Research

FTSE Russell

# FTSE Russell China Bond Research Report

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## Highlights

- Despite the renminbi's (RMB) general depreciation trend, RMB volatility is easing as signs of macroeconomic stability in China emerge, including early August data that showed deflation in producer prices may be near an end after more then four years; meanwhile China's foreign-exchange reserves have levelled out at around $3.2 trillion.[1]
- By some measures, RMB internationalisation has been slowing in recent months: the RMB's share of global payments dropped to 1.7 percent in June, putting it in sixth place behind the Canadian dollar, as fears of more intervention by China's regulators dampened confidence in the currency. The People's Bank of China (PBOC) has said it is committed to defending the RMB from falling past 6.7 per dollar.[2]
- In the onshore bond market, 10-year Chinese government bonds were yielding 2.82 percent as of July, marking a rebound following the UK's vote to leave the EU, and delivering a higher return than the negative yields on offer in some developed markets.[3]
- At the same time, default risks are rising for onshore corporate bonds as macroeconomic growth slows, and many market participants look to the offshore dim sum market.[4] In the year through June 30, 17 issuers defaulted onshore, nearly three times the number of defaults seen in the whole of 2015.[5]

1 Bloomberg. August 2016.
2 Bloomberg. August 2016.
3 Financial Times. July 2016.
4 Financial Times. July 2016.
5 Bloomberg. August 2016.

## Chapter 1: Overview

### While signs emerge of greater RMB and macroeconomic stability, opacity, government intervention and low yields hamper evolution of the onshore market

### I. A Difficult Balancing Act

As 2016 approaches its final quarter, many international market participants are still hesitant to buy onshore RMB bonds due to China's slowing economic growth, a depreciating RMB, and, perhaps most importantly, unresolved questions about the Chinese government's role in managing how market forces develop via its ambitious financial reform program.[6]

Throughout 2016 Chinese policymakers have had no choice but to perform a balancing act worthy of a world class circus: on one hand, they have had to ensure the RMB is worthy of a leading role in international markets following its inclusion in the International Monetary Fund's Special Drawing Rights (SDR) currency basket, while on the other they have had to wean China off of an export and investment led growth model and try to stimulate domestic consumption.

Despite the risks, China is pressing ahead with reform: the decision earlier this year to open its $7.5 trillion domestic bond market to a wider range of international market participants is a case in point. While the move was nothing short of historic for China's capital markets, it also raised a multitude of questions about the transparency of China's regulatory regime, and the methodologies of its credit ratings agencies – many of which are still unanswered. For that reason, the vast majority of current overseas appetite for onshore RMB bonds is not in the corporate sector.[7]

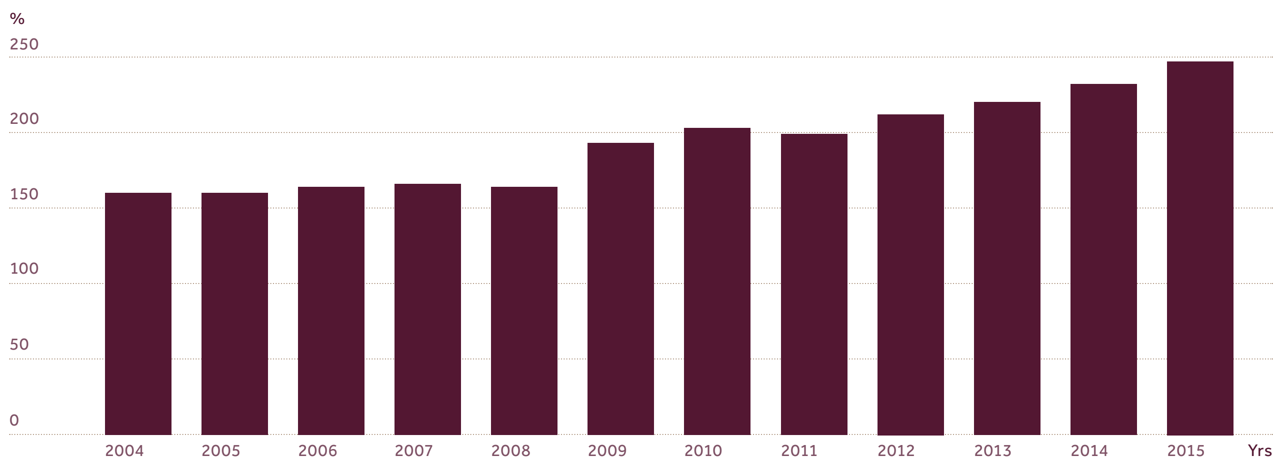
"From the investment structure perspective, the majority of allocations are driven by sovereign bonds, followed by interest rate bonds – together totalling to over 90 percent – while participation in corporate bonds and medium term notes remains insignificant," says Michael Chow, Managing Director and Head of International Business, Fullgoal Asset Management (HK).

"The main reason is on one hand the credit spread in the current onshore market is very narrow while the appeal of corporate bonds is limited," Chow says. "On the other hand, the quality of domestic enterprises is hard for foreign investors to appraise."

One persistent area of concern among international market participants is the difficulty of measuring the true value of China's debt pile.[8] Over the past 10 years, Chinese debt grew by 465 percent across banks, corporates, the government, and households, according to Bloomberg.[9] Now, many prominent market participants are issuing warnings about China's debt levels. Billionaire investor George Soros sees an "eerie resemblance" between China today, and the pre-financial crisis US.[10]

6 Bloomberg. August 2016.
7 Fullgoal Asset Management. September 2016.
8 Bloomberg. August 2016.
9 Bloomberg. August 2016.
10 Bloomberg. August 2016.

### Increase in China's Debt Levels vs. GDP, Past 3 Years

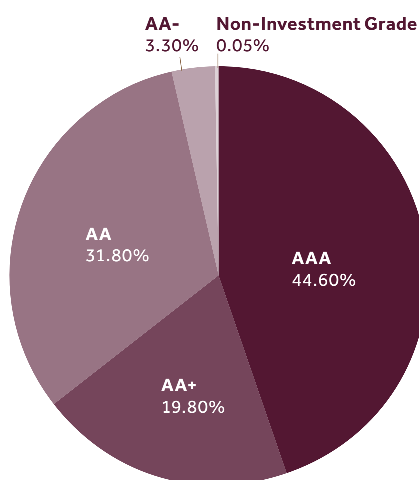



Source: BOCHK Asset Management, September 2016.

