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China's contradiction

How excessive liquidity co-exists with a credit crunch

China's credit and stock markets are depressed despite strong growth and peaking inflation – excessive liquidity and serious funding shortages co-exist

This suggests a malfunction in the role banks play as financial intermediaries, leading to a surge in off-balance sheet activity and less transparent credit expansion

The risk premium priced in is likely to remain high; the solution lies with banks getting credit to the right places at the right price rather than new policy easing

By Zhi Ming Zhang

A credit conundrum

More than 30 years after economic reforms were introduced in China the country remains intriguing, complex and even downright contradictory to some investors. Consider the following:

- **Credit and stock markets are depressed, despite a strong macro-economic backdrop.** Despite solid GDP growth, strong external and national balance sheets, high household savings and a consensus view that inflation has peaked, domestic credit and stock markets are trading at depressed levels, with valuations approaching record lows – a process that started months before the global financial market sell-off in early August. While HSBC forecasts a soft landing, the bears cite rising risks such as local government financing vehicle (LGFV) debt, banks' off-balance sheet exposure (shadow banking) and the credit squeeze hurting small- and medium-sized enterprises (SMEs).
- **Excess liquidity co-exists with a credit crunch.** The role banks play as financial intermediaries appears to be malfunctioning. On the one hand, liquidity is flush with inflation hawks concerned about: 1) the record-high M2 (the broad measure of money supply) to GDP ratio as well as Total Social Financing (TSF) – a new metric to measure annual funding creation; 2) asset inflation led by property; and 3) the risk of hot money inflows. On the other hand, market rates and credit spreads are on the rise, banks are competing for deposits amidst surging rates and rising off-balance sheet and informal lending to struggling entities such as LGFVs and SMEs, and domestic credit market liquidity is being drained, with several large underwriting banks having to take large bond issues on to their books – all typical signs of a credit crunch.
- **AAA-rated issues underperforming.** Credit spreads for corporate bonds are higher than the record levels of 2008. AAA spreads are nearly double the previous high, but others are only slightly above previous records, contradicting the usual flight to quality story. Giant enterprises such as the Ministry of Railways (MOR) and large state-owned enterprises (SOEs) no longer have quasi-sovereign status.

These contradictions have forced policymakers to play catch up in the way they measure credit growth. For example, the People's Bank of China (PBOC) launched TSF in early 2010 because loan quotas, the traditional form of measuring credit expansion, have become increasingly irrelevant; a decade ago they captured more than 90% of credit expansion, but this has now fallen to c50%. The PBOC is set to introduce another new measure, M2+, to track credit expansion on the liability side, including banks' off-balance sheet lending.

To us, this identifies three realities: 1) China's credit crunch is a myth – as we first wrote in *The View* in July; 2) the country's credit system has become far more complex; and 3) credit activity outside the control of the government is increasing. However, how can China rebalance these distortions in the credit system and contain the risks represented by LGFV debt, SME failures and the pressure on banks?

Back in 2009, Beijing turned the economy around by tripling the amount of credit expansion without causing inflation. Today, with excess liquidity already in place, any broad-based easing by government decree would simply reignite inflation and undermine efforts to rein in property prices.

This report pulls together the different and often tangled threads of the China credit story by looking at: 1) What happens when excess liquidity co-exists with serious funding shortages; 2) What is driving China's increasingly insatiable demand for credit; 3) What's behind the drop in bank deposits; and 4) What risks markets are pricing in, given an otherwise solid domestic macro-economic backdrop.

To understand this complex story, we examine every single strand of China's credit creation – from normal loan and money growth, off-balance sheet activities related to bank discount bills, wealth management products, entrusted lending, trust loans and the implications for property markets, to domestic corporate credit markets and inter-bank activities, offshore borrowing via loans and bonds, various forms of informal lending, and stock markets and corporate cash earnings. Our analysis of these often competing forces brings us to the following conclusions:

- Credit expansion, which tripled in 2009, will likely remain high, driven by local government-sponsored fixed asset investments (FAI).
- China's strong external, national and household balance sheets are a strong buffer against the combined risks embedded in LGFVs, SMEs and the aggregate bank off-balance sheet exposure.
- Yet, markets are repricing risks beyond these problem areas to include top SOEs and the MOR that carry AAA ratings and enjoy quasi-sovereign status, a drastic change from the 2008 crisis.
- A positive consequence is that credit risk is increasingly being priced by market forces and interest rate liberalisation. This is a prerequisite for market-based RMB exchange rates and recent developments show that the process has already started.
- The contradiction of the co-existence of excess liquidity and funding shortages should be more difficult to resolve for policymakers than the fall-out from the US sub-prime meltdown in 2008-09.
- We think "targeted easing" is the right approach, but getting credit to the right places at the right price is a task best carried out by banks and markets rather than the government.
- The dilemma is this – credit tightening should squeeze more business enterprises through prohibitively high funding costs, but a broad-based easing may reignite inflation and property prices.
- Targeted fiscal easing – such as the 50% cut in interest tax for railway bonds, a trial of value-added tax in lieu of a business tax for the service sector and proposed SME tax relief – should help.
- However, the risk premium embedded in stock and credit markets is likely to remain high, until liquidity is channelled from where it is plentiful to where it is needed.

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China's credit myth

- Growth driven by local government-sponsored FAI has led to insatiable demand for credit
- Policy tightening cuts loans and M2 growth by half, yet triggered offsetting growth in off-balance sheet and less transparent lending…
- …a process that has driven up rates and exacerbates imbalances in credit where excess liquidity and funding shortages co-exist

By a wide variety of measures such as M2/GDP, housing value to GDP, bank loan, total social financing (TSF), inflation rate and households' desire to accumulate hard assets, China is experiencing a period of excessive liquidity. This has prompted five rate hikes in less than a year, 12 hikes in the reserve ratio requirement (RRR) to a record 21.5%, plus a new reserve for margin deposits, and a 7% appreciation in the RMB/USD rate since late 2010.

With growth rates of bank loans and M2 cut by half since 2009, the uninitiated may think that China's policymakers have been successful in reining in credit expansion. This is a myth, in our view, as over the past two years credit intermediation has increasingly taken place outside the balance sheets of banks, forcing the People's Bank of China (PBOC) to introduce TSF, a gauge which measures total new funding expansion, including bank acceptance, capital markets financing and entrusted loans on top of bank loans.

However, TSF fails to capture the surging credit creation via other outlets such as wealth management products (WMPs) and letters of credit (L/Cs), prompting the PBOC to study M2+, yet another measure to gauge liquidity from the liability side.

The unintended consequences of credit intermediation moving away from the controlled environment of bank lending are:

1. Rates are much higher than official loan and deposit rates, reflecting strong credit demand and high inflation.
2. While rising rates serve to cool down excessive growth and credit activities, rising rates also raise funding costs to prohibitively high levels, especially for SMEs, increasing speculative rather than productive activities.
3. Policymakers are forced to deploy "targeted easing" such as: Monetary – a new reserve for margin deposits. Fiscal – a 50% cut in interest tax on MOR bonds.
4. On the positive side, rising market rates are helping to cool the economy and increase market-based activity. This is in line with the government's desire for eventual interest rate liberalisation.

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The strong demand for credit is being driven by an economy whose incremental growth is becoming more dependent on funding; for example, the TSF/GDP ratio hit an all-time high of 44% in 1Q11, making further tightening unlikely.

In this regard, we think the mid-June spike in money market rates and bond yields signals that the financial system is approaching the limit of what it can withstand in terms of broad-based tightening; annual credit creation measured by TSF is nearly triple the pre-crisis level of 2008 and inflation is edging down only slowly.

Consequently, China's excess liquidity and credit crunch may co-exist for a while, until banks can get credit to the right places at the right price.

The debate about China's growth path has been heating up. The bears focus on the depressed stock and credit markets, both trading near historically low valuations, a trend that started months before the global market meltdown in early August. Property bubbles, LGFV debt, the SME crisis and bank off-balance sheet risk exposure are cited as potential triggers for a hard landing. The bulls, on the other hand, focus on China's still solid growth, strong external, national and household financial strength, and a growing consensus that inflation has peaked and hopes that there will be a soft landing.

However, both camps are puzzled by the co-existence of excess liquidity and an apparent credit crunch that restricts policy options. As such, if credit tightening continues, more and more enterprises may seize up as funding costs become prohibitively high. Conversely, any broad-based easing may reignite inflation. "Targeted easing" becomes the only option left to unclog the financial intermediation centred on banks. However, it will take time for Chinese banks to channel credit to the right places at the right price, hence the risk premium for Chinese securities may remain high.

Let's take look at the key drivers behind China's insatiable demand for credit, the origin of excessive liquidity.

Rising dependence on credit

Credit growth is at the centre of China's inflation and growth dynamics, especially during the most recent cycle when the economy experienced a significant credit injection via a RMB4.2trn fiscal stimulus and a more than RMB20trn surge in bank loans since late 2008, followed by a slow, but accelerating policy tightening since early 2010.

During this period deflation quickly reversed, followed by a jump in inflation and inflation expectations since late 2010 that forced Beijing to deploy the most aggressive form of policy adjustments, including old-style price fixing (affecting retail food and downstream commodities) and credit rationing aimed at the property sector.

Meanwhile, China's credit system is becoming much more complex. That is because it is no longer just about bank loans and M2, which are the main metrics monitored by policymakers and the investment community. Banks are now increasing their off-balance sheet funding and aggressively driving corporate bond issuance.

There has also been a rise in offshore borrowing in CNH (as the offshore RMB is known) and USD bonds, as well as an increase in HKD loans by mainland companies. A positive result of these changes is that the market-based price of money, as shown by bond yields and money market rates, has become a more important gauge of the state of Chinese credit markets as well as policy rates.

In this overview, we look beyond traditional credit metrics, including RMB bank loans, official money supply such as M2, and policy rates (bank loan and deposit rates) that used to dominate the financing space, to include other emerging metrics highlighted earlier that are becoming increasingly important to gauge China's growth, credit and rate cycle. In a nutshell, we find:

1 GDP dependence on TSF has been on the rise over the last decade and reached a high of 44% in 1Q11, although the contribution from bank loans declined to record lows (53% in 1Q11).

2 The fixed asset investment (FAI) share of GDP has steadily increased to nearly 49%, with growth in local governments' contribution to FAI outpacing the central government's – this now accounts for more than 90% of the total, a main driver behind increasing GDP dependency on incremental funding.

3 The latest round of policy tightening has accelerated the decline in bank loans' share of TSF and a surge in corporate bond issuance and off-balance sheet lending, raising the importance of market rates over policy (loan and deposit) rates.

4 Spikes in market rates also lift loan pricing power. Quantitative monetary tightening (reserve ratio hikes) plays an increasingly stronger role in pushing up rates than rate hikes alone, as exhibited by the latest rate spike in mid-June.

5 However, yields are peaking and the short-end curve inversion proved to be temporary as the PBOC aggressively injected liquidity into the open market; this may allow China's credit-thirsty growth to resume.

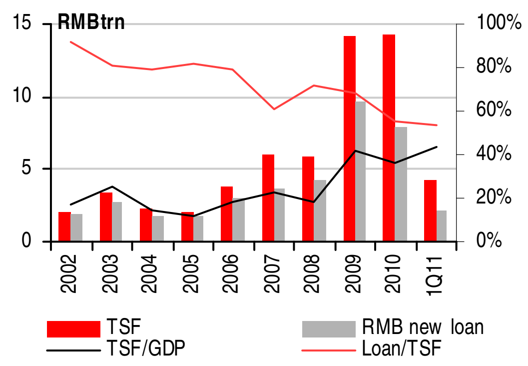
6 The corporate bond market, especially commercial paper (CP) and medium-term notes (MTN), continues to improve in terms of increasing issuer diversity and credit pricing differentiation, while off-balance sheet lending raises banks' risk exposure, despite its positive role in rate liberalisation.

7 Policy tightening onshore led to a surge in offshore borrowing by Chinese companies in both loans and bonds that include USD and CNH issuance. However, onshore and offshore RMB rate divergence will likely need to reverse to avoid potential market destabilisation.

Rising demand for funding

Figure 1 captures China's growth, total credit and bank loan dynamics over the last decade.

Fig. 1: Funding-driven growth with declining loan contribution



Source: PBOC, HSBC

The TSF/GDP ratio shows that the dependence of economic output on incremental credit growth, or GDP, has been on the rise and reached an all-time high of 44% in 1Q11 (even higher than the peak of 42% in 2009), while the contribution from bank loans has been on a steady decline to a low of 53% as of 1Q11 from 92% in 2002. This implies that maintaining the incremental GDP growth in China requires more and more "credit fuel".

