



RBAFOI-252611

An application was received seeking access to documents about the Chinese economy dating back to 2014. All documents other than document 6 are responsive to this part of the request.

The request also sought access to any documents generated since 1 January 2019 on the subject of China's inclusion on global government bond indices. Document 6 is responsive to this part of the request.

## HOW DEVELOPED IS CHINA'S CORPORATE BOND MARKET?

*China's corporate bond market is among the largest in the world by absolute size, though this does not guarantee that the market is well developed. Building off the work of (2013), this note finds that the market is reasonably liquid, although it has a narrow credit rating range (mostly AA and above) and high levels of state ownership. We argue that market liquidity is generally sufficient so that movements in spreads can provide valuable information on financing conditions. This note also evaluates the quality of the corporate bond market data, finding that while the data published across sources do not always match, the indices used by IFM generally provide an accurate reflection of trends in yields by credit rating.*

### An Overview of the Corporate Bond Market

China's corporate bond market is among the largest in the world by absolute size, with the value of local-currency denominated corporate bonds outstanding totalling RMB11.2 trillion (US\$1.8 trillion) in the September quarter 2014.<sup>1</sup> It is also expanding rapidly, with growth of 15 per cent over the year to September 2014. Despite being the largest in emerging Asia by absolute size, as a proportion of GDP (19 per cent), China's corporate bond market is smaller than the markets in South Korea, Malaysia, Hong Kong, Singapore and Thailand (Graph 1).

Four key instruments comprise the corporate bond market, though certain companies are eligible to issue more than one type of instrument:

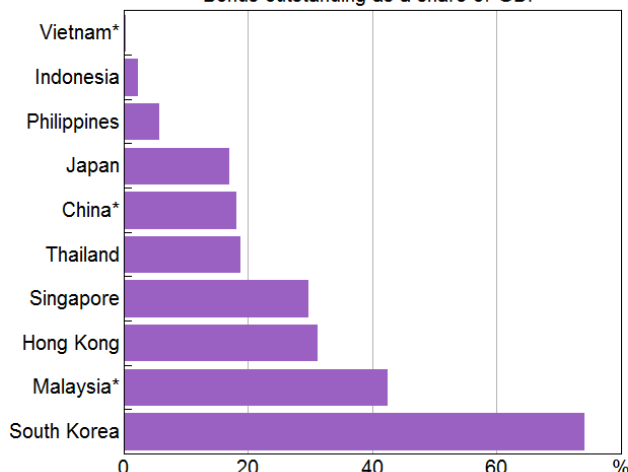
1. commercial bank bonds;
2. state-owned enterprise (SOE) bonds (also known as enterprise bonds), which are issued by non-financial state-owned companies;
3. medium-term notes (MTNs), which can be issued by listed or non-listed non-financial corporates; and
4. local corporate bonds, which are issued only by listed companies.

The market consists of an interbank bond market, which accounts for around 95 per cent of activity, and the Shanghai and Shenzhen stock exchanges. The interbank market is an over-the-counter market, with the main participants being commercial banks, credit unions, insurance companies, investment vehicles, securities companies and other institutional investors.<sup>2</sup> The National Interbank Funding Centre (NIBFC; also known as CFETS) is the trading platform for all interbank bond market instruments. SOE bonds and MTNs each account for around 40 per cent of the value of bonds outstanding on the interbank market, with commercial bank bonds accounting for the remaining 20 per cent.<sup>3</sup>

Regulation of the corporate bond market is fragmented:

- Issuance by commercial banks is jointly overseen by the People's Bank of China (PBC) and the China Banking Regulatory Commission (CBRC);
- SOE bonds are regulated and approved for issuance by the National Development and Reform Commission (NDRC);

**Graph 1**  
**Size of Asian Corporate Bond Markets**  
Bonds outstanding as a share of GDP



\* Data are for the September quarter 2014 and all other data are for the June quarter 2014

Source: Asian Bonds Online

1 The value of foreign-currency denominated bonds outstanding at the December quarter 2013 was US\$204.5 billion (Asian Bond Monitor 2014). This note will focus solely on local-currency denominated corporate bonds.

2 It appears that non-financials can access the interbank bond market to issue corporate bonds, but are not currently allowed to trade in the market.

3 According to WIND Information data.

- MTNs can be issued without approval from the NDRC but must be issued on the interbank market, which is regulated by the PBC;
- Local corporate bonds can only be issued and traded in the Shanghai and Shenzhen stock exchanges, which are supervised by the China Securities Regulatory Commission (CSRC).

## Market participants

### Issuers

The top 30 issuers accounted for 40 per cent of outstanding corporate bonds at June 2014. By comparison, issuer concentration is only modestly lower in the United States' corporate bond market, where the top 30 issuers accounted for one-third of issuance in 2013, and is much higher in some other Asian and advanced economy markets (see [names x2 redacted 2013](#)). Issuance is (and always has been) heavily dominated by SOEs, with the public sector accounting for around 80 per cent of the value of bonds outstanding as at August 2014 (Dealogic; [name redacted 2013](#)).<sup>4</sup> As a result, it could be difficult to interpret yield levels since the majority of bonds are presumed to be backed by the government. To the extent that yields differ between SOEs, one interpretation is that investors place a higher probability that SOEs with lower yields have higher state-ownership levels and are more likely to be bailed out.

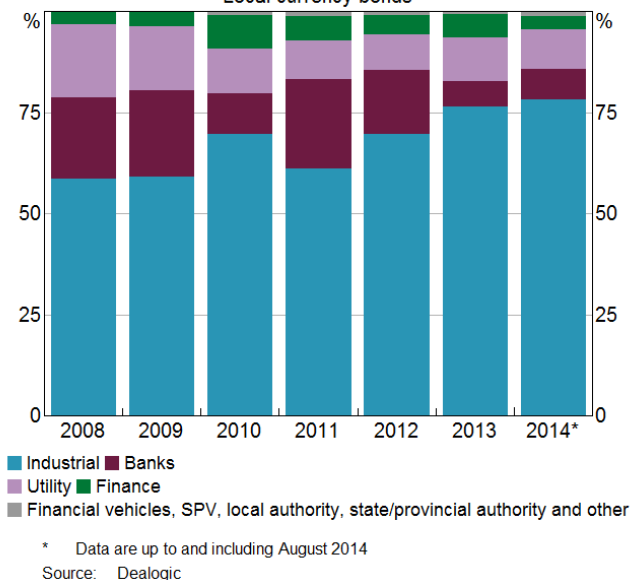
Industrials are the largest corporate bond issuers, accounting for 80 per cent of the value of bonds issued in 2014 (to August; Graph 2). Of these, construction and building companies accounted for 30 per cent, while transportation, real estate, and mining companies also accounted for non-trivial shares. Utilities have accounted for an additional 10 per cent of 2014 issuance (to August). Bond issuance by banks has decreased in recent years from over 20 per cent in 2011 to 8 per cent in 2014, though private sector bank bond issuance has increased more recently.<sup>5</sup>

In 2013, remaining time to maturity was distributed evenly among 1-3, 3-5 and 5-10 year maturities (only 10 per cent had maturities greater than 10 years). The maturity profile in China has remained relatively stable over recent years, despite average maturities lengthening in other parts of Asia. Analysts partly attribute the popularity of short-term issuance to legislation stating that the value of outstanding bonds cannot exceed 40 per cent of a firm's net assets, with short-term bonds excluded from this calculation, though it is not clear what constitutes a 'short-term' bond ([Deutsche Bank 2014](#)).

### Investors

Banks and funds institutions are the dominant holders of corporate bonds, accounting for around one-third and one-quarter of investment, respectively (Graph 3).<sup>6</sup> Insurance companies hold an additional 15 per cent.

**Graph 2**  
**Corporate Bond Issuers**  
Local currency bonds



<sup>4</sup> This is partly attributable to pre-2008 NDRC regulations that saw corporate bond issuance restricted to SOEs with bank guarantees. This rule was relaxed in 2008, with MTNs allowed to be issued on the interbank market without NDRC approval or bank guarantees (Asian Bonds Online).

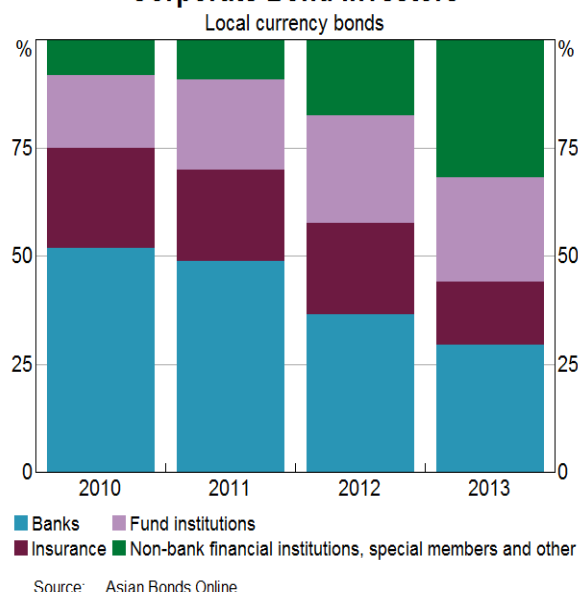
<sup>5</sup> This is likely to be because banks have recently begun issuing preference shares and CoCos, which are not captured in the data.

<sup>6</sup> Funds institutions are likely to include mutual funds, pension funds, asset management companies and national social security funds.

One reason why corporate bond holdings are reasonably concentrated is that most bonds are sold on the interbank market, which limits participation by private capital and retail investors, and foreigners.<sup>7</sup> Nevertheless, investors in the corporate bond market are more varied than in the government bond market, where commercial banks account for around 75 per cent of bond holdings.

Investor composition varies by corporate bond type. Non-bank financial institutions held around 30 per cent of local corporate bonds in the September quarter 2013, with these investors holding very few commercial bank bonds, SOE bonds and MTNs; this difference likely reflects in large part that non-bank financial institutions have limited access to the interbank market. For MTNs, banks held over 50 per cent and funds institutions accounted for an additional 35 per cent. Insurance companies are the main holders of commercial bank bonds, followed by other banks and funds institutions.<sup>8</sup>

**Graph 3**  
**Corporate Bond Investors**

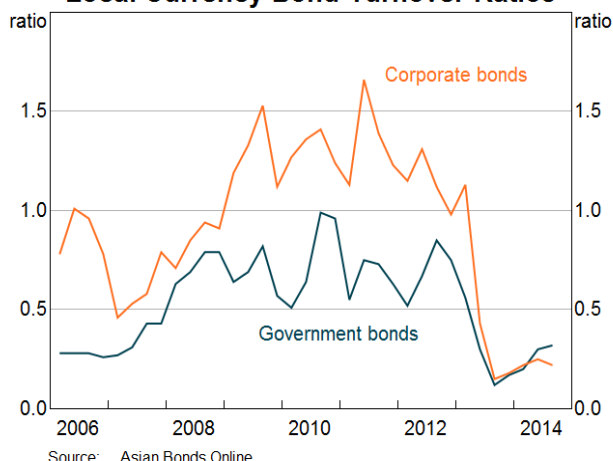


### Liquidity

Historically, China's corporate bond market has been relatively liquid, despite financial institutions (who hold the majority of outstanding bonds) typically holding corporate (and government) bonds to maturity (Luo and Ye 2014; Morgan Stanley 2014). Corporate bond turnover has historically moved with, but been higher than that of, government bonds, possibly reflecting its somewhat more diverse investor profile (Graph 4). However, turnover ratios for both (but especially for corporate bonds) declined sharply in mid 2013, in line with PBC regulations requiring interbank bond market participants to conduct all trading through the NIBFC. These regulations were aimed at stopping institutions from moving bonds on- and off-balance sheet to manipulate profits and trading volumes and suggest that turnover may have been artificially high prior to mid 2013.

Notwithstanding this decline, China's corporate bond turnover ratio of 0.22 (at end September quarter 2014) is higher than in other Asian countries - for example the turnover ratio in South Korea and Hong Kong is 0.13 and 0.11, respectively. The average trading size also remains higher than the levels seen in other Asian economies with the exception of South Korea and Vietnam. China's corporate bond turnover ratio is also relatively close to that in the world's most developed market, the United States, where it is also around 0.2 (IOSCO 2014). Turnover ratios in China are similar for the four types of bonds.

**Graph 4**  
**Local Currency Bond Turnover Ratios**



Similarly, bid-ask spreads do not deviate too far from those in other advanced economies. Based on survey data, SOE bonds have the narrowest bid-ask spreads at 7.4 basis points, while commercial bank bonds have

<sup>7</sup> Regulations announced in November 2014 will allow non-financials (with minimum net assets of RMB30 million) to buy and trade bonds on the interbank market using a separate trading platform to banks, brokerages and insurers.

<sup>8</sup> A breakdown of SOE bonds is not available.

the widest bid-ask spreads at 14.4 basis points (Table 1).<sup>9</sup> By comparison bid-ask spreads in the United States are 7 basis points, suggesting that China's market is not unusually illiquid ([Market Access](#)).

**Table 1: Local Currency Bid-ask Spreads\***

| Basis points |           |                       |      |                       |
|--------------|-----------|-----------------------|------|-----------------------|
|              | SOE bonds | Local corporate bonds | MTNs | Commercial bank bonds |
| 2013         | 7.4       | 11.4                  | 9.5  | 14.4                  |

\* Market participants were asked to provide bid-ask spreads at the time when a new bond is issued.

Sources: Asian Bonds Online Annual Bond Liquidity Survey 2011, 2013

## Monitoring the market

### Data sources

China's corporate bond market is dominated by SOEs, which could complicate analysis of developments in this market. Another complicating factor is that there are multiple sources that maintain data on Chinese corporate bonds, and most differ in the types of data that they publish and in their access to credit ratings information.

In particular, there are six main data sources on China's corporate bond market:

- Two data sources – CEIC Data (CEIC) and ChinaBond – provide yield to maturity indices by credit rating. While ChinaBond provides a wider rating coverage, licensing restrictions largely prevent the Bank from easily accessing and publishing these data. A downside of CEIC is that it does not provide individual bond line data.
- Two data sources – Bloomberg and WIND Information (WIND) – maintain individual bond line data but do not publish indices.
- Asian Bonds Online largely publishes aggregated data on the market such as issuer, investor and maturity information, alongside limited spreads data.
- Dealogic publishes Chinese corporate issuance data for individual bonds.

CEIC is the main data source used by IFM to track Chinese corporate bond yields on the interbank market, as it is aggregated and can be published. CEIC bond yields are constructed by the NIBFC, though only bonds rated AA- and higher are included and, as noted above, there is limited information on the underlying data.

### Evaluating trends by credit rating

Few participants in the Chinese corporate bond market are rated by internationally recognised rating agencies and local credit rating agencies' ratings appear somewhat inflated (see [name redacted 2014](#)).<sup>10</sup> The vast majority of the top 30 issuers' rated bonds are rated AA+ or AAA. More broadly, market analysts estimate that 93 per cent of corporate bond issuers are rated between AA- and AAA by local rating agencies (Bloomberg; CICC). This means that local agencies rate some corporates higher than S&P's rating of the Chinese government, which is AA-.<sup>11</sup>

Disaggregated bond data by credit rating differ substantially across Bloomberg and WIND data, potentially due to their access to credit rating information. In particular, Bloomberg data indicate that around 85 per cent of outstanding bonds are unrated by Chinese agencies, while WIND data indicate that only around 10 per cent of outstanding bonds are unrated.<sup>12</sup> However, it is likely that WIND, which is a company dedicated to providing Chinese data, has greater access to domestic credit rating information on the interbank market than Bloomberg. WIND suggests that 90 per cent of the corporate bond market is rated at or above AA- (with 80 per cent of unrated bonds being commercial bank bonds).

<sup>9</sup> By comparison, average government 'on-the-run' and 'off-the-run' bid-ask spreads are 4.1 basis points and 6 basis points, respectively.

<sup>10</sup> There are four major local credit rating agencies in China: Dagong Global Credit Rating, China Chengxin Credit Rating Group, Shanghai Brilliance Credit Rating, and China Lianhe Credit Rating.

<sup>11</sup> Bonds rated AA- and below are viewed as sub-investment grade in China.

<sup>12</sup> Dealogic does not provide much credit rating data beyond what international ratings companies have assigned.

Either CEIC or ChinaBond data can be used to monitor aggregate trends in yields by credit rating, though as mentioned, the ChinaBond data cannot be published. The CEIC and ChinaBond yield indices by credit rating generally track each other, particularly for higher-rated bonds, but there are some discrepancies for lower-rated bonds. For example, in late 2013 and early 2014, yields on ChinaBond's AA- index were around 50 basis points higher than the equivalent yields in CEIC's index. Overall, our assessment is that the ChinaBond data seem slightly more reliable, with the CEIC data more prone to temporary spikes (e.g. liquidity issues). As a result, when and where there are sharp movements in the CEIC data, we could check against the ChinaBond data to ensure we are interpreting movements correctly.

Another way of assessing CEIC's reliability is to compare its indices to individual security data available from Bloomberg and WIND, since access to the NIBFC database (that CEIC use) is restricted. While these two providers differ substantially in their assessment of how many bonds are rated, the proportion of rated bonds in each rating category is broadly similar across WIND and Bloomberg (as a result, WIND data will be discussed). The extremely low proportion of bonds rated below AA- is consistent with CEIC only publishing indices for AA- rated bonds and above.<sup>13</sup>

Overall, the WIND data suggest that the CEIC data are representative for the higher-rated indices, but movements in the AA- index should be interpreted with caution.<sup>14</sup> The AAA, AA+ and AA yields have large enough sample sizes in WIND (around 1,250, 1,200 and 1,900, respectively) to adequately reflect subcomponents of the corporate bond market, even once secondary market liquidity is taken into account (to the extent that CEIC uses the same sample; Graph 5). In contrast, there are around 200 outstanding AA- bonds in WIND. This, in combination with turnover of 0.22 in the corporate bond market, could explain why CEIC and ChinaBond AA- indices are more likely to diverge and suggests that the use of the AA- index as a market indicator is limited.

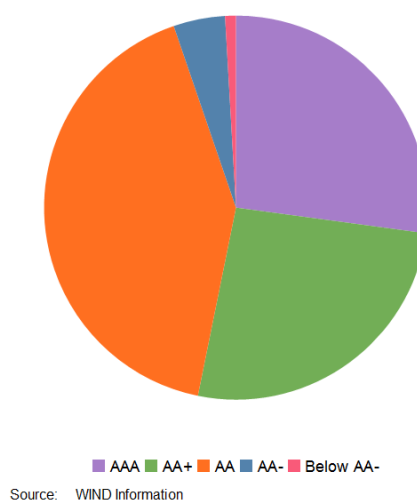
A credit rating of AAA+ is also present in the CEIC (and ChinaBond) data, despite AAA+ not existing on international or major local credit rating agencies' rating scales, or in individual Bloomberg or WIND data. Ten non-financial SOEs, which account for around 10 per cent of corporate bond issuance since 2013, were found to comprise the AAA+ category (see [table](#) for more detail).<sup>15</sup> Despite these bonds not carrying explicit government guarantees, these SOEs' economic significance has led ratings agencies to believe that the government will intervene to ensure that they do not default (Asian Bonds Online).

Abstracting from the AAA+ and AA- indices, the CEIC data also appear representative of the issuer market given that each credit rating adequately lines up with Dealogic's breakdown of issuance data by issuer sector.

### Market events

Another way to assess the CEIC bond data is to analyse whether spreads responded as would be expected to market events. There have been two recent events that should have led to a widening in credit spreads: the liquidity crunch in mid 2013 (see [name redacted 2014](#)); and the Chaori Solar Energy Science and Technology default in March 2014, which was the first onshore default in China's corporate bond market.

**Graph 5**  
Credit Rating Distribution  
Proportion of rated bonds



<sup>13</sup> The usefulness of credit ratings to investors is questionable, given that only a small number of rating categories exist.

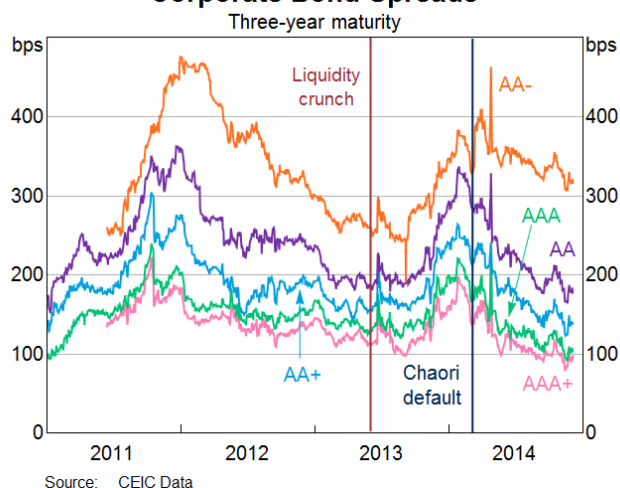
<sup>14</sup> Despite CEIC's data labels suggesting that they only provide indices for MTNs, their definition of an MTN appears to be based on maturity alone given how well CEIC yield indices generally track ChinaBond and Asian Bonds Online indices (who appear to track a wider range of corporate bonds than solely MTNs) and correspondence with CEIC indicating that they track all bonds traded on the interbank market.