In this environment, China's onshore bond market – one of the world's largest – is still struggling to attract a large number of international market participants, many of whom are staying within the more mature offshore ('dim sum') RMB bond markets, in which credit quality is assessed using international methods and standards.

"There have been limited increases in foreign ownership of onshore RMB bonds," says Ben Yuen, Managing Director and Head of Fixed Income, BOCHK Asset Management Limited. "Unreliable domestic credit ratings are the most significant concern for international investors. Some 99% (see below) of onshore RMB bonds are rated as investment-grade [i.e. have an onshore rating of AA- and above]. The inflated domestic credit rating is the major barrier for international investors who are not familiar with the onshore credit names. We also saw a rise in default cases in the first half of 2016 in the onshore bond market, even including state-owned enterprises."

### Onshore Ratings Agencies Rate 99.5% RMB Corporate Debt As Investment Grade




Source: BOCHK Asset Management, September 2016.

## II. Worries About Intervention

In addition to their widely-reported concerns about China's debt levels and credit ratings, some international market participants are still nervous about the unpredictable nature of China's intervention in its own markets, following the government's sudden devaluation of the RMB in August 2015. While China's policymakers are aware of these concerns, they also remain committed to stabilising turbulent markets if it means limiting damage in the short term. In recent months, the PBOC announced it would defend the RMB from falling past 6.7 per dollar, according to RBC and Scotiabank.[11]

"In our view, the central bank measurement lately was necessary to maintain economic confidence and prevent further disorderly currency depreciation that may go out of control," says BOCHK Asset Management's Yuen. "Investor confidence was indeed weakened at that time, but our view is the underlying reason was the lack of communication between the PBOC and market participants rather than central bank interventions. China's authorities then devoted great efforts to clarify its FX policies, especially the new USD/CNY fixing mechanism. Market confidence in the RMB has improved significantly in recent months, as indicated by the low level of CNH hedging premiums."

While some market participants may applaud the move to protect the RMB from further depreciation, in the long term aggressive intervention may engender a belief that China's markets will always be subordinate to the policy aims of the government. On this basis, certain ratings agencies cut their outlook on the Chinese government's credit rating earlier this year, becoming the second major ratings firm to take a dimmer view of China's creditworthiness in just a few weeks.[12] Yet, many analysts believe these pain points are temporary, and will fade over time as the market matures.

"Continued intervention undermines investor confidence to a certain extent, causing interference on market forecasting and damaging the exchange rate self-regulating mechanism," says Fullgoal's Chow. "The central bank has gradually lessened its intervention on the RMB exchange rate since May this year. In addition, a relatively transparent central parity rate mechanism has developed, resulting in gradual recovery of investor confidence."

# Chapter 2: A Mixed Bag for the RMB

## I. Signs of Stability?

China's currency will certainly end 2016 on a high note when it joins the IMF's SDR basket in October and officially becomes one of the world's major currencies – an historic feat by any measure for China's policymakers. At the same time, capital outflows from China on the back of dampened confidence may threaten the currency's attempt to become a significant and reliable barometer of value in global financial markets.

Meanwhile, China's foreign exchange reserves fell to US$3.2 trillion in July, according to the central bank, from US$3.3 trillion at

11 Bloomberg. August 2016.
12 Wall Street Journal. March 2016.

the end of 2015. Yet this outcome is better than 2015, through which China's reserves plummeted by US$513 billion, following the sudden devaluation of the RMB in August of that year.[13]

"We see the RMB has entered a more stable period (as shown in the graph below), as market participants gradually get used to its two-way fluctuations," says BOCHK Asset Management's Yuen. "Although the RMB may face some pressures over the short to medium-term due to potential US dollar strengthening, it may stabilise over the long run against both the USD and the trade-weighted China Foreign Exchange Trade System (CFETS) currency basket."

**RMB's Projected Volatility Near Lowest Levels Since Novemeber**

Source: Bloomberg, July 2016.

Even so, after the RMB slipped under 6.7/dollar on July 18, the central bank stepped in to control the pace of its depreciation and to manage volatility.[14] In many ways, China is caught in a double bind: a weaker RMB could strengthen the competitiveness of Chinese exports, while a stronger RMB could strengthen China's stature on the global economic stage and market participants' confidence in the currency, while also giving support to major China's political projects, such as the One Belt One Road development initiative.

"The central bank could lessen its intervention on the RMB exchange rate in the foreign exchange market," says Fullgoal's Chow. "On central parity, the central bank should provide a more stable forecast and guidance to the market gradually reducing the controls on RMB and cross-border foreign exchange."

Earlier in 2016, some analysts predicted the RMB could slide another 6 percent over the next 12 months as market participants evaluated the aftereffects of China's slowdown. Further depreciation is predicted by the end of 2017, when the US dollar is expected to equal 7.30 RMB on the back of additional macroeconomic challenges and further erosion of confidence, according to some analysts.[15]

13 Reuters. August 2016.
14 Reuters. August 2016.
15 MarketWatch. January 2016.

"Until now, RMB had depreciated 7.2 percent compared with mid 2015," says Fullgoal's Chow. "The real effective exchange rate returned to the level of the second half of 2014. The RMB basket exchange rate index depreciated 8 percent since November 2015. In the past two months, the pressure on foreign exchange outflow has reduced. This shows that the RMB depreciation pressure that accumulated from mid-2014 to mid-2015 has been released. Going forward, the RMB valuation will be driven by the relative change of US and Chinese fundamentals."

### II. Emergence of SDR Bonds

Even despite the IMF's selection of the RMB for its SDR currency basket, the RMB's share of global payments dropped to 1.7 percent in June, ranking the currency sixth behind the Canadian dollar, as fears of more government intervention dampened appetite.[16]

Against this backdrop, the World Bank and China Development Bank are preparing to capitalise on the SDR selection and issue SDR bonds onshore, according to reports in the financial media. So far, details are scant as they are yet to be announced.[17]

"The expected bond issuance signals a further step in opening China's capital markets to international investors," says BOCHK Asset Management's Yuen. "It will also help to push forward the RMB internationalisation process. The World Bank has received approval of a SDR2 billion bond issuance quota in total from the PBOC, and we expect there may be more SDR bond issuance in the future."