Changing dynamics of funding

Figure 2 shows the breakdown of TSF since 2002. Bank acceptances, corporate bonds and entrusted loans are the second, third and fourth largest parts of the TSF, respectively, as of the end of 2010. More importantly, aside from a steady decline in bank loans (to 55.6% from 92%) in the share of TSF, the changes in the relative rankings are uneven, reflecting a theme we argued in *Inside the Growth Engine*, December 2010. That is: when there is policy from the top, there is a countermeasure at the bottom (上有政策,下有对

Fig. 2: Changing TSF mix since 2002 (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Loans in RMB	92	81	78.8	82.1	79.3	61.3	71.5	68.1	55.6
Loans in foreign currency	3.7	6.7	4.8	3.7	2.5	4.9	0.9	6.6	2.9
Entrusted loans	0.9	1.8	11.1	3.4	4.7	5.7	6.2	4.8	7.9
Trust loans					2.1	2.9	4.6	3.1	2.7
Bank acceptance bills	-3.5	5.9	-1	0.1	3.8	11.3	1.6	3.3	16.3
Corporate bonds	1.6	1.6	1.8	7	2.1	3.9	8.1	9.2	8.4
Non-FI enterprise equities	3	1.6	2.3	1.2	3.4	8.1	4.9	3.2	4.1
Insurance compensations	2.1	1.5	2.1	2.5	2.1	1.8	2.2	1.2	1.3
Insurance property investments						0.1	0.1	0.1	0.1
Others								0.5	0.7

Source: PBOC, HSBC

策). When policymakers at the top try to rein in runaway credit growth at the bottom by targeting certain metrics of funding growth, it usually results in an offsetting rise in alternative sources of funding. Hence, there is little change in the TSF shown in Figure 1 over the peak years.

In fact, soon after the introduction of the TSF in February 2011 to better track the explosion of non-traditional lending, new forms of credit growth via banks' wealth management products (WMPs) and letters of credit (L/Cs) outside of the TSF surged in response to new round of policy tightening. This subject is discussed in detail in our "Shadow banking risk" section.

This shows that until either a successful restructuring of China's growth model (towards a domestic consumption-driven and more credit efficient one) or a material slowdown in growth is in place, any policy tightening may only result in the changing mix rather than the overall reduction of funding. And at least so far, the changes in the mix have been shifting towards less transparent channels.

Beijing apparently is fully aware of this structural issue and recently increased the urgency for structural economic reform. Under the current growth structure, however, high dependence on FAI, hence credit support, seems inevitable since China runs a very high household savings rate that could be more efficiently deployed elsewhere.

Local ambition: no sign of slowdown

Our Chief China Economist, Qu Hongbin, believes that the slowdown in growth is temporary and inflation remains Beijing's top concern at the moment.

However, looking at the annual growth targets set at the local government level for the 12th five-year plan, starting from 2011, it is clear there is a high growth bias.

Figure 3 shows the GDP growth targets set at the provincial level[1] (administratively, provincial governments are one notch below the central government). Every single province and municipality aims to grow a few percentage points faster than the 7% real GDP target for the national economy over the same period.

1 *The nominal GDP growth figures are calculated from the nominal total GDP targets announced by the local governments over the five-year period (as opposed to giving a very high explicit GDP growth target).*

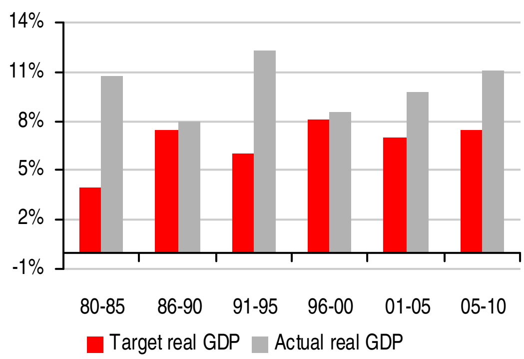
Fig. 3: Real GDP growth at the provincial level as of end-1H 2011

Province	GDP (quarterly)	Province	GDP (quarterly)
Beijing	8%	Hubei	14%
Tianjin	17%	Hunan	13%
Hebei	11%	Guangdong	10%
Shanxi	13%	Guangxi	12%
Inner Mongolia	15%	Hainan	10%
Liaoning	13%	Chongqing	17%
Jilin	14%	Sichuan	15%
Heilongjiang	12%	Guizhou	15%
Shanghai	8%	Yunnan	13%
Jiangsu	11%	Tibet	17%
Zhejiang	10%	Shaanxi	14%
Anhui	13%	Gansu	13%
Fujian	13%	Qinghai	13%
Jiangxi	13%	Ningxia	12%
Shandong	11%	Xinjiang	12%
Henan	11%		

Source: Bloomberg, HSBC

Bear in mind also that these growth targets are meant to be outperformed. The retention and promotion of local officials largely depends on whether they manage to outperform their peers in economic development, which is usually quantified by the GDP figure.

Fig. 4: Actual growth always outperforms growth targets



Source: PBOC, HSBC

Indeed, since China's economic reform started 30 years ago, actual growth has always been higher than the target for every five-year planning period at the national level (Figure 4), while an overwhelming majority of provinces and municipalities have outperformed the actual national figure.

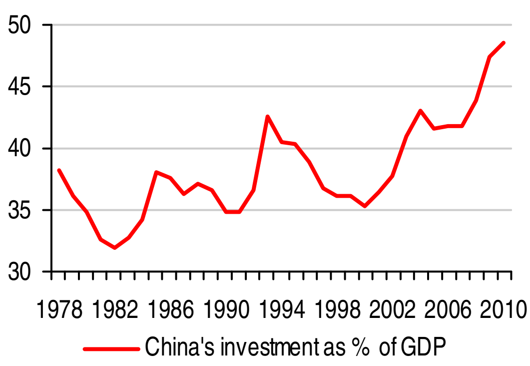
Despite recent calls for structural reforms and emphasis on growth quality rather than quantity, local ambition remains strong. Take the city of Chongqing as an example. As recently as 20 June, the mayor of Chongqing municipality declared that despite current credit tightening there was no lack of funding supply, from bank loans to all other forms of funding to the city.

In fact, just a few days before, the Agricultural Bank of China (ABC) alone had committed an RMB100bn credit facility for the development of the Liangjiang New Area in the city, China's third deputy provincial-level special economic zone after Shanghai's Pudong and Tianjin's Binhai New Area. We believe such competing ambitions at the local government level are difficult to rein in.

FAI: Local 10 times national

Figure 5 shows a familiar long-term trajectory of the share of FAI as a percentage of China's GDP since reforms started in the late 1970s. Property construction is a mainstay of fixed asset investment, which accounted for more than 50% of last year's 10.4% gain in GDP.

Fig. 5: Steady rise in the FAI-GDP ratio at the national level to 49%

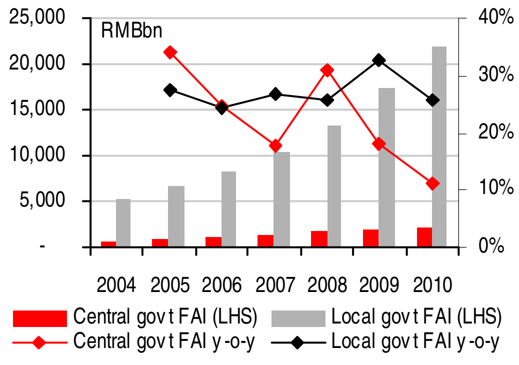


Source: PBOC, HSBC

The degree dependence on FAI has risen sharply since late 2008 to nearly 49% as end-2010. Correspondingly, the amount of "credit fuel" needed to sustain such growth is rising steadily, as shown in Figure 1.

What is interesting is that local government-sponsored FAI has been growing at a much faster pace than central government-sponsored FAI, especially since late 2008, and now accounts for more than 90% of the total, as shown in Figure 6.

Fig. 6: Local FAI outpaces national to account for 90% of total



Source: HSBC, Wind

The preceding figures imply that:

1) China's growth will remain high in years to come[2], although the emphasis on quantity rather the quality is a concern.

2) Local government-driven and FAI-centric growth is credit consuming. As such, total credit is unlikely to be normalised to anywhere near pre-financial crisis levels.

Excess liquidity and rising rates

Excessive liquidity is usually accompanied by extremely low rates. However, rates that include government and corporate bond yields are both rising. Moreover, rates for off-balance sheet lending are rising even faster.

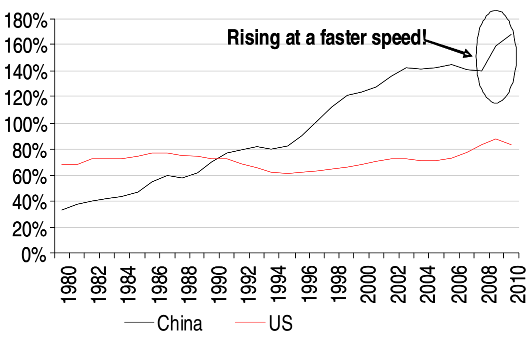
Even within the highly regulated banking system, the percentage of loans offered above the minimum policy rates are also rising at a record pace, implying an odd combination of excessive liquidity on the one hand and funding shortages on the other. We will start with excessive liquidity.

2 *For example, our house view for 2011 and 2012 real GDP growth remains at c9%.*

M2/GDP ratio spikes up

Figure 1 shows a more than two-fold increase in bank loans and a near three-fold increase in TSF since the financial crisis, both showing a surge in liquidity from the asset side. From the liability side, there is a similar jump in liquidity in the domestic economy.

Fig. 7: Speeding up, China vs. US M2/GDP ratio since 1980



Source: World Bank, HSBC

Figure 7 shows China's M2/GDP ratio since 1980 compared with the US. One can argue that part of the rise in China's ratio to 180% from 30% is attributable to an increase in household savings relative to GDP. However, except for economies with a strong focus on financial services, such as Hong Kong and Luxembourg, most other economies show a low and steady M2/GDP ratio, such as the US. This suggests that part of China's rising M2/GDP ratio is due to declining growth efficiency and excessive liquidity.

What's concerning is that China's M2/GDP ratio rose sharply again after the financial crisis in 2008 (Figure 7). The most visible consequences of which are rising inflation and inflationary expectations. Despite five rate increases, 12 hikes in the RRR to a record 21.5%, plus a new reserve for margin deposits, and a 7% appreciation in RMB/USD rate since late 2010, inflation remains sticky. After peaking at 6.5% in July, the CPI only edged down slowly to 6.3% and 6.1% for August and September, respectively.

Housing value to GDP

Another measure of excess liquidity is the total residential property value relative to GDP, a chart we first produced in the overview section of the May 2010 issue of *The View*. An update of this ratio as it compares with the US, Japan and Hong Kong over various economic cycles is shown in Figure 8.

The total value of residential property in China is calculated based on the total stock of housing in rural and urban areas multiplied by their respective average prices over time. A high ratio is indicative of, amongst other things, the amount of liquidity in the system that supports housing value. Note that a high ratio does not necessarily suggest an immediately property bubble, as the degree of bank exposure to the sector and household leverage (both low for China at about 15% and 6-7%, respectively) and GDP growth all contribute to the sustainability of a high ratio.

It is also worth noting that the average property prices used by China's National Bureau of Statistics (NBS) are average transaction prices. As such, a large decline in the ratio for China in early 2010 (see Figure 8) largely reflects reduced transaction volumes in high-priced costal areas and a rise in second- and third-tier cities, where prices are cheaper. An adjustment based on month-to-month data is also shown in Figure 8.

Excess liquidity can also be seen in the form of hoarding of hard assets by domestic households and enterprises. For example, property prices still edged higher across the country more than 18 months after the harshest policy tightening measures were implemented. Domestic household demand for gold quadrupled in 2010 and prices for art and other commodities are approaching historically high levels.

Yet rates are rising…

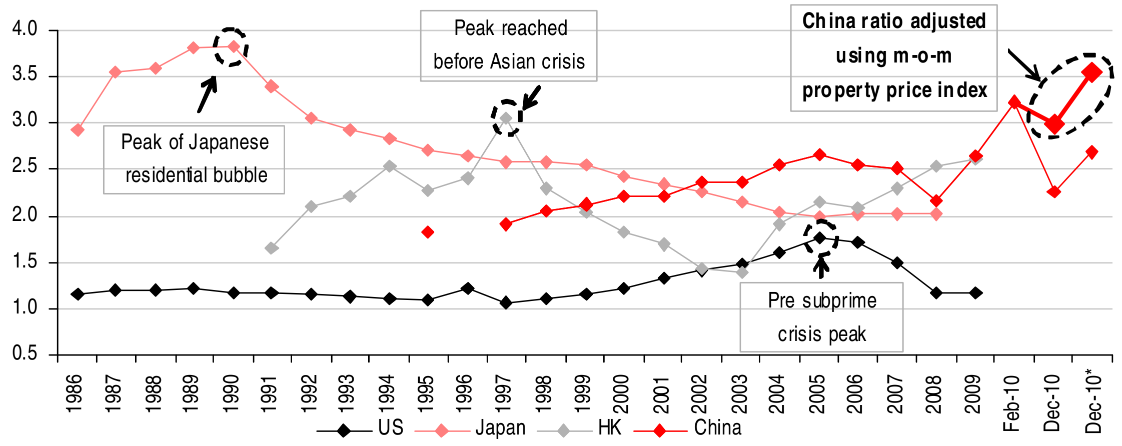
Despite a record amount of credit in the domestic economy, onshore interests rates are oddly on the rise too. The surprising inter-bank rate spike in mid-June is a good example.

RRR hike: Beyond quantitative tightening

On 15 June, the 7-day and 14-day repo rates surged more than 200bp to 6.2-6.3% and touched 9% intra-day, more than double their levels six days previously (Figure 9). This happened after the PBOC raised banks' RRR to 21.5% on the previous day, the 12th increase since early 2010.

Although the impact of each 50bp RRR hike was marginal, the cumulative effect on margins becomes substantial and the latest reserve ratio hike has had an unusually large impact on inter-bank rates, way beyond its usual role of quantitative tightening by merely taking RMB370bn out of the banking system.