<sup>15</sup> The Ministry of Railways (including China Railway Corporation) and the State Grid Corporation of China have accounted for over 80 per cent of AAA+ issuance since 2013 and around 75 per cent of AAA+ bonds outstanding at November 2014.

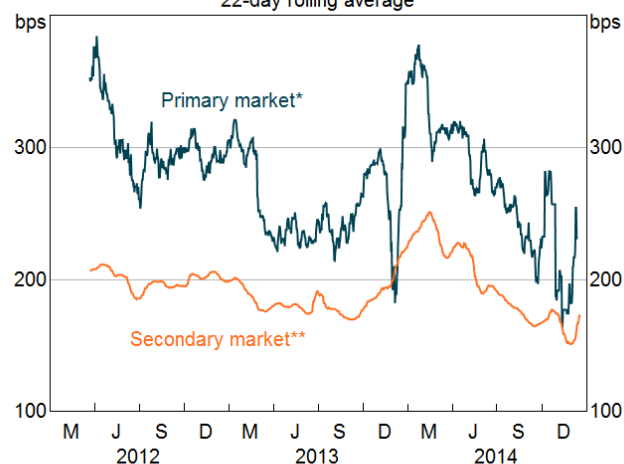
Spreads on three-and five-year corporate bonds widened in response to both events, according to CEIC data, with lower-rated bonds more responsive to these events than higher-rated bonds (Graphs 6). For example, the AA (and AA-) spread widened more sharply to the Chaori default than spreads on higher rated bonds. This at least partially suggests that yields data are adequately capturing market shocks and incorporate risk. It also indicates that corporate bond yields move distinctly from sovereign bond yields.

A final way we can support the reliability of the CEIC yield data is to cross-check it against trends in primary market yields. While there are some drawbacks to this – such as an absence of information by credit rating and the smaller sample (and hence greater idiosyncrasies) of primary market spreads – yields in the primary market should be insensitive to any issues of liquidity that may distort secondary market pricing. In addition, since the maturity profile (and presumably the credit rating profile) has remained relatively stable over recent years we can assume that there is a fairly stable difference in maturity between bonds in the primary and secondary market (see appendix).<sup>16</sup> Graph 7 shows our constructed measure of yields at issuance for bonds of up to a 10-year maturity, and illustrates that corporate bond spreads at issuance generally widen and narrow in line with spreads in the secondary market (though are usually higher). This suggests that secondary market spreads are adequately capturing market information. (It is difficult to explain the large difference in yields between the two markets based on company-level comparisons and other considerations, and we would suggest focusing instead on the movements in each series.)

**Graph 6**  
**Corporate Bond Spreads**  
Three-year maturity



**Graph 7**  
**Aggregate Corporate Bond Spreads**  
22-day rolling average



\* Daily median corporate bond spreads at issuance  
\*\* Weighted average of corporate bond spreads using credit rating distribution data

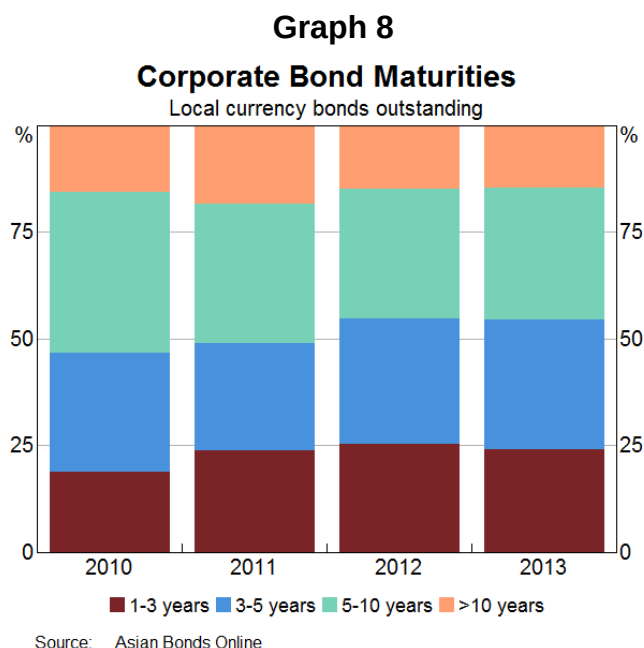
## Conclusion

China's corporate bond market is large relative to others in emerging Asia and has a reasonably liquid secondary market, despite suffering from high levels of state ownership, significant investor restrictions, and a narrow credit rating range (with most bonds rated AA- and above). A number of discrepancies exist between data sources, potentially due to their access to credit ratings data and their coverage of the market. Nonetheless, the CEIC indices used by IFM to track interbank-traded bonds are adequate in capturing trends by credit rating, though caution is warranted when interpreting the AA- and AAA+ indices. The stable liquidity premium between the primary and secondary bond markets also justifies the use of CEIC as IFM's primary data source.

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<sup>16</sup> The maturity of the secondary market will be shorter due to the primary market having original maturity and the secondary market having residual maturity. This may mean that changes in the slope of the yield curve will influence the relative trends in each series, but the slope of the Chinese government bond yield curve has been fairly stable and small over recent years.





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## FOREIGN BANK LENDING TO MAINLAND CHINA: THE ROLE OF HONG KONG BANKS

Cross border bank claims on China have risen rapidly over the past few years to exceed US\$1.1 trillion, with almost half of these claims held by banks located in Hong Kong. Using newly available data, we find that around half this lending from Hong Kong and over half of its recent increase can be attributed to mainland-owned banks. Truly foreign banks' exposures to China are hence much lower than headline figures indicate. The vast majority of lending from mainland-owned banks in Hong Kong appears to be denominated in renminbi, and likely involves the recycling of excess liquidity from Hong Kong. Around one third of lending by mainland-owned banks incorporated in Hong Kong to Chinese banks is intra-group lending to the parent.

### Introduction

Cross border claims on mainland China have been rising rapidly, with these predominantly short-term loans to banks, denominated in US dollars (though renminbi lending now appears almost as large; [name redacted 2014](#)). These developments raise questions regarding the vulnerability of both foreign banks to Chinese defaults and Chinese banks to a withdrawal of liquidity. However, much of this lending is from banks located in Hong Kong, and so may not be truly 'cross border' and hence less flighty. This note investigates in more detail lending to China from banks located in Hong Kong, focusing particularly on the nationality of these banks and the extent to which such lending may reflect recycling of offshore renminbi to the mainland.

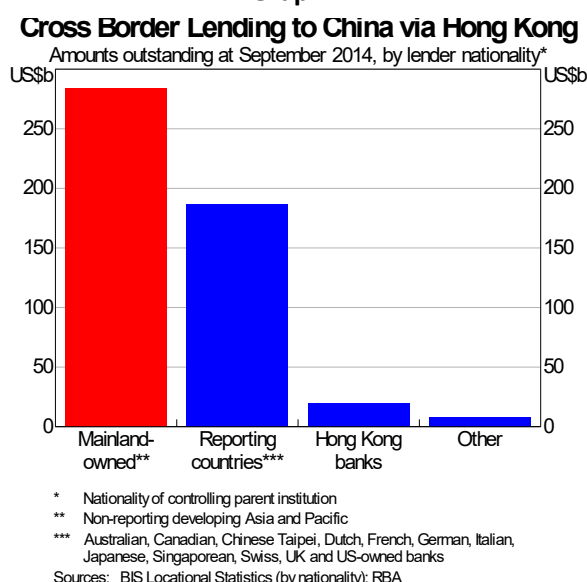
### Lending by Hong Kong-located banks

Banks located in Hong Kong account for 40 per cent of the increase in cross border bank lending to China over the past three years, and currently provide almost half of total lending (Graph 1). Recent enhancements to the BIS' International Banking Statistics (IBS) reveal that up to 55 per cent of the US\$498 billion in cross border lending to China from Hong Kong is by mainland-owned banks operating in Hong Kong (Graph 2).<sup>1</sup> On a flow basis, around 60 per cent of the rise in lending via Hong Kong over the past two years appears to be from these banks.<sup>2</sup> The exposures of truly foreign banks in Hong Kong to China is therefore less than half the headline figure at US\$215 billion, held primarily by UK-owned banks (which are included within BIS-reporting-country banks).

Graph 1



Graph 2



- 1 Lending by banks whose nationality (based on controlling parent institution) is classified as 'Non-reporting developing Asia and Pacific' (NRDAP; available from Q1 2014) provides an upper bound on lending by Chinese banking offices in Hong Kong. This is likely a very close estimate; only 4 licensed banks owned by NRDAP countries (excluding China) were operating in Hong Kong at end 2013, and they comprise a negligible portion of Hong Kong's banking system assets. As such, NRDAP banks will be referred to as 'mainland-owned' for the remainder of the note. Consolidated statistics (immediate risk basis) indicate lending by non-BIS-reporting banks of similar magnitude to the NRDAP figures.
- 2 This estimate assumes NRDAP banks accounted for 98 per cent of lending by countries with an 'unallocated' nationality in Q3 2012 (prior to Q1 2014 NRDAP banks were included in the unallocated category, which now records very small claims).

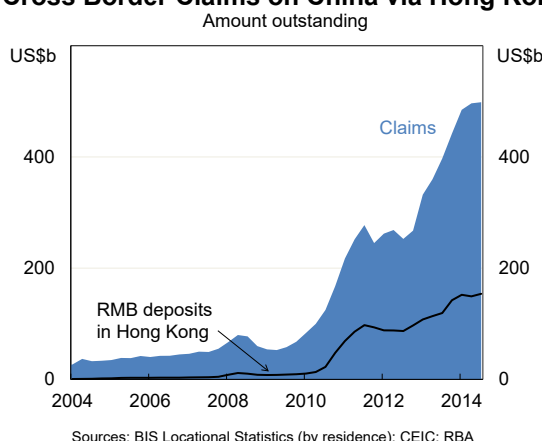
## The nature of lending

Three quarters of lending by mainland-owned banks is to Chinese banks, with over 80 per cent denominated in currencies excluding the USD and HKD, likely largely renminbi. This could reflect a recycling of excess offshore renminbi liquidity (see [Hatzvi, Nixon and Wright 2014](#)), with trends in renminbi deposits in Hong Kong closely correlated with cross border claims on the mainland (Graph 3).<sup>3</sup>

As transactions between mainland and overseas offices of Chinese banks were a key factor behind the recent surge in cross border lending to China, a portion of excess renminbi recycling to the mainland is likely intra-group (BIS 2014). Some evidence for this can be found from Chinese banks' financial statements. Based on these, one third of mainland-owned, Hong Kong-based banks' claims on Chinese banks are intra-group, with at least 40 per cent likely denominated in renminbi (Table 1).<sup>4</sup> The three Hong Kong-incorporated subsidiaries of Chinese state-owned enterprises (SOEs) account for almost all of this lending.<sup>5</sup>

**Graph 3**

### Cross Border Claims on China via Hong Kong



**Table 1**

| Cross-border Claims on Mainland Banks <sup>1</sup>           |            |                   |           |
|--------------------------------------------------------------|------------|-------------------|-----------|
| Mainland-owned Hong Kong-incorporated Banks, as at June 2014 |            |                   |           |
|                                                              | Total      | Lending to Parent |           |
|                                                              | US\$b      | US\$b             | %         |
| BOC (HK)                                                     | 52         | 18                | 34        |
| CCB (Asia)                                                   | 30         | 13                | 43        |
| ICBC (Asia)                                                  | 24         | 8                 | 36        |
| Other <sup>2</sup>                                           | 20         | 2                 | 12        |
| <b>Total</b>                                                 | <b>126</b> | <b>42</b>         | <b>33</b> |

<sup>1</sup> Ultimate risk basis. Includes lending to non-mainland located banking offices where ultimate obligor resides in the mainland.

<sup>2</sup> December 2013 figures for Wing Lung Bank

Sources: Financial Reports; RBA

## Local lending for use in China

The Hong Kong Monetary Authority produces data on Hong Kong banks' comprehensive exposures to the mainland non-bank sector, which include lending to companies in Hong Kong but for use in China.<sup>6</sup> These are not captured in the BIS locational statistics because the initial lending does not occur across borders, but are arguably a more comprehensive indicator of exposures to China.<sup>7</sup> These data indicate that exposures to non-banks are around three times larger than the commonly referenced BIS' cross border statistics ([Table A1](#)). This would suggest that foreign banks' exposures to Chinese non-bank entities are much larger than headline BIS lending figures suggest, even as foreign banks' exposures to Chinese banks are significantly smaller.

<sup>3</sup> Placement of surplus RMB liquidity with the People's Bank of China and mainland correspondent banks is a main driver of Hong Kong-located banks' claims on mainland banks ([HKMA 2014](#)), with such lending likely to pose a smaller risk of liquidity pull back than other types.

<sup>4</sup> Assuming loans for use in Hong Kong are not denominated in RMB, RMB assets account for 39-54 per cent of the remaining assets of the three SOE subsidiaries. However, up to 100 per cent of intra-group lending to the parent could be RMB-denominated. These figures are not strictly comparable to the figures in Graph 2, due to immediate v ultimate risk basis.

<sup>5</sup> Bank of China (Hong Kong), China Construction Bank (Asia), Industrial and Commercial Bank of China (Asia). It is possible that the Hong Kong branches of other mainland banks (including Agricultural Bank of China and Bank of Communications) also engage in intra-group lending to their parent.

<sup>6</sup> For an example of how these exposures may arise and potential associated risks, please see McLoughlin (2015), [Chinese Shadow Banking: A case study on commodities financing at Qingdao](#).

<sup>7</sup> The HKMA's 'mainland-related non-bank exposures' data include loans to companies resident in Hong Kong where: (a) they are subsidiaries of mainland companies, or (b) for which the credit is intended for use in China. Additionally, Hong Kong-incorporated institutions must report the positions of their mainland branches and subsidiaries as well as their Hong Kong offices. These figures therefore capture a broader range of exposures to mainland non-banks than the BIS' cross border locational statistics. As a result, Table A1's figures are not comparable with the cross border data in Graphs 1 and 2.

## Conclusion

Recent enhancements to the BIS' banking statistics show that mainland-owned banks account for the majority of foreign bank lending to China from Hong Kong, as well as a large proportion of the recent increase. As such, truly foreign banks' exposure to China is much lower than headline figures suggest. Additionally, a large proportion of claims appear to involve the recycling of excess renminbi liquidity to the mainland, with a sizeable portion of this intra-group. For these reasons such lending is less likely to be withdrawn suddenly than other forms of cross-border exposures.

name redacted

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## Appendix

**Table A1: Lending to Chinese Non-banks by Banks in Hong Kong<sup>(a)</sup>**

As at 30 September, US\$b

|                                                     |            |
|-----------------------------------------------------|------------|
| <b>Total cross border lending</b>                   | <b>129</b> |
| - Of which: Foreign                                 | 61         |
| <b>Total mainland-related lending<sup>(b)</sup></b> | <b>394</b> |
| Overseas-incorporated banks (branches)              | 169        |
| - Of which: Foreign <sup>(c)</sup>                  | 102        |
| Hong Kong-incorporated banks <sup>(d)</sup>         | 225        |
| - Of which: Foreign <sup>(e)</sup>                  | 97         |

(a) 'Foreign' refers to non mainland-owned.

(b) Loans and trade finance. Includes lending to companies in Hong Kong which are subsidiaries of mainland companies, or where credit is intended for use in China.

(c) Estimate based on March 2014 breakdown.

(d) Including via mainland branches and subsidiaries.

(e) Estimate derived from mainland-owned banks' lending at June 2014 (December 2013 for Wing Lung Bank), scaled by growth in total lending by Hong Kong-incorporated banks.

Sources: BIS Locational Statistics; Financial Reports; HKMA; RBA

## IS THERE A LEVERAGED BUBBLE IN CHINESE CORPORATE BONDS?

*Chinese exchange-traded corporate bond issuance has risen sharply and corporate bond spreads have narrowed since mid-year, alongside rapid growth in repo turnover. Some observers have suggested that these developments indicate a leverage-fuelled bubble in the credit market. However, available data are not consistent with this. In particular, there has been no increase in aggregate corporate bond issuance (just a switch from interbank to exchange issuance), the rise in repo transactions has not been against corporate bonds and looks to have been driven by an increased supply of funds rather than more demand, and there are some good reasons why spreads may have narrowed. Nonetheless, these developments warrant continued monitoring.*

### The concern

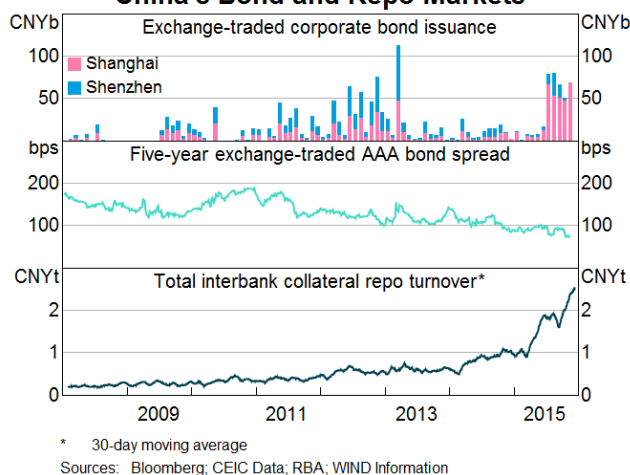
Exchange-traded corporate bond issuance in China has increased rapidly, credit spreads have narrowed and bond repo turnover in China has risen sharply this year (Graph 1). The combination of these developments is suggestive of increased demand for bonds, funded by debt, and has led to concerns by market analysts of a ‘bubble’ in China’s credit markets.<sup>1</sup> Such writers have often also drawn parallels with recent margin-fuelled activity in China’s domestic equity markets to claim that such speculative activity has now shifted from the equity market to the bond market, purportedly highlighting the struggles of China’s closed financial system to efficiently

allocate its high stock of savings.<sup>2</sup> Such claims are worthy of consideration as China’s bond market is much more systemically important than its equity market, given it is the third largest in the world.<sup>3</sup> If these claims are true, it would imply a risk that any adverse shocks to the market could cause investors to quickly sell their corporate bond and/or other assets (at fire sale prices) to repay the liabilities that funded their bond positions.

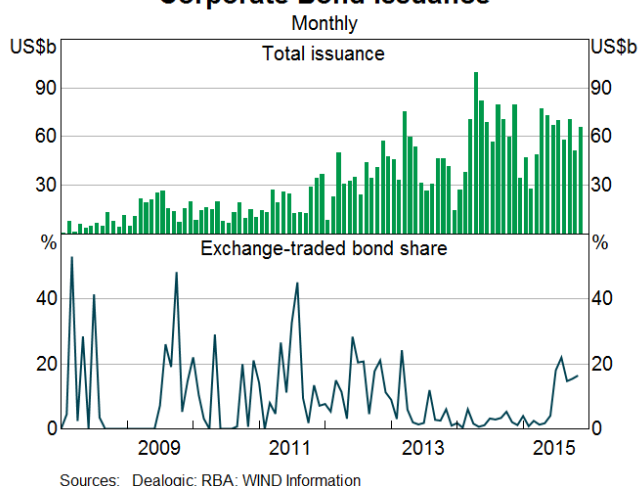
### Issuance patterns

Exchange-traded corporate bond issuance rose sharply in July and has since averaged around CNY70 billion (US\$11 billion) per month, compared with around CNY9 billion per month over the prior six months. In fact, total issuance between July and November 2015 was just shy of total issuance over the (almost) two and a half years to July 2015. However, the exchange-traded corporate bond market is a small component of the total bond market in China (Graph 2). Since 2013, exchange-traded corporate bonds have accounted for only around 5 per cent of total corporate bond issuance, with the interbank market comprising the remainder. Looking at total bond issuance, on either the exchanges or the interbank market, issuance this year has been

**Graph 1**  
**China's Bond and Repo Markets**



**Graph 2**  
**Corporate Bond Issuance**



1 See, for example, [BAML](#), [Bloomberg](#), [Financial Times](#), [HSBC](#) and [Wall Street Journal](#). In comparison, [Credit Suisse](#) and [name redacted](#) argue that these developments are unlikely to pose systemic risks.

2 See [names redacted x2 \(2014\)](#) and [name redacted et al. \(2015\)](#) for more information on China’s equity market over 2014 and 2015.

3 For more details, see [name redacted \(2015\)](#).

similar to that in 2014.<sup>4</sup> Of note, there was no increase in total corporate bond issuance volumes during the months when exchange-traded issuance spiked.

This observation points towards a shift in where bonds are issued, rather than a rise in aggregate bond financing. The reasons for this apparent shift are not clear. However, there has not been an unusually large amount of bond maturities in the exchange-traded market nor a shift in the relative price between the exchange-traded and interbank bond markets (more details on the latter below).