According to some market experts, initial demand for the bonds is likely to be driven by requests for foreign currency asset allocations from China's four major state-owned banks; some large-scale insurance companies; and, finally, sovereign institutions such as State Administration of Foreign Exchange and Central Huijin Investment Ltd.[18]

"Currently, SDR bonds are still in their initial stages," says Fullgoal's Chow. "Their advantage lies in possessing sovereign credit while reducing the FX fluctuation risks in a single currency by having a USD asset allocation. The main problem remains that the current issuance scale is small, with poor product type liquidity anticipated. In addition, some domestic institutions do not have many foreign currency asset positions and face technical issues such as long-term valuation."

## Chapter 3: Challenges Onshore

### I. Still Gaining Traction

Despite a low appetite among international market participants for onshore corporate bonds (as shown in the graph below), interest in Shanghai's bond market has increased in recent months. Global funds reportedly increased holdings of onshore bonds by RMB47.7 billion to RMB764 billion in June, according to PBOC data.[19] In January, the amount of bonds outstanding in China

16 Bloomberg. August 2016.
17 IFR Asia. August 2016.
18 Fullgoal Asset Management. September 2016.
19 Bloomberg. August 2016.

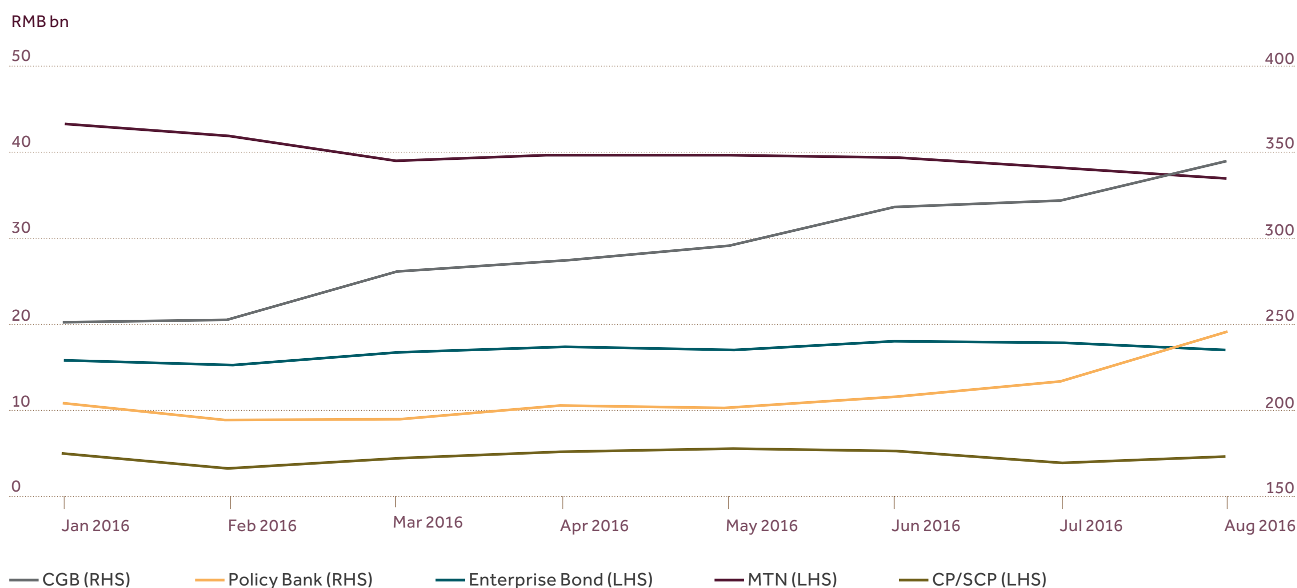
totalled 48.8 trillion RMB ($7.5 trillion), but foreign market participants held less than 2 percent of that debt.[20]

"From the economic and FX rate perspective, the China bond market has increased its appeal," says Fullgoall's Chow. "Recently, the improved investment channels and fund liquidity convenience have encouraged investor participation. Currently, the scale of foreign institutions involved in the inter-bank bond market has increased to RMB572.3 billion from RMB413.3 billion in 2014. In addition, the participation scale of foreign institutions at the exchange has increased as well."[21]

Despite the uptick, China's onshore bond market – especially in the corporate sector – is still struggling to shed an image defined by low transparency and high default risk. A spate of recent defaults hasn't helped matters: in the year through June 30, 17 issuers defaulted, nearly three times the number of defaults seen in the whole of 2015. To that end, investment allocation among international market participants for China's enterprise bonds and commercial paper remains steady to relatively flat (as shown in the graph below).

Meanwhile, rising credit spreads and a raft of delayed payments have caused further concern for some market participants, forcing some would-be issuers to cancel planned fundraisings.[22] Earlier this year, Fujian Electronics & Information Group Co. cancelled a planned RMB300 million bond offering on March 31, and Huafang Ltd. abandoned plans for a RMB150 million issuance of debentures,23 among others.

### Investment Allocation by Foreign Investors




Source: BOCHK Asset Management, September 2016.

20 Bloomberg. February 2016; Reuters. March 2016.
21 WIND. Data as of August 25, 2016.
22 Bloomberg. August 2016.
23 Bloomberg. April 2016.

At the same time, China's policymakers are allowing more defaults – albeit in a controlled manner – in an effort to modernise the market, improve transparency, and bring domestic risk valuation methodologies up to par with global practices and standards. While the defaults may put off international market participants in the short term, the policy seeks to allow market forces to exert a greater influence over the long term. The RMB depreciation trend only exacerbates matters, according to some market experts.