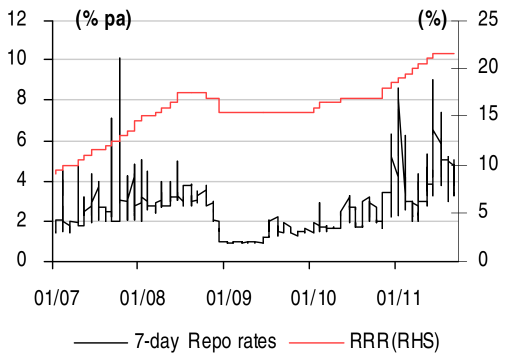
Fig. 8: Total residential housing value to GDP ratio: China vs. US, Japan and Hong Kong



* Adjustment based on month-to-month data
Source: NBS, Bloomberg, HSBC

Figure 9 shows that the 7-day repo rate subsequently climbed to 9.2%, the highest level since October 2007. What is different this time is that a much higher portion (21.5%) of each new deposit would be set aside in the future than three years ago (13%). Markets were expecting a policy rate hike on 14 June and were surprised by the reserve ratio hike. Hence, the panic by banks to get hold of cash at all costs.

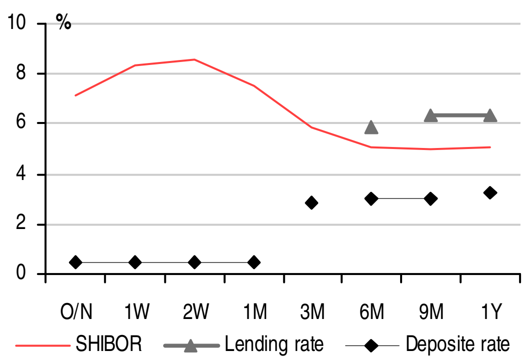
Fig. 9: At 20%+, impact of RRR hike goes beyond quantitative



Source: Bloomberg, HSBC

Consequently, inter-bank rates continued to spike up in the magnitude of hundreds of basis points in the following days, which led to short-end curve inversion; SHIBOR rates are now way above bank deposit and even loan rates, as shown in Figure 10.

Fig. 10: High inter-bank rate and curve inversion in mid-June



Source: HSBC, Bloomberg

Onshore rates spiked up several times after 14 June as fears of a policy rate hike raised banks' anxiety to hedge via the interest rate swap market more aggressively, which pushed up bond yields even further.

Spiking rates and market volatility after the latest reserve ratio hike have, in our view, caught even the regulator by surprise. They forced the PBOC to subsequently suspend a sale of T-bills on 23 June as the benchmark money market rate rose to the highest level in more than three years. In addition, the China Development Bank (CDB) scrapped a RMB20bn issue of floating-rate securities on 16 June, two days after the surprise hike. The inversion of swap rates has contributed to a slump in bank lending and the failure of two Ministry of Finance (MOF) bond auctions in five weeks.

In fact, after the reserve ratio was raised above 20%, every additional hike has jolted money market rates, forcing banks to cut their bond holdings to collect money for reserve payments, and consequently pushed up all types of market rates, from inter-bank to bonds.

As such, continued quantitative tightening or hiking RRR has served as a substitute for policy rate hikes, as market rates reacted even more aggressively than to a normal rate hike this time around.

…forcing PBOC to inject liquidity

The June inter-bank rate spike and the subsequent market panic suggested that further reserve ratio hikes would not work. The subsequent POBC open market liquidity injection confirms that the limit had been reached from the policymaker's perspective.

Behind the surprise move

As the market panic after the 14 June reserve ratio hike was a surprise to all, it implies that market players and policymakers have underestimated the cumulative impact of 12 consecutive RRR hikes, in our view. Indeed, the current reserve ratio is at a historic high and there is no precedent in terms of how each additional hike may affect markets beyond the RMB370bn quantitative removal of cash from banks.

Alternatively, if one believes that this is a deliberate move by the PBOC, then this may be the first time it has experimented by using the reserve ratio hike to move market rates as a substitute for policy rate hikes, which only have a direct impact on the cost of bank loans.

More importantly, the current round of policy tightening has forced a lot of credit to move off banks' balance sheets. Raising market rates would be a more effective way to raise the borrowing cost of such lending, whether in capital markets or in trust/wealth management products. Meanwhile, current loan rates have already squeezed corporate margins and put pressure on the large amounts of LGFV[3] loans pending refinancing.

In a broader perspective, increasing market rates via a reserve ratio rise in lieu of policy rate hikes could also reflect Beijing's desire to push for interest rate liberalisation, a necessary condition for a more flexible RMB exchange regime and the promotion of RMB internationalisation. The issue of interest rate liberalisation has been highlighted since early 2010, but the market has yet to see any substantive policy initiatives.

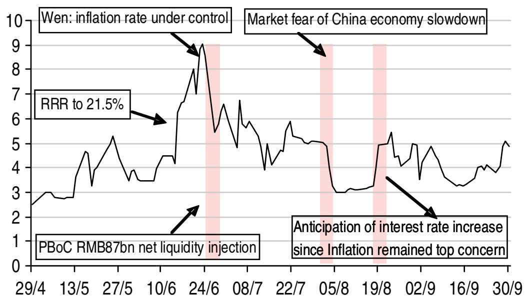
Signs of easing with PBOC net injection…

Figure 11 shows the 7-day repo rates, the most liquid inter-bank rates, and major market events since mid-June. First, on 24 June, Premier Wen declared in an opinion piece in the *Financial Times* that China's efforts to stem inflation had worked and that the pace of consumer price increases "is expected to drop steadily".

Money market rates fell and stocks rose after Wen's remarks, driving the Shanghai Stock Exchange Composite Index to its biggest weekly gain in almost eight months. The 7-day repo rate fell 63bp to 8.41% in response to the comment on taming inflation.

In addition to Wen's market calming comments, the PBOC's net injection of RMB87bn in the same week of June was followed by a total of RMB142bn of T-bills and repo agreements maturing the following week, compared to the RMB88bn maturing the previous week. Consequently, the 7-day repo rate dropped 117bp to 7.25%, the largest decline since 18 May, as shown in Figure 11.

Fig. 11: 7-day repo rates and market events since mid-June



Source: Bloomberg, HSBC

Rates usually head a touch lower after the end of June when banks pass their CBRC mid-year loan-to-deposit test. However, the usual seasonal effect was shorter this time as a combination of funding shortages, depositors seeking higher yields via wealth management products and small banks searching for inter-bank funding, pushed rates back up again.

The event that really knocked rates down was the global market sell-off, which started in early August on concerns over slowing economic growth triggered by the US sovereign rating downgrade and rising European sovereign debt default risk. However, higher-than-expected domestic inflation soon overwhelmed external concerns and pushed rates back up.

3 *It is estimated that 40% of the LGFV loans are due from now until 2012.*

Funding outside RMB loans

All traditional monetary metrics, such as RMB bank loan growth and M2 in addition to rising market rates, point to a very tight credit environment. In fact, if one incorporates the double-digit interest rates charged by banks' trust products to listed companies as per stock exchange disclosures (discussed in a later section) and informal financing where daily interest rates are reportedly as high as 1% per day, liquidity appears even tighter.

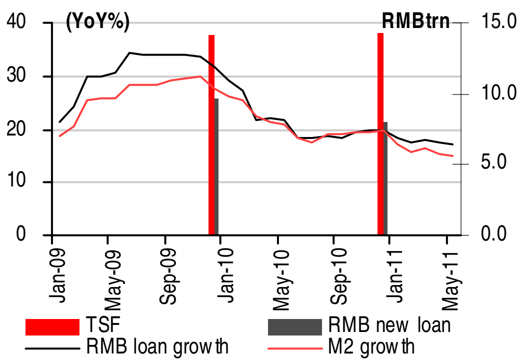
Pushed to off balance sheet

Credit curbs are the centrepiece of China's monetary policy, aimed at rooting out inflation, which is running near a three-year high. Banks have also been told to scale back lending to the property sector and to finance vehicles run by local governments (LGFVs).

Behind declining loans and M2

Figure 12 shows declining bank loans and M2 growth since late 2009; full-year new loans also dropped from the peak level of RMB9.4trn in 2009 to a touch below RMB8trn in 2010. Latest figures in May show continued improvement as banks extended less new loans than expected (RMB551.6bn), while broad money supply growth hit a 30-month low (15.1%), as the government kept its foot on the credit brakes to help tame inflation.

Fig. 12: Fall in loan and M2 growth yet to affect total liquidity



Source: PBOC, HSBC

However, as evident in Figure 12, there was no decline in the TSF from 2009 to 2010 (it actually edged up to RMB14.3trn from RMB14.1trn), despite both M2 and loan growth being cut by half (to 15% from 30% and to 17% from 34%, respectively). The PBOC's 2011 target for TSF is RMB14trn, about the same as last year. That figure will likely stay high, despite Beijing's efforts to restrain bank lending.

There has been a surge in funding outside the traditional banking system and the trend has continued since 2002 (Figure 8). For example, Guangdong Development Bank's official credit grew 49.8% in 2010. However, including bank acceptances, the bank's financing actually grew by 91.5%.

Recent policy tightening has provided more incentives to banks and borrowers to lend and raise money outside the banking system. More cash is circulating outside the banking system as firms turn to non-bank channels to get funds, while lenders are rushing into off-balance sheet products to skirt loan controls.

In the first quarter, designated loans, or loans lent from one firm to another but facilitated by banks, leapt to RMB320.4bn, more than double the same period last year. Bank acceptance bills hit RMB761.1bn, or a third of the amount issued in 2010. Wealth management products, aimed at attracting deposits from savers looking for better returns to beat negative interest rates, are the fastest growing off-balance sheet product.

Wealth management products: RMB7trn?

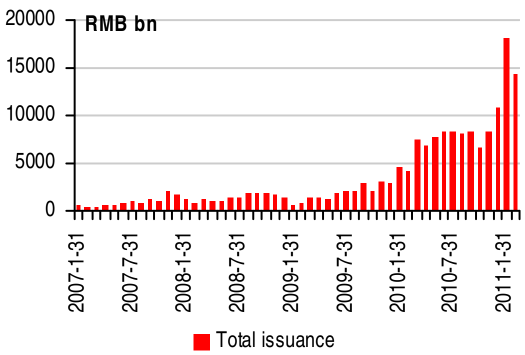
There is a push and pull impact of the surge of banks' wealth management products. Significant bank lending in 2009-10 has forced most banks' loan-to-deposit ratio close to the 75% cap set by the CBRC.

Meanwhile, to attract deposits from inflation-concerned consumers, banks are eager to offer yields above the maximum deposit rate permitted by the PBOC via wealth management products.

As demand for bank loans remains strong due to increasingly credit-dependent GDP growth, banks can match the demand to lend at higher returns from regular depositors with demand for funding from traditional loan customers off-balance sheet.

The time gap between paying for and delivering wealth management products gives banks the added incentive to pursue off-balance sheet products. Funds from customers who subscribe to wealth management products near the end of the month can be first counted as bank deposits (hence, a lower loan-to-deposit ratio prior to reporting to the CBRC), but the funds leave the bank in the beginning of the following month. This explains why most of these products are launched close to the end of the month, or quarter.

Fig. 13: Issuance of wealth management products (3mth-12mth)



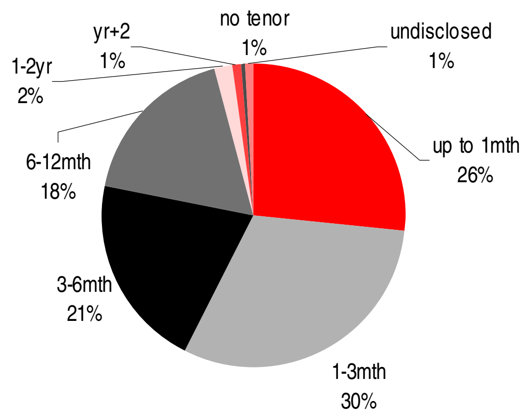
Source: China Trustee Association

There are many types of wealth management products, which include bank trust products and products offered by banks themselves. Figure 13 shows the monthly total amount of issuance of all wealth management products with a tenor of 3, 6 or 12 months.

There is a clear increase in total issuance since late 2009 when Beijing started to voice concern over the strong loan growth from late 2008. Moreover, issuance started to surge from mid-2010 when inflation began to emerge and regulators started capping loan growth.

Note that an overwhelming majority of wealth management products are of much shorter tenor, from a few days to less than three months.

Fig. 14: Wealth management product by tenor (end-2010)

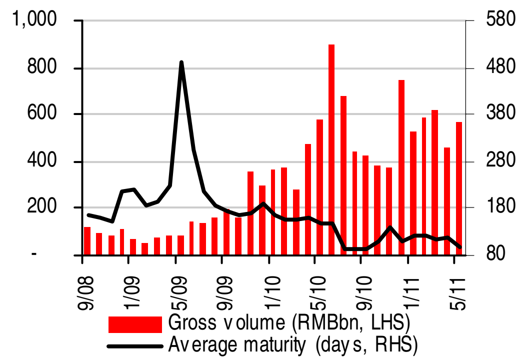


Source: China Trustee Association

Figure 14 shows the breakdown of the number of wealth management products by tenor as of end-2010. Three to 12-month products only account for 39% of the total, while products of a 3-month or shorter tenor account for 56%. This implies that the peak monthly issuance early this year could be around RMB4.6trn (or RMB1.8trn/39%). That seems to be in line with the total amount outstanding of RMB7trn, a widely quoted figure in some local media.

We can estimate the pattern of issuance and tenor distribution from an alternative angle, i.e. wealth products offered via bank trust tie-ups.