One possibility is that the increase in issuance reflected the delayed implementation of a January 2015 regulatory change to enable all corporations to issue bonds on the Shanghai and Shenzhen stock exchanges; previously, only corporations whose stocks were listed on the exchanges were allowed to issue exchange-traded corporate bonds.<sup>5</sup> While the available data do not allow us to accurately test this, and the delay between the announcement of this regulation and its effect is problematic, the hypothesis seems plausible given the history of delayed policy implementation in Chinese financial markets.<sup>6,7</sup>

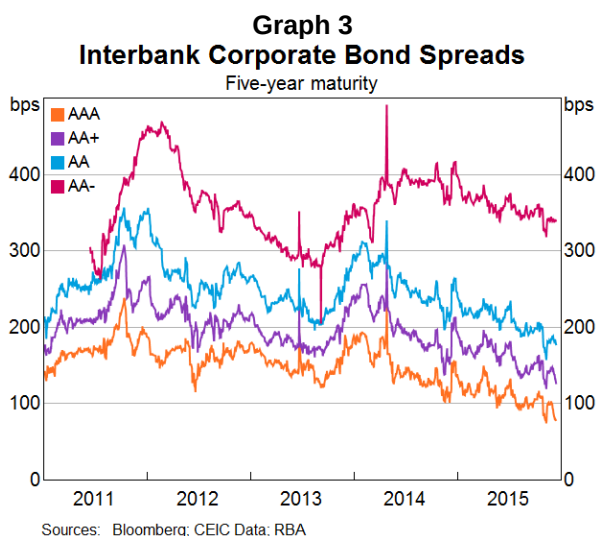
### Corporate bond spreads

Market commentary has also highlighted the compression in exchange-traded corporate bond spreads, which have fallen by around 55 basis points since the beginning of the year, and by around 50 basis points since the spike in issuance commenced.<sup>8</sup> This continues the downward trend since mid 2014, taking spreads to their lowest level on record, and has also been evident in the interbank market (Graph 3). This narrowing in spreads has occurred in a period of slowing economic activity and deteriorating bank asset quality,<sup>9</sup> suggesting that credit risk may be under-priced.

However, there are some fundamental factors that may help explain the *decline* in spreads over the past 18 months:

- easier monetary policy may have reduced interest burdens, with benchmark interest rates having been cut six times since November 2014;
- default events in Chinese corporate bond markets have thus far remained very limited – investors have yet to lose any principal invested in Chinese onshore corporate bonds, with a number of companies that have missed required payments subsequently reimbursing investors following support from government or other corporations.<sup>10</sup> (This creates other concerns – namely greater moral hazard – but to the extent it persists, it also supports lower spreads.)

Moreover, there are some reasons to not be overly concerned about the current *level* of credit spreads:



4 This likely also reflected the local government debt swap program. See [name redacted \(2015\)](#) for more information. If local government bonds are added to the measure of corporate issuance (to the extent they would have previously been issued by local government financing vehicles), 2015 issuance would be above that in 2014 over the same time period.

5 It is possible that some of these corporates can issue bonds on the interbank market to the extent they are financial institutions or have permission from authorities.

6 For example, the Mutual Recognition of Funds agreement between mainland China and Hong Kong has reportedly not started despite being launched in July.

7 Property developers have been a big share of recent issuance – 40 per cent by number and 60 per cent by value – but this is not dissimilar to earlier in the year.

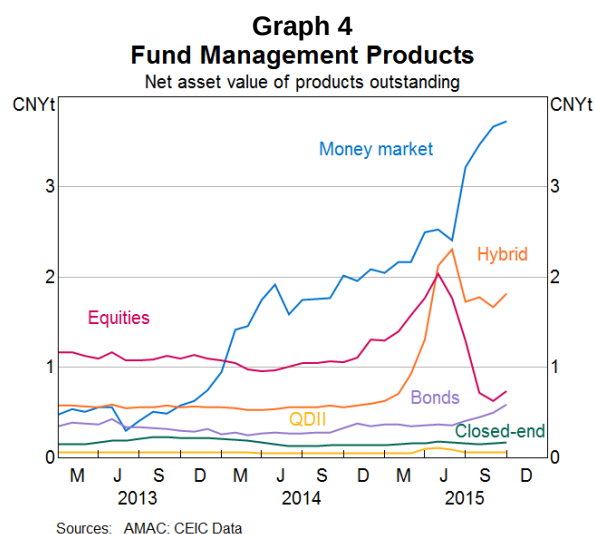
8 There has been particular focus on low yields on property developers' bonds, though it does not appear that the coupons being paid at primary issuance by such firms is dissimilar to those of other firms.

9 See [name redacted \(November 2015\)](#) for the latest update on the large Chinese banks' profit results and asset quality.

10 For example, regulators intervened in October to prevent Sinosteel Corp from defaulting by asking bondholders to wait an additional month for payment. Other companies such as Chaori Solar, Baoding Tianwei and Kaisa Group (among others) have not been allowed to default. See [name redacted \(2014\)](#) for more information on credit risk in Chinese financial markets.

- spreads on bonds rated AA- in China (generally considered to be the highest level of non-investment grade bonds) are comparable to those of non-investment grade bonds in other countries such as the United States; and
- spreads across all ratings have fallen by a similar amount and are still materially above their historical lows for the lowest-rated bonds (one might expect that in a 'bond bubble' spreads on lower-rated bonds would narrow further as investors seek the highest possible return).

Several commentators have suggested that the decline in spreads, coupled with increasing exchange-traded bond issuance, owes to an increase in the supply of funds in the bond market (or an increase in demand for bonds by investors) as investors have moved from the equity market to the bond market. However, data on fund management product allocation indicate that the vast majority of investments that have flowed out of equity funds have been moved into money market funds (Graph 4; these typically invest in short-dated instruments, including repo<sup>11</sup>), with only a small increase in assets under management at bond funds. This suggests that any increase in demand for bonds is attributable to other (institutional) investors.



## Repo markets

As mentioned above, the spike in exchange-traded bond issuance and narrowing of spreads has broadly coincided with a surge in repo turnover (though the timing of each is somewhat different).<sup>12</sup> This has created concern that an increase in demand for bonds is being fuelled by debt.

Although the reasons for the increase in repo turnover are not obvious, there are some reasons to suggest that the increase in repo activity is not directly linked to the rise in exchange-traded corporate bond issuance and narrowing of spreads. In particular:

- Repo transactions rarely use corporate bonds as collateral, and instead predominantly use treasury and policy bank bonds (Graph 5). Moreover, there has been no notable increase in repo against corporate bond collateral of late;
- The most recent surge in repo turnover has been concentrated in the interbank market, not the exchange market (Graph 6). It has also been concentrated at the one-day tenor, which is perhaps less likely to be used to fund corporate bond purchases; and
- The increase in repo turnover has occurred alongside declines in repo rates since the start of the year, suggesting that the increase in turnover is due to an increase in supply of funds, rather than an increase in demand (Graph 7).

Data on the share of repo borrowing and lending by different investors can help to explain what has driven the rise in repo turnover. These show that the largest increase in repo borrowing has been by city and rural commercial banks, with 'special members' (the Chinese authorities and policy banks) and the large state-owned banks the main counterparties to these transactions (Graph 8).<sup>13,14</sup> One possibility, given that developments in repo pricing point to an increase in supply, is that the policy and state-owned banks have increased their repo lending using funds provided by the PBC's pledged supplementary lending and

11 Stock exchange repo typically constitutes 20-60 per cent of the holdings of AAA rated money market funds ([JP Morgan](#)).

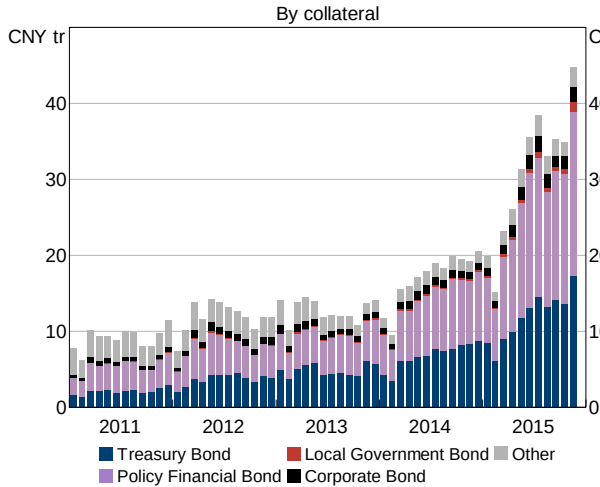
12 While spreads have been narrowing since early-mid 2014, repo turnover picked up sharply in March and exchange bond issuance rose from July.

13 Alternate data on banks' sources and use of funds (which are not presented here) indicate the SOCBs are primarily net lenders in repo markets. However, we cannot separate the SOCBs from the JSCBs (together they make up the 'National commercial bank' category in Graph 8).

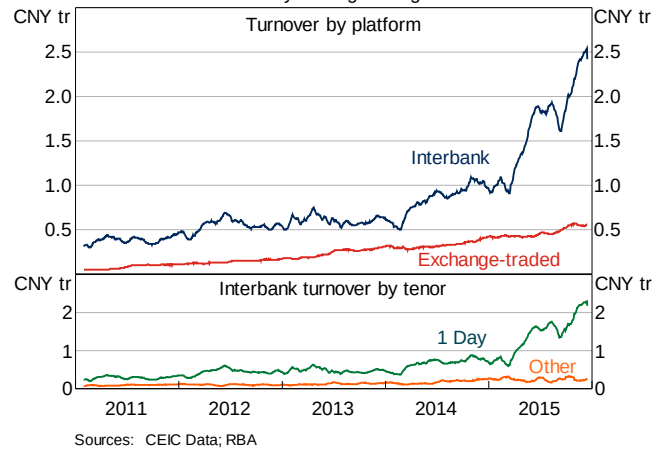
14 Aside from the PBC, China Development Bank (CDB) is a possible significant lender in repos. In particular, the PBC has directed funding to CDB through its pledged supplementary lending facility; it is plausible, but difficult to confirm, that the CDB is lending these funds in the repo market before they are used to fund development projects.

medium-term liquidity funding programs that are not yet required for longer-term lending and/or funds released through cuts in the reserve requirement ratio.<sup>15</sup>

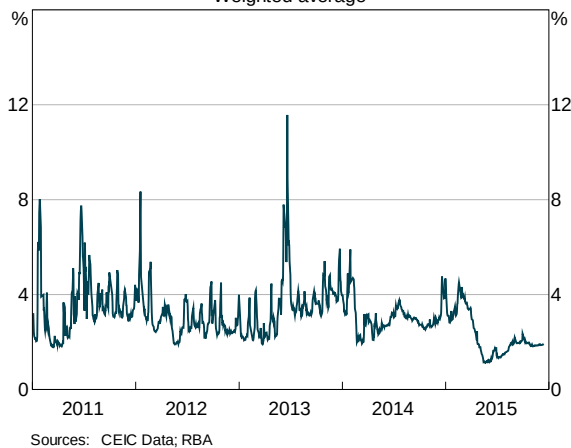
**Graph 5**  
**Interbank Repo Settlement**  
By collateral



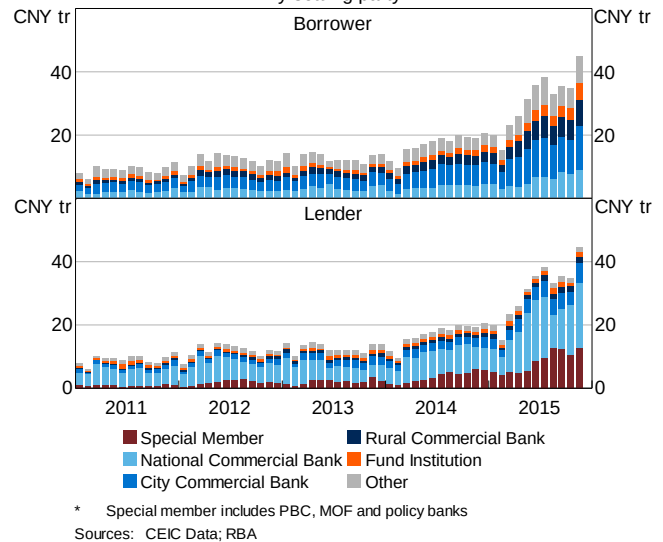
**Graph 6**  
**China – Collateral Repo Turnover**  
30 day moving average



**Graph 7**  
**China – Collateral Repo Rate**  
Weighted average



**Graph 8**  
**Interbank Collateral Repo Settlement**  
By settling party



15 Although interbank net repo borrowing by fund institutions, including money market funds and securities companies, has increased in levels terms, its share of turnover has remained constant and remains a relatively small part of the interbank repo market.



A rise in repo turnover of itself may not be of concern and has been a policy aim of EMEAP for some time due to the potentially beneficial impacts on the development of securities markets and risk management.<sup>16</sup> In addition, Chinese repo turnover has been a lower share of bonds outstanding than in advanced economies (10 per cent in 2013, compared with around 15 per cent in Australia, Japan and the United States; see EMEAP 2014). Nonetheless, we cannot rule out that the rise in repo rates is a result of factors that could negatively impact Chinese financial stability. For example, it is plausible that the smaller domestic banks are purchasing corporate bonds using the funds obtained through repos backed by treasuries or policy bank bonds. Liaison with some market participants has also suggested that a number of smaller banks may be increasingly using repo markets to fund their operations because they are facing liquidity strains associated with deteriorating asset quality and slowing wealth management product issuance. Such a development would likely present a bigger near-term risk to financial stability than leveraged corporate bond market investment. Future work will look more closely at the health of the smaller Chinese banks.

## Conclusion

Available data do not suggest that the rise in exchange-traded corporate bond issuance, the decline in spreads and the rise in repo turnover point to a leverage-fuelled bubble, as suggested by market analysts. In particular, there has been no increase in aggregate corporate bond issuance in the months where exchange-traded issuance spiked, and while the narrowing in spreads is somewhat surprising given worsening economic conditions in China, it is not unfathomable in an environment of monetary policy easing (among other factors). Rather, the increase in issuance likely reflects a loosening of restrictions on exchange-traded corporate bond issuance coming into effect. There is also little evidence to suggest that investors are increasing their leverage by funding their corporate bond purchases through repo operations.

name redacted  
Financial Stability Department  
17 December 2015

name redacted  
International Department

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<sup>16</sup> See [EMEAP \(2014\)](#)

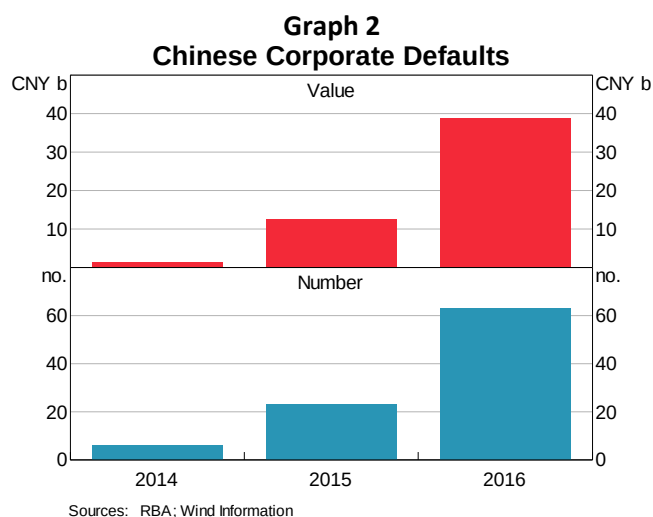
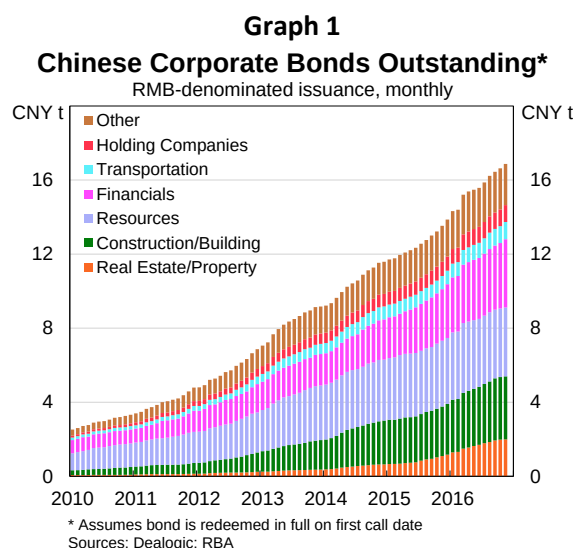
## TRENDS IN RECENT CHINESE CORPORATE BOND DEFAULTS

*The number and value of Chinese corporate bond defaults have increased over the past couple of years (off a very low base). This has occurred alongside slowing economic growth and attempts to reduce leverage and overcapacity. This brief note describes the outcomes of the 92 bond defaults by 54 firms over the past three years. Overall, the majority of Chinese bond defaults remain unresolved. This, combined with the still low number of defaults, makes it difficult to draw conclusive evidence on whether specific characteristics are predictive of eventual outcomes.*

### Background

The value of Chinese corporate bonds outstanding has increased steadily over the past few years. Currently, resource and construction firms each represent around 20 per cent of outstanding bonds, while real estate firms represent about 10 per cent (Graph 1). Bonds issued by non-financial state-owned enterprises (SOEs) and private corporations each account for around 40 per cent of the value of bonds outstanding, with financial bonds accounting for the remaining 20 per cent.<sup>1</sup>

Chinese corporate bond defaults have been very rare until recently. In 2014, only six bonds totalling CNY1 billion defaulted; this increased to 23 bonds and CNY12 billion in 2015, and 63 bonds worth CNY39 billion in 2016 (Graph 2). Given the low number of defaults to date, the results in this note should be interpreted with care and only as indicative of some of the preliminary trends in recent Chinese bond defaults. IFM will continue to monitor developments in Chinese corporate bond defaults.



### Corporate bond defaults

For this analysis, firms that have defaulted on bonds are categorised into six classes of post-default outcomes:

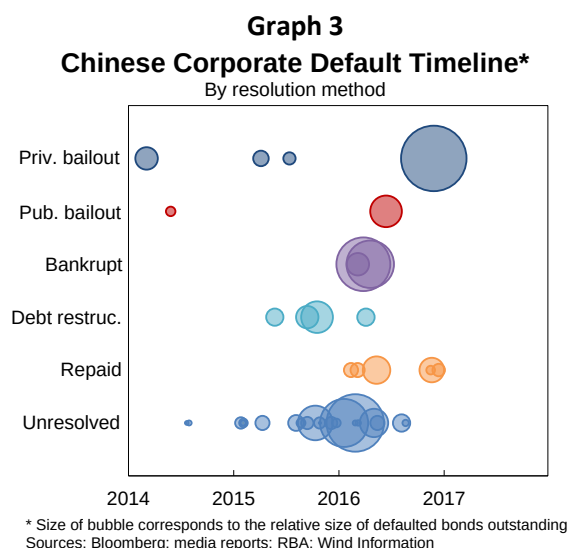
- *public bailout* – firms that received support from a government entity to help repay debt;
- *private bailout* – firms that received support from a non-government entity to help repay debt;
- *debt restructure* – firms that have restructured through debt-to-equity or debt-to-debt swaps;
- *repaid* – firms that have managed to subsequently repay without external support;
- *bankrupt* – firms that are required by a court to formally wind up; and
- *unresolved* – firms that remain in default.

The outcomes of 12 bond defaults that could not be determined have been excluded from the analysis.

<sup>1</sup>For an overview of China's corporate bond market, see [name redacted \(2015\), 'How Developed is China's Corporate Bond Market?'](#).



Graph 3 shows a timeline of how bond defaults since 2014 have been resolved, with the size of the 'bubbles' corresponding to the size of the bonds outstanding for each firm. The majority of defaults remain unresolved, with the IMF suggesting that this could be due to weak bankruptcy laws that make it difficult to enforce restrictions on defaulted firms' activity, allowing these firms to continue trading.<sup>2</sup> The IMF also identified other reasons, including: disincentives for debtors to file for insolvency due to the potential liability of company officials; the significant hurdles for creditors to prove insolvency; that courts frequently dismiss or ignore bankruptcy petitions, especially against SOEs; and firm reorganisations often favour 'inside' creditors and shareholders.



However, three firms were formally declared bankrupt following bond defaults in early 2016, alongside the government stating that it would cut overcapacity. These firms had large amounts outstanding, and there has been some speculation that the government was using these cases both as a 'pilot' and as a warning to other firms that it may not always step in to bail firms out.<sup>3</sup> There have also been six bailouts and four debt restructurings. Separately, the government has also encouraged debt restructuring through a debt-to-equity swap program, which is for companies deemed to have good prospects.<sup>4</sup> Debt restructurings through this program have so far been selective and largely concentrated in companies with strong balance sheets, rather than those in default.

According to Fitch, over 60 per cent of outstanding domestic bonds are held by Chinese commercial banks.<sup>5</sup> However, the impact on banks so far has been minimal. Defaults in the onshore market have only involved RMB-denominated short-term paper and medium-term notes. On average, defaults have occurred around 2½ years after issuance (the weighted-average original maturity is three years), with the majority of defaults occurring at maturity. Additionally, defaults have been concentrated in the interbank market, rather than on exchanges, in line with the large volume of interbank bond issuance.

### Characteristics of defaulted firms

#### *SOEs vs private companies*

SOEs could be less likely to default, as they typically have better access to funding than private firms, and could also receive more favourable treatment if they do default (in the form of a bailout or debt restructuring). Indeed, the number of defaults by SOEs has been low, relative to defaults from privately-owned companies (Graph 4). Among SOE defaults, there are also a lower proportion of unresolved defaults, and four of the ten defaults have received support in the form of a debt restructure or public bailout. However, the government has been willing to allow some SOEs in overcapacity to go bankrupt, as the only three firms in the sample to go bankrupt were SOEs.