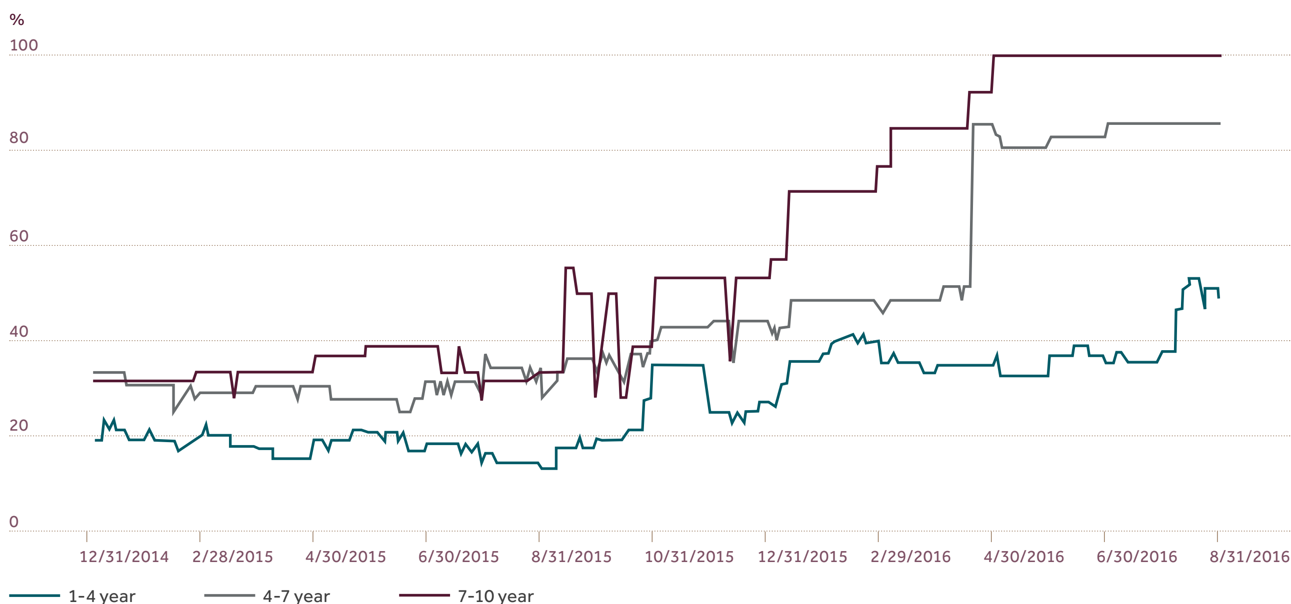
"Many international investors are still preoccupied with the RMB depreciation pressure with high currency hedging costs that are usually more than 300bps," says Fullgoal's Chow. "With the lack of confidence on the RMB exchange rate, international investors lack the confidence to participate in the onshore market, and are still concerned about the stability of cross-border capital flow regulatory policy."

## II. Government Bonds: A Bright Spot

In contrast to the onshore corporate debt markets, China's government bonds are witnessing a higher profile in recent months. As of end July, 10-year Chinese government bonds were yielding 2.82 percent, offering higher returns than negative-yielding issues from some governments in the developed world.[24]

"The Chinese government bond market has become more active since the PBOC further relaxed the rules applicable to foreign institutional investor accessing the interbank bond market in February 2016," says Eddie Pong, Director of Research and Analytics, FTSE Russell. "One particular phenomenon we can observe is the increased level of market making activities in the government sector. It is noticed that the coverage of government bonds with quotes from market makers has been increasing since the start of 2016."

### Percentage of Interbank Government Bonds with Quotes




Source: FTSE Russell, September 2016.

24 Financial Times. July 2016.

But on the corporate side, there is still a long way to go, even if foreign ownership of onshore RMB bonds could rise to 8 to 10 percent of the total over the next five years, with inflows into China's bond market from abroad potentially totalling 300 billion RMB ($46 billion) this year.[25] Given the rise of default risks and the low yields onshore, many international market participants are still attracted to the offshore – or, dim sum – market as a means to gain exposure to the RMB and China's growth.[26]

## Chapter 4: The Dim Sum Revival?

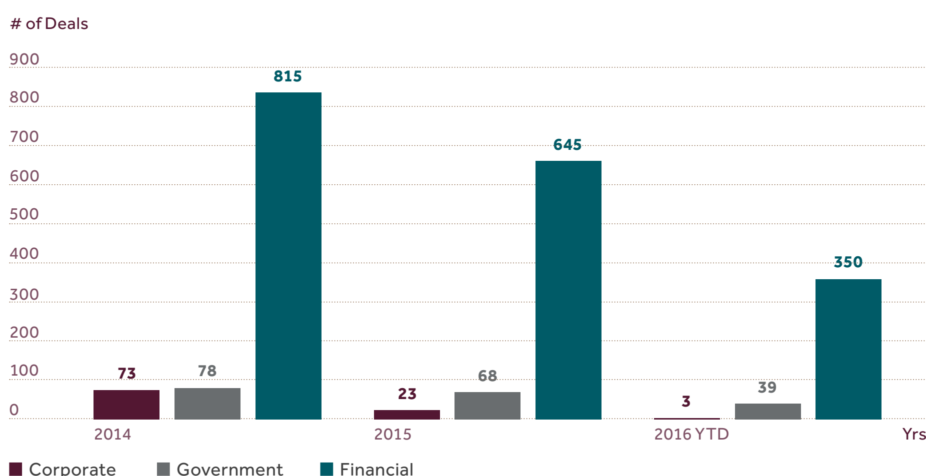
### I. Dim Sum Survives

In the lead up to the opening of China's interbank bond earlier this year, some analysts speculated that the massive onshore market would make the offshore market obsolete. Yet the offshore – or, dim sum – market continues to thrive, albeit at lower volumes, as international market participants continue to see it as relatively stable and predicable, especially when compared to the complexities that shape the onshore market.

"The dim sum market remains interesting to certain market participants for a variety of reasons," says BOCHK Asset Management's Yuen. "The first is market liquidity. The trading volume of dim sum bonds has increased back to a normal environment, thanks to sufficient liquidity in the offshore CNH market. There's a positive market outlook: the current demand-supply situation provides positive technical support for CNH bond prices. And current CNH bond yields remain higher than either onshore CNY bond yields or bond yields of other SDR currencies."

Nevertheless, the offshore market has also felt the effects of China's reform. Financial companies made only 350 dim sum sales in 2016, less than half the 815 of two years ago, while issuance by government entities dwindled to 39 from 68 in 2015.[27]

**Fall in Dim Sum Sales**




Source: Bloomberg. August 2016.

25 Wall Street Journal. February 2016.
26 Financial Times. July 2016.
27 Bloomberg. August 2016.

Although dim sum issuance is down on a year ago – with new issues of RMB67.5 billion (US$10.1 billion) at July 15 lagging behind the pace of 2015's full-year total of RMB163 billion – many market participants expect that the offshore market will continue to serve an important function in the RMB bond universe for many years to come.[28] This is because convergence between the onshore and offshore markets, while likely over the long-term, may be many years off.

"Dim sum liquidity is high," says Fullgoal's Chow. "The market adopts an international rating system that investors are more familiar with, utilises more related derivative instruments to allow investors to operate, and avoids the risks associated with cross-border capital flow regulation."