Fig. 15: Products by bank-trust: No. of products vs. avg tenor



Source: Use-trust

Figure 15 shows the number of bank trust products launched and their average tenor since September 2008. First, the number of products launched demonstrates a similar pattern, i.e. it surged from mid-2010 when policy tightening began.

Second, the average tenor has been declining to slightly above 80 days, or below three months, which makes a rollover ever more interest rate sensitive. We believe the recent spike in inter-bank rates must have caused banks to run for cover, as market rates shot up unexpectedly, which coincided with a large number of products maturing.

Increased risk-taking

The risk premium appears to have been on the rise since the policy tightening began, as reflected by rising credit spreads and average actual loan rates for bank loans. Moreover, on the borrowing side, private entities and SMEs get squeezed the hardest as both rising rates and credit rationing, in addition to rising labour and commodity costs, reduce their operating margins.

On the lending side, smaller banks are more dependent on inter-bank funding and are forced to lend more aggressively via wealth management products to ride out rising funding costs. As such, we think policy tightening without a material drop in total funding may have led to an increase in total risk-taking.

For example, banks are putting the short-term WMP capital into mid- and long-term investments. Although the maturity of WMPs has become shorter, banks keep issuing rollover packages for the short-term WMPs to ensure the stability of capital inflow. In this way, banks can enjoy the extra return via maturity difference of the assets and liabilities.

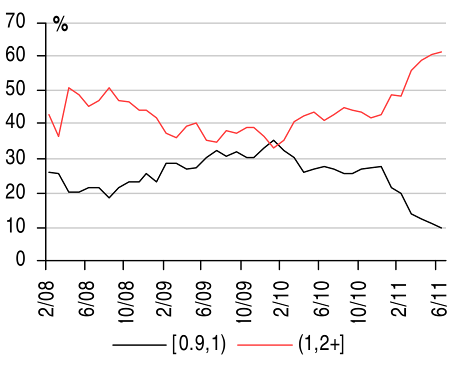
Similar to fund management, banks collect different types of WMP capital and pull them into the same asset pool (normally medium to long term). The difference is that the withdrawal timing of capital from the asset pool is mainly dependent on the maturity of different WMPs, therefore banks face much higher liquidity risk and are vulnerable to refinancing costs.

Rise in effective loan rates

Rates and yields are rising everywhere, including the effective lending rates applied to bank loans.

Figure 16 shows the percentage of bank loans offered at up to the maximum 10% discount versus those marked up above the benchmark rate. The difference shows banks' pricing power for loans experienced a significant pick-up early this year, a trend that has continued. Corporate demand for capital has far exceeded banks' lending capacity this year; therefore, we expect the spread to remain wide.

Fig. 16: Sharp rise (vs. decline) in loans priced above (vs. below) benchmark policy rates



Source: CEIC, HSBC

The proportion of loans priced above the benchmark rate has increased since early 2010 and shot up sharply since early 2011, while the opposite is true for those offered at discounts as shown in Figure 16. As of end-March 2011, 56% of new loans were offered at above the benchmark rate, the most since the PBOC started to disclose this data, while those at discounts plummeted to below 14%. Banks have incentives to keep lending as their average net interest margin climbed to 2.6% in 1Q11 from 2.5% in 4Q10, according to the CBRC.

This shows rising market rates, whether in the bond markets or offered via wealth management products, have affected loan pricing. As the percentage of bank loans to TSF declined to 53% in 1Q11 from 92% in 2002 (Figure 8), market rates became more important relative to the policy loan/deposit rate. The latest panic after the surprise reserve ratio hike shows the influence market rate volatility can exert on the banking system.

Behind the increase in loan pricing power is a skew towards higher risk borrowers as best borrowers. SOEs are mostly borrowing at cheaper rates from bond markets with banks as intermediaries. For example, as of end-March, the weighted average bank loans rate rose to 6.91%, 60bp higher than the 1-year benchmark loan rate and 260bp above the yields of AAA-rated corporate bonds for the same maturity.

More up-to-date data on rising corporate borrowing costs are available and discussed in the following section ("Record-high credit spreads") for corporate bond markets. It shows the average credit spreads of CP and MTN against their respective benchmark T-bill and government bond yields are surpassing their previous record-high in 2008, suggesting rising effective bank loan rates are likely to continue.

CBRC to crack down

Banks' use of "trust loans", funded by wealth management products to individual and corporate customers, is leading to understated credit growth and credit exposure and a fair amount of contingent liabilities in the banking sector.

In January, the CBRC ordered that banks should transfer about RMB1.66trn loans to trust companies (which only account for part of the off-balance sheet loans under the wealth management products) by year-end 2011. They must cut the outstanding amount of such loans at least 25% per quarter. However, it appears that growth in bank trust loans is yet to slow down, as shown in Figure 15.

On 24 June, the CBRC again urged banks to follow the rules when developing wealth management products, emphasising risk control and transparency. This coincided with the CBRC's aggressive enforcement of the 75% loan-to-deposit ratio by end-June, a time when banks are rushing to shore up their deposits (including those from corporates) by offering wealth management products with yields much higher than the official deposit rate of 3.25%. This makes it difficult for banks to comply with both orders at the same time.

According to a survey conducted in 16 provinces by the All-China Federation of Industry & Commerce, the credit shortage for SMEs is worse now than during the 2008 financial crisis, when inflation reached an 11-year high of 8.7%. As such, companies are willing to pay much higher rates for funding from trust loans.

For example, according to a stock exchange filing, Ningbo Bird, a maker of cellular phones in Jiangsu province, disclosed on 30 April that it had lent RMB50m through an entrusted loan at a rate of 18% to a property company based in the same province. In a similar filing on 7 June, Sunny Loan Top disclosed it lent RMB55m to Nan Tong Fragrant Cereals Food Processing through a 1-year trust loan using Bank of China at 21.6%, more than three times higher than the 6.31% benchmark loan rate.

Entrusted loans accounted for 7.9% of last year's RMB14.27trn of TSF (or 14.3% relative to bank loans in the same year), according to the PBOC. That compares with only 0.9% in 2002.

Moreover, the crackdown, if enforced with continued policy tightening, would cripple business for smaller banks that rely more on the inter-bank market for funding. Higher funding costs will likely drive them to rely more on off-balance sheet lending. This is another key factor, in addition to inflation tapering off, which suggests we are getting closer to the end of the policy tightening cycle.

Rate liberalisation: already started…

The unintended consequence of credit intermediation moving from the controlled environment of bank lending to the market-determined pricing offered by bond markets and off-balance sheet channels is that the market-based price of money and credit has moved up more than suggested by policy rates.

This can be seen in the rise in the bond market yields, in rates offered for all forms of off-balance sheet lending, in informal financing and even in terms of rates in the banking system. For example, the proportion of loans priced above policy rates is rising fast, while those at discounts is dropping rapidly as shown in Figure 16. Surging issuance of WMPs to RMB12trn by mid-September 2011 shows banks are being forced to raise rates to compete aggressively for deposits. These activities are reversing the role of official benchmarks versus market rates. That is: official loan and deposit rates are becoming increasingly irrelevant relative to the prevailing market rates that reflect:

- Savers' desire to beat inflation or negative real rates implied by artificially low policy-driven deposit rates.
- Borrowers' willingness to pay much higher than official loan rates, reflecting a funding shortage in the real economy.

These developments will allow banks and corporate borrowers to prepare for eventual interest rate liberalisation, a pre-condition for a market-driven RMB exchange rate and the eventual free convertibility of the currency.

HSBC

Record-high credit spread

- Onshore credit spreads at record-high, despite 13 weeks of PBOC liquidity injection
- AAA-rated corporates led the widening, defying "flight to quality", yet policy banks find recent support
- Quasi-sovereign status shared by the Ministry of Railway and top SOEs are being repriced similar to LGFVs, SMEs and banks

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China's domestic bond market, being the most transparent and fast growing part of the credit sector, provides the best insights into the nation's changing credit dynamics.

Corporate credit spreads in China's domestic bond markets are surpassing their previous record-highs during the 2008 financial crisis.

Curiously, the AAA-rated sector dominated by quasi-sovereign issues such as the Ministry of Railway and central government-owned and strategically important SOEs, have led the spread widening that defies the usual "flight to quality" in stressed markets.

AAA spreads are nearly double their previous highs and spreads for the rest (lower quality issues) have only edged above old records. Investors are repricing risks beyond LGFVs, SMEs and bank off-balance sheet exposure that dominate the media and analyst communities.

Therefore, a recovery in China's credit and stock markets must include a normalisation of credit conditions for the quasi-sovereign sectors that play a pivotal role in China's credit expansion and growth.

Fortunately, spreads for policy banks led by the CDB, a dominant lender to LGFVs, are still below their previous record-high and show signs of tightening. This follows 13 consecutive weeks of liquidity injections by the PBOC and the MOF cutting tax on interest for railway bonds.

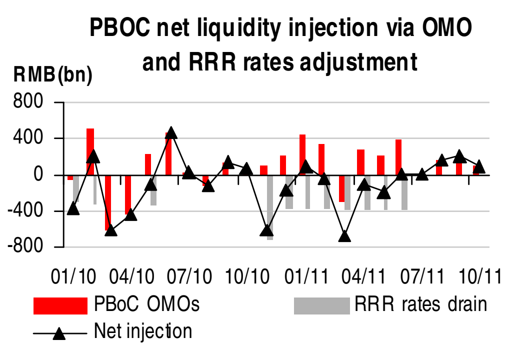
Spreads at record-high

The mid-June inter-bank rate spike after the latest RRR hike to 21.5% caught both policymakers and market participants by surprise. A subsequent freeze in the corporate bond market when several large underwriting banks had to take large issues on to their books (see "Targeted policy and continued stress") increased the level of fear in an already vulnerable credit market.

13-week long net liquidity injection

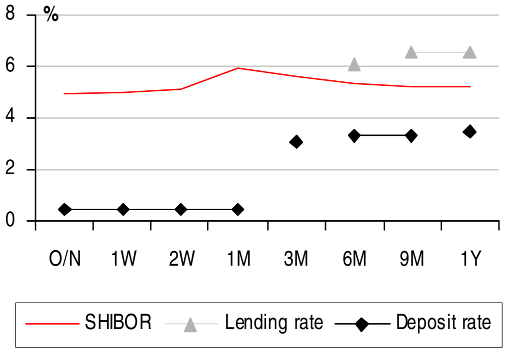
The PBOC has since then engineered a 13-week net liquidity injection (see Figure 17), reversing an aggressive phase on net liquidity tightening since the second half of last year. Maturing T-bills and repurchase agreements have been exceeding issuance for more than a half year, yet they were largely offset by a drain in liquidity from reserve ratio hikes until the latest hike announced in mid-June.

Fig. 17: PBOC 13-week of consecutive net liquidity injection



Source: Bloomberg, HSBC

Fig. 19: PBOC liquidity injection ease SHIBOR inversion



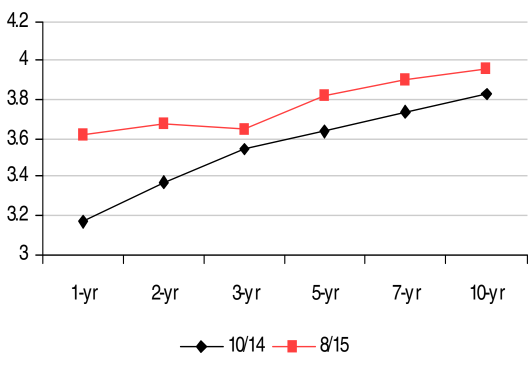
Source: Bloomberg, HSBC

Government yields dropped

The liquidity injection managed to hold down government bond yields as shown in Figure 18, with a substantial decline in government bond yields across the curve compared with two months ago. The real motive is to provide benchmark yield support to revive the onshore corporate credit market.

Inter-bank rates stabilised

Fig. 18: Govt yields dropped on PBOC net liquidity injection



Source: Bloomberg, HSBC

The success of the PBOC's liquidity injection can also be seen in inter-bank rates. SHIBOR has fallen below bank loan rates and extreme curve inversion in mid-June (Figure 10) has eased significantly (Figure 19), although the inter-bank rate remains high from a historical perspective and has recently resumed its recent uptrend (Figure11).

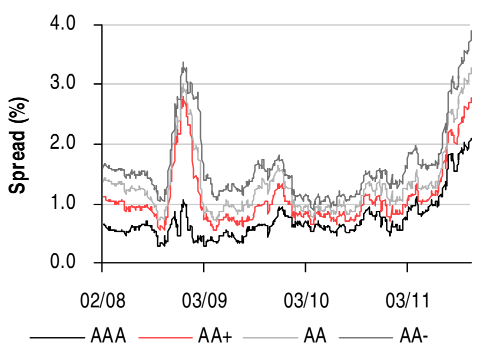
Corporate spreads at record-high

Most significant of all is that despite the drop in government bond yields, domestic corporate yields remain high and have led to record credit spreads across all rating categories, tenors and industry sectors.

Odd reality: flight to quality means moving away from AAA issues

Figure 20 shows the average yield spread of 1-year short-term bonds or commercial papers over 1-year T-bills. The spreads are at a record-high and led, surprisingly, by AAA-rated bonds. AAA-rated credit spreads are about twice as high as their previous peak level in 2008 or at 200bp versus 100bp over T-bills, an apparent contradiction, given that AAA-rated issues usually outperform in a stressed market.