#### *Industry*

Consistent with overcapacity in the industrials and materials sectors, the majority of defaults (and bankruptcies) have been concentrated in these two industries (Graph 5). In terms of resolution, a large

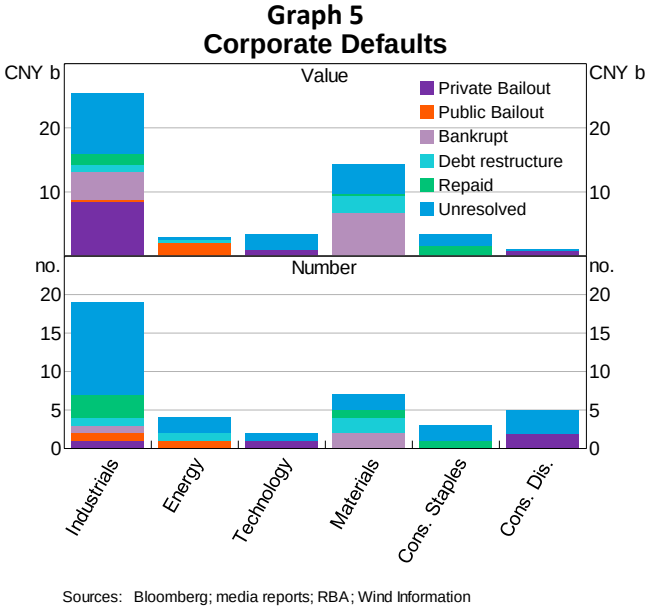
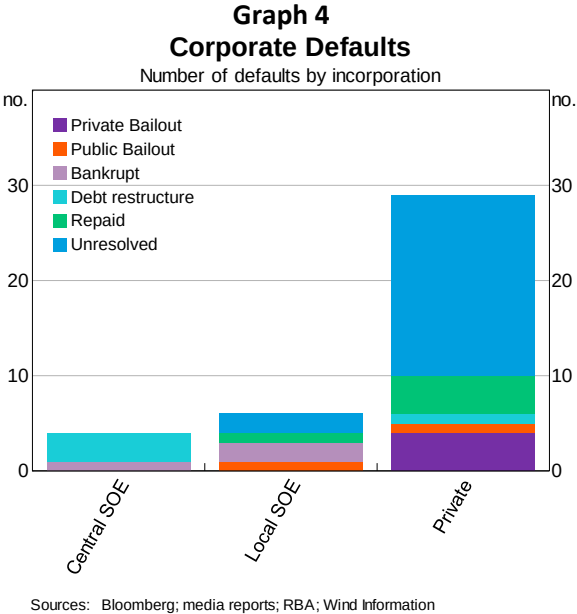
<sup>2</sup> For details, see [‘Resolving China’s Corporate Debt Problem’, IMF Working Paper \(2016\)](#).

<sup>3</sup> For details, see [Singh, S. \(2016\). ‘What do China’s SOE bankruptcies, debt issues and reforms mean?’](#).

<sup>4</sup> For details, see [‘Measures to reduce enterprise leverage’, The State Council \(2016\)](#).

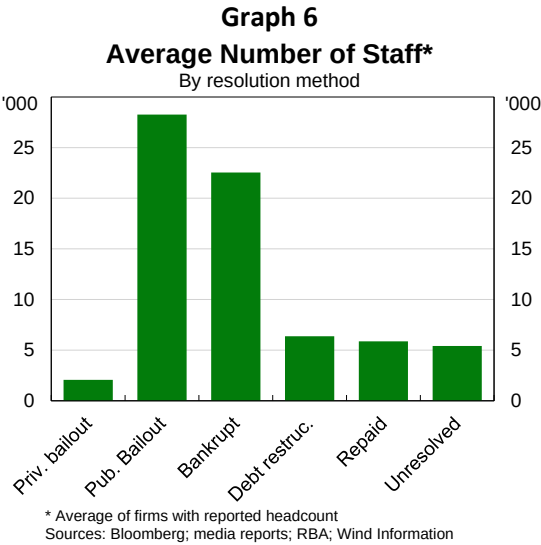
<sup>5</sup> For details, see [Fitch: Opening China Interbank Bond Market Has Long-Term Benefit \(2016\)](#).

number of defaults in the industrials sector remain unresolved, whereas the few resolutions in the technology, consumer staples and consumer discretionary industries have involved either private bailouts or a repayment of the bond. So far there have not been any bond defaults in the real estate and construction industries, despite these firms together accounting for around 30 per cent of bonds outstanding.



*Number of employees*

There continues to be a tension between the central government's plan for a more market-driven economy through supply-side reforms and regional governments' desire to maintain social stability by supporting heavily indebted companies. Consistent with this, the few public bailouts have so far tended to support firms that employ a relatively large number of people (Graph 6). At the same time, the few firms with excess capacity that have been allowed to go bankrupt also had large headcount.



## Appendix – List of Chinese corporate bond defaults

| Symbol       | Bond Name                                                      | Province       | Listing       | Industry               | Issue Amount (CNY m) | Issue date | Maturity date | Date of default | Method of resolution |
|--------------|----------------------------------------------------------------|----------------|---------------|------------------------|----------------------|------------|---------------|-----------------|----------------------|
| 1080129.IB   | SINOSTEEL 5.3%                                                 | Beijing        | Interbank     | Materials              | 2000                 | 20/10/2010 | 20/10/2017    | 19/10/2015      | Debt restructure     |
| 1282369.IB   | CHINA NATIONAL ERZHONG GROUP 5.65%                             | Sichuan        | Interbank     | Industrials            | 1000                 | 26/09/2012 | 26/09/2017    | 15/09/2015      | Debt restructure     |
| 112061.SZ    | CRTY 8.98%                                                     | Shanghai       | Shenzhen      | Information Technology | 1000                 | 7/03/2012  | 7/03/2017     | 5/03/2014       | Private Bailout      |
| 125099.SH    | XUZHOU ZHONGSENTONGHAO NEW BUILDING BOARD 10%                  | Jiangsu        | Shanghai      | Industrials            | 180                  | 28/03/2013 | 28/03/2016    | 28/05/2014      | Public Bailout       |
| 125012.SH    | HUZHOU JINTAI SCIENCE AND TECHNOLOGY 9%                        | Zhejiang       | Shanghai      | Materials              | 15                   | 10/07/2012 | 10/07/2015    | 10/07/2014      | Unresolved           |
| 125013.SH    | HUZHOU JINTAI SCIENCE AND TECHNOLOGY 11%                       | Zhejiang       | Shanghai      | Materials              | 15                   | 10/07/2012 | 10/07/2015    | 23/07/2014      | Unresolved           |
| 125065.SH    | TIANJIN BINHAI TIANLIAN COMPOSITE MATERIAL 9.0%                | Tianjin        | Shanghai      | Industrials            | 50                   | 29/01/2013 | 29/01/2015    | 31/07/2014      | Unresolved           |
| 118123.SZ    | HUAZHU(QUANZHOU) SHOES INDUSTRIAL 10%                          | Fujian         | Shenzhen      | Consumer Discretionary | 80                   | 23/08/2013 | 23/08/2016    | 22/08/2016      | Unresolved           |
| 118068.SZ    | DONGFEI MAZUOLI TEXTILE MACHINERY 9.5%                         | Jiangsu        | Shenzhen      | Industrials            | 110                  | 25/01/2013 | 25/01/2015    | 27/01/2015      | Unresolved           |
| 118067.SZ    | ANHUI LANBOWANG MACHINERY GROUP 9.8%                           | Anhui          | Shenzhen      | Industrials            | 60                   | 4/02/2013  | 4/02/2016     | 21/04/2016      | Unresolved           |
| 118065.SZ    | SUQIAN ZHIFU LEATHER INDUSTRY 9.5%                             | Jiangsu        | Shenzhen      | Consumer Discretionary | 150                  | 5/02/2013  | 5/02/2016     | 5/02/2015       | Unresolved           |
| 118080.SZ    | DONGFEI MAZUOLI TEXTILE MACHINERY 9.5%                         | Jiangsu        | Shenzhen      | Industrials            | 150                  | 21/03/2013 | 21/03/2015    | 21/03/2015      | Unresolved           |
| 112072.SZ    | XIANGQING 6.78%                                                | Beijing        | Shenzhen      | Consumer Discretionary | 480                  | 5/04/2012  | 5/04/2017     | 7/04/2015       | Private Bailout      |
| 041458025.IB | BOHONG GROUP 8.3%                                              | Sichuan        | Interbank     | Industrials            | 400                  | 10/04/2014 | 10/04/2015    | 12/04/2015      | Unresolved           |
| 1182127.IB   | BAODING TIANWEI GROUP 5.7%                                     | Hebei          | Interbank     | Industrials            | 1500                 | 21/04/2011 | 21/04/2016    | 21/04/2016      | Bankrupt             |
| 112087.SZ    | ZHUHAI ZHONGFU 5.28%                                           | Guangdong      | Shenzhen      | Materials              | 590                  | 28/05/2012 | 28/05/2015    | 25/05/2015      | Debt restructure     |
| 125107.SH    | JIANGSU DAHONG TEXTILE GROUP 10.0%                             | Jiangsu        | Shanghai      | Consumer Discretionary | 300                  | 19/04/2013 | 19/04/2016    | 15/07/2015      | Private Bailout      |
| 118121.SZ    | CHONGQING FUXING DOORS INDUSTRY (GROUP) 9.50%                  | Chongqing      | Shenzhen      | Industrials            | 250                  | 8/08/2013  | 8/08/2016     | 7/08/2015       | Unresolved           |
| 125129.SH    | SMEIC 9.5%                                                     | Shanghai       | Shanghai      | Industrials            | 160                  | 18/06/2013 | 18/06/2015    | 24/08/2015      | Unresolved           |
| 1382028.IB   | SUNNSY GROUP 5.44%                                             | Shandong       | Interbank     | Materials              | 1800                 | 21/01/2013 | 21/01/2016    | 21/01/2016      | Unresolved           |
| 125359.SH    | JILIN GRAIN GROUP SHOUCHU DISTRIBUTION 10.5%                   | Jilin          | Shanghai      | Industrials            | 300                  | 31/07/2014 | 31/07/2017    | 15/09/2015      | Unresolved           |
| 1082180.IB   | YINGLI SOLAR 4.3%                                              | Hebei          | Interbank     | Information Technology | 1000                 | 13/10/2010 | 13/10/2015    | 13/10/2015      | Unresolved           |
| 118028.SZ    | INNER MONGOLIA NAILUN AGRICULTURE SCIENCE AND TECHNOLOGY 9.95% | Inner Mongolia | Shenzhen      | Consumer Staples       | 250                  | 9/11/2012  | 9/11/2014     | 28/10/2015      | Unresolved           |
| 118151.SZ    | ZHEJIANG PINGHU HUALONG INDUSTRIAL 11%                         | Zhejiang       | Shenzhen      | Industrials            | 10                   | 1/11/2013  | 1/11/2016     | 29/10/2015      | Unresolved           |
| 011599179.IB | SUNNSY GROUP 5.3%                                              | Shandong       | Interbank     | Materials              | 2000                 | 16/04/2015 | 12/11/2015    | 12/11/2015      | Unresolved           |
| 118038.SZ    | CHONGQING FUXING DOORS INDUSTRY (GROUP) 10%                    | Chongqing      | Shenzhen      | Industrials            | 250                  | 30/11/2012 | 30/11/2015    | 30/11/2015      | Unknown              |
| 1280443.IB   | SICHUAN SHENGDA GROUP 7.25%                                    | Sichuan        | Interbank     | Energy                 | 300                  | 5/12/2012  | 5/12/2015     | 7/12/2015       | Unresolved           |
| 118165.SZ    | SHAANXI GUODE ELECTRIC 8.50%                                   | Shaanxi        | Shenzhen      | Industrials            | 150                  | 27/12/2013 | 27/12/2015    | 25/12/2015      | Unresolved           |
| 031290117.IB | BAODING TIANWEI GROUP 6.1%                                     | Hebei          | Interbank     | Industrials            | 1000                 | 19/12/2012 | 19/12/2015    | 30/12/2015      | Bankrupt             |
| 041558012.IB | YABANG INVESTMENT HOLDING GROUP 7.95%                          | Jiangsu        | Interbank     | Industrials            | 200                  | 9/02/2015  | 9/02/2016     | 14/02/2016      | Repaid               |
| 011599252.IB | SUNNSY GROUP 4.5%                                              | Shandong       | Interbank     | Materials              | 800                  | 18/05/2015 | 12/02/2016    | 14/02/2016      | Unresolved           |
| 1182040.IB   | BAODING TIANWEI GROUP 5.85%                                    | Hebei          | Interbank     | Industrials            | 1000                 | 24/02/2011 | 24/02/2016    | 24/02/2016      | Unresolved           |
| 031490430.IB | SHANGHAI YUNFENG GROUP 7.8%                                    | Shanghai       | Interbank     | Industrials            | 600                  | 29/05/2014 | 29/05/2017    | 29/02/2016      | Unresolved           |
| 031490575.IB | SHANGHAI YUNFENG GROUP 7.50%                                   | Shanghai       | Interbank     | Industrials            | 1000                 | 27/06/2014 | 27/06/2017    | 29/02/2016      | Unresolved           |
| 031490678.IB | SHANGHAI YUNFENG GROUP 7.70%                                   | Shanghai       | Interbank     | Industrials            | 1000                 | 8/08/2014  | 8/08/2017     | 29/02/2016      | Unresolved           |
| 031565001.IB | SHANGHAI YUNFENG GROUP 8.00%                                   | Shanghai       | Interbank     | Industrials            | 1000                 | 22/01/2015 | 22/01/2017    | 29/02/2016      | Unresolved           |
| 031564052.IB | SHANGHAI YUNFENG GROUP 7.0%                                    | Shanghai       | Interbank     | Industrials            | 1000                 | 13/05/2015 | 13/05/2016    | 29/02/2016      | Unresolved           |
| 031564128.IB | SHANGHAI YUNFENG GROUP 6.8%                                    | Shanghai       | Interbank     | Industrials            | 1000                 | 18/09/2015 | 18/09/2016    | 29/02/2016      | Unresolved           |
| 125338.SH    | ZHONG HENG TONG(FUJIAN) MACHINERY MANUFACTURING 9.50%          | Fujian         | Shanghai      | Consumer Discretionary | 50                   | 23/07/2014 | 23/07/2016    | 29/02/2016      | Unresolved           |
| 041564012.IB | ZIBO HTC MINING 8%                                             | Shandong       | Interbank     | Materials              | 400                  | 9/03/2015  | 8/03/2016     | 8/03/2016       | Repaid               |
| 031390044.IB | GUANGXI NON-FERROUS METAL 5.7%                                 | Guangxi Zhuang | Interbank     | Materials              | 500                  | 27/02/2013 | 27/02/2016    | 9/03/2016       | Bankrupt             |
| 125089.SH    | CHINA NEWSTAR ENERGY 9.5%                                      | Beijing        | Shanghai      | Energy                 | 60                   | 22/03/2013 | 22/03/2016    | 10/03/2016      | Unresolved           |
| 118245.SZ    | JIANGSU ZHONGLIAN LOGISTICS 10%                                | Jiangsu        | Shenzhen      | Industrials            | 20                   | 12/03/2014 | 12/03/2016    | 13/03/2016      | Unknown              |
| 1382228.IB   | NANJING YURUN FOODS 5.27%                                      | Jiangsu        | Interbank     | Consumer Staples       | 1000                 | 13/05/2013 | 13/05/2016    | 13/05/2016      | Repaid               |
| 041554011.IB | NANJING YURUN FOODS 6.45%                                      | Jiangsu        | Interbank     | Consumer Staples       | 500                  | 17/03/2015 | 17/03/2016    | 17/03/2016      | Repaid               |
| 041556006.IB | DONGBEI SPECIAL STEEL GROUP 6.5%                               | Liaoning       | Interbank     | Materials              | 800                  | 27/03/2015 | 27/03/2016    | 28/03/2016      | Bankrupt             |
| 031390104.IB | BAODING TIANWEI GROUP 5.80%                                    | Hebei          | Interbank     | Industrials            | 1000                 | 27/03/2013 | 27/03/2016    | 28/03/2016      | Bankrupt             |
| 011598155.IB | DONGBEI SPECIAL STEEL GROUP 6.00%                              | Liaoning       | Interbank     | Materials              | 1000                 | 4/01/2016  | 3/04/2016     | 5/04/2016       | Bankrupt             |
| 041564019.IB | SHANXI HUAYU OF CHINACOAL 6.3%                                 | Shanxi         | Interbank     | Energy                 | 600                  | 7/04/2015  | 6/04/2016     | 6/04/2016       | Debt restructure     |
| 041556016.IB | DONGBEI SPECIAL STEEL GROUP 5.88%                              | Liaoning       | Interbank     | Materials              | 700                  | 5/05/2015  | 5/05/2016     | 5/05/2016       | Bankrupt             |
| 031490458.IB | DONGBEI SPECIAL STEEL GROUP 8.2%                               | Liaoning       | Interbank     | Materials              | 300                  | 6/06/2014  | 6/06/2016     | 6/06/2016       | Bankrupt             |
| 031390225.IB | DONGBEI SPECIAL STEEL GROUP 7%                                 | Liaoning       | Interbank     | Materials              | 300                  | 10/07/2013 | 10/07/2016    | 11/07/2016      | Bankrupt             |
| 031572013.IB | DONGBEI SPECIAL STEEL GROUP 7.4%                               | Liaoning       | Interbank     | Materials              | 870                  | 17/07/2015 | 17/07/2017    | 18/07/2016      | Bankrupt             |
| 031390290.IB | DONGBEI SPECIAL STEEL GROUP 8.30%                              | Liaoning       | Interbank     | Materials              | 300                  | 6/09/2013  | 6/09/2016     | 6/09/2016       | Bankrupt             |
| 041556036.IB | DONGBEI SPECIAL STEEL GROUP 6.3%                               | Liaoning       | Interbank     | Materials              | 700                  | 24/09/2015 | 24/09/2016    | 26/09/2016      | Bankrupt             |
| 1382158.IB   | DONGBEI SPECIAL STEEL GROUP 5.63%                              | Liaoning       | Interbank     | Materials              | 800                  | 12/04/2013 | 12/04/2018    | 12/04/2016      | Bankrupt             |
| 031390139.IB | GUANGXI NON-FERROUS METAL 5.56%                                | Guangxi Zhuang | Interbank     | Materials              | 500                  | 23/04/2013 | 23/04/2016    | 22/04/2016      | Bankrupt             |
| 1180105.IB   | INNER MONGOLIA NAILUN GROUP 7.48%                              | Inner Mongolia | Interbank     | Consumer Staples       | 800                  | 5/05/2011  | 5/05/2018     | 4/05/2016       | Unresolved           |
| 122811.SH    | INNER MONGOLIA NAILUN GROUP 7.48%                              | Inner Mongolia | Shanghai      | Consumer Staples       | 800                  | 5/05/2011  | 5/05/2018     | 4/05/2016       | Unresolved           |
| 1182159.IB   | YINGLI SOLAR 6.15%                                             | Hebei          | Interbank     | Information Technology | 1400                 | 12/05/2011 | 12/05/2016    | 12/05/2016      | Unresolved           |
| 118092.SZ    | TIANJIN TAIHENG GAS 9.5%                                       | Tianjin        | Shenzhen      | Materials              | 80                   | 10/05/2013 | 10/05/2016    | 10/05/2016      | Unknown              |
| 041551020.IB | EVERGREEN HOLDING GROUP 7.95%                                  | Zhejiang       | Interbank     | Industrials            | 400                  | 15/05/2015 | 15/05/2016    | 16/05/2016      | Unresolved           |
| 51501301.GSE | GANSU HUAXIE AGRICULTURAL BIOTECHNOLOGY 9.5%                   | Gansu province | Gansu Equity  | Consumer Staples       | 5                    | 23/05/2015 | 23/05/2016    | 1/06/2016       | Unknown              |
| 51501302.GSE | GANSU HUAXIE AGRICULTURAL BIOTECHNOLOGY 9.5%                   | Gansu province | Gansu Equity  | Consumer Staples       | 5                    | 30/05/2015 | 30/05/2016    | 1/06/2016       | Unknown              |
| 51501303.GSE | GANSU HUAXIE AGRICULTURAL BIOTECHNOLOGY 9.5%                   | Gansu province | Gansu Equity  | Consumer Staples       | 5                    | 10/06/2015 | 10/06/2016    | 13/06/2016      | Unknown              |
| 51501304.GSE | GANSU HUAXIE AGRICULTURAL BIOTECHNOLOGY 9.5%                   | Gansu province | Gansu Equity  | Consumer Staples       | 5                    | 20/06/2015 | 20/06/2016    | 13/06/2016      | Unknown              |
| 041576001.IB | SICHUAN COAL INDUSTRY GROUP 5.72%                              | Sichuan        | Interbank     | Energy                 | 1000                 | 15/06/2015 | 15/06/2016    | 15/06/2016      | Public Bailout       |
| 110038.GBG   | DONGXING JINMANTANG TRADING 11.0%                              | Guangxi Zhuang | Guangxi Beib  | Industrials            | 11.12                | 18/12/2015 | 18/06/2016    | 17/06/2016      | Unknown              |
| 118253.SZ    | JIAYUAN DAIRY 9.1%                                             | Henan          | Shenzhen      | Consumer Staples       | 150                  | 30/07/2014 | 30/07/2016    | 28/07/2016      | Unknown              |
| 041564058.IB | WUHAN GUO YUE LOGISTICS INDUSTRY GROUP 7%                      | Hubei          | Interbank     | Industrials            | 400                  | 6/08/2015  | 6/08/2016     | 8/08/2016       | Unresolved           |
| 031565005.IB | SHANGHAI YUNFENG GROUP 7.0%                                    | Shanghai       | Interbank     | Industrials            | 1000                 | 30/07/2015 | 30/07/2016    | 1/08/2016       | Unresolved           |
| 118220.SZ    | JINXIANG HUAGUANG FOOD IMPORT AND EXPORT 10.5%                 | Shandong       | Shenzhen      | Consumer Staples       | 20                   | 20/03/2014 | 20/03/2017    | 21/09/2016      | Unknown              |
| 041558090.IB | YABANG INVESTMENT HOLDING GROUP 5.78%                          | Jiangsu        | Interbank     | Industrials            | 200                  | 29/09/2015 | 29/09/2016    | 29/09/2016      | Unresolved           |
| 041564082.IB | WUHAN GUO YUE LOGISTICS INDUSTRY GROUP 7%                      | Hubei          | Interbank     | Industrials            | 200                  | 28/10/2015 | 28/10/2016    | 28/10/2016      | Unresolved           |
| 110015.GBG   | BAIHUA PHARMACEUTICALS 10.5%                                   | Guizhou        | Guangxi Beib  | Health Care            | 41.45                | 21/10/2014 | 21/10/2016    | 21/10/2016      | Unknown              |
| 110005.GBG   | BAIHUA PHARMACEUTICALS 10.5%                                   | Guizhou        | Guangxi Beib  | Health Care            | 41.45                | 21/10/2014 | 21/10/2016    | 21/10/2016      | Unknown              |
| 118288.SZ    | LAIWU ICT PRINTING EQUIPMENT 11%                               | Shandong       | Shenzhen      | Industrials            | 100                  | 3/11/2014  | 3/11/2016     | 3/11/2016       | Unknown              |
| 910020.QLE   | WEAR-RESISTING 10%                                             | Shandong       | Qilu Equity T | Materials              | 10                   | 15/11/2014 | 14/11/2016    | 14/11/2016      | Unknown              |
| 041562060.IB | HEBEI LOGISTICS INDUSTRY GROUP 6.4%                            | Hebei          | Interbank     | Industrials            | 150                  | 17/11/2015 | 17/11/2016    | 17/11/2016      | Repaid               |
| 041560105.IB | DMTG 6%                                                        | Liaoning       | Interbank     | Industrials            | 200                  | 19/11/2015 | 19/11/2016    | 21/11/2016      | Repaid               |
| 031390443.IB | SICHUAN COAL INDUSTRY GROUP 7.45%                              | Sichuan        | Interbank     | Energy                 | 1000                 | 25/12/2013 | 25/12/2016    | 26/12/2016      | Unresolved           |
| 011699439.IB | DMTG 7.0%                                                      | Liaoning       | Interbank     | Industrials            | 500                  | 16/03/2016 | 11/12/2016    | 12/12/2016      | Unresolved           |
| 041564104.IB | DMTG 7%                                                        | Liaoning       | Interbank     | Industrials            | 500                  | 29/12/2015 | 29/12/2016    | 29/12/2016      | Unresolved           |
| 031491041.IB | CHINA CITY CONSTRUCTION 5.6%                                   | Beijing        | Interbank     | Industrials            | 2000                 | 26/11/2014 | 26/11/2017    | 28/11/2016      | Private Bailout      |
| 031491048.IB | CHINA CITY CONSTRUCTION 5.7%                                   | Beijing        | Interbank     | Industrials            | 3000                 | 27/11/2014 | 27/11/2019    | 28/11/2016      | Private Bailout      |
| 1282504.IB   | CHINA CITY CONSTRUCTION 5.55%                                  | Beijing        | Interbank     | Industrials            | 1000                 | 28/11/2012 | 28/11/2017    | 28/11/2016      | Private Bailout      |
| 1282542.IB   | CHINA CITY CONSTRUCTION 5.55%                                  | Beijing        | Interbank     | Industrials            | 1000                 | 17/12/2012 | 17/12/2017    | 19/12/2016      | Private Bailout      |
| 1182373.IB   | CHINA CITY CONSTRUCTION 5.68%                                  | Beijing        | Interbank     | Industrials            | 1550                 | 9/12/2011  | 9/12/2016     | 9/12/2016       | Private Bailout      |
| Q14121606.GD | QIAOXING TELECOMMUNICATION 7.3%                                | Guangdong      | #N/A          | Information Technology | 312                  | 16/12/2014 | 15/12/2016    | 15/12/2016      | Repaid               |
| 011699358.IB | BERUN 6.600%                                                   | Inner Mongolia | Interbank     | Materials              | 1100                 | 8/03/2016  | 3/12/2016     | 5/12/2016       | Unknown              |
| 118158.SZ    | GUANGZHOU SCUT BESTRY TECHNOLOGY 7.50%                         | Guangdong      | Shenzhen      | Materials              | 200                  | 16/12/2013 | 16/12/2016    | 16/12/2016      | Unknown              |
| 118168.SZ    | SHANDONG BINZHOU XINTIANYANG CHEMICAL 8.5%                     | Shandong       | Shenzhen      | Materials              | 200                  | 20/12/2013 | 20/12/2016    | 20/12/2015      | Unknown              |