## II. Panda Bonds Here to Stay

Dim sum bonds also face new competition from so-called 'panda' bonds: onshore RMB bonds issued by foreign entities. While still a young asset class, panda bonds appeal to multinationals that want to raise RMB onshore for business development purposes and benefit from lower funding costs. Panda bonds are expected to become a US$50 billion market by 2020, according to the IFC.[29] Pacific Investment Management Co. in June forecast that panda bonds would surpass dim sum bonds as the preferred asset class for RMB fundraising. Sales of panda notes have surged to 60.8 billion RMB this year, nearly five times that of the whole of 2015, according to Bloomberg.[30]

One major persistent concern facing issuers evaluating the panda market is the difficulty they may face in trying to transfer the proceeds of the fundraising offshore, due to China's capital controls. Then there is the issue of divergent accounting standards, especially for potential issuers from the US. China's Ministry of Finance currently favours Hong Kong and European accounting standards, making it difficult for issuers from other jurisdictions to meet the requisite disclosure requirements.[31]

"Currently, panda bond issuers are mainly corporations with businesses in mainland China, especially real estate companies," says Fullgoal's Chow. "Investors in panda bonds are mainly domestic investors. We believe that even the corporations that are actively issuing panda bonds will not refrain from issuing dim sum bonds completely. Rather they will be looking for a balanced split between domestic and overseas bonds. It is anticipated that panda bonds and dim sum bonds will develop side by side while differentiating in issuers and investor types."

28 IFR. July 2016.
29 Reuters. February 2016.
30 Bloomberg. August 2016.
31 Reuters. March 2016.

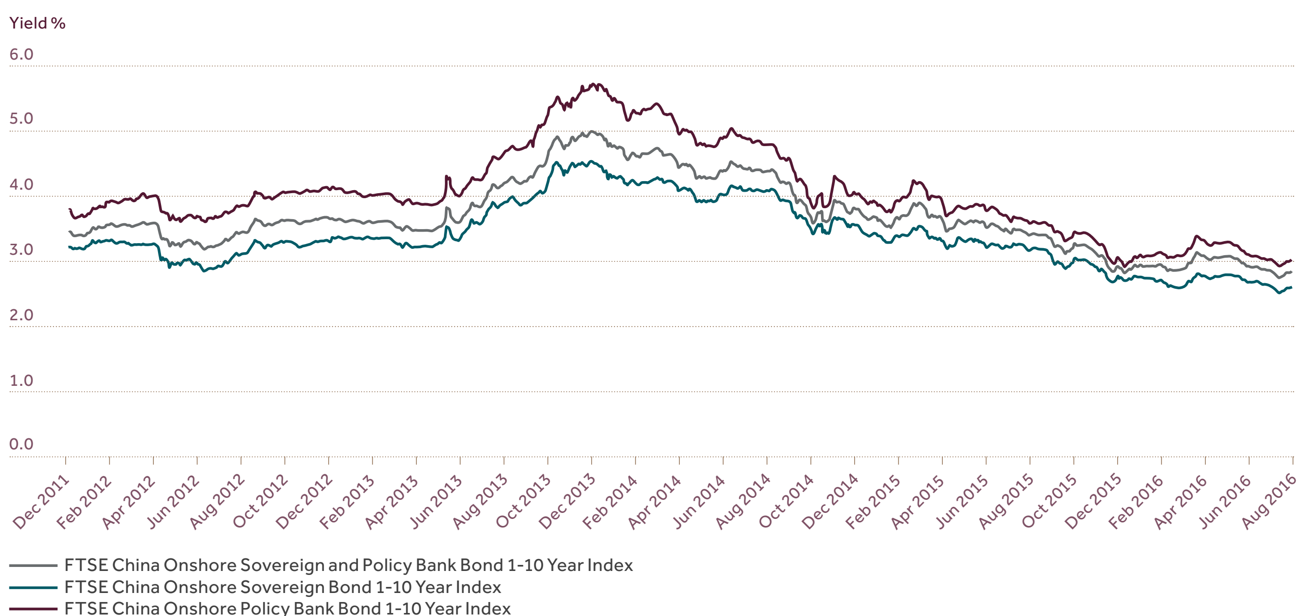
# Chapter 5: Performance of FTSE Russell China Bond Indexes

## I. Onshore Report

### Redemption Yield

The market value duration weighted average redemption yield of the FTSE China Onshore Sovereign and Policy Bank Bond 1 - 10 Year Index in August was at 2.84 percent. Among the 2 sub-indexes the FTSE China Onshore Sovereign Bond 1 - 10 Year Index was at 2.61 percent; the FTSE China Onshore Policy Bank Bond 1 - 10 Year Index was at 3.02 percent.

**Market Value Duration Weighted Average Redemption Yield %**




Source: FTSE Russell, data as at 31 August 2016. Past performance is no guarantee of future results. Returns shown may reflect hypothetical historical performance. Please see important legal disclosures at the end of this document.

After March, the yield for the FTSE China Onshore Sovereign and Policy Bank Bond 1 - 10 Year Index dropped 0.01 percent to 2.84 percent by the end of August. The yield rose 0.02 percent for the FTSE China Onshore Sovereign Bond 1 - 10 Year Index; and dropped 0.05 percent for the FTSE China Onshore Policy Bank Bond 1 - 10 Year Index.

### Total Return

The FTSE China Onshore Sovereign and Policy Bank Bond 1 - 10 Year Index finished up 1.70 percent during the past five-month period (April - August), with the FTSE China Onshore Sovereign Bond 1 - 10 Year Index up 1.45 percent; and the FTSE China Onshore Policy Bank Bond 1 - 10 Year Index up 1.88 percent as shown in Table 1.

**Table 1. Performance and Volatility – Total Return (CNY)**

| Index | Return % | | | | | | Volatility %* | | |
|---|---|---|---|---|---|---|---|---|---|
| | 3M | 6M | YTD | 12M | 3YR | Since Inception | 1YR | 3YR | Since Inception |
| FTSE China Onshore Sovereign and Policy Bank Bond 1 - 10 Year Index | 1.70 | 1.99 | 2.16 | 5.70 | 18.82 | 21.05 | 1.07 | 1.55 | 1.48 |
| FTSE China Onshore Sovereign Bond 1 - 10 Year Index | 1.45 | 1.95 | 2.24 | 5.45 | 17.51 | 19.35 | 1.14 | 1.65 | 1.56 |
| FTSE China Onshore Policy Bank Bond 1 - 10 Year Index | 1.88 | 2.01 | 2.09 | 5.88 | 20.14 | 22.85 | 1.13 | 1.76 | 1.62 |

*Volatility - 1YR, 3YR, Since Inception based on daily data. Source: FTSE Russell - total return data in CNY, as at 31 August 2016. Past performance is no guarantee of future results. Returns shown may reflect hypothetical historical performance. Please see important legal disclosures at the end of this document. The general position is that data charts should be used as a helpful way to present performance and assist readers in understanding the effects of different methodologies for different indexes. They should not be used as a way of suggesting that one index is better suited to a client than another.