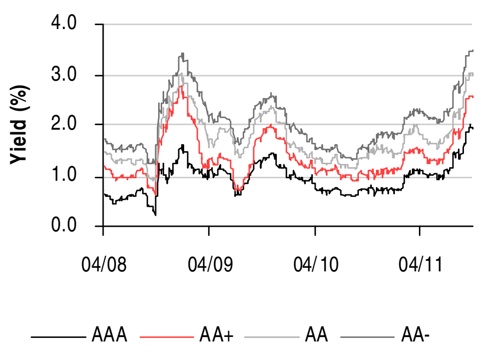
Fig. 20: 1-yr corporate spread at record-high (loss of AAA)



Source: Wind, HSBC

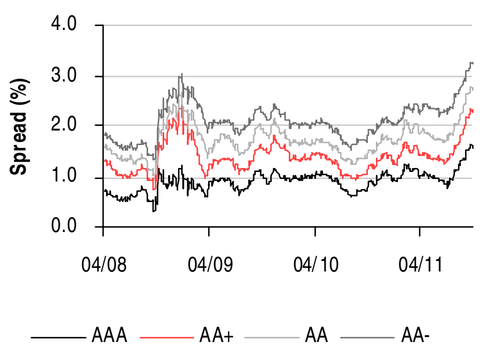
Moreover, this odd "flight away from quality" is observed in the medium-term note (MTN) corporate sector (see Figure 21) and in longer-dated 5-year sector as well (Figure 22). An apparent repricing of AAA-rated corporate bonds is underway versus the crisis period of 2008 when flight to quality meant widening spreads between the best quality issues (AAA rated) versus second-tier names (i.e., bonds rated below AAA).

Fig. 21: 3-yr MTN yield spread over 3-yr T-bills at record-high



Source: Wind, HSBC

Fig. 22: Corporate spread on the rise (5-yr MTN over govt.)



Source: Wind, HSBC

This repricing for the AAA-rated corporate sector is quite a significant event as the overwhelming majority, some 90%, of these issuers are top SOEs that usually share quasi-sovereign status.

Top SOEs dominate AAA-rated corporate

Here we provide a summary of the latest developments in the CP and MTN bond markets, by far the largest and fastest growing corporate bond sector in China. These markets also enjoy many of the pro-market features of bond markets elsewhere, such as credit differentiation in secondary market spread pricing despite local credit rating bias, an increasingly diverse issuer base, decent trading liquidity and fast issuance approval.

CP and MTN together account for 81% of total corporate bonds outstanding, despite being launched only five and two years ago, respectively. Low yields (usually around 150-200bp lower than bank loan rates) and recent policy tightening onshore have forced many domestic companies to enter this market for funding, contributing to its continued growth.

Figure 23 shows the breakdown of the 1,141 CP and MTN issues by rating and type of issuer as of 1H11.

Fig. 23: Breakdown of CP and MTN issues by issuer (June 11)

Total issues	CP	MTN	Total	%
SOEs	433	544	977	85%
SMEs	92	40	132	12%
Foreign/JV	21	16	37	3%
	546	**600**	**1146**	**100%**

Source: CDC, HSBC

SOEs at all government levels account for 85% of the total issuance and SMEs and foreign-owned entities for 15%, and their share has continued to rise since last year.

A more detailed breakdown in Figure 24 shows that the AAA-rated issuers are mostly top SOEs and account for about 90% of the total, led by the "central government-owned" and "strategically important" sector that includes energy, utility, transportation, telecom and resource areas. These issuers used to be priced as quasi-sovereigns even during the peak of the 2008 financial crisis. However, their yield spreads compared to government bonds are taking a different trajectory and markets have started to price them on their own respective corporate credit profiles.

Fig. 24: CP and MTN breakdown by ratings and issuer type (June 2011)

Rating by detailed categories	AAA	AA+	AA	AA-	A+	A	A-	Total	%
Central-govt owned SOE	159	12	5	2				178	16%
Strategically important SOE	242	158	161	89	15	4		669	59%
SOE	2	3	1	2				8	1%
State-controlled Co	40	27	36	13	2			118	10%
Collectively-owned Co	2	2	10	5			1	20	2%
Privately-owned		16	23	60	12	1		112	10%
Foreign-owned Co	5	2	5	3				15	1%
JV		2	11	4	2	2		21	2%
Total	**450**	**222**	**252**	**178**	**31**	**7**	**1**	**1,141**	**100%**

Source: CDC, HSBC

Upward local rating bias

There is a clear upward credit rating bias assigned by local rating agencies for CP and MTN. AAA- and AA-rated account for 39% and 19% of the total, respectively. Other than the central government-owned SOEs that are overwhelmingly AAA rated, there is gradual rating discrimination for all other issues.

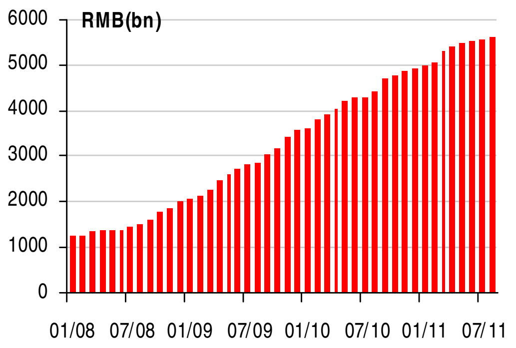
For example, only 36% of the strategically important SOEs are AAA rated, with the rest spread out all the way down to single A, which is considered very low in the domestic rating space. The days of treating all SOE issues as AAA or nearly identical to the sovereign seem to be over and in secondary trading the differentiation is even bigger. In short, SOEs are no longer a general category in which all entities are treated the same in terms of rating and pricing. Degrees of sovereign support and issuers' own credit profile have now become more important in analysing individual issuer's credit profiles.

SMEs and foreign-owned companies together now account for 15% of the total and are mostly rated in the AAA to A+ range, a credit-sensitive band. The credit rating there is more reflective of the underlying credit profile than in other sectors, in our view, as agencies seem to face less pressure in their credit assessment.

Surge in corporate bond issuance

Capital market lending, a more healthy and transparent type of borrowing outside the banking system, has also shown significant growth. A surge in bond issuance in 2009 was largely to complement loan growth in response to Beijing's aggressive stimulus initiatives. It continued to rise, acting as a substitute for the slowdown in loan growth as Beijing switched to gradual tightening.

Fig. 25: Five-fold increase in the amount of corporate issuance outstanding



Source: Wind, HSBC

Figure 25 shows a five-fold increase in the amount of corporate bonds[4] outstanding since 2008, compared to a less than three-fold increase in bank loans over the same time. In a separate section below, we give more in-depth analysis of the nation's corporate bond market development, an area we believe to be the most healthy and sustainable part of future funding.

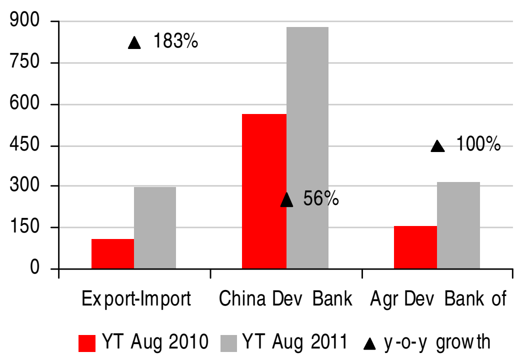
4 Includes CP and MTN under the PBOC, enterprise bonds under the NDRC and corporate bonds under the CSRC.

Surge in policy bank issuance

The trend for capital market and off-balance sheet funding has continued this year. In 1Q11, banks made RMB2.24trn of new loans, a 14% y-o-y decline, while domestic companies raised net RMB455bn from bond sales over the same period, a 70% y-o-y increase. Off-balance sheet wealth management products also continued to surge (Figures 13 and 15), which led to a continued decline in the loan-TSF ratio to a record low of 53% (Figure 1).

In addition, banks helped to arrange RMB320bn of loans between companies in 1Q11 that were not recorded in the lenders' balance sheets, raising the risk on their bonds to a nine-month high, according to the PBOC.

Fig. 26: Surge in policy bank issuance up to Aug (2011 vs. 2010)



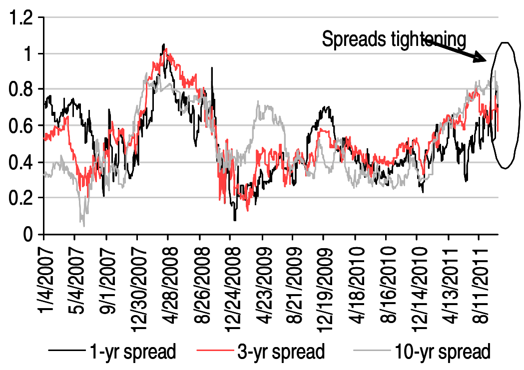
Source: CDC, HSBC

One point worth noting is that policy bank issuance was unusually high, despite rising market rates, as shown in Figure 26. For example, issuance by the Export-Import Bank of China rose nearly 200% and Agricultural Development Bank of China and CDB was up 100% and 56%, respectively, as of end-August 2011. These policy banks, led by the CDB, are also the largest funding providers to LGFVs and other new local government-sponsored development vehicles. For example, CDB's lending to LGFVs is larger than the top four Chinese commercial banks combined.

Signs of policy banks' spreads tightening

Perhaps the most positive development so far in the domestic credit space is that policy bank spreads are still managing to hold below their previous crisis highs (Figure 27), unlike their corporate counterparts. Moreover, there are tentative signs that spreads are tightening following a 13-week PBOC net liquidity injection that pushed the government bond yields down significantly and took the policy spreads down as well, although with a delay of about two months.

Fig. 27: Policy bank spreads show signs of tightening



Source: CDC, HSBC

Corporate bonds and off-balance sheet lending

By default, corporate bond issuance should help to reduce banks' risk exposure. Other forms of off-balance sheet lending, such as WMPs, should in theory be unrelated to the banks' push to issue corporate bonds. However, given the dominant role of Chinese banks in credit intermediation, the reality is that the banks remain exposed on both fronts: 1) the potential default by corporate bonds; and 2) much of the growth in WMPs is attributable to the surge in bond issuance.

China's corporate bond markets are highly segmented and subject to different regulatory supervision, with little co-ordination. The entire sector used to be small, with a RMB200-300bn annual issuance, mostly by leading SOEs under the supervision of the NDRC.

These bonds are referred to as "enterprise bonds" to differentiate them from "corporate bonds" that now narrowly refer to bonds issued by listed companies under the supervision of the CSRC. However, this particular sector for listed firms is even smaller; for example, corporate bond issuance by listed companies onshore was only around RMB51.2bn in 2010, less than 2% of the total corporate issuance in the same year.

The real "holy grails" are CP and MTN launched in 2007 and 2009, respectively, both under the supervision of NAFMII (National Association of Financial Markets Institutional Investors), a self-regulated body led by leading commercial banks under the sponsorship of the PBOC. CP and MTN now account for 81% of the total amount outstanding of corporate issues, accordingly to latest data from the CDC.

Banks behind push

As loan quotas get increasingly tight, despite still strong loan demand from corporates and local governments, banks have become the key driver behind both off-balance sheet lending and corporate bond issuance in the inter-bank market.

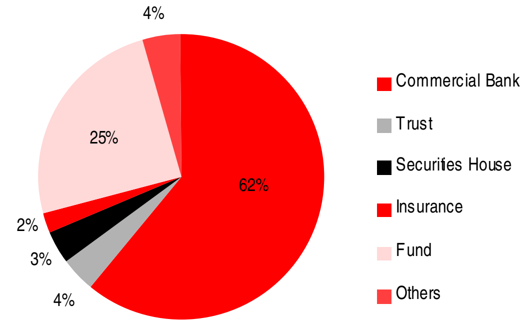
CP and MTN: Too bank dependant

CP and MTN are similar to corporate bonds as both are subject to minimum issuance restrictions and also do not now require bank guarantees. MTN, which can be issued for any tenor, was reintroduced in 2009 after a temporary suspension. The aim was to increase large SOEs' funding after the financial crisis and support their share buybacks as the domestic A-share index plummeted from the peak level of 6,000 in late 2007 to around 2,600.

CP and MTN have the dominant market share in the corporate bond space and are most market-driven in terms of regulation, credit differentiation in secondary trading, diversity in issuer base, trading liquidity and sophistication in credit enhancement facility. However, they remain too bank dependent.

Nearly all underwriters are from the investment banking arms of commercial banks. Most of the bondholders (62%) are banks (see Figure 28), even though insurers and fund managers are now permitted to participate in the inter-bank corporate bond markets.

Fig. 28: Banks dominate CP & MTN investor base (August 2011)



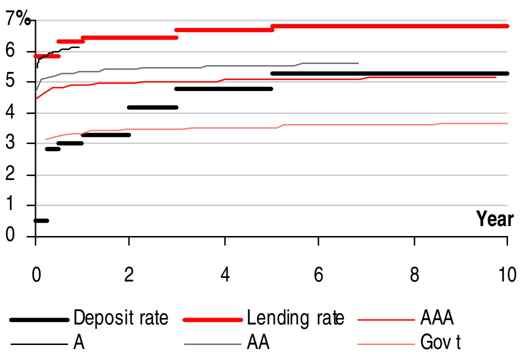
Source: CDC, HSBC

Corporate issuance feeds off-balance sheet lending

Companies raise money either via bank loans or bond issuance. In theory, issuing more bonds should reduce the need for bank loans

This may result in Chinese banks feeling threatened by corporate issuance**,** as funding costs in capital markets are much lower than bank loan rates as shown in Figure 29 (A- to AAA-rated corporate curves versus loan-to-deposit rate) and banks' best clients may switch from loans to bonds.