## CHINA'S INCLUSION IN GLOBAL BENCHMARK SECURITY INDICES

*China's onshore equities and bonds are poised to play a much larger role in global benchmark indices. Global index provider MSCI recently announced that it would include most Chinese onshore shares with a large capitalisation into its major indices, albeit with a small initial weighting. More broadly, the inclusion of Chinese securities in global benchmarks could generate around US\$500 billion in portfolio inflows over the next five years. This is almost double the level of portfolio flows into China since 2012. However, the extent of foreign participation could be limited by uncertainty over the management of the exchange rate and capital controls.*

### Introduction

Chinese onshore equities and bonds account for around 10 per cent of global equities and bonds outstanding (Graph 1). However, foreign ownership in China's bond and equity markets is only around 1–2 per cent of the total amount outstanding. The foreign ownership share is much lower than in other Asian securities markets, which are around one-fifth foreign owned.

This illustrates how under represented Chinese securities are in global investors' portfolios and the size of purchases that will be needed over coming years if Chinese onshore securities become more important components of global benchmark indices. These indices play a significant role in determining where investors put their money and are an important driver of cross-border capital flows. They are used to guide investment allocations, with fund managers seeking to replicate or outperform them. Adding China would cause an inflow of funds, as fund managers update their holdings.

The Chinese authorities have recently taken several steps that have increased the likelihood of Chinese securities being included in global benchmark indices. Schemes such as the Shanghai and Shenzhen Stock Connects have allowed foreign investors easier access to shares listed in the Mainland via Hong Kong. Direct access to the onshore bond market was granted to most foreign investors in 2016 and earlier this year the China Bond Connect became operational, providing another channel to access onshore bonds ([name redacted 2017](#)). Other recent announcements have also moved Chinese securities closer towards index inclusion, such as giving foreign bond investors access to the onshore foreign exchange derivative market and removing restrictions that had made it costly to hedge against RMB depreciation.

In this note, we consider the likelihood of China being included in the major global security indices and provide a rough estimate of the potential size of inflows that could be expected.

### Estimated flows

#### *Global stock index inclusion*

In June, global index provider MSCI announced it would include most Chinese onshore shares with a large capitalisation into its major indices for the first time from June 2018.<sup>1</sup> The most noteworthy of these indices was the MSCI Emerging Markets (EM) Index, in which China's onshore shares were given an initial weight of 0.73 per cent. The announcement also meant these shares would be included in the MSCI All Country World Index (MSCI ACWI; 0.1 per cent weighting) and the MSCI Asia ex-Japan Index (0.83 per cent weighting).



<sup>1</sup> 'Large-cap companies' include those with a market capitalisation of around US\$650 million or greater.



The relative weight of China's onshore shares is expected to gradually increase over time, with MSCI initially including only 5 per cent of the estimated market value of China's onshore market (also known as the 'inclusion factor' and giving rise to the 0.73 per cent weighting in the MSCI EM Index).

The initial impact on capital flows from this announcement is expected to be small; we estimate that the MSCI decision will lead to around US\$17 billion of inflows to China's onshore equity market within the next year (Table 1). These flows could be larger if FTSE Russell also decides to include China's onshore shares into their global and emerging market indices after their review this month. However, in their [interim review](#) FTSE Russell identified a number of inclusion criteria that China's onshore shares still do not meet. These concerns relate to: repatriation limits; the extent of trading suspensions; and that all financial products that link to an index containing onshore shares need to be pre-approved by local Chinese stock exchanges (even if they are listed outside of China).

**Table 1: Initial Capital Inflows to China from Equity Index Inclusion<sup>(a)</sup>**

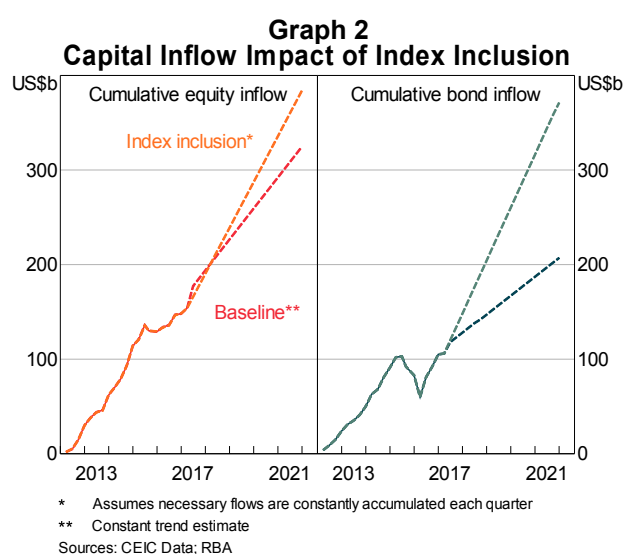
|               | Estimated weight (%) | Estimated tracking funds US\$b | Estimated inflows US\$b |
|---------------|----------------------|--------------------------------|-------------------------|
| MSCI EM Index | 0.73                 | 1 600                          | 12                      |
| MSCI ACWI     | 0.10                 | 2 900                          | 3                       |
| MSCI Asia     | 0.83                 | 275                            | 2                       |
| Total         |                      | 4 775                          | 17                      |

(a) Market estimates for estimated tracking funds

Sources: Goldman Sachs; MSCI; RBA

Notwithstanding the small initial effect on capital inflows, market analysts estimate that the inclusion of Chinese onshore shares could attract about US\$230 billion in flows over the next five years. Such estimates are based on a number of assumptions, including: (i) that China's inclusion factor increases at a similar pace to other emerging markets, such that China's weight in the MSCI EM Index reaches 9 per cent by 2021; (ii) that MSCI will broaden the number of onshore companies captured by its indices from 222 stocks to 459 stocks by also including mid-cap stocks (consistent with [recent plans outlined by MSCI](#)); and (iii) that FTSE Russell also includes Chinese onshore shares in its key benchmark indices.

If such flows were to eventuate, this would be equivalent to around 1½ times the level of total portfolio equity inflows since 2012 and would give rise to an increase in purchases of US\$60 billion relative to a baseline scenario that assumes portfolio equity inflows continue to increase at the current trend over the next five years (Graph 2, left panel).



#### Global bond index inclusion

China is currently not a member of any of the major global benchmark bond indices due to capital controls. However, there are three major global bond indices that could have a sizeable impact on capital flows into China. In order of size, these are:

- the Citi World Government Bond index (WGBI);
- the Bloomberg Barclays Global Aggregate Index (including investment-grade corporate bonds); and
- JP Morgan's Global Bond Index for Emerging Market government bonds (GBI-EM Diversified).

Citi has already added Chinese bonds to three regional government bond indices (starting in February 2018). However, there are only a small amount of assets tracking these and so associated inflows to China



will be small. China was also added to Citi's WGBI 'Additional Market Indices' in 2011 – equivalent to being on a watch list. Likewise, JP Morgan placed China on index watch (in March 2016) and Bloomberg introduced the Global Aggregate + China index in January 2017 (no funds are tracking this index yet).

If China were to be included into the three major indices, estimates suggest that this could cause inflows of around US\$265 billion – comprising around US\$120 billion for the WGBI and the Bloomberg Barclays Index and US\$25 billion for the GBI-EM Diversified Index (Table 2). We urge caution when using these estimates as they rely on assumptions about the assets under management that track these indices, the weight of Chinese debt securities if they were to be included and the discretion of the investor base that track these indices.

**Table 2: Capital Inflows to China from Global Bond Index Inclusion<sup>(a)</sup>**

|                                   | Estimated weight<br>(%) | Estimated tracking funds<br>US\$b | Estimated inflows<br>US\$b |
|-----------------------------------|-------------------------|-----------------------------------|----------------------------|
| WGBI <sup>(b)</sup>               | 6                       | 2 000                             | 120                        |
| Bloomberg Barclays <sup>(b)</sup> | 6                       | 2 000                             | 120                        |
| GBI-EM Diversified <sup>(c)</sup> | 10                      | 250                               | 25                         |
| Total                             |                         | 4 250                             | 265                        |

(a) Market estimates for estimated tracking funds

(b) Index weights based on market capitalisation

(c) Index weights capped at 10 per cent per country

Sources: Bloomberg; Goldman Sachs; JP Morgan; RBA

Market analysts suggest inclusion in all three indices could take up to five years, depending on how quickly China overcomes remaining investor concerns and meets necessary hurdles for index inclusion. To put these estimated inflows into context, they would be equivalent to around 2½ times total portfolio debt inflows to China since 2012 and would increase purchases by around US\$160 billion relative to a baseline scenario that assumes portfolio debt inflows continue to increase at the current trend over the next five years (Graph 2, right panel).

The first index to include Chinese debt securities is most likely to be the GBI-EM (with some analysts suggesting this could happen within one year) followed by the Bloomberg Barclays Index and the WGBI. Outstanding hurdles for index inclusion include:

- **Barriers to entry:** These remain most relevant for the WGBI. The inclusion rules state that to be considered 'the market should actively encourage foreign investor participation and show a commitment to its own policies.' South Korea is still not included in the WGBI on these grounds. For the other two indices, the launch of China's Bond Connect was important in reducing remaining barriers to entry. In particular, the ability to settle trades after two days (T+2 settlement) overcame concerns around time-zone limitations associated with T+1 settlement and the ability to use global custodians (rather than those onshore) reduced concerns over ease of access.
- **Concerns over repatriation:** These concerns continue to temper expectations for benchmark bond index inclusion, even though there are no repatriation limits on the Bond Connect. These concerns are partly due to historical experience. For instance, last year during a period of large private sector capital outflows, Qualified Foreign Institutional Investors (with a 20 per cent repatriation limit) were reportedly encouraged by the authorities to limit redemptions to 10 per cent.<sup>2</sup>
- **Hedging:** Access to the onshore USD–RMB forward market was opened earlier this year, giving overseas investors that invest in the interbank bond market access to foreign exchange derivatives. However, interest rate derivatives cannot yet be accessed on the Bond Connect and foreign investors cannot access the bond futures market.
- **Liquidity:** This reportedly remains a concern for the index providers. In particular, while there is sufficient liquidity for the most recently issued securities in a given maturity bucket it drops off markedly when the bonds become more seasoned.

2 The Qualified Foreign Institutional Investor scheme allows approved institutions to use foreign currency to invest in designated RMB-denominated assets in onshore markets (without needing a jurisdiction-specific quota)

## Implications

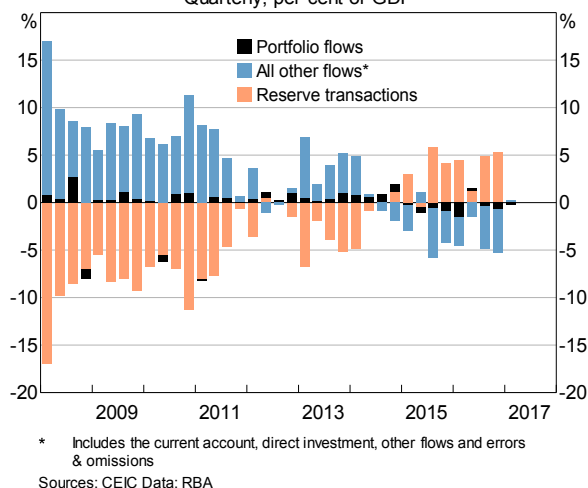
Increased foreign participation should have a positive effect on Chinese securities markets. In the equity market, domestic retail investors currently own around 60 per cent of onshore equities (with the share of turnover likely to be higher). Increased foreign participation will create a more diverse investor base, thereby reducing volatility and inducing further foreign participation. Foreign participation could also improve Chinese firms' disclosures – motivated by their desire to attract foreign capital – thereby reducing information asymmetries and also lowering volatility ([name redacted 2017](#)). Likewise, increased foreign participation in the bond market could diversify the concentration of ownership and help develop a more meaningful sovereign yield curve ([names redacted \(x2\) 2015](#)). It could also improve market efficiency for the pricing of corporate debt, possibly lowering funding costs for higher-quality borrowers.

More broadly, the Chinese authorities would welcome the inclusion of Chinese securities in global benchmark indices as they look to attract foreign capital inflows following a period of strong outflows over the past few years. However, even with an estimated US\$500 billion in inflows from index inclusion over the next five years, portfolio flows are likely to remain a small overall contributor to fluctuations in China's total net capital flows (and hence to foreign currency reserve transactions; Graph 3).

Moreover, an important requirement for benchmark index inclusion – and foreign participation more broadly – is currency convertibility. This could be an ongoing challenge for Chinese policymakers, which have tightened

the enforcement of existing capital control measures since late last year. Market participants may interpret these recent actions as a backward step in Chinese authorities' efforts to improve the convertibility of the RMB. Another potential risk is around the management of the exchange rate. A more discretionary fixing regime (which arguably reduces transparency) might increase foreign investors' perceptions of the currency risk they take when investing in local securities markets and limit the extent of their participation.

**Graph 3**  
**China's Balance of Payments**  
Quarterly, per cent of GDP



names redacted (x2)

International Financial Markets

International Department

19 September 2017

## DIARY NOTE – JP MORGAN GLOBAL CHINA SUMMIT BEIJING

*On 8-9 March China Office attended JP Morgan's annual Global China Summit. Key points:*

- *Subsidy payment delays to renewable energy companies is a major issue in the sector and investment in energy storage is restrained by flat, administered energy prices.*
- *It is possible that the manufacture of industrial robots will be China's next overcapacity industry given the huge ramp up in capacity around the country.*

***Bond and equity market development and index inclusion***

Gloria Kim, Head of Global Index Research at JP Morgan, noted that JP Morgan just began its index governance meetings which are still focussed on China and whether to include Chinese bonds into its

emerging market bond index. At the fundamental level, Chinese regulators have improved many aspects of the market, but there are still some challenges remaining. To be included in the flagship index the main criteria is replicability which is still being assessed. An announcement on inclusion will be made in September and if successful will occur in the first quarter of next year. Ms Kim noted that the Bloomberg inclusion will drive US\$ 120-150 billion of passive inflows. If FTSE and JP Morgan also follow, the gradual ramp up of weighting in indices will mean large inflows.

Carl Huttenlocher, Founder and CIO Myriad Asset Management opined that if capital account opening does not occur, Chinese markets will not gain full weighting in global indices.

Patrick Leung, Head of APAC BlackRock, noted that the major hurdles for investing in China have been resolved and BondConnect has been the easiest investment pathway for Blackrock. There still remains a list of smaller issues relating to the foreign exchange market, futures and swaps.

Du Wanming, Head of APAC Index Management FTSE Russell, noted that FTSE Russell has a transparent and objective system to assess inclusion. China is currently classified as a secondary emerging market, which means that the A-share market will have a 5.5 per cent share in its emerging market index. The set of criteria for accessing the market was published in February. FTSE Russell is engaging with its clients to look at any enhancements needed and will announce results in September. FTSE Russell would like more CNY funding on StockConnect, ability to trade in the A-share market when Hong Kong is closed and the resolution of some other issues in the QFII and RQFII systems.

China Office  
14 May 2019

**From:** [name redacted](#)  
**To:** [Governor](#); [China News](#); [FS Analysts](#)  
**Subject:** FS Briefing - Recent Government Interventions in Struggling Banks in China [SEC=UNCLASSIFIED]  
**Date:** Thursday, 15 August 2019 1:41:55 PM

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On 8 August, Chinese media reported that Central Huijin, the domestic arm of a Chinese sovereign wealth fund, is making a 'strategic investment' in HengFeng Bank. This marked the third reported government intervention in a struggling commercial bank over recent months, following the PBC's takeover of Baoshang Bank in late May and a strategic investment by state-owned financial institutions in Bank of Jinzhou in late July (see [Box A of August SMP](#) and [name redacted \(2019\)](#) for more details). This briefing provides some background on HengFeng before drawing out some of the similarities and differences in the recent rescues of ailing Chinese banks.