The characteristics of each of the indexes can be summarised as follows:

**Index Characteristics**

| | FTSE China Onshore Sovereign and Policy Bank Bond 1 - 10 Year Index | FTSE China Onshore Sovereign Bond 1 - 10 Year Index | FTSE China Onshore Policy Bank Bond 1 - 10 Year Index |
|---|---|---|---|
| Number of bonds | 320 | 94 | 226 |
| Nominal Amount (RMBm) | 13,359,829 | 5,531,810 | 7,828,019 |
| YTM % | 2.84 | 2.61 | 3.02 |
| Mod. Duration | 4.06 | 4.18 | 3.98 |
| Convexity | 25.71 | 25.83 | 25.62 |

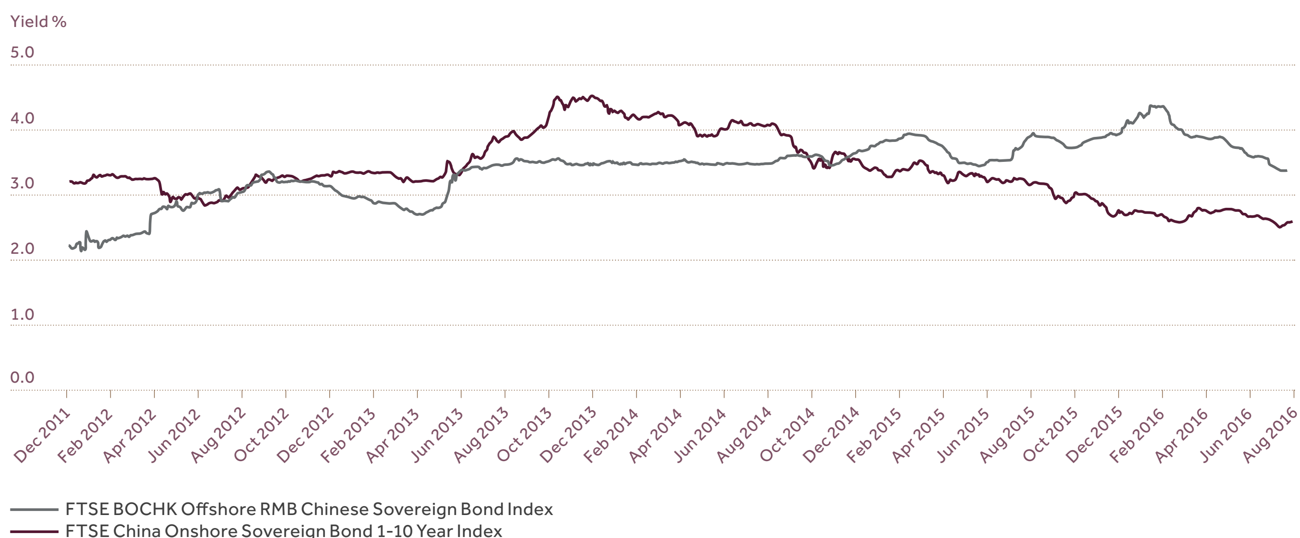
Source: FTSE Russell, data as at 31 August 2016. Past performance is no guarantee of future results. Returns shown may reflect hypothetical historical performance. Please see important legal disclosures at the end of this document. The general position is that data charts should be used as a helpful way to present performance and assist readers in understanding the effects of different methodologies for different indexes. They should not be used as a way of suggesting that one index is better suited to a client than another.

## Index Changes in the Past 5 Months

In the past five months, the bond market value of the FTSE China Onshore Sovereign and Policy Bank Bond 1 - 10 Year Index increased by 9.08 percent from 12,924,958 to 14,098,645 RMBm just before the April and September rebalances.

The FTSE China Onshore Sovereign and Policy Bank Bond 1 - 10 Year Index modified duration was lengthened from 3.88 years to 4.06 years, increasing its sensitivity to the yield curve shift. On the other hand, the convexity of the index rose by 1.97 since 31 March 2016.

### Yield Comparison of Offshore Sovereign Bonds and Onshore Sovereign Bonds



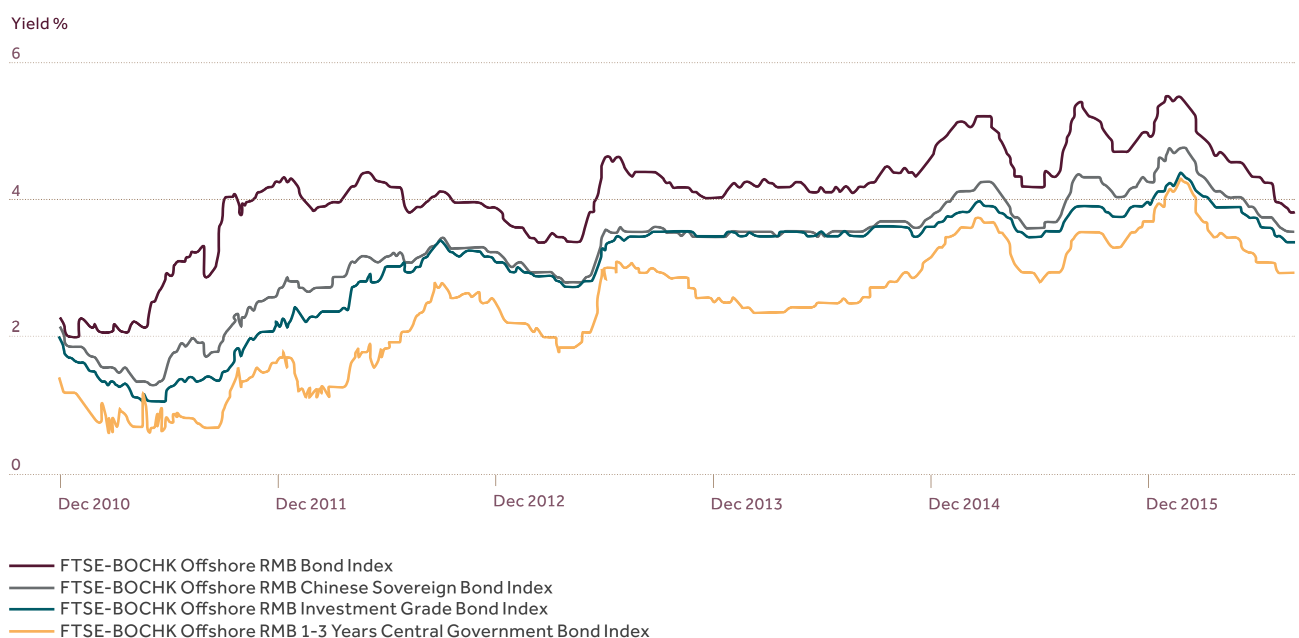

Source: FTSE Russell, data as at 31 August 2016. Past performance is no guarantee of future results. Returns shown may reflect hypothetical historical performance. Please see important legal disclosures at the end of this document.