Fig. 29: Corporate yields vs. govt and loan/deposit rates



Source: HSBC, Wind

Before the credit tightening cycle began, CP and MTN issuance was led by corporate issuers' drive to search for cheaper cost of funding. However, in the presence of tight loan quotas, strong overall credit demand and the CBRC's aggressive enforcement of the 75% loan-to-deposit ratio, banks are now leading the charge for more CP and MTN issuance.

The majority of the corporate issuers in the inter-bank markets, such as large SOEs, are banks' best corporate borrowers that usually get to borrow at 10% below the benchmark loan rate (the maximum discount allowed). This switch from loans to bonds could lower corporate clients' borrowing costs, while freeing up banks' limited loan quota. The quota could then be used to lend to second-tier clients at much higher rates, from a few percentage points to several times higher than the benchmark loan rates set by the PBOC.

To meet still strong credit demand, banks have been using off-balance sheet operations, such as wealth management products and trust products, to generate additional lending. They have been packaging CP and MTN into the wealth management products to make them more marketable.

Throughout the process, banks play a key intermediary role at both ends, earning substantial fee income from underwriting to wealth management. However, the credit risk embedded in the products remains on the banks' balance sheets as these products carry implicit guarantees by the offering banks.

Therefore, these bank fees are not the usual risk-free earnings but a lot closer to interest earnings where banks' capital is exposed. However, the dual role played by banks here serves to link market rates on both the lending and borrowing side, circumventing constraints imposed by the policy loan and deposit rates.

Banks are being forced to engage in this type of intermediation under competitive pressure, paving the way for eventual interest rate liberalisation.

Targeted policies and continued stress

- Targeted monetary tightening (reserve for margin deposits) and easing (liquidity injection) and fiscal subsidy are playing catch up
- Rates dropped, yet credit stress continued even forcing banks to take several large credit issuances on to their books
- Leveraged bond holdings by smaller players add more risks

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Policymakers are playing catching up as they try to deal with the nation's stressed credit market. The PBOC introduced a new bank reserve requirement for margin deposits to target surging off-balance sheet credit expansion rather than overall credit growth.

The measure is being implemented gradually and is aimed at fixing the distortion in the credit market with minimum disruption.

On the fiscal side, in October the Ministry of Finance (MOF) announced a 50% tax cut in interest income for railway bonds. This tightened railway spreads and saw the successful issuance of railway bonds worth RMB40bn soon afterwards.

The China Banking Regulatory Commission (CBRC) announced on 24 October that it will allow banks to issue bonds with proceeds used specifically to lend to SMEs; this is in addition to measures to enforce more bank loans to SMEs.

The severity of credit market stress can also be seen in the lack of seasonal easing after the mid-year CBRC compliance test. In contrast, pending the maturing of LGFV debt and railway bonds, banks (as underwriters) had to take several large credit issuances on to their books, meaning that banks were also exposed to corporate bonds. This combined exposure to LGFV, corporate bonds and off-balance sheet risk drove down bank shares, despite high double-digit earnings.

Markets are apparently discounting surging bank fee earnings from underwriting bonds and WMPs, suggesting that investors see these earnings as also exposing banks to capital risk. Domestic investors appear more concerned about banks' prospects than offshore investors, judging from the rising H-A share price premium.

With annual credit growth nearly three times as high as the pre-crisis level of 2008, policymakers can not introduce another round of broad-based monetary or fiscal stimulus without reigniting inflation. Targeted easing becomes the preferred choice and a few examples of this strategy are already becoming visible.

Targeted policy fine-tuning

New reserve for margin deposits

The PBOC announced an expansion of the base used to calculate banks' required reserves in late August, specifically targeting banks' off-balance sheet lending. Three types of margin deposits were introduced: letters of credit margin deposits (信用证保证金存款), margin guarantee deposits (保函保证金存款) and deposits for bankers' acceptances (银行承兑保证金存款).

This is clearly an attempt by the PBOC to control the surge in credit expansion that it found difficult to rein in using traditional monetary policy tools.

Carefully engineered to avoid panic

The timing and magnitude of this new reserve requirement was designed to avoid:

1. The market panic experienced in mid-June when the latest RRR hike triggered a spike in inter-bank rates that also sent shock waves through the local bond and stock markets.
2. Tightening overall credit conditions.

Banks were given a week after the announcement to start setting money aside for the new reserve and reserve requirements will be phased in over six months.

In addition, the PBOC is ready to neutralise the RMB900bn liquidity drain from the new reserve for margin deposits. By the end of 2011, a total of RMB809bn of T-bills and additional repo maturing would add up to roughly RMB900bn.

In case the maturing T-bills are not replaced by new issuance, there would be a net liquidity injection, which would largely offset the impact of the margin reserve requirement. Consequently, market reaction to the new rule was subdued, despite the total amount of drain on liquidity being similar to three 50bp RRR hikes.

Reining in off-balance sheet lending

According to the PBOC, the total balance of margin deposits at all financial institutions grew to RMB4.48trn at the end of June 2011 from RMB3.6trn at the end of January. This means 6% of total deposits were outside the control of policy tightening. Banks are keen to expand margin deposits as they are included in the loan-to-deposit ratio compliance check, but are outside the 21.5% required reserve.

Banks are therefore motivated to increase their bank bills, acceptance and other guarantee businesses to generate more margin deposits, an activity that is similar to banks raising deposits via underwriting equity IPOs. The new rule raises the costs and force banks, especially small ones, to reduce their discount bill business.

Without this new rule, banks' effective RRR could be a few percentage points lower than the official level of 21.5%. The expansion of the deposit base subject to reserve requirements is to force banks either to readjust their asset mix or to increase the costs of off-balance sheet lending.

Smaller banks hit harder

The reserve requirement for margin deposits will likely hit medium and small banks harder than their bigger rivals. Their margin deposit-to-total deposit ratio was over 20%, or about 3-4 times as high as the large banks, according the 1H11 results. This is consistent with the PBOC data that shows that the banks' margin deposits totalled RMB4.42trn by the end of July, of which RMB2.8trn is with medium and small banks.

More accurate liquidity measure

Some 18 months ago the TSF was introduced as a better gauge of funding expansion than new bank loans. Now the PBOC is researching a new "M2+" measure to cover wider money supply metrics as current M2 data underestimates the total real liquidity due to the introduction of wealth management products.

The reason the PBOC wants to create M2+ to complement M2 is that the steady decline in bank loans contradicts elevated TSF. Unlike TSF, that measures the incremental funding expansion on the asset side, the proposed M2+ gauges the level on liabilities.

The August figure for the broad money supply (M2) continued to slow on a monthly basis, with a m-o-m decline of 1.2% and 13.5% y-o-y growth. Both appear to underestimate actual credit growth.

M2+ is designed to capture growing deposits that slipped away to WMPs in search of higher yields to beat negative real rates. Both M1 and M2 have experienced consecutive monthly declines, while banks have shown a drop in deposits over the same period. M2+ may include housing provident fund deposits (住房公积金存款), entrusted deposits (委托存款), deposits with financial institutions (金融机构同业存款), local government and foreign currency deposits.

Targeted easing: fiscal front

Given that inflation is still elevated, policymakers may rely more on fiscal tools to revive China's credit market.

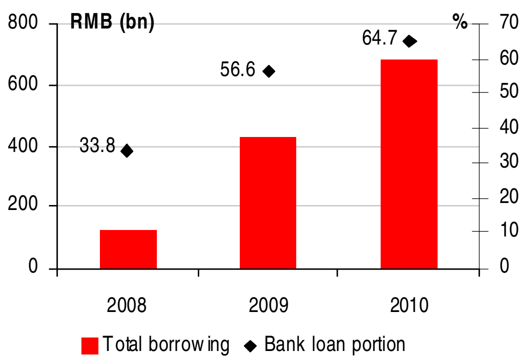
Tax cut for railway bonds

Bonds issued by the Ministry of Railways used to be the most sought-after issues. Banks would compete aggressively for underwriting, while other investors would bid up the price. However, the railway bonds have lost their quasi-sovereign status this year, with spreads widening to 200bp above government bonds.

Banks have been enforcing their credit concentration limit to a single lender and for many, the Ministry of Railways is close to the maximum limit of 15%. Meanwhile, the ministry's disclosed total debt for as of 1H11 is RMB2.09trn, with a debt-to-asset ratio of 58.53% that is expected to reach 75% by 2015.

Figure 30 shows the annual increase in Ministry of Railways' debt. Bank loans have surged to approach banks' single lender credit limit. Consequently, bank loans to the ministry are now offered at PBOC benchmark loan rates, instead of at a 10% discount (the maximum discount allowed) usually offered to the best borrowers.

Fig. 30: New debt by the Ministry of Railways hits banks credit limit



Source: Wind, HSBC

In addition to rising funding costs, the Ministry of Railways has also had a difficult time rolling over its bonds. The total amount of outstanding bonds is now above RMB560bn, while the total amount of debt outstanding is about RMB2.1trn as of 1H11.

Spreads tightened

The MOF decision to cut the income tax paid on railway bonds by 50% (to 12.5% from 25%) helped to tighten railway bond spreads and allow the rail ministry to issue a total of RMB40bn bonds. The impact of this fiscal easing has been immediate and powerful. We expect similar tax cuts could be offered by other selected strategically important issuers, if necessary, and this could become the main tool to revive the domestic credit market.

Trial value-added tax (VAT) reform

China's State Council also announced on 26 October a trial reform for the service sector starting from next January. Essentially, a VAT system will replace the current business tax for a selection of trial industries with the aim of reducing the tax burden of the service sector.

Unlike its western counterparts, China's central government's tax revenue expanded by 27.4% for the first three quarters this year, or 22% of the GDP for the same period. This leaves Beijing ample ammunition to use fiscal tools for targeted easing. We expect similar measures to be introduced on the fiscal side if funding shortages continues.

Banks issuance to target SME

The CBRC, China's banking regulator, also announced in late October that banks would be allowed to issue bonds with proceeds used for lending to SMEs. As banks are struggling to meet their 75% loan-to-deposit ratio requirement, this new policy gives banks the incentive to lend more to SMEs, the sector that contributes most to growth and employment, but is facing the most serious funding shortages.

Another measure the CBRC announced was that loan growth rates for SME must be greater than for other borrowers across all banks to ensure more targeted easing.

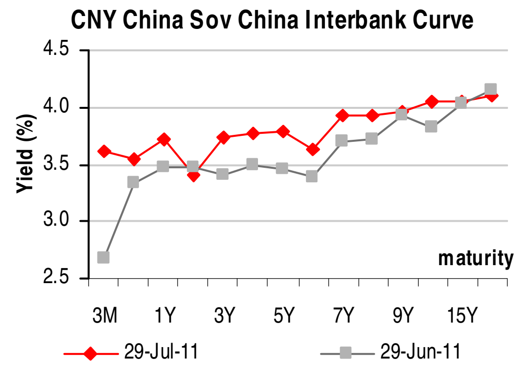
No seasonal easing

The severity of the current credit condition can also be viewed from a lack of seasonal credit easing this year.

Rates remain elevated after end-June

Figure31 shows China's treasury bond yield curve in the inter-bank market at the end of July versus the end of June. One of the worst bear markets in China's domestic bond markets continues with the government yields having moved up across the curve.

Fig. 31: Bear-flattening since the end of June

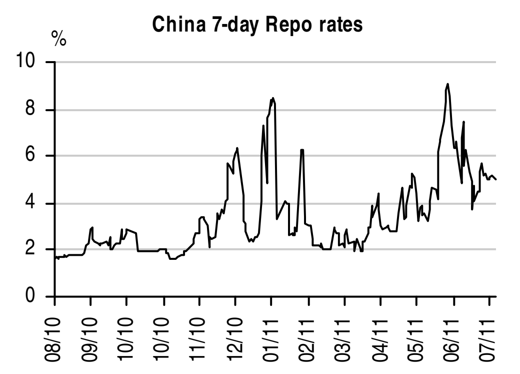


Source: HSBC, Bloomberg

Rising short-term rates have spread to the 10-year tenor, with 10-year government bond yields rising 21bp to 4.10% since the end of June, one of the largest monthly increases in recent history. This happened despite the fact that the MOF actually issued fewer bonds than planned for the 6-month and 3-year benchmark issues in July.

Figure 32 shows that China's 7-day inter-bank repo rates also remain elevated after the mid-June liquidity run in response to a surprise RRR hike that surprised the inter-bank market.

Fig. 32: Inter-bank rates remain elevated after end-Jun test



Source: Bloomberg, HSBC

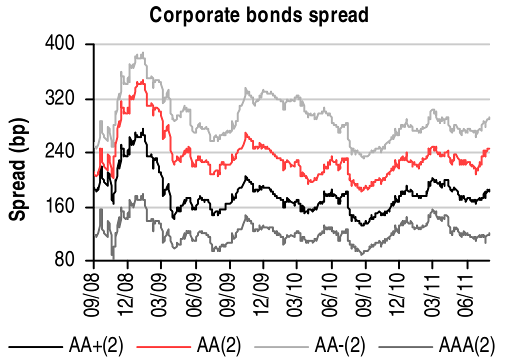
A combination of the PBOC net liquidity injection, suspension of multiple sovereign and policy bank issuance, and Premier Wen's high-profile declaration of victory over inflation in late June in the *Financial Times* helped to ease inter-bank rates towards the end of June. However, what caught market players by surprise was that rates started to edge back higher in July. This happened despite the fact that bank liquidity usually picks up after the mid-year CRBC risk compliance check (which includes the 75% loan-to-deposit ratio cap) and a growing consensus that inflation has peaked.

