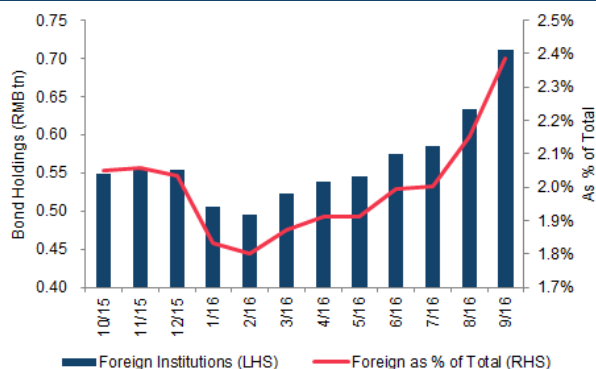


Fig 29: Bond Holdings Composition by Foreign Institutions

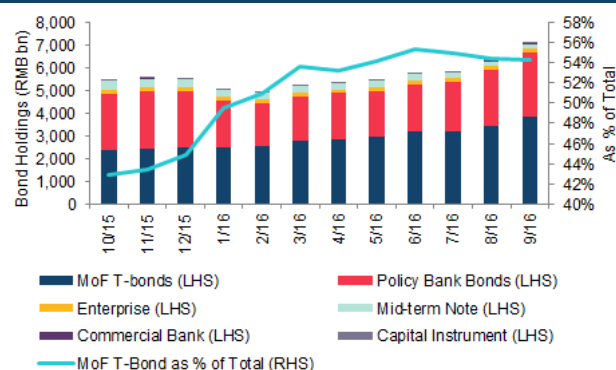
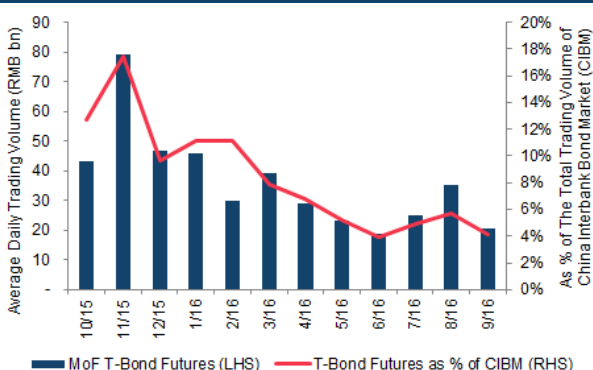


Fig 30: MoF T-Bond Futures Trading Volumes



## ONSHORE/OFFSHORE SHORT-TERM INTEREST RATE DYNAMICS

### ONSHORE/OFFSHORE RMB STIR MARKET COMMENTS

- CNH HIBOR overnight loan rate rose to 23.683 per cent on 19 September 2016, highest since 67 per cent spike in January 2016. Analysts voiced suspicions that PBOC intervened to raise overnight borrowing costs to limit RMB depreciation ahead of SDR operations on 1 October 2016.
- The PBOC auctioned RMB 60 billion (US\$9 billion) of reverse-repurchase agreements in open-market operations on 13 September 2016 for the first time in seven months, intensifying its effort to cool a domestic bond market that has thrived on an influx of cheap, short-term money.