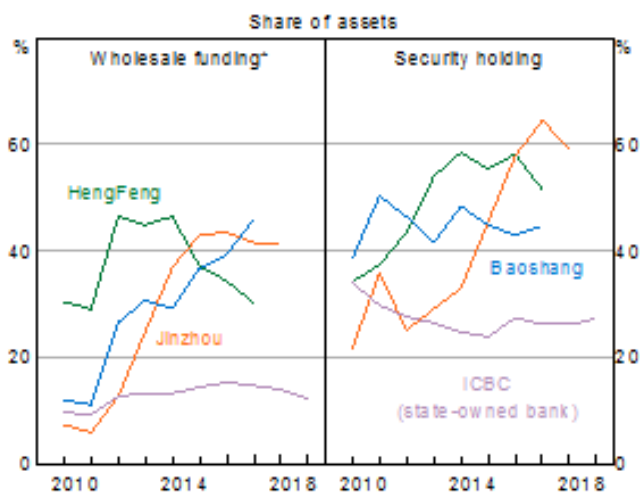
### **HengFeng Bank**

HengFeng Bank, previously known as Evergrowing Bank, is one of twelve national joint-stock banks in China and largely based in the eastern province of Shandong. It is the 21<sup>st</sup> largest commercial bank in China, accounting for 0.4 per cent of banking system assets. By comparison, Baoshang and Jinzhou accounted for around 0.2 and 0.3 per cent of banking sector assets respectively.

Like Baoshang and Jinzhou, HangFeng grew rapidly prior to the start of the deleveraging campaign by Chinese authorities in 2016. The unlisted bank's asset growth has been mainly driven by an increasing exposure to NBFIs, mostly in the form of investment receivables, which are often used to circumvent regulatory rules on capital, provisioning and lending. This led to a significant increase in holdings of securities, on balance sheet, from around 35 per cent of total assets in 2009 to just under 60 per cent in 2015. The bank is funded with a large amount of wholesale debt, which reached almost 50 per cent of assets in 2013 before steadily receding.

HengFeng has been under regulatory scrutiny since 2016 amid allegations of embezzlement by senior management and breaches of banking/corporate laws, with the bank also failing to release annual financial statements for the last two years. Local government authorities (which own 20 per cent of the bank) have been actively involved in correcting the issues, replacing senior management in early 2018 with former bank supervisory officials. As part of these efforts to clean up the bank, HengFeng's [assets](#) fell by 20 per cent over the first nine months of 2018, with revenues declining around 35 per cent from the previous corresponding period. Net profit for the period fell by more than 60 per cent, partly reflecting a rise in bad debt expenses as recorded NPLs rose materially (to almost 3 per cent).

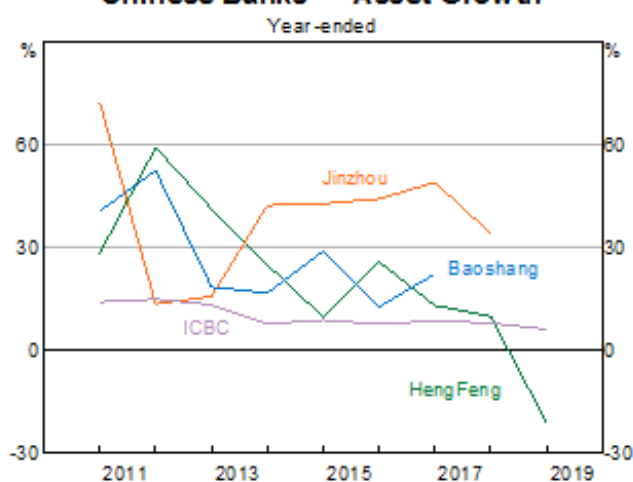
## Chinese Banks



\* Includes debt securities, interbank deposits, repurchase agreements and central bank loans

Sources: RBA; S&P Global Market Intelligence

## Chinese Banks — Asset Growth



Sources: RBA; S&P Market Intelligence

## Recent 'rescues'

### HengFeng

At this stage, only scant details on potential capital injections into HengFeng are available. Media reports have indicated that Central Huijin – an arm of a Chinese SWF with existing investments in some other Chinese banks – will make a 'strategic' capital investment in HengFeng, possibly alongside the Shandong local government. However, due diligence is reportedly still occurring and there has been no indication of the potential size of the investments (or the price). Notably, the two state-sponsored investors mooted to be providing the capital injections are unlisted. This might reflect efforts by authorities to limit perceptions that healthy listed state-owned banks will bear the brunt of broader efforts to support weak banks at uncommercial prices (these concerns have reportedly weighed on Chinese bank share prices in recent weeks). There have been no losses imposed on the creditors of HengFeng, although existing shareholders (including Singapore-based United Overseas Bank, which currently has a stake of around 13 per cent) would see their equity investment diluted.

The prime motivation for the strategic investments seems to be to boost HengFeng's equity capital, which was just above regulatory minimums as of September 2018. Media reports suggest that local authorities had been looking for private strategic investors this year, and the fact that one could not be found suggests the bank faced significant challenges despite efforts to clean it up in recent years. However, we do not have sufficient information to conclude that



HengFeng was facing more serious risks, such as insolvency and/or acute funding strains, so the trigger for the intervention is not clear. In recent days, the CBIRC has said that HengFeng's liquidity 'is ample' and that the bank 'is operating normally'.

### *Jinzhou*

The rescue approach for HengFeng is most similar to that of Jinzhou. Strategic investments into the city commercial bank will be made by existing state-affiliated entities – namely, the investment arm of China's large state-owned commercial bank ICBC (which was originally set up to facilitate debt-equity swaps) and two of the 'Big Four' Asset Management Companies (AMCs) set up in the wake of the late 1990s banking crisis (Cinda and Great Wall). However, the nature of the strategic investments into Jinzhou is unique. The three strategic investors will purchase up to 25 per cent of *existing* shares from shareholders that had received 'improper' loans from Jinzhou and that are unable to pay them back within a certain timeframe set by the authorities (i.e. the loans might have been, or were likely to be, impaired). The proceeds received by the shareholders would then be used to help repay the loans. [Reports](#) (in Chinese) suggest that the price to be paid by the strategic investors for the shares could be quite low, perhaps no higher than 50 per cent of the book value of the bank's equity. The strategic investments do not represent a direct capital injection into the bank in a traditional sense. But they provide an avenue to improve its balance sheet and for central authorities to control the bank's management, thereby shoring up the confidence of Jinzhou's counterparties.

Similar to HengFeng, the challenges at Jinzhou had been understood by authorities for some time. However, the main trigger for the rescue of Jinzhou appeared to be liquidity strains. These strains emerged after its external auditor resigned on 31 May due to concerns over accounting irregularities – raising concerns about the bank's credit risk – which may have been exacerbated by the apparent weakening in implicit guarantees for banks following the losses incurred by some of Baoshang's creditors (see below). Jinzhou was able to raise additional wholesale funding in June with a 'credit risk mitigation warrant' backed by a state-owned credit guarantee fund – providing a de facto government guarantee to creditors (the first time such a guarantee has been used for NCD issuance by a bank). However, reports suggest that the bank continued to face liquidity strains, and some interbank institutions were considering ceasing to use Jinzhou as a counterparty.

### *Baoshang*

Like the other banks, Baoshang's troubles were also well known to authorities (see [D19/206731](#) for more details). However, its rescue differed in four ways. First, the rescue strategy involved losses being imposed on unsecured creditors with claims exceeding RMB50 million; losses varied in size between individual creditors, but reportedly averaged around 10 per cent of the face value of senior unsecured exposures (see Moody's [report](#) for more details). This indicates that the bank was likely insolvent. Second, management of the bank was fully taken over by the government and reassigned to China Construction Bank. Third, an explicit government guarantee was made available on new funding raised by the bank. Finally, Baoshang has yet to receive a capital injection. There has also been no indication that a state-affiliated entity would be involved with any recapitalisation – though it's hard to imagine an alternative, other than perhaps the bank being resolved with some parts spun off to another (larger and healthier) bank.

**Table 1: Recent Bank ‘Rescues’ in China**

|                                                   | <b>Baoshang</b>                                                                   | <b>Jinzhou</b>                                                                                         | <b>HengFeng</b>                                                    |
|---------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>Bank type</b>                                  | City commercial bank                                                              | City commercial bank                                                                                   | Joint-stock commercial bank                                        |
| <b>Listed?</b>                                    | Unlisted                                                                          | Listed (HKSE)                                                                                          | Unlisted                                                           |
| <b>Assets (% of system)</b>                       | US\$87 billion (0.2%)                                                             | US\$113 billion (0.3%)                                                                                 | US\$152 billion (0.4%)                                             |
| <b>Wholesale funding share (most recent data)</b> | 46% (end-2016)                                                                    | 41% (end-2017)                                                                                         | 30% (end-2016)                                                     |
| <b>Main problem(s)</b>                            | Credit losses and misappropriation of funds. Bank was likely insolvent            | Likely poor asset quality → liquidity problems (after auditor resigned)                                | Low capitalisation; previously suffered misappropriation of funds. |
| <b>Creditor losses</b>                            | Yes. 10% haircuts, on average, for large institutional creditors (>RMB50 million) | No                                                                                                     | No                                                                 |
| <b>Equity purchase/ capital injection</b>         | None yet                                                                          | As much as RMB3bn from ICBC investment subsidiary and unknown sum from two AMCs (Cinda and Great Wall) | Pending, from Central Hujin (China SWF) and local government       |
| <b>Control reassigned as part of rescue</b>       | Yes (China Construction Bank appointed to manage the bank)                        | Yes. Changes to senior management personnel, including the CEO.                                        | No (But previous management replaced in 2018)                      |

### Implications

All three rescues that have been made headlines recently have been state-led and involved well-known troubled banks with high amounts of wholesale funding and low or questionable capitalisation. However, as detailed above, there have also been some differences in approach – including the type of entity that has provided the capital injection and the imposition of losses on creditors.

The varied approaches might partly reflect the absence of a bank recovery and resolution framework in China; though even in the EU where there is a detailed recovery and resolution framework, the approaches used in recent years to recover or resolve troubled banks have varied (including because of political considerations). As such, other factors have likely been relevant, including the extent of difficulties at each institution, the size and nature of interlinkages with other parts of the financial system and market conditions at the time of rescue. Indeed, it is perhaps not coincidental that the two rescues following Baoshang have not

involved creditor losses: the authorities may have become more concerned about maintaining stability, relative to instilling market discipline, following the tightening in interbank conditions after haircuts were imposed on Baoshang creditors. In any event, the recent track record suggests that future rescues are likely to also vary based on the situation at hand.

That being said, the authorities have been working on drafting rules around bank resolution, which is in line with recent IMF recommendations to implement a clear bank recovery and resolution regime and to apply it consistently across banks (IMF [Article IV](#)). If achieved, this should provide various benefits to China's financial system, including helping to reduce implicit guarantees.

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## PROPERTY DEVELOPER FINANCING IN CHINA<sup>1</sup>

*The health of China's property sector is critical for both Chinese growth and financial stability. This note investigates how the financing conditions facing property developers have evolved in recent years. I find that apartment presales and bond issuance have become increasingly prominent as funding sources, as bank lending to the sector has slowed. While shadow financing appears to be a relatively minor funding channel in aggregate, I find evidence that the smaller developers making up the majority of the sector are highly exposed to the current regulatory squeeze on these sources of funding. Moreover, smaller, unlisted developers appear in aggregate to have a weaker financial position than larger, listed developers, a disparity that highlights where risks in the sector lie, and which should continue to drive consolidation in the industry.*

### Background

Investment in real estate has been a significant contributor to Chinese economic growth in the past two decades, and housing construction is an important driver of demand for Australian iron ore and metallurgical coal.<sup>2</sup> The Chinese real estate sector is also significant for Chinese financial stability in that property is an important component of the collateral base of the financial system. Property developers drive investment in the sector. To aid analysis of the evolving mix of risks to growth and financial stability in China, it is helpful to understand how developers fund their activities, and why certain financing sources have become more or less prominent over time. This is especially important in the Chinese context, where developers are subject not only to changes in market conditions, but to far-reaching government oversight.<sup>3</sup>

This note considers data from a range of sources. Aggregate data provided by the National Bureau of Statistics (NBS) offer insight into the relative importance of different funding sources for developers, as well as sector-wide financial information.<sup>4</sup> To complement these data, I also consider information about listed developers collected from annual reports, which permits a more nuanced analysis of developers' financial position and allows for an investigation of developers' leverage and profitability.<sup>5</sup>

### Aggregate Sources of Funds

Growth in developer funding has moderated considerably over the past decade, and appears to follow a cyclical pattern similar to other property indicators (Graph 1). Periods when property market policies were tightened to restrict price growth, during 2010–2011 and in 2013, correspond to weaker growth in developer financing; while the easing of policy in 2012 and over 2014–2015 preceded recoveries in developer financing growth. In contrast to these episodes, the most recent shift towards tighter policy, beginning in 2016, was motivated not only by rising prices but also by a clear desire to tackle financial risks in the property sector. The moderation in developer financing growth over 2017 likely reflects the impact of these policies. The mild boost to funding growth in late 2018 corresponds to a slight loosening of financing conditions, particularly for bond issuance, while softer growth in recent months may be driven by a renewed regulatory focus on constraining developers' access to funds.

In absolute terms, the largest sources of funds for developers are deposits and advance payments (presales), and 'self-raised' funds (a broad category of internal funds that includes owners' equity and retained earnings) (Graph 2). These two categories have become more important in recent years, driving growth in total developer funding.

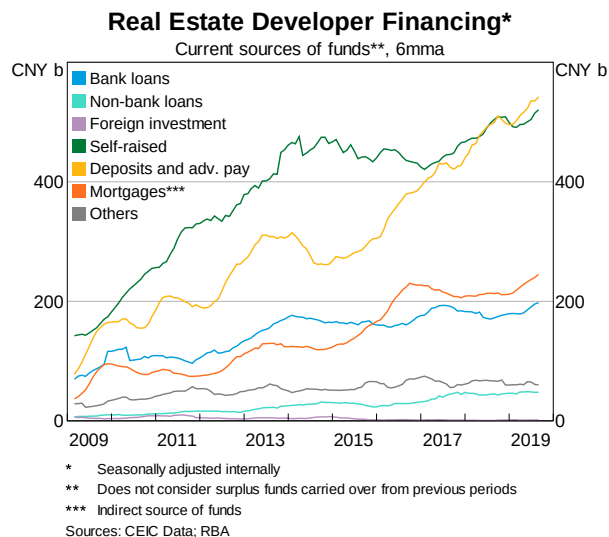
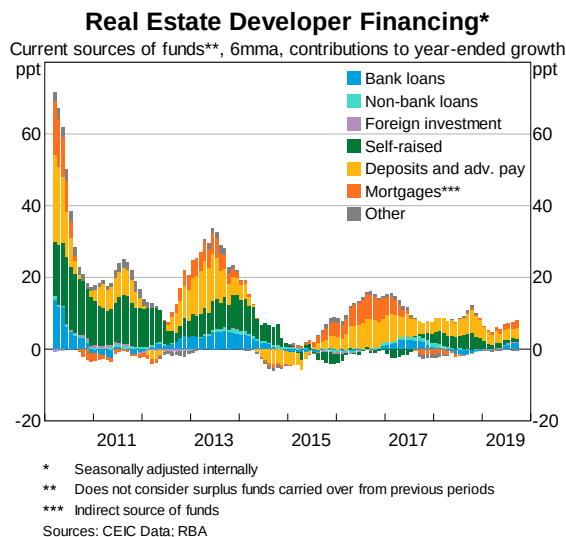
1 I would like to thank name redacted (x2) for their help with guiding this research and the drafting of this note. I would also like to thank name redacted (x2) for providing data that was used in this research.

2 Eftimoski, M and K McLoughlin (2019), [Housing Policy and Economic Growth in China](#), RBA *Bulletin*, March quarter.

3 While the Chinese property sector has moved towards being more market-oriented following reforms that began in the 1980s, it is still subject to considerable government intervention and regulation.

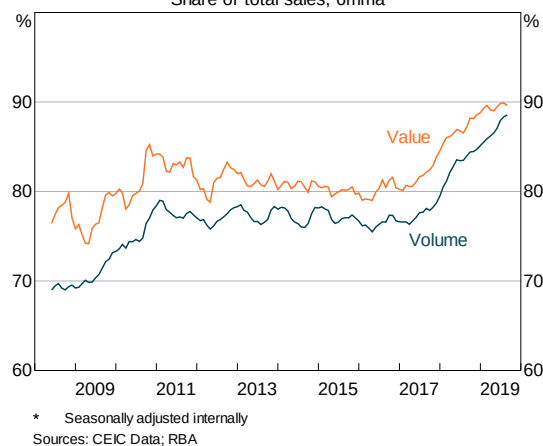
4 The NBS funding survey claims to cover all businesses involved in real estate development, while the sector-wide financial survey has, since 2011, covered firms that have revenues in excess of CNY20 million.

5 Data on companies listed in mainland China (on the Shanghai and Shenzhen stock exchanges) was obtained through WIND information. To identify developers, a number of classification systems exist. This note uses the WIND classification system, which specifically identifies developers as opposed to companies involved in the broader real estate sector.



The importance of **presales** is a distinctive feature of China's property sector. In contrast to other nations, such as Australia and Canada, where presales are generally held in escrow until delivery of the property, presales funds in China usually face no such restrictions.<sup>6</sup> Data on the volume and value of sales from the NBS shows that presales have become more important over time (Graph 3). While presales have long accounted for the bulk of overall sales, in the past two years, presales have risen further to make up 90 per cent of all new residential property sales by value and 88 per cent by volume. The latest surge in presales roughly corresponds to slowing growth in bank lending to the property sector in 2017 and 2018. Since presales are subject to less onerous regulatory oversight than equity or bond issuance funding channels,<sup>7</sup> it is plausible that developers deepened their reliance on presales funding in response to tighter financing conditions.

**Graph 3**  
**Residential Presales\***  
 Share of total sales, 6mma



It is worth noting that presales are effectively a form of (interest-free) debt that is repaid through the provision of completed housing. Both RBA liaison and liaison by private sector analysts with the sector have reported that developers have, from at least mid-2018 onwards, been delaying construction and stretching delivery deadlines on commenced projects, even as they have continued to turn ground on new buildings and spend on land (Graph A1). Regulators currently incentivize developers to swiftly start a project by charging a fine if projects do not commence within the year following a land purchase. However, given how financially burdensome investments in land can be, developers may also look to start projects in order to commence presales and generate returns more quickly.<sup>8</sup> Liaison reports suggest that once a project has started being presold, its completion can be delayed, often with the acquiescence of local authorities, for up to three years.

Compared with selling completed projects, preselling a project allows developers to generate cash relatively quickly from their land investments, at a lower immediate cost. This, in turn, can facilitate further spending, particularly on land, which helps developers expand. In a rapidly consolidating industry that is structurally biased towards larger entities (due to advantages in financing, land acquisition and marketing), bigger

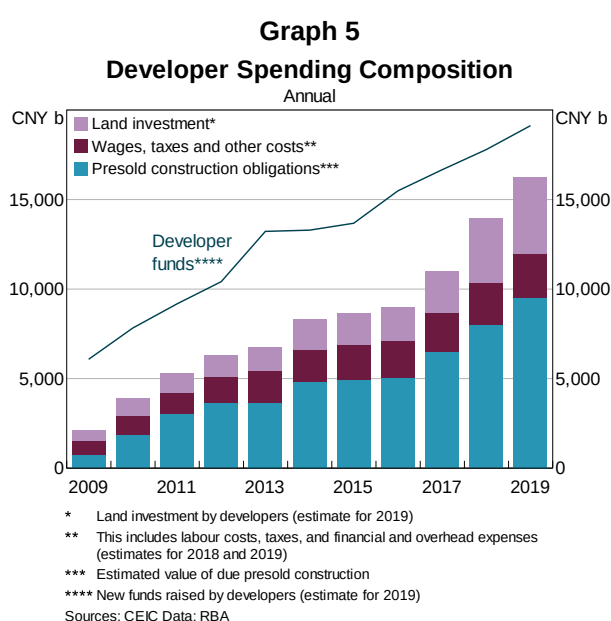
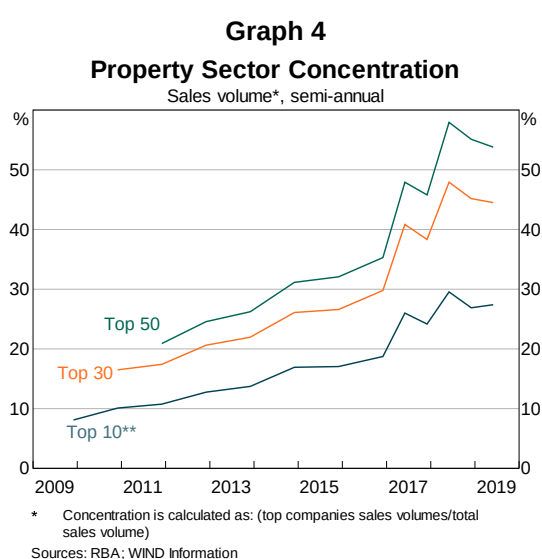
6 Bird M (2019), [China's Property Developers Have a 1.25 Billion-Square-Meter Problem](#), WSJ.com site, 16 May.