LGFV debt: old story, but lingering risk

Borrowing by China's local government financing vehicles (LGFVs) is now an old story. The official total is RMB10.7trn, about 80% of which is bank loans, according to a June 27 report by the National Audit Office. However, we believe risks will increase as some of the bank loans start to mature. While the risk profile of LGFV loans remain opaque as far as the nation's banking system is concerned, credit spreads in LGFV bonds have started to reflect investor concerns.

Figure 33 shows the average yield spreads of 5-year AA- to AAA LGFV bonds relative to the corresponding bank rates up to the end of July.

Fig. 33: Corporate spread, led by LGFV on the rise in July



Source: Wind , HSBC

LGFV bonds led losses in the corporate bond segment in July after a brief recovery in late June. Second-tier LGFV bonds in the AA- to AA sector[5] experienced much higher spread widening.

5 *Domestic credit ratings assigned by local rating agencies usually have significant upward biases.*

Moreover, most of the LGFV bonds were issued after 2009 (around RMB140bn were issued in 2009 and 2010 and nearly RMB100bn YTD). This means current spread widening is weighing heavier on LGFV issuance than in the crisis year of 2008. The widening credit spreads on top of the bank liquidity squeeze, which virtually shut the LGFV bond markets, has spread to other parts of the credit market.

Banks taking on failed issuance

Chinese banks play a dominant role in any off-balance sheet lending that includes corporate bond market activities. Failure of bond issuance and potential corporate default may eventually translate into loss of capital or liquidity for banks. What unfolded in the corporate bond markets in July reflects our concerns.

Railway bonds at risk

On 21 July 2011, two days before the fatal high-speed train crash, the Ministry of Railways failed, for the first time ever, to roll over its RMB20bn CP issuance. Unlike in previous years when banks had to chase the rail ministry, one of the best quasi-government entities, for underwriting allotments, the ministry contacted all large banks ahead of its issuance. In the end, the two lead underwriters, Agriculture Bank of China (ABC) and China Development Bank (CDB) had to take more than RMB18bn worth of railway bonds on to their own books.

On top of the bond issuance, the Ministry of Railways has taken out about RMB420bn in bank loans since 2009, or more than 10% of China's total RMB4.2trn stimulus package over a two-year period. However, the ministry's bottom line is in sharp decline: from a profit of RMB2.7bn in 2009 to just RMB15m in 2010 and a loss of RMB3.76bn in 1Q11, thanks to rising costs from fuel, steel and vehicle parts plus less-than-expected revenue growth, according to the Shanghai Securities News.

As such, to the surprise of most market players, investors began to question the Ministry of Railways' quasi-sovereign status, an unthinkable proposition just a year ago. The 10-year railway bond trades at more than 160bp over the comparable MOF bonds, after the sector posted consecutive declines in returns of 1.47% and 1.54% in May and June, respectively.

Banks, as main buyers of the railway bonds, have already hit their combined credit limit (bonds and loans) to the Ministry of Railways and are refraining from making further purchases. Those banks still below the limit are hoarding cash to seek better entry points.

Market shutdown beyond railway bonds

In addition to railway and LGFV bonds, other corporate issuers, including large SOEs, are also getting the cold shoulder from the market. For example, the RMB10bn CP issuance by the National Grid, another super-SOE, was called off and the underwriting banks were forced to take it on to their books in July. This shows that even big banks are facing liquidity and credit pressures[6].

Banks' dominance in the origination, underwriting and investing process for corporate issuance implies that a prolonged bear market in the domestic corporate bond markets would raise banks' credit risk exposure. In addition to underwriting risk, where banks are forced to bring failed issues on to their books, banks are also the largest corporate bond investors (e.g. they collectively hold 57% of CP and MTN or medium-term note issues that account for 81% of the total corporate bonds). Rising risk of default may also imply increasing risk for bank underwriters since they might be forced to take on defaulting issues, as they did in the past. What is different this time is that in the absence of systemic policy assistance, especially for the LGFV sector, a large number of issuers may default on payments.

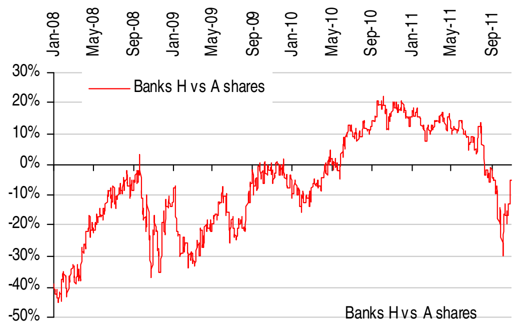
More and more issuers are being forced to postpone fund raising. In August, there were only five corporate issuances, which raised RMB4.6bn; this compares with an average of 19 issuances per month for the first seven months for a total of RMB149bn. LGFV bonds are the hardest hit. Liquidity is poor for seasoned issues and only one new LGFV bond managed to float in July and August.

Figure 34 shows the average share price premium of offshore listed H-shares over the corresponding A-shares for the eight largest Chinese banks. The premium hit an all-time high early this year before the global market meltdown that dragged down H-shares in August 2011, suggesting that local investors are more wary of mainland banks' risk exposure than their offshore counterparts. The CBRC has reportedly told banks that they haven't set aside sufficient funds to cover losses on loans to LGFVs and has ordered them to accelerate debt collection.

Domestic investors seem to be on the right side of the latest round of discount-to-premium switching shown in Figure 34. A-share bank prices led the H-shares in the recovery after the financial crisis, which resulted in a change from H-A share discount to premium since early 2009. Investors in the listed Chinese banks may have to deal with this overhang until Beijing finds a comprehensive solution to its credit contradictions.

6 *In fact, similar issuance failure extends to equity as well. For example, HaiTong Securities, one of the largest domestic brokers was forced to take on a total of RMB1.2bn stock placements on its own books YTD.*

Fig. 34: H-A share price premium for the largest 8 banks



Source: Bloomberg, HSBC

Leveraging up in the bond markets

Smaller banks that are more dependent on short-term inter-bank funding are more vulnerable in a tightening environment, as discussed in our "China credit myth" overview. In terms of corporate bond holding, they, along with other financial institutions with weaker capital support, such as small asset management companies or the asset management arms of securities firms, are facing a different type of heightened risk if the bear market persists. Many of these players have been leveraging up by participating in the bond markets, an asset class that would otherwise provide a low-risk haven.

Before the June rate spike, China's asset market was not performing well. The Shanghai Stock Index hit its YTD low on 17 June before its latest rally. Fund managers, asset management arms of securities house, small banks, and wealth management divisions at banks and securities firms were searching for investible assets and all regarded bonds as a safe haven.

However, many bonds could not offer a yield that could beat China's inflation rate, which hit 6.4% in June. In addition, competition for deposits and investor funds led some players to leverage up their bond holdings several times via repo[7] to get extra yields. As such, some wealth management products that are mostly short-dated could offer around 7-8% yield, more than 400bp higher than most short-dated cash bonds could offer.

Consensus expectation led to re-leverage

The surprise RRR hike in mid-June that rocked China's inter-bank rates market could have triggered more large scale deleveraging of the previously discussed leverage-buying of bonds. However, accommodative moves by policymakers, such as a net liquidity injection and a delay of bond issuance, eased the pressure to do so. More importantly, the consensus view that inflation had peaked led many to believe that liquidity would ease soon after the end of June.

Consequently, leveraged players who were poised to de-leverage or sell down their bond holdings were motivated to do the opposite, i.e. releverage with the hope of regaining their losses when bond yields start to decline.

Frankly, we had expected rates to come down and, in turn, some improvement in the domestic corporate bond markets. An important reason for this view is that we were surprised by how the inter-bank rates reacted to the latest 50bp RRR hike and how quickly policymakers responded to ease the stress.

Against this background, we believe capital markets in China will remain volatile until a comprehensive solution is found to reduce both liquidity and credit risks, while assuring no rebound in inflation.

7 A simple example would be a USD100 purchase of long-dated bonds could be pledged to secure USD95 of short-term funding to buy more long-dated bonds that offer higher yield that may lead to more borrowing.

Shadow banking risk

- Negative real interest rates and strong credit demand led to a surge in off-balance sheet activity …
- … resulting in banks' leverage and contingent risk being understated, while liquidity conditions are overstated
- A shadow banking system has emerged that distorts China's traditional credit intermediation

China has developed a shadow banking system outside the traditional loan and deposit business. The development of domestic corporate bond markets is the only relatively transparent part of this system; the rest is far more opaque.

Insatiable demand for funding generated by robust growth and policy tightening are the main drivers behind the surge in various forms of shadow banking activities. The desire by households and businesses to beat negative real interest rates adds fuel to bank initiatives to push both lending and borrowing off balance sheet, partly in defiance of changing regulatory restrictions since the policy tightening began last year.

Credit intermediation is increasingly being taken off balance sheet, helping banks to: 1) meet customer demand without being restricted by credit quotas; and 2) increase – or even inflate – their on-balance sheet deposits. This "shadow banking system" has raised our concerns that: 1) the leverage level of China banks has been understated; and 2) liquidity conditions, measured by the loan-to-deposit ratio, have been overstated.

We estimate that China's total credit-to-GDP ratio reached 168% at end-1H11 – 176%, if informal lending is included – which is higher than the 126% loan-to-GDP ratio that is widely cited. It is also worrying that the speed of credit expansion has accelerated, while the efficacy of new credit in raising GDP has decreased sharply.

We believe the funding strains faced by China banks are another potential catalyst for a surge in off-balance sheet activity. Consequently, banks have indirectly raised deposit rates or used a convoluted system of offering off-balance sheet credit as an incentive to attract deposits. Our analysis shows that the overall loan-to-deposit ratio could be 10% higher if adjusted by selected off-balance sheet credit.

We provide a detailed examination of bank acceptance, wealth management products, entrusted loans, letters of credit, and informal lending. With an effective market rate of around 20% on off-balance sheet lending, the credit intermediation process has been distorted, placing a disproportionate burden on SMEs. While the government has the flexibility to ease credit conditions should the situation warrant (including targeted easing or lowering RRR), inflationary pressures pose a conundrum for authorities trying to strike a balance between economic growth and the stability of the banking system.

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Executive summary

- China's credit intermediation is increasingly taking place off balance sheet.
- Total credit-to-GDP ratio could reach 168% in 1H11 and 176% if informal lending is included.
- Funding strains faced by banks also helped accelerate off-balance sheet activity.

China banks' off-balance sheet credit has soared and accounts for around 43% of new credit extended in 1H11. Off-balance sheet credit grew 64% y-o-y in 1H11, while loan growth grew 15% y-o-y during the period. This brings total credit growth within China's banking sector to 23% y-o-y in 1H11.

In our view, the strong growth of banks' off-balance sheet activity is a direct result of negative real interest rates and strong credit demand in the economy. Negative real interest rates have limited the attraction of deposits and strained banks' funding and liquidity.

Introduction

Since the credit splurge in 2009, China's policymakers have tightened bank lending by lowering credit quotas and raising the required reserve ratio (RRR). Reported loan growth has been successfully lowered to 15% y-o-y in 1H11 from 33% in 2009. However, other sources of credit growth have more than replaced slower loan growth.

The strong demand for credit is straining the financial system, as a cap on deposit rates in a negative real interest rate environment (CPI of over 6% versus current the one-year deposit rate of 3.50%) makes it difficult for banks to attract deposits.

Hence, it appears that credit intermediation is increasingly taking place off balance sheet, with savers being rewarded with higher rates of return, while borrowers receive access to credit – though at a higher cost.

The result of this process is that banks now face challenges meeting regulatory requirements for funding and liquidity, while local managers' performance is being affected as they fail to meet deposit growth targets. This is resulting in off-balance sheet 'sleight of hand' whereby banks' on-balance sheet deposits may be inflated.

Our concern is therefore two-fold: 1) that the leverage level of China banks has been understated; 2) liquidity conditions, usually measured by the loan-to-deposit ratio, have been overstated.

What constitutes off-balance sheet risk?

Typically, off-balance sheet items are contingent liabilities of banks. In most cases they are credit commitments banks have provided to corporates. These contingent risks include bank acceptances, letters of credit, letters of guarantee, and loan commitments. Such contingent credit risks are risk-weighted, and capital is set aside to cover them. Banks' management may also make provisions to fund these commitments as necessary.

However, we think that in the case of China's banks, off-balance sheet risk is broader than the usual contingent liabilities on their balance sheets. Wealth management products and entrusted loans are not classified as contingent liabilities by banks, as they are structured, at least on paper, in a manner in which the bank is not at risk, although in reality the risk accrues to the bank (we explain the mechanics of these products in more detail in their respective sections).

Why TSF understates credit growth

Our analysis shows that the total social financing (TSF) of the People's Bank of China (PBOC) does not fully capture bank-related credit. TSF is a new measure introduced by the PBOC this year to broaden the gauge of total financing available to the economy. For bank-related credit, TSF includes bank acceptances and entrusted loans. However, it does not include credit-related wealth management products and letters of credit, which are two of the fastest-growing credit channels this year.

Trust loans, as defined by the PBOC's TSF, are loans extended by trust companies. However, as banks increasingly manage wealth management products themselves, we believe trust loans understate the credit extended through wealth management products.