Fig 31: CNH Implied Yield vs. USD/CNH

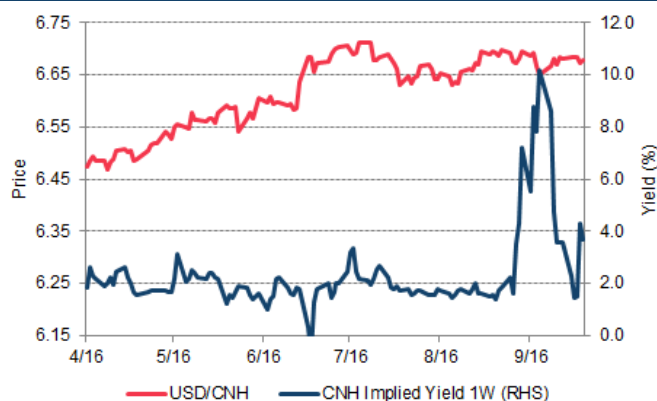


Fig 32: CNY SHIBOR Yield Curves

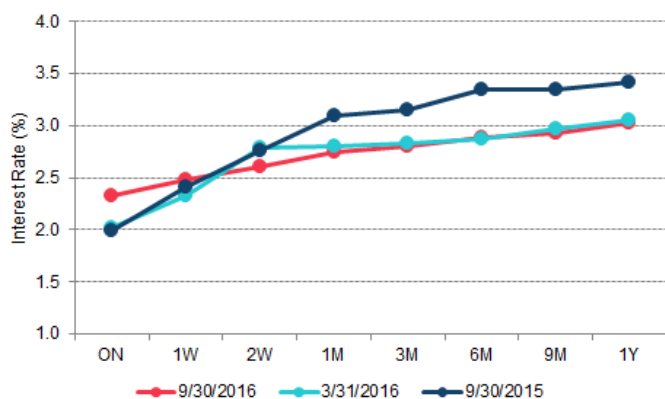


Fig 33: CNH HIBOR Yield Curves

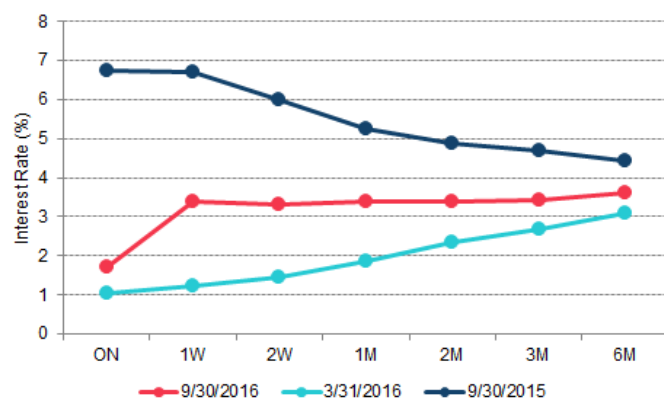


Fig 34: Onshore IRS (7D Repo) Yield Curves

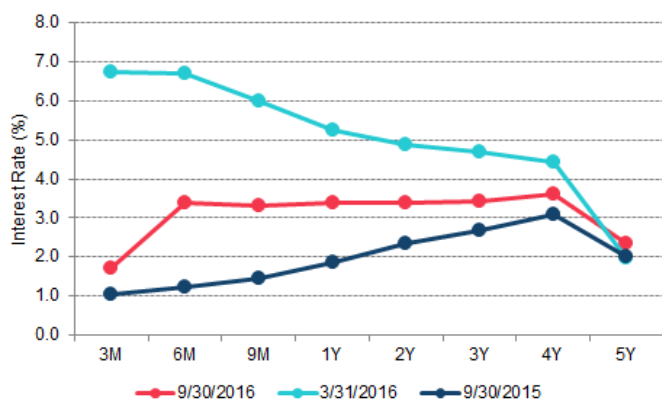


Fig 35: Onshore IRS Trading Notional Principal

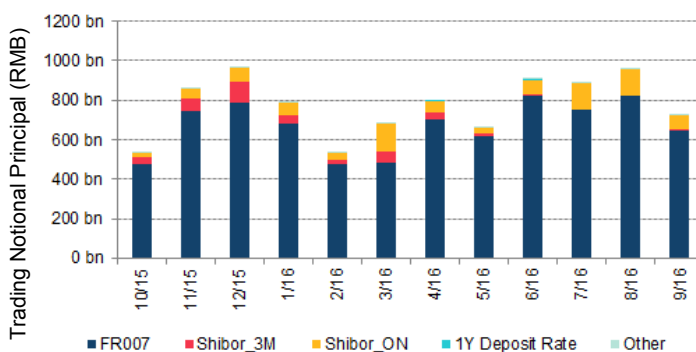


Fig 36: CNY SHIBOR vs CNH HIBOR

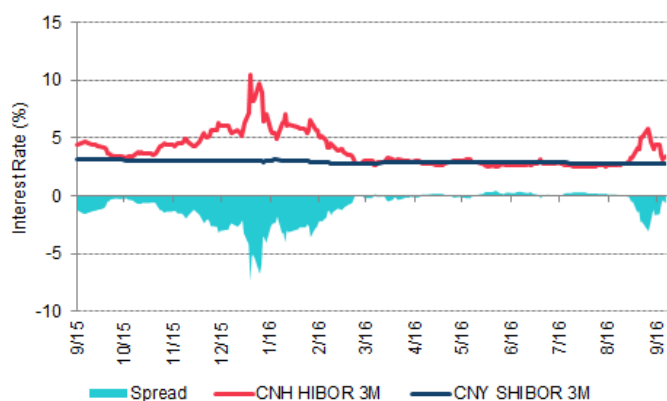
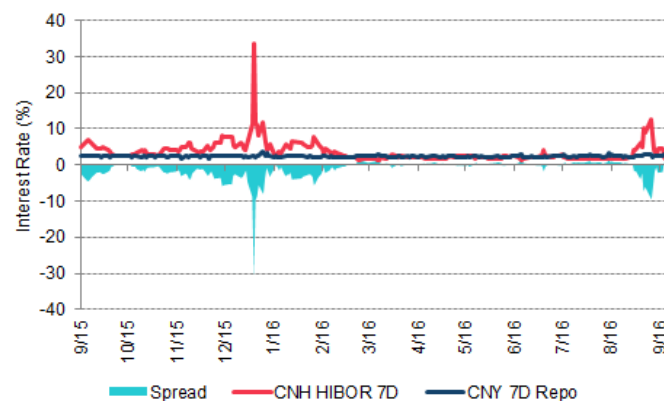


Fig 37: CNY 7D Repo vs CNH HIBOR





(Continued from page 1)

Firstly, the cost of financing in the offshore market was increased to crack down on speculative capital. Targeting irrational shorting in the offshore market, the PBOC took steps to control offshore RMB liquidity, such as requiring offshore financial institutions to set aside reserves for their forward FX position and imposing a reserve requirement on offshore RMB to increase the cost of