## II. Offshore Report

### Redemption Yield

The market value duration weighted average redemption yield of the FTSE-BOCHK Offshore RMB Bond Index in August was at 3.86 percent. Among the 3 sub-indexes the FTSE-BOCHK Offshore RMB Investment Grade Index was at 3.53 percent; the FTSE Chinese Sovereign Bond Index was at 3.39 percent; the FTSE-BOCHK Offshore RMB 1-3 Years Central Government Bond Index was at 2.93 percent.

### Market Value Duration Weighted Average Redemption Yield %




Source: FTSE Russell, data as at 31 August 2016. Past performance is no guarantee of future results. Returns shown may reflect hypothetical historical performance. Please see important legal disclosures at the end of this document.

After March, the yield for the FTSE-BOCHK Offshore RMB Chinese Sovereign Bond Index dropped 0.64 percent to 3.39 percent by the end of August. The yield dropped 0.99 percent for the FTSE-BOCHK Offshore RMB Bond Index; dropped 0.76 percent for the FTSE-BOCHK Offshore RMB Investment Grade Bond Index; and fell 0.75 percent for the FTSE-BOCHK Offshore RMB 1-3 Years Central Government Bond Index.

## Total Return

The FTSE-BOCHK Offshore RMB Bond Index finished up 2.36 percent during the past five-month period (April - August), with the FTSE-BOCHK Offshore RMB Investment Grade Bond Index up 2.34 percent; the FTSE Chinese Sovereign bond Index up 2.75 percent; and the FTSE-BOCHK Offshore RMB 1-3 Years Central Government Bond Index up 1.79 percent as shown in Table 2.

**Table 2. Performance and Volatility - Total Return (CNH)**

| Index | Return % | | | | | | Volatility %* | | |
|---|---|---|---|---|---|---|---|---|---|
| | 3M | 6M | YTD | 12M | 3YR | Since Inception | 1YR | 3YR | Since Inception |
| FTSE-BOCHK Offshore RMB Bond Index | 2.36 | 6.03 | 5.15 | 8.04 | 14.64 | 20.69 | 0.95 | 0.91 | 1.16 |
| FTSE-BOCHK Offshore RMB Chinese Sovereign Bond Index | 2.75 | 5.73 | 4.47 | 5.61 | 10.96 | 14.12 | 1.23 | 0.95 | 1.18 |
| FTSE-BOCHK Offshore RMB Investment Grade Bond Index | 2.34 | 5.84 | 4.81 | 6.50 | 11.61 | 16.38 | 0.96 | 0.78 | 0.90 |
| FTSE-BOCHK Offshore RMB Investment Grade Bond Index | 1.79 | 4.25 | 3.64 | 4.41 | 9.18 | 10.90 | 0.91 | 0.79 | 1.32 |

*Volatility - 1YR, 3YR, Since Inception based on daily data. Source: FTSE Russell - total return data in CNH, as at 31 August 2016. Past performance is no guarantee of future results. Returns shown may reflect hypothetical historical performance. Please see important legal disclosures at the end of this document. The general position is that data charts should be used as a helpful way to present performance and assist readers in understanding the effects of different methodologies for different indexes. They should not be used as a way of suggesting that one index is better suited to a client than another.

The characteristics of each of the indexes can be summarised as follows

**Index Characteristics**

| | FTSE-BOCHK Offshore RMB Bond Index | FTSE-BOCHK Offshore RMB Chinese Sovereign Bond Index | FTSE-BOCHK Offshore RMB Investment Grade Bond Index | FTSE-BOCHK Offshore RMB 1-3 Years Central Government Bond Index |
|---|---|---|---|---|
| Number of bonds | 161 | 50 | 114 | 11 |
| Nominal Amount (RMBm) | 211,052 | 90,000 | 155,942 | 43,050 |
| YTM % | 3.86 | 3.39 | 3.53 | 2.93 |
| Mod. Duration | 2.93 | 4.17 | 3.35 | 2.08 |
| Convexity | 18.15 | 33.03 | 22.84 | 5.71 |

Source: FTSE Russell, data as at 31 August 2016.

## Index Changes in the Past 5 Months

In the past five months, the bond market value of the FTSE-BOCHK Offshore RMB Bond Index decreased by 18.14 percent from 261,781 to 214,306 RMBm just before the April and September rebalances.

As of 31 August 2016, corporate and enterprise bonds continued to have the largest weighting in the index at 45.82 percent, a 11.17 percent decrease since 31 March 2016. The number of constituents in this category decreased from 124 to 89.

Unlike corporate and enterprise bonds, the weight of the bonds issued by China's government increased by 8.94 percent compared to the past five months, arriving at 39.02 percent; and the weight of the bonds issued by policy banks increased by 1.09 percent, arriving at 11.46 percent after the latest review.

The percentage of investment grade bonds in the index increased to 73.64 percent compared to 65.32 percent on 31 March 2016. The FTSE-BOCHK Offshore RMB Bond Index modified duration was lengthened from 2.59 years to 2.93 years, increasing its sensitivity to the yield curve shift. On the other hand, the convexity of the index rose by 3.54 since 31 March 2016.