7 While presales are also subject to regulatory approval through the requirement to have approved presales permits, there are few reports of these being withheld or made difficult to obtain. In contrast, IPOs are tightly controlled and developers have often faced broad restrictions on bond issuance.

8 RBA liaison with redacted (17 October 2018) noted that a sample of 20 developers reported that half their cash flows were directed towards buying land.

developers may be better placed for future growth. Indeed, the sector has become notably more concentrated in the past decade (Graph 4). However, relying heavily on presales to fund expansion carries risks. Developers are using funds raised from incomplete projects to finance new project starts, which can then be presold, and so on. Therefore, a decline in presales inflows – reflecting weaker demand, for instance – combined with growing construction obligations could pressure developer finances. As a result, some companies could be forced to cut back on expansion or further delay delivery of projects started but not yet completed. These consequences could be particularly acute for developers that have few other inexpensive financing options.

To better understand these consequences, an estimated timeline of developers' presold construction obligations can be constructed, using information from RBA liaison on the average delivery time for housing after sale (Graphs 5 and A2).<sup>9</sup> These obligations have been growing faster than presales funding in recent years, and are estimated to be worth around CNY 9.5 trillion in 2019. The difficulties that developers could face from a contraction in presales may be severe – developer funding from sources other than presales in the first half of 2019 was sufficient to account for estimated presold obligations over the same period, but would have reduced land investment spending by around 75 per cent after accounting for estimated operating costs.<sup>10</sup>



**Non-bank loans**, which include various sources of 'shadow financing' supplied by more lightly regulated non-bank financial institutions appear to be a relatively minor source of funding for developers (Graph 2). The relative unimportance of this source of finance in the aggregate data is interesting, as it contrasts with a common finding by private sector analysts that developers have been negatively affected by government policies that have sought to constrain non-bank financial intermediation.<sup>11</sup> There are reasons to doubt the veracity of the aggregate financing data, as independent data on trust lending to the real estate sector (one type of non-bank loan) far exceeds total non-bank funding reported by developers in the official survey data (Graph A3). Nonetheless, trust loans to real estate have grown strongly in the first half of 2019, following some weakness over 2017-2018.

Even if aggregate shadow financing flows to real estate have not obviously declined, liaison sources suggest that difficulties in obtaining shadow finance are a significant problem for smaller developers. These developers rely more on shadow finance, as they are less able to access conventional sources of funding,

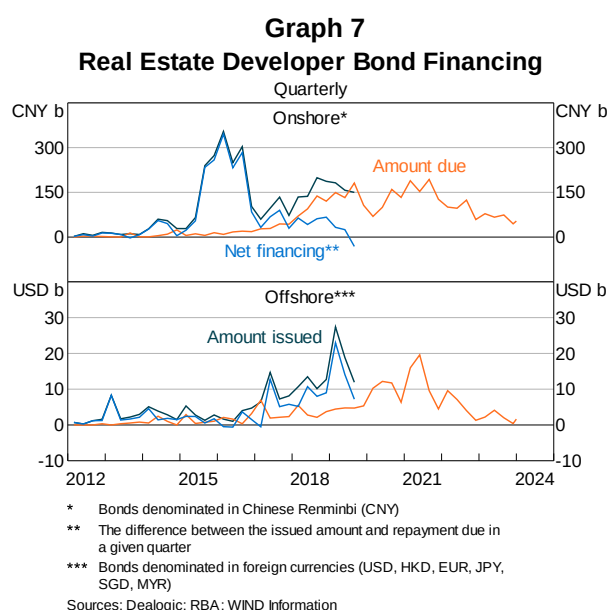
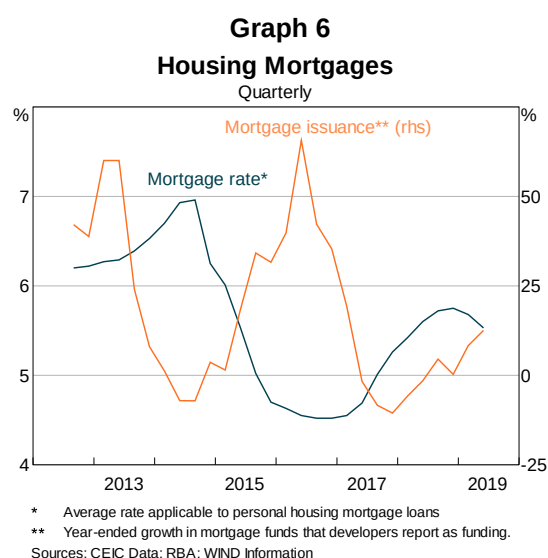
<sup>9</sup> RBA liaison with redacted noted that the average delivery time for housing after sale is 18 months, although developers can sometimes extend this to 3 years.

<sup>10</sup> This does not account for developers drawing down their cash holdings to meet these costs. However, while large, listed developers have significant cash balances, vulnerable smaller firms are unlikely to have large reserves.

<sup>11</sup> Carfagno, B and LH Wright (2019), *Oversold and Underbuilt*, Rhodium Group; Hsu, S, J Li and Y Xue (2015), [The Rise and Fall of Shadow Banking in China](#), Political Economy Research Institute; Rosen, D and LH Wright (2018), [Credit and Credibility: Risks to China's Economic Resilience](#), Centre for Strategic and International Studies.

such as bank loans.<sup>12</sup> For instance, a report by Rhodium Group notes that developers commonly use non-bank loans to fund the initial stages of a project's construction, which may be a precursor to that project subsequently being considered eligible for a bank loan.<sup>13</sup> Despite the growing consolidation of the property sector in recent years (indirectly supported by tighter government policy), smaller developers are still significant in the aggregate, making up the majority of firms in China's property sector. In 2017, only 134 of the over 90,000 firms in the property sector were listed in mainland stock markets, and unlisted mainland firms accounted for 88 per cent of the sector's assets and 77 per cent of its operating profits. In recent months policymakers have continued to introduce policies that constrain non-bank lending, making it unlikely that the government will allow developers greater access to shadow financing going forward. This is likely to place further pressure on smaller developers, adding to the liquidity issues facing these companies and supporting further consolidation in the sector.

**Personal mortgage lending** is another significant source of finance for developers. This category refers to personal housing loans received by households that ultimately flow to developers, and is accounted for separately from bank loans and presales by the NBS. It has been among the key drivers of growth in total developer funds in recent property upcycles. However, growth in mortgage issuance has been subdued in recent years as interest rates have risen (Graph 6). Despite positive signs in 2019 to date, including declines in the average mortgage rate, regulator concerns about growing household leverage mean it is doubtful that a major ramp-up in mortgage lending will be encouraged. This is supported by liaison contacts, who note that authorities would be reluctant to ease mortgage rates, even in the face of a market downturn. Furthermore, recent reforms implemented by the People's Bank of China (PBC) with the aim of lowering borrowing costs for bank loans specifically excluded mortgage lending.<sup>14</sup> Therefore, it appears unlikely that mortgage finance will become a substantially larger part of developers' funding mix in the near term.



Both onshore and offshore **bond issuance** have become more important sources of finance for developers in recent years (Graph 7). These are reported by the NBS in the 'others' and 'foreign investment' categories, respectively.<sup>15</sup> Default risks appear to have been manageable to date – developers have been able to maintain sufficient issuance to account for maturing obligations, are looked upon relatively favourably by investors in offshore markets (according to Moody's), and bond defaults remain rare.<sup>16</sup> However, repayment pressures will peak in coming years which poses a risk for developers. Both onshore and offshore issuance are subject to regulatory risks since the ability of developers to tap bond markets can be restricted rapidly.

12 Hsu, S, J Li and Y Xue (2015), [The Rise and Fall of Shadow Banking in China](#), Political Economy Research Institute

13 Feng, A and LH Wright (2019), [Property Tightening: Out of Sync](#), Rhodium Group.

14 name redacted (x2), [Monetary Policy Transmission in China: Changes to Loan Benchmarks](#), Internal note.

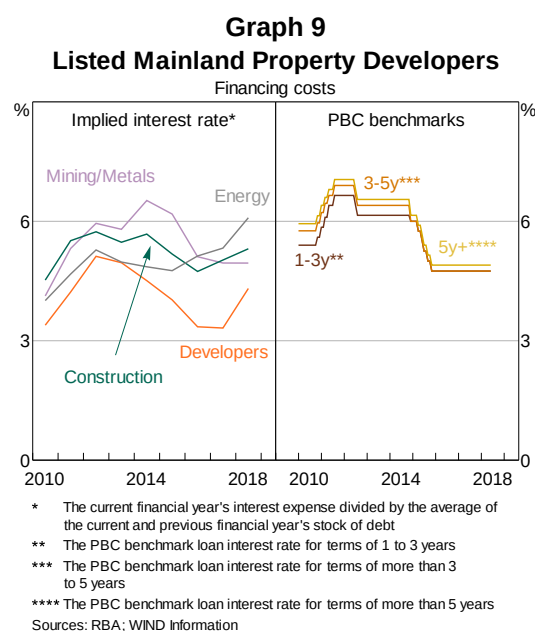
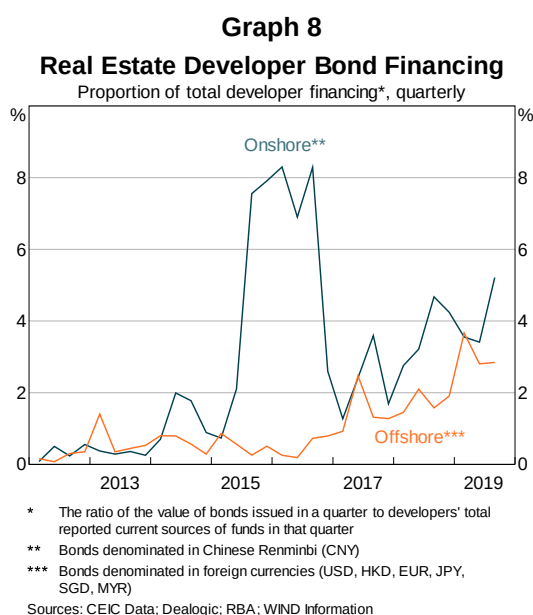
15 There are inconsistencies between these NBS categories and the actual bond issuance statistics used in this note. Private sector analysts have suggested that bond issuance is actually accounted for under the 'self-raised' category.

16 Bond defaults by developers over the year to October 2019 accounted for less than 1 per cent of the value of onshore issuance to date. See: Lau G, F Leung, KY Tsang and C Yang (2019), [Outlook: Property – China](#), Moody's Investors Service.



For instance, developers have recently been barred from issuing offshore bonds unless they guarantee that the proceeds will be used to pay down maturing, long-term offshore debt.

Unlike the sharp increase in total issuance over 2015-2016, which was driven by the relaxation and re-introduction of restrictions on the use of onshore debt by developers, recent years have seen a pick up in both foreign and local currency denominated issuance (Graph 8). This is despite offshore finance appearing to be relatively more expensive,<sup>17</sup> and carrying additional currency risk.<sup>18</sup> The more prominent use of offshore issuance may in part explain the increase in listed mainland developers' implied cost of borrowing in 2018, which has been relatively low compared to both official benchmarks and other capital-intensive sectors for most of the past decade (Graph 9). A recent reaffirmation of the regulatory focus on controlling the supply of credit to the real estate sector suggests that developers may face more challenging borrowing conditions in the future.<sup>19</sup>



## Developers' Financial Position

Measures of developers' financial position support the trends identified in the sources of funds data. Developers' increasing use of presales is reflected in their leverage, which has been growing for much of the last decade (Graph 10). Over this period, the indebtedness of listed companies has been growing faster than that of unlisted developers. A decomposition of listed developers' liabilities shows that despite declining in 2018, presales funding remains one of the largest parts of their liabilities, while bond finance has increased as a share of long-term borrowing in recent years (Graph 11). While the decline in presales liabilities led to a slight decrease in listed developer leverage in 2018, total liabilities still grew, which may reflect the superior access to diverse sources of finance that listed developers enjoy compared to smaller, unlisted companies.

While developers' leverage has been high and has risen further over the past decade, developers have historically tended to have higher leverage than firms in other Chinese industries. High leverage among property developers is also not unique to China.<sup>20</sup> To better understand the risks that developers' borrowing may pose to their financial health, it is worth considering other indicators as well. For example, developers' indebtedness would be more concerning if they were unprofitable, or were struggling to service interest payments on debt. Listed developers report a return on equity (ROE) that is higher than those that prevail in

17 The median maturity and coupon rate of outstanding CNY bonds issued by developers over the past year is 3.0 years and 6 per cent, whereas the median maturity of outstanding USD bonds issued over the past year is 2.8 years and 8.5 per cent.

18 Research by the Bank for International Settlements notes that few large developers appear to hedge their foreign currency risk, see: Chui M, A Illes and C Upper (2018), [Mortgages, developers and property prices](#), BIS Quarterly Review, March 2018.

19 The chairman of the China Banking and Insurance Regulatory Commission (CBIRC) has [questioned](#) 'excessive' real estate financing and complained about the consumption of credit by the sector.

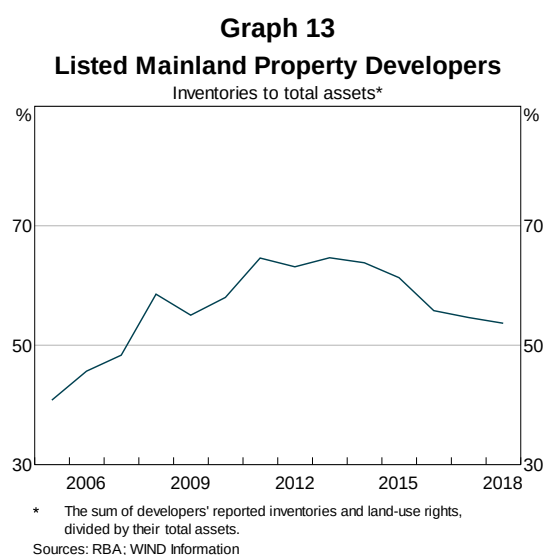
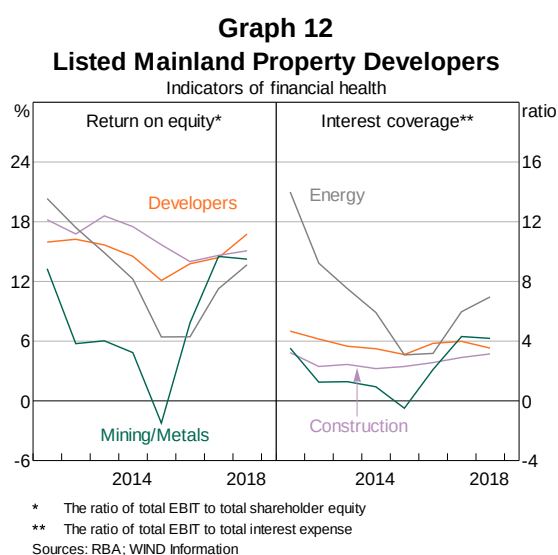
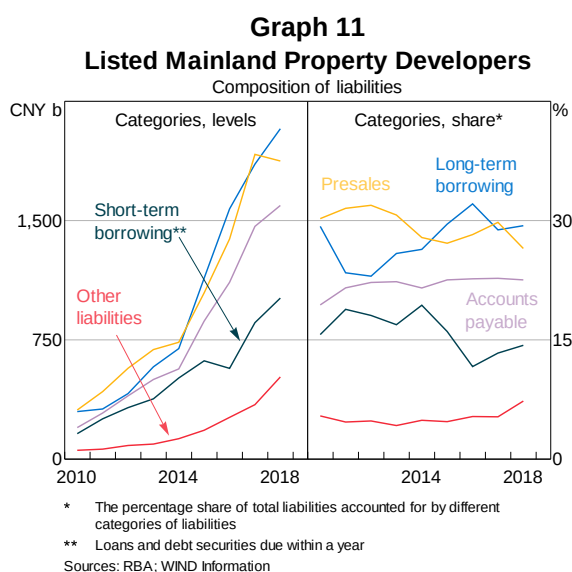
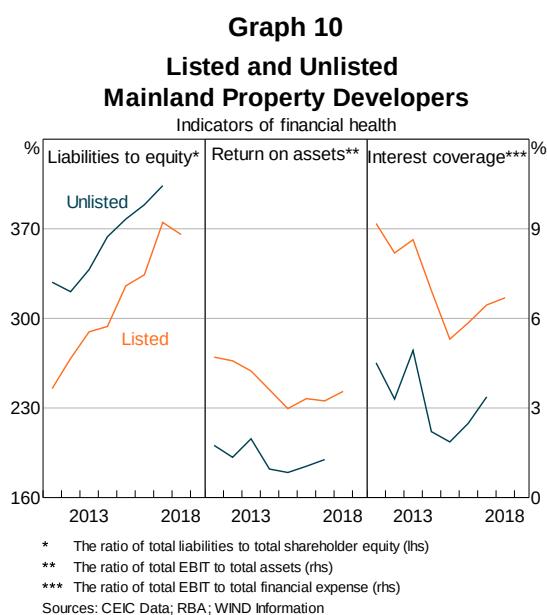
20 Chui M, A Illes and C Upper (2018), [Mortgages, developers and property prices](#), BIS Quarterly Review, March 2018.



other capital-intensive industries (Graph 12).<sup>21</sup> However, the position of unlisted developers appears notably weaker. Over the past four years, the average return on assets (ROA) of unlisted developers suggests that in aggregate, operating profits were only a little more than 1 per cent of the value of their assets. This is significantly lower than unlisted mainland companies operating in the construction and industrial sectors, and is also likely to be less than unlisted developers' cost of debt (Graph A4).

Furthermore, despite decreasing in recent years, inventories still account for more than half of listed mainland developers' total assets, a high proportion relative to developers in other countries (Graph 13). This potentially disguises developers' underlying financial vulnerability, as the value of land and property inventories would most likely be highly sensitive to falling property prices in a down-cycle.

More positively, interest coverage ratios suggest that both listed and unlisted mainland developers have been comfortably able to meet interest obligations to date. Again, the position of unlisted developers is less favourable. Listed developers' interest coverage ratios are similar to those of listed companies in other capital-intensive sectors (Graph 12).



21 The ROE is mechanically higher than the ROA since shareholders' equity is equal to assets less liabilities. However, developers' weak ROA relative to other industries suggests that their ROE may also be inflated by their high leverage.

## Conclusion

The funding mix used by property developers in China has become more concentrated in recent years as policymakers have tightened financing conditions amid a push to reduce risk in the sector. Financing from bank loans and mortgages has slowed. In response, developers have looked to raise more funds through presales and bond issuance. At present, there is little sign of a prospective easing in financing conditions that would reverse these trends – policymakers have continued to state their resolve to de-risk the property sector and to reduce the economy's reliance on it for growth. This policy stance is likely to worsen the financial position of the unlisted developers which make up the majority of the sector, are more indebted and less profitable. In contrast, the healthier financial position of larger listed developers may make them less vulnerable to continued tight financing conditions. This disparity is likely to encourage further consolidation in the sector in the period ahead.