financing in the currency. At the same time, receipt and payment of foreign currency banknotes and oversight of false trade transactions was strengthened to control the outflow of RMB.

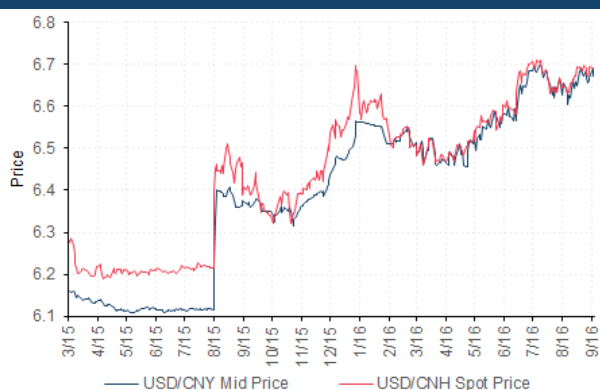
Secondly, derivatives such as FX forwards were deployed in the short term to stabilise the RMB exchange rate and reduce the spread between the onshore and offshore FX rates. According to data released by the PBOC, as of the end of June 2016, the net short positions in the forward and futures contracts of foreign currencies versus RMB held by the PBOC were about US\$28.9 billion. Apart from meeting the hedging needs of business enterprises for their foreign currency liabilities, these positions also demonstrated the PBOC's intention to stabilise the onshore RMB exchange rate. To intervene more directly in the FX market than through forward operations, the central bank directly purchased RMB through offshore market agents while dumping US dollars.