### Table 3. New Additions in the Past 5 Reviews

| Review | Bond | Nominal Amount (RMBm) | ICB Supersector |
|---|---|---|---|
| May 2016 | Hungary Government International Bond Apr-2019 6.25% | 1,000,000,000 | Nation and Treasury |
| June 2016 | Fantasia Holdings Group Co Ltd May-2019 9.50% | 600,000,000 | Real Estate |
| June 2016 | Standard Chartered Bank May-2018 4.25% | 925,000,000 | Banks |
| June 2016 | Standard Chartered Bank May-2018 4.10% | 867,000,000 | Banks |
| July 2016 | First Gulf Bank PJSC Jun-2019 4.55% | 516,000,000 | Banks |
| July 2016 | China Government Bond Jun-2019 3.28% | 3,000,000,000 | Nation and Treasury |
| July 2016 | Goldman Sachs International Jun-2019 4.00% | 1,000,000,000 | Financial Services |
| August 2016 | China Government Bond Jul-2021 3.25% | 4,500,000,000 | Nation and Treasury |
| August 2016 | China Government Bond Jul-2019 2.90% | 7,000,000,000 | Nation and Treasury |
| August 2016 | China Government Bond Jul-2026 3.38% | 1,000,000,000 | Nation and Treasury |
| August 2016 | China Government Bond Jul-2036 3.90% | 500,000,000 | Nation and Treasury |
| August 2016 | China Government Bond Jul-2023 3.30% | 1,000,000,000 | Nation and Treasury |
| August 2016 | Industrial & Commercial Bank of China Ltd/Sydney Jul-2019 3.90% | 500,000,000 | Banks |
| August 2016 | Bank of China Ltd/New York NY Jul-2018 3.60% | 1,500,000,000 | Banks |
| August 2016 | Chong Qing Grain Group Co Ltd Jul-2019 4.02% | 1,000,000,000 | Agency and Semi-Government |

Source: FTSE Russell, data as at 31 August 2016.

### Table 4. New Deletions in the Past 5 Reviews

| Review | Bond | ICB Supersector |
|---|---|---|
| April 2016 | China Merchants Bank Co Ltd Apr-2017 4.10% | Banks |
| April 2016 | AVIC International Finance & Investment Ltd Apr-2017 4.80% | Industrial Goods & Services |
| April 2016 | China Unicom Hong Kong Ltd Apr-2017 4.00% | Telecommunications |
| April 2016 | Guosen Securities Overseas Co Ltd Apr-2017 6.40% | Financial Services |
| April 2016 | Wanhua Chemical International Holding Co Ltd Nov-2017 4.50% | Chemicals |

**Table 4. New Deletions in the Past 5 Reviews** (continued)

| Review | Bond | ICB Supersector |
|---|---|---|
| May 2016 | Bank of China Ltd/Luxembourg May-2017 3.50% | Banks |
| May 2016 | China Chengtong Development Group Ltd May-2017 4.00% | Real Estate |
| May 2016 | China Government Bond May-2017 2.53% | Nation and Treasury |
| May 2016 | China Power International Development Ltd May-2017 4.50% | Utilities |
| May 2016 | Hainan Airlines Hong Kong Co Ltd May-2017 6.25% | Travel & Leisure |
| May 2016 | Power Construction Corp of China May-2017 4.20% | Construction & Materials |
| May 2016 | Rizhao Port Hong Kong Co Ltd May-2017 4.25% | Industrial Goods & Services |
| May 2016 | Shanghai Pudong Development Bank May-2017 4.08% | Banks |
| May 2016 | Sinochem Offshore Capital Co Ltd May-2017 3.55% | Chemicals |
| May 2016 | Bank of Tokyo-Mitsubishi UFJ China Ltd May-2017 3.05% | Banks |
| May 2016 | Foxconn Far East Ltd May-2017 3.25% | Industrial Goods & Services |
| May 2016 | Sure Best Management Ltd May-2017 4.75% | Real Estate |
| May 2016 | Unican Ltd May-2017 5.80% | Financial Services |
| June 2016 | China Government Bond Jun-2017 2.56% | Nation and Treasury |
| June 2016 | Veolia Environnement SA Jun-2017 4.50% | Utilities |
| June 2016 | Agricultural Development Bank of China Jun-2017 3.35% | Agency and Semi-Government |
| June 2016 | Export-Import Bank of China/The Jun-2017 3.35% | Agency and Semi-Government |
| June 2016 | Beijing Capital Hong Kong Ltd Jun-2017 4.70% | Utilities |
| June 2016 | China Minmetals Corp Jun-2017 4.25% | Basic Resources |
| June 2016 | Hong Kong Huafa Investment Holdings Co Ltd Jun-2017 4.25% | Financial Services |
| June 2016 | Maikun Investment Co Ltd Jun-2017 4.50% | Financial Services |
| June 2016 | Sinotrans Sailing Ltd Jun-2017 4.50% | Industrial Goods & Services |
| June 2016 | SOAR Rise Ltd Jun-2017 4.375% | Financial Services |
| June 2016 | 21Vianet Group Inc Jun-2017 6.87% | Technology |
| June 2016 | China Construction Bank Asia Corp Ltd Jun-2017 3.45% | Banks |
| June 2016 | Eastern Creation II Investment Holdings Ltd Jun-2017 3.75% | Travel & Leisure |
| June 2016 | Huaxia Bank Co Ltd Jun-2017 4.95% | Banks |
| June 2016 | International Finance Corp Jun-2017 2.00% | UN Organization |
| June 2016 | Bank of China Ltd/Abu Dhabi Jun-2017 3.60% | Industrial Goods & Services |
| June 2016 | Bank of China Ltd/Abu Dhabi Jun-2017 3.60% | Banks |
| July 2016 | BSH Bosch und Siemens Hausgeraete GmbH Jul-2017 3.80% | Personal & Household Goods |
| July 2016 | China City Construction International Co Ltd Jul-2017 5.35% | Construction & Materials |
| July 2016 | Hang Seng Bank China Ltd Jul-2017 3.25% | Banks |
| July 2016 | ITNL International Pte Ltd Jul-2017 8.00% | Industrial Goods & Services |
| July 2016 | Jinchuan Group Co Ltd Jul-2017 4.75% | Basic Resources |
| July 2016 | Times Property Holdings Ltd Jul-2017 10.375% | Real Estate |
| July 2016 | Yieldking Investment Ltd Jul-2017 5.15% | Financial Services |
| July 2016 | Ocean Wealth Ltd Jul-2017 5.25% | Agency and Semi-Government |
| August 2016 | China Development Bank Corp Aug-2017 3.30% | Agency and Semi-Government |
| August 2016 | China Development Bank Corp Aug-2017 3.30% | Agency and Semi-Government |
| August 2016 | Industrial & Commercial Bank of China Ltd/Sydney Aug-2017 3.55% | Banks |

Source: FTSE Russell, data as at 31 August 2016.

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