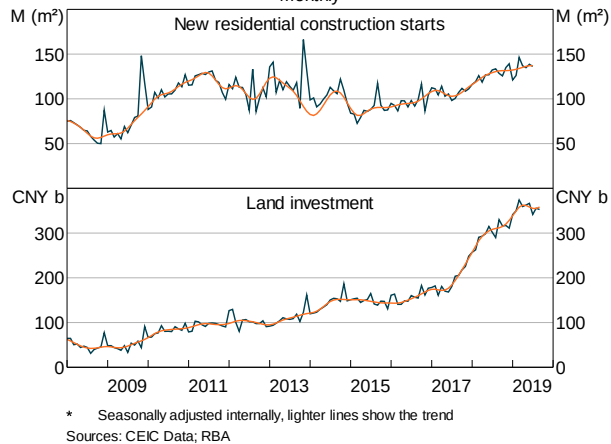
name redacted

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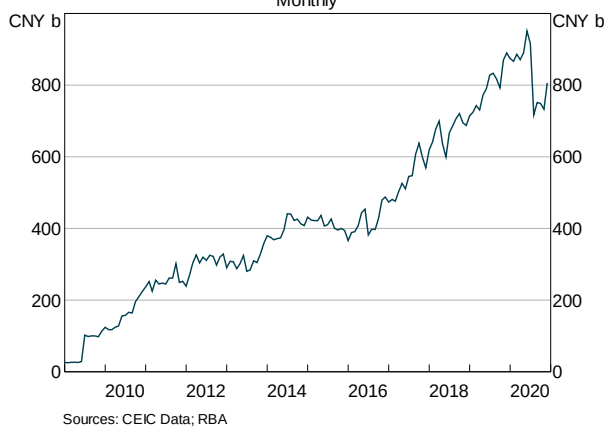
4 November 2019

# Appendix A

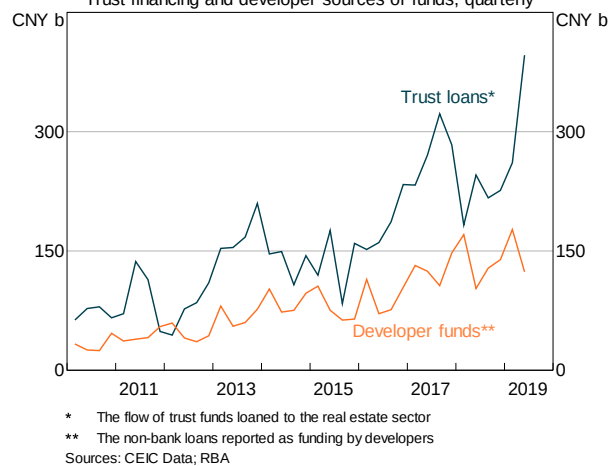
**Graph A1**  
**Developer Activity\***  
Monthly



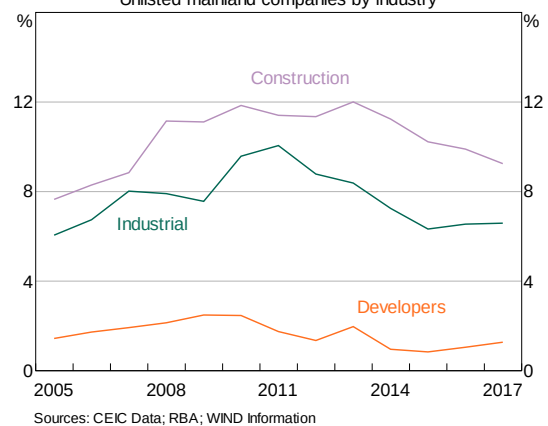
**Graph A2**  
**Presold Construction Obligations**  
Monthly



**Graph A3**  
**Non-bank Loans to the Real Estate Sector**  
Trust financing and developer sources of funds, quarterly



**Graph A4**  
**Comparison of ROA**  
Unlisted mainland companies by industry



## FS BRIEFING: SMALLER CHINESE BANKS

The economic shock triggered by the coronavirus outbreak is posing a material near-term threat to financial stability in China. Authorities are increasingly focused on restoring economic growth, but the size and duration of the impact on activity – and hence on incomes, cash flows and debt serviceability – remains highly uncertain.

One of the channels through which the shock could be propagated by the financial system is through small banks. There are around 4,000 small banks in China, including commercial and rural banks, which account for around 25 per cent of banking system assets. Medium-sized joint stock banks, which we include as part of ‘smaller banks’ in this piece, account for a further fifth of the system. As many smaller banks are very small, their failure would not pose any direct threats to financial stability. However, the failure of a relatively large and interconnected smaller bank, or the sudden failure of a large number of small banks (e.g. in a fast-moving savings & loans type crisis) could have adverse implications for China’s financial system and macroeconomic performance. The political consequences of small bank failures are also very high in China.

For some time, we have documented the vulnerabilities posed by smaller banks ([name redacted, 2016](#); [RBA FSR, 2016](#); [RBA SMP, 2019](#)). Essentially, these amount to: high-risk asset exposures, low capitalisation, high liquidity risks, and substantial complexity and interconnectedness from off balance sheet business and the use of interbank deposits and other wholesale instruments to fund opaque shadow credit exposures. Small banks also have more concentrated asset exposures and so are more vulnerable to regional and sectoral shocks; they also receive less direct and indirect support from the central government and have relatively weak governance compared with the large banks.

Some of these vulnerabilities have receded following a spate of regulatory initiatives to ‘de-risk’ the financial system. In particular, interconnections between small banks and NBFIs have declined as more exposures have been brought onto balance sheets as loans (and therefore better provisioned for and risk-weighted). Some banks have also raised capital.

Nonetheless, the smaller banks are remains relatively vulnerable, particularly in the current environment:

- Asset performance and profitability had already weakened amid the slowdown in the Chinese economy and tightening of NPL recognition and provisioning (Graph 1).
- Many smaller banks are highly exposed to the MSEs, which are likely to be particularly hard-hit by the recent slowdown: MSEs typically have low cash balances, concentrated revenues, more restricted access to finance and receive less direct central government support.
- Wholesale funding conditions remain relatively tight following the emergence of strains at a handful of banks last year (Graph 2). Four banks required rescuing (including Baoshang Bank, which defaulted on some senior obligations; [name redacted, 2019](#)) and two other banks also experienced runs.
- Direction by authorities to increase lending to private businesses and consumers at low interest rates, which increases credit risks.
- Relaxation of rules on NPL recognition and provisioning in light of the coronavirus shock (which could provide another avenue through which banks might conceal poor asset quality)

It is difficult to provide a precise diagnosis of the risks by the smaller banks, in part because their financial reporting is either lacking, very slow or absent, and there limited market indicators of potential stress. There is also uncertainty about the size and length of the current shock. Moreover, forbearance and significant and non-transparent government support can also delay or curtail debtor defaults or bank resolutions.

With those substantial caveats in mind, I attempt to identify the significance of the tail of weak banks in China’s financial system that existed before the coronavirus shock hit. To do so, I use bank-level data for 163 Chinese banks.

I define weakly performing banks as those with one (or more) of the following characteristics:

- Distressed loan ratio (NPLs + special mention loans) above 5 per cent or NPL ratio > 3 per cent
- CET1 capital ratio below 9 per cent (China’s regulatory minimum CET1 ratio is 7.5 per cent, which includes the 2.5 per cent capital conservation buffer)

- NPL provision coverage ratio < 120 per cent (which is the regulatory minimum)

Based on this analysis, 45 banks tick one or more of these red flags. Most banks are flagged because they have low capital ratios or high levels of distressed debt (Table 1). As of June 2019, these banks accounted for around 16 per cent of system assets in aggregate, or 22 per cent of banks in my sample. As such, they jointly account for a significant share of the Chinese banking system.

Six joint stock banks are flagged, all because they have low capital ratios. Two of these joint stock banks have both low capital ratios and a high level of distressed debt – Minsheng and Hua Xia. Flagged joint stock banks account for almost two-thirds of the assets of all flagged banks. The joint banks are individually quite large and are likely to be highly connected to with other parts of the financial system. For example, Minsheng and Hua Xia have assets of US\$920 billion and US\$440 billion.

33 (out of 103) city commercial banks are also flagged. These banks range in size from very small (US\$5 billion) to moderately sized (US\$300 billion), so some could individually be systemically important. Most banks are flagged because they have low capital buffers, with six banks recording both low capital buffers and high levels of distressed debt. The remaining six banks flagged are rural banks (from 43 rural banks in the sample). These are all quite small, with assets between US\$4-40 billion.

Of note, only one bank headquartered in Hubei province was flagged – Wuhan Rural Commercial Bank, with US\$40 billion of assets. More generally, potential bank losses from exposures to Hubei province seem unlikely to pose financial stability risks. The province accounts for roughly 3½ per cent of all loans, and banks headquartered in Hubei are very small: data available to us suggest that the top five banks headquartered in Hubei in aggregate account for less than 1 per cent of system assets.

Notwithstanding the caveats noted above, taken at face value these results indicate that there is a significant amount of weak smaller banks in China which appear vulnerable to asset performance and funding shocks. Some of these banks individually could pose system risks if they were to become highly stressed. If the sample is representative, these results imply that there may also many small weak banks in China.

In their [2019 FSR](#), the PBC reported a series of stress test results on banks. These results also flagged vulnerabilities to adverse stress scenarios. In particular:

- five out of the 30 largest banks fell below a CET1 capital ratio of below 5 per cent in a ‘severely adverse’ macrofinancial stress scenario in which GDP growth falls to 4.15 per cent. This is much lower higher than AERU is forecasting both for the March quarter and over 2020 (though the PBC did not specify the length of the downturn in their stress test)
- Under a more simple solvency ‘sensitivity’ stress test on 1,171 banks, where the NPL ratio increases by 7 percentage points, the aggregate capital adequacy ratio was estimated to decline by 5 percentage points (the split across banks was not reported). Losses were driven by exposures to local government debt, real estate loans and off-balance sheet, as well as exposures to their top five borrowers.
- 90 banks failed a mild liquidity stress scenario and 159 banks (including 10 large and medium sized banks) failed to pass a severe liquidity stress scenario (the PBC claimed that these tests were stricter than that of comparable tests globally and that of liquidity coverage ratio framework).

Media reports late last year flagged that the authorities were considering a high level plan to reform and restructure weak smaller banks – including via mergers. However, there has been little tangible progress. More recently, the PBC has provided liquidity support to smaller banks and flagged that they will help them to replenish their capital ([link](#)). A fifth national asset manager is also being created, with a likely focus on clearing some of the bad debt off of the smaller banks’ balance sheets.

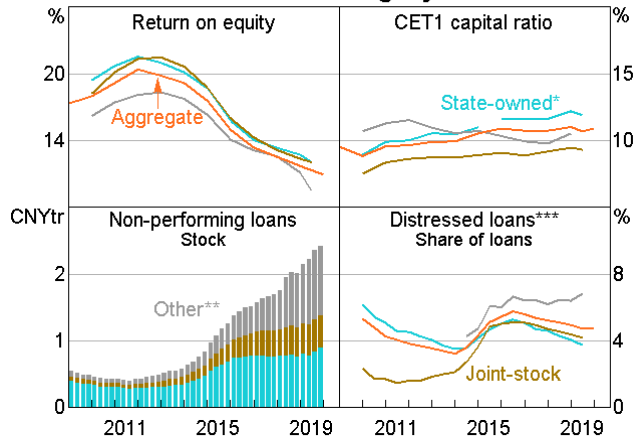
Strong policy support reduces both the chances of bank failures and the tail risks to financial stability in the event that one or more smaller banks does fail. However, given the extent of the vulnerabilities and complexities in the Chinese financial system, there is still a risk that the failure of a ‘larger’ smaller bank, or a quick succession of small bank failures, could stretch policymakers and trigger broader financial system stress.

name redacted

International Developments / Financial Stability Department / 25 March 2020

Graph 1

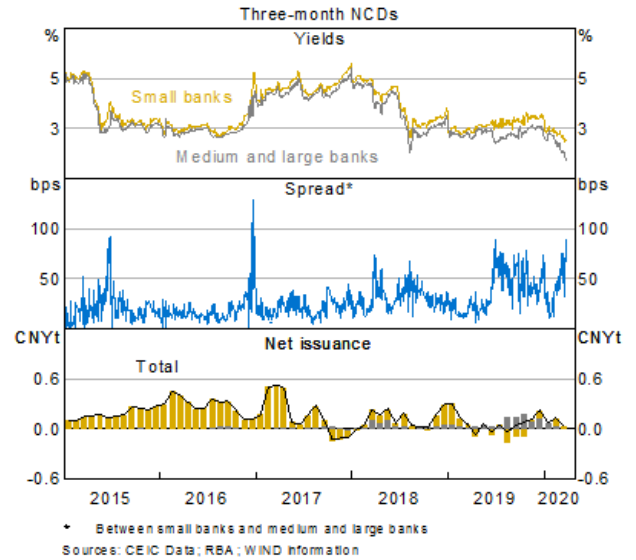
### China's Banking System



\* Break for state-owned banks in 2015 reflects the change to internal ratings-based approach for risk-weighted assets  
 \*\* Includes city, rural, foreign, and private banks  
 \*\*\* Includes non-performing loans and special mention loans  
 Sources: CEIC Data; RBA; S&P Global Market Intelligence

Graph 2

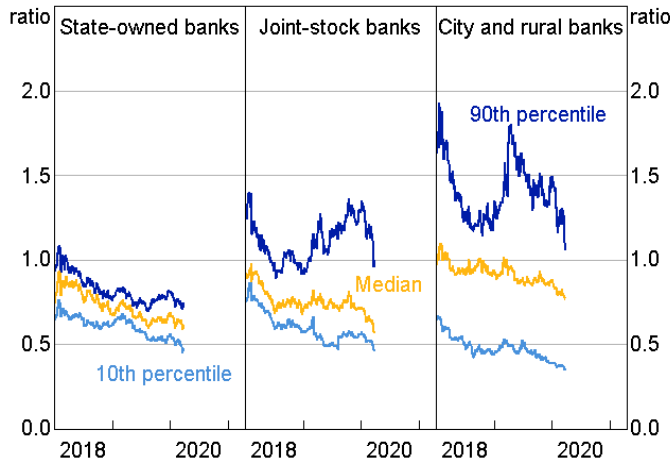
### Chinese Money Market



\* Between small banks and medium and large banks  
 Sources: CEIC Data; RBA; WIND Information

Graph 3

### China Banks' Price-to-Book Ratio



Source: S&P Global Market Intelligence

Table 1: Smaller Banks with 'Red Flags'

| Bank name                                  | Bank type | Distressed debt ratio | NPL ratio (%) | CET1 ratio (%) | Provision coverage ratio | Assets (US\$b) | Assets (% of system) | Assets (% of banks in sample)* | Wholesale funding share (%) | Bank deposit funding share (%) |
|--------------------------------------------|-----------|-----------------------|---------------|----------------|--------------------------|----------------|----------------------|--------------------------------|-----------------------------|--------------------------------|
| China Minsheng Banking                     | JSCB      | 5.0                   | 1.7           | 8.9            | 149                      | 923            | 2.28                 | 3.1                            | 36                          | 18                             |
| Hua Xia Bank                               | JSCB      | 6.0                   | 1.8           | 8.9            | 145                      | 440            | 1.09                 | 1.5                            | 34                          | 13                             |
| China Zheshang Bank Co., Ltd.              | JSCB      | 3.4                   | 1.3           | 8.5            | 240                      | 253            | 0.62                 | 0.9                            | 31                          | 16                             |
| China CITIC Bank Corporation Limited       | JSCB      | 4.2                   | 1.7           | 8.6            | 165                      | 932            | 2.30                 | 3.2                            | 28                          | 14                             |
| Ping An Bank Co., Ltd.                     | JSCB      | 4.3                   | 1.7           | 8.9            | 181                      | 523            | 1.29                 | 1.8                            | 25                          | 8                              |
| Industrial Bank Co., Ltd.                  | JSCB      | 3.5                   | 1.5           | 9.0            | 205                      | 1,018          | 2.51                 | 3.5                            | 38                          | 20                             |
| Bank of Anshan                             | CCB       | --                    | 13.3          | 3.3            | 45                       | 15             | 0.04                 | 0.05                           | 2                           | 0                              |
| Bank of Chongqing                          | CCB       | 4.6                   | 1.3           | 8.7            | 212                      | 67             | 0.17                 | 0.23                           | 32                          | 11                             |
| Bank of Dalian                             | CCB       | --                    | 2.3           | 8.7            | 141                      | 60             | 0.15                 | 0.20                           | 28                          | 11                             |
| Bank of Fuxin                              | CCB       | --                    | 2.9           | 8.6            | 130                      | 23             | 0.06                 | 0.08                           | 24                          | --                             |
| Bank of Guiyang                            | CCB       | 4.5                   | 1.3           | 8.8            | 283                      | 80             | 0.20                 | 0.27                           | 30                          | 8                              |
| Bank of Hangzhou**                         | CCB       | 2.6                   | 1.4           | 7.9            | 281                      | 138            | 0.34                 | 0.47                           | 32                          | 7                              |
| Bank of Hebei                              | CCB       | --                    | 2.5           | 9.5            | 112                      | 50             | 0.12                 | 0.17                           | 25                          | 5                              |
| Bank of Huludao                            | CCB       | --                    | 1.8           | 8.9            | 163                      | 13             | 0.03                 | 0.04                           | 7                           | --                             |
| Bank of Jiangsu                            | CCB       | 3.8                   | 1.3           | 8.4            | 229                      | 298            | 0.74                 | 1.01                           | 34                          | 10                             |
| Bank of Jilin                              | CCB       | 13.3                  | 2.9           | 8.9            | 151                      | 55             | 0.14                 | 0.19                           | 13                          | 11                             |
| Bank of Jining                             | CCB       | 5.3                   | 1.9           | 9.1            | 165                      | 13             | 0.03                 | 0.04                           | 17                          | 13                             |
| Bank of Jinzhou**                          | CCB       | 31.3                  | 6.8           | 5.1            | 106                      | 120            | 0.30                 | 0.41                           | 38                          | 20                             |
| Bank of Jiujiang                           | CCB       | 3.8                   | 2.0           | 8.6            | 159                      | 52             | 0.13                 | 0.18                           | 25                          | 7                              |
| Bank of Nanchang                           | CCB       | 10.3                  | 1.9           | 10.4           | 162                      | 65             | 0.16                 | 0.22                           | 29                          | 8                              |
| Bank of Nanjing                            | CCB       | 2.3                   | 0.9           | 8.9            | 435                      | 196            | 0.48                 | 0.67                           | 28                          | 5                              |
| Bank of Ningxia                            | CCB       | --                    | 3.8           | 10.0           | 145                      | 21             | 0.05                 | 0.07                           | 34                          | 9                              |
| Bank of Qingdao                            | CCB       | 6.9                   | 1.7           | 9.2            | 150                      | 50             | 0.12                 | 0.17                           | 36                          | 7                              |
| Bank of Shaoxing                           | CCB       | --                    | 2.2           | 8.7            | 125                      | 16             | 0.04                 | 0.05                           | 28                          | 1                              |
| Bank of Taian                              | CCB       | --                    | 4.7           | 8.8            | 92                       | 9              | 0.02                 | 0.03                           | 13                          | --                             |
| Bank of Tianjin                            | CCB       | 7.0                   | 1.7           | 10.1           | 260                      | 97             | 0.24                 | 0.33                           | 38                          | 9                              |
| Bank of Weifang                            | CCB       | 11.9                  | 2.2           | 9.5            | 151                      | 20             | 0.05                 | 0.07                           | 20                          | 14                             |
| Bank of Yingkou                            | CCB       | --                    | 1.6           | 8.8            | 265                      | 24             | 0.06                 | 0.08                           | 21                          | 17                             |
| Bank of Zhengzhou                          | CCB       | 4.7                   | 2.2           | 8.1            | 165                      | 70             | 0.17                 | 0.24                           | 34                          | 7                              |
| Benxi Commercial Bank                      | CCB       | --                    | 7.4           | --             | 44                       | 5              | 0.01                 | 0.02                           | 21                          | --                             |
| DONGYING BANK                              | CCB       | --                    | --            | 8.8            | --                       | 15             | 0.04                 | 0.05                           | 24                          | 1                              |
| Fudian Bank                                | CCB       | --                    | 4.2           | 9.4            | 106                      | 36             | 0.09                 | 0.12                           | 30                          | 1                              |
| Huishang Bank                              | CCB       | 2.3                   | 0.9           | 8.4            | 327                      | 160            | 0.39                 | 0.54                           | 36                          | 13                             |
| LinShang Bank                              | CCB       | --                    | 3.2           | 12.3           | 101                      | 12             | 0.03                 | 0.04                           | 5                           | --                             |
| Shengjing Bank                             | CCB       | --                    | 1.7           | 8.6            | 170                      | 150            | 0.37                 | 0.51                           | 36                          | 20                             |
| Weihai City Commercial Bank                | CCB       | 7.0                   | 1.8           | 9.8            | 156                      | 31             | 0.08                 | 0.11                           | 30                          | 7                              |
| Xiamen International Bank                  | CCB       | --                    | 0.7           | 8.9            | 311                      | 117            | 0.29                 | 0.40                           | 25                          | 11                             |
| Yantai Bank                                | CCB       | --                    | 3.6           | 10.4           | 128                      | 13             | 0.03                 | 0.04                           | 22                          | 1                              |
| Zhongyuan Bank                             | CCB       | 6.1                   | 2.3           | 9.2            | 156                      | 95             | 0.23                 | 0.32                           | 28                          | --                             |
| Anhui Tongcheng Rural Commercial Bank      | RCB       | --                    | 11.1          | 5.3            | 41                       | 4              | 0.01                 | 0.01                           | 6                           | --                             |
| Jiangsu Wujiang Rural Commercial Bank      | RCB       | 5.9                   | 1.3           | 12.4           | 260                      | 18             | 0.04                 | 0.06                           | 17                          | 1                              |
| Jiangsu Zhangjiagang Rural Commercial Bank | RCB       | 5.6                   | 1.4           | 10.9           | 233                      | 18             | 0.04                 | 0.06                           | 17                          | 3                              |
| Jilin Jiutai Rural Commercial Bank         | RCB       | 5.4                   | 1.8           | 8.8            | 161                      | 24             | 0.06                 | 0.08                           | 20                          | --                             |
| Tianjin Binhai Rural Commercial Bank       | RCB       | --                    | 0.3           | 8.6            | 1,044                    | 25             | 0.06                 | 0.08                           | 24                          | --                             |
| Wuhan Rural Commercial Bank                | RCB       | --                    | 3.6           | 11.6           | 171                      | 39             | 0.10                 | 0.13                           | 15                          | 13                             |
| Total                                      |           |                       |               |                |                          | 6,404          | 15.81                | 21.8                           |                             |                                |

Sources: S&amp;P Global Market Intelligence; RBA

\* Sample includes: 5 state-owned commercial banks; 12 joint-stock commercial banks; 103 city commercial banks and 43 rural commercial banks

\*\* Rescued in 2019