By adjusting cross-border capital flows using marketized pricing tool, the series of measures implemented by the PBOC effectively eased the rapid depreciation of the offshore RMB in the short term, but in the long run, the rise in intervention costs will have an impact on the offshore market development and the RMB internationalisation. Also, the PBOC's sale of foreign currencies may incur a rise of interest rates in the domestic market. At a time when the Mainland's real economy is slowing and there is an urgent need for improvement in corporate profits and the financing environment, it has become inevitable for the Mainland to adjust its currency supply to minimise blows to the real economy. Such circumstances have turned monetary policy adjustment and implementation into passive modes, and led to conflicting policies.

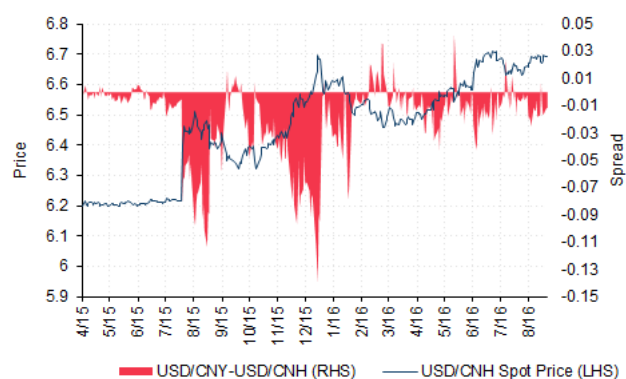
In terms of offshore monetary stock indicators, as of the end of June 2016, the RMB balance in Hong Kong, the largest offshore RMB liquidity pool, was about RMB711.548 billion, down 28.34 per cent year on year. Under the influence of short-term exchange rate adjustment, the offshore market has seen a reduced supply of RMB, rising interest rates and a drastic fall in the issuance of offshore RMB bonds. Dim sum bond issuance in Q1 was RMB29.5 billion less or down nearly 74 per cent compared to the same period in 2015. The offshore market development is crucial to the internationalisation of the RMB. With policies like Shanghai Connect and Shenzhen Connect, and the opening of the Mainland's interbank bond market to foreign institutions, the channels through which the offshore RMB may be utilised and repatriated have broadened. Further liberalisation of the Mainland's interbank bond market will in the long run increase the international appeal of the RMB, with corresponding growth in the offshore market's influence on the onshore market. Whether or not market stabilisation can be achieved through FX intervention without undermining the offshore market's normal development and the RMB's internationalisation, the PBOC's ability in maintaining stable policy objectives and effective market communication will be decisive.

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**Fig 38: The Trends of USD/CNH and USD/CNY Fixing**



**Fig 39: The Trend of the Spread of Onshore and Offshore RMB Exchange Rate**



## EXPERT CORNER

### CAN CHINA ESCAPE FROM ITS LIQUIDITY TRAP?

Contributed by Yifan Hu, Regional CIO Greater China and Chief China Economist, UBS Wealth Management

A liquidity trap occurs when central bank liquidity injections into the banking system fail to decrease interest rates and increase borrowing. So has China been caught in a liquidity trap? We think so.

Liquidity injection growth (M1) from the People's Bank of China (PBOC) has accelerated since March 2015, reaching a record high of 25.4 per cent y/y in July 2016, 15.2 percentage point faster than credit creation growth (M2). Mirroring the gap between M1 and M2, private investment growth, accounting for over 60 per cent of total fixed asset investment, plunged to 2.1 per cent y/y for Jan-July from 10.1 per cent in 2015. Still, China's interest rates remain high despite aggressive liquidity injections. For example, one-year and 10-year government bond returns were kept as high as 2.2 per cent and 2.8 per cent respectively by July-end 2016, while 10-year government bond returns in Japan and Germany were negative.

#### The causes of China's liquidity trap

First, without incentives to spur private investment, private companies have been unwilling to make long term investments due to low returns and China's uncertain outlook amid deep old-economy adjustments. Furthermore, private companies are disadvantaged by still-high borrowing costs even after several rounds of interest rate cuts since late 2014. China's overall weighted loan rate was about 5.26 per cent for 2Q16 based on PBOC statistics, while average private borrowing costs were estimated at 8–10 per cent, much higher than the public sector. Yield curves are being kept high due to the private sector's high credit costs and limited funding channels.

Second, the capital market has sucked up liquidity over the past years, pushing up stock, bond, commodity and real estate prices. The real estate market has been the king absorber of money across asset classes in China. According to JLL, the market cap of the Chinese property market is currently about CNY 270 trillion, four times China's nominal GDP or twice the total value of US real estate and nine times higher than it was in 2003 (CNY 30 trillion). Thus, the real estate market's out performance and the limited available investment channels have trapped most liquidity.

#### A liquidity trap escape plan

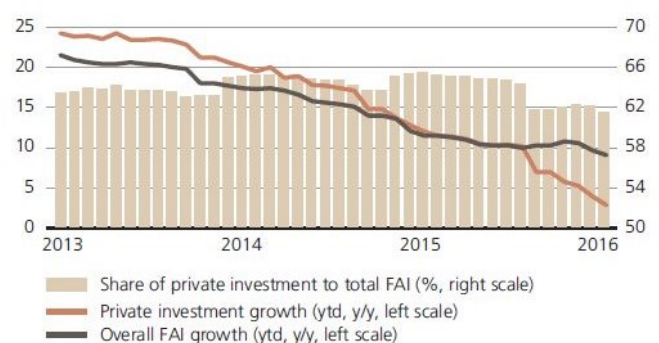
For China to escape from this liquidity trap, it is imperative to motivate private investment by lowering costs. This can be done by cutting corporate taxes and fees and relaxing market entry thresholds for monopolized sectors and service sectors like healthcare and education. Resolving overcapacity and breaking down unconditional payment rules to free resources for private investment in the new economy are equally important. And prudent housing policies are needed to prevent land and property prices from rising too rapidly and thereby creating property market bubbles.

**Fig 40: M1 Growth Has Outpaced M2 Growth Since October 2015**



Source: CEIC, UBS, as of August 2016

**Fig 41: Private Investment Has Plunged This Year**



Source: CEIC, UBS, as of August 2016

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Yifan joins us in November 2015 as Regional CIO Greater China & Chief China Economist. She is based in Hong Kong, and serves as a member of the CIO Asia Investment Committee as well as the CIO Emerging Markets Investment Committee. Working alongside the investment teams globally and in Asia Pacific, Yifan is helping shape CIO's macroeconomic views on China.

Yifan has held several Chief Economist positions since 2007, most recently at Haitong International where she was tasked with leading H-share equity research. She was awarded the "Outstanding Research Diamond Award" and "Best economist in Greater China" in 2013-2014 by Institutional Investor China. Prior to this role, Yifan worked as a Chief Economist at CITIC Securities, China Economist at France's Natixis, and an equity research strategist at Merrill Lynch. Her views and columns can be found in leading financial media.

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Yifan has also authored a book on "Strategic priorities: China's reforms and Reshaping of the global order"(2014), and some of her recent papers include "Economic transition, higher education and worker productivity in China" in Journal of Development Economics (2010), "Bonds and transactions service and optimal Ramsey policy" in Journal of Macroeconomics (2009), and "The performance effect of managerial ownership: Evidence from China" in Journal of Banking and Finance (2008).

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## APPENDIX: DEFINITION OF THE FX RADAR

We selected a number of factors that drive RMB currency pairs, including carry (yield spread), risk (volatility), valuation (terms of trade), fundamentals (trade balance), sentiment (risk reversal), and momentum (three-month return). Factor values were normalized based on the most recent one-year data and plotted on our FX radar graph. For example, a factor value of 1 for “carry” indicates that the current yield spread is one standard deviation above its mean over the past year.

The black dotted line represents the prevailing factor dynamics of the specific RMB FX pair. Against the current factor dynamics, we identified the most similar patterns in past history by means of optimization across the six driving factors. The historical price movement of that particular period is shown for reference.

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