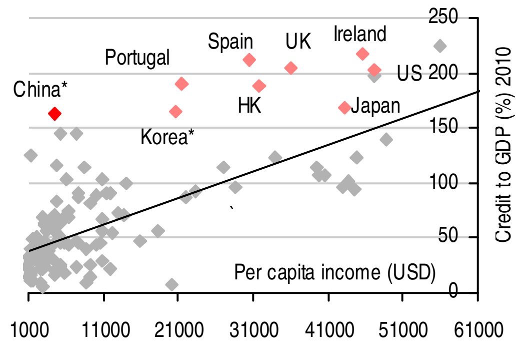
In our study, we have focused on bank-related credit growth, including **bank acceptances, credit-related wealth management products, entrusted loans, and letters of credit.** A detailed examination of the scale and growth of these credit products shows how risks related to leverage and liquidity may be understated. We provide a detailed explanation for each of these activities in the following sections, complemented by a section on the informal lending market.

We do not include loans from Hong Kong banks, as there is an overlap with letters of credit issued by banks that have been used as collateral for the loans. We also exclude loans from financial leasing companies or credit guarantee companies, whose operations have been involved with bank loans and informal lending, where we think there is also overlap.

Key findings

1. Leverage has been understated by off-balance sheet credit

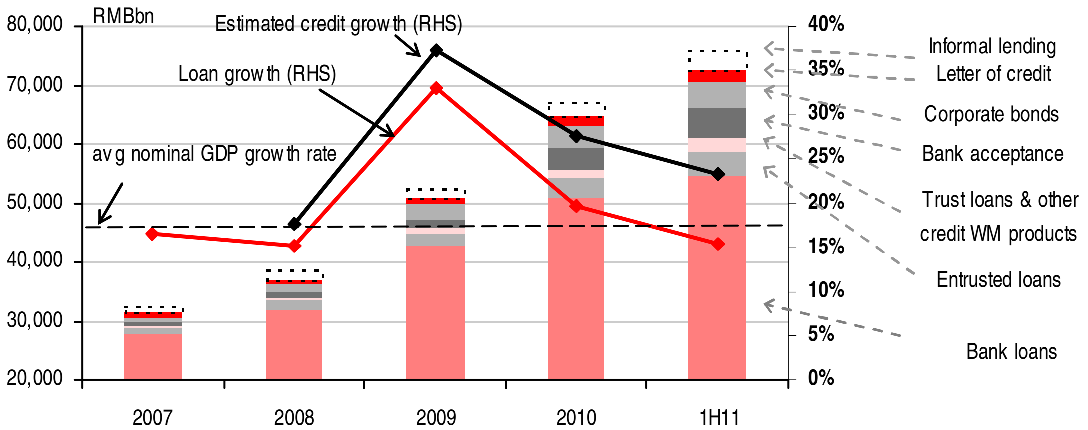
Fig. 36: China's leverage level higher than country of comparable income level



Source: IMF, World Bank, HSBC.
Note: China's and Korea's credit to GDP ratio has been adjusted to incorporate off-balance sheet lending

China's total credit-to-GDP ratio reached 168% at end-June 2011 – and 176% if informal lending is included, based on our conservative estimate (Figure 35). This is higher than the 126% loan-to-GDP ratio that has been widely cited, and it is a significant debt load for a country with relatively low income per capita (Figure 36). The outstanding credit, based on our estimates, reached RMB72trn (USD11trn) at end-1H11 – and RMB76trn (USD12trn), if informal lending is included. By comparison, outstanding bank loans were RMB55trn (USD8trn) at end-1H11. We note

Fig. 35: Total credit growth outpaced loan growth since 2010



Source: PBOC, bank financial statements, HSBC (note: total credit or credit growth in this report does not take into account informal lending) that the IMF and Fitch Ratings recently cited a credit-to-GDP ratio of 173% and 185%, respectively, for China, similar to our estimate.

It is also worrisome that the speed of credit expansion has accelerated, as evidenced by cumulative loan growth of 71% from 2008 to 1H11 and credit growth of 96% during the same period.

Despite China's real GDP growth having expanded strongly during the past 2.5 years, its credit-to-GDP ratio increased from 118% in 2008 to 149% in 2009 and 168% in 1H11 (Figure 37).

The increasing leverage level also indicates that the efficiency of new credit has decreased sharply, as measured by incremental credit to incremental GDP (Figure 38). The incremental loans-to-incremental GDP ratio increased to 109% in 1H11 from 88% in 2008, and the incremental credit-to-incremental GDP ratio rose to 227% from 115% during the same period.

One of the reasons for the lower credit efficiency is that credit has been extended to companies with lower returns on capital. As we showed in our report of 21 June 2011, *China Banks: Revelations from the bond market,* 36% of bank loans have been extended to companies with returns lower than the benchmark lending rate. The loan growth for companies rated 'B' and 'CCC' in our rating assessment has been at a faster rate of 23%, compared with 14% for all corporate bond issuers.

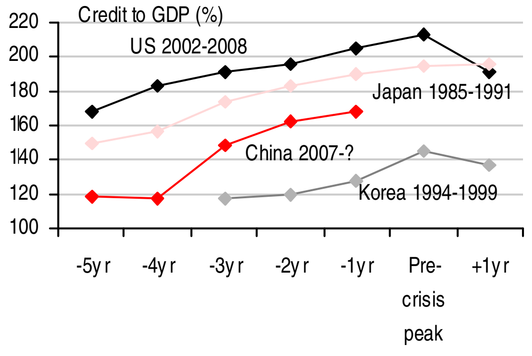
We are concerned that the combination of leverage, capital misallocation and low credit efficiency could return to haunt the banking sector at a later date. As shown in Figure 37, countries with a similar pace of leverage build-up have experienced a relatively painful deleveraging process in the following years.

2. Funding strains have exacerbated off-balance sheet activity

We believe the funding strains faced by China banks are another catalyst for the escalating off-balance sheet activity. Banks have been using off-balance sheet activity not just for moving credit off balance sheet, but also increasing deposits on the balance sheet.

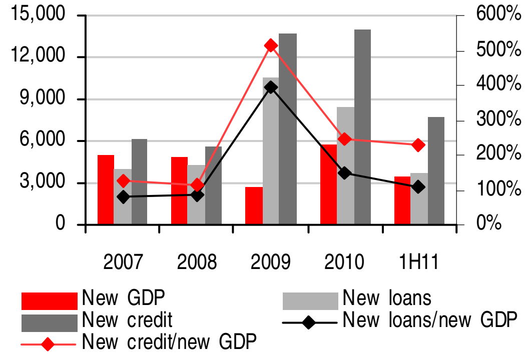
Deposits have traditionally been a key way to gauge local bank managers' performance by China banks, as more deposits enable higher credit quotas and bring more recognition to the branch. However, negative real interest rates have made it increasingly difficult to attract and maintain deposits. As we have pointed out previously (see *ACID, 14 April 2011, and ACID, 22 September 2011* banks therefore have been: 1) using cash or gift incentives; 2) issuing wealth management products; 3) asking borrowers to keep a larger portion of loans as deposits; and 4) inflating margin deposits by repeated issuance of off-balance sheet credit. **Essentially, banks have either indirectly raised rates or used credit as an incentive to attract deposits.**

Fig. 37: China's leverage has risen at a fast pace



Source: IMF, World Bank, HSBC. China and Korea's numbers have been adjusted by HSBC

Fig. 38: Increasing leverage reflects lower credit efficiency



Source: PBOC, HSBC. "New" refers to "incremental".

To put this into perspective, the inter-bank rate and yields on wealth management products tend to spike up at period-end. Margin deposits accounted for **13%** of new deposits from January to August this year, and **28%** for small and medium-size banks. In our view, this has led regulators to: 1) monitor the loan-to-deposit base on a daily basis; 2) ban banks from using wealth management products to meet regulatory requirements; and 3) include margin deposits in the computation of RRR. However, there is uncertainty as to the extent that regulations can curb the competition for deposits as negative real interest rates persist.

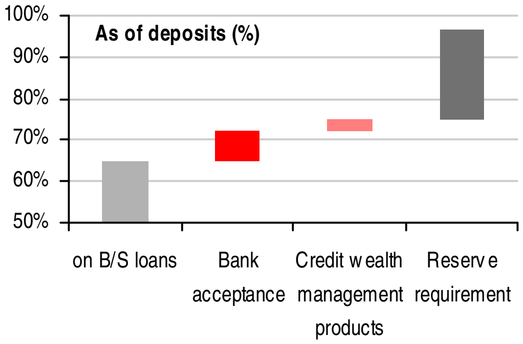
Market participants have frequently cited the low loan-to-deposit ratio in China to reassure themselves that the liquidity conditions in the banking system are adequate. However, we are arguing that the loan-to-deposit ratio overstates banks' true funding positions.

To better illustrate the trend in China, we incorporate undiscounted bank acceptances and credit-related wealth management products into the loan base to adjust the loan-to-deposit ratio. Our analysis shows that the underlying loan-to-deposit ratio could reach 75%, 10 percentage points higher than the reported 65% loan-to-deposit ratio. Of the 25% of deposits left on the balance sheet, 21.5% have been frozen by the reserve requirement. Therefore, there seems to be little scope to give banks extra liquidity, given that China banks are funded mainly through domestic deposits (Figure 39).

Rather than just focusing on the loan-to-deposit ratio, we believe it is also worth looking at the discount rate. This is the rate at which bank acceptances are discounted, and it is not regulated or subject to heavy intervention by regulators. As shown in Figure 40, the discount rate surged this year, to 15.6% at end-September from 9.6% in January, despite policy rates only increasing by 25bp, to 6.56%. The discount rate rose by 300bp in June alone after the China Banking Regulatory Commission (CBRC) banned banks' irregular discounted bill sales (details in the 'Bank acceptances' section of this report. Please also refer to Figure 50 for historical discount rates since 2007).

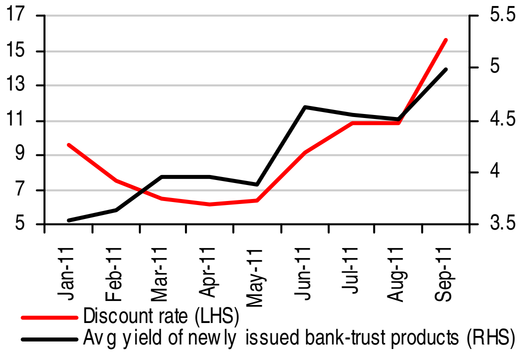
Acknowledging the surge of off-balance sheet activity, the PBOC has turned its focus to M2 as a monetary policy tool and is designing M2+, a new monetary measure, which is yet to be defined, to gauge the monetary base more broadly. However, it is still uncertain how effective the measures will be.

Fig. 39: Loan-to-deposit ratio is 10% higher if off B/S credit is incorporated



Source: PBOC, HSBC

Fig. 40: Rate that is not regulated has spiked up this year



Source: China bill, Use-trust, HSBC

3. Banks' provisioning and capital levels have been overstated

Most of the off-balance sheet items require no provisions and a limited capital cushion. With banks assuming full credit risk for the off-balance sheet items, we are concerned that banks' provision and capital levels have been overstated.

If we take into account credit-related wealth management products, bank acceptances, and letters of credit and assume a 2.5% provisioning requirement on these credits, the banking system may face a one-off RMB236bn provision shortfall. This is equal to 31% of profits of all commercial banks in 2010. We believe the reason for the limited provisions for off-balance sheet items is that they are short-term and contingent liabilities with margin deposits pledged.

In terms of capital, we believe a capital cushion for credit-related wealth management should be required. However, credit-related wealth management products are not classified as off-balance sheet items by banks, and therefore little capital has been provided for this exposure. If we assume a 50% credit risk weight, banks' capital ratio could drop by 20bp to 9.7% (Figure 41 and 42). To put this into perspective, if banks' current capital ratios remain unchanged, the potential capital shortfall due to the incorporation of credit-related wealth management products could reach RMB114bn. If a 100% risk weight is assumed, the capital shortfall could reach RMB227bn.

Fig. 41: Potential impact on capital if RMB2,295bn credit-related wealth management products are incorporated on balance sheet

RMBbn	1H11	50% risk weight	100% risk weight
Tier-1 capital	4,615	4,615	4,615
On B/S RWA	40,527	40,527	40,527
Off B/S RWA	6,056	7,203	8,351
Total RWA	46,612	47,759	48,907
Tier-1 ratio	9.9%	9.7%	9.4%
Additional capital required to keep 9.9% tier-1 ratio		114	227

Source: CBRC, HSBC
(RWA: risk weighted assets)

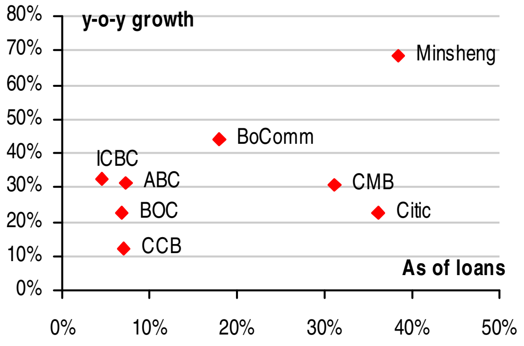
Fig. 42: Risk weight for off-balance sheet credit items under current China capital standard

Off-balance sheet credit items	Risk weight
Bank acceptance & liability guarantee	100%
Other guarantee	50%
Letter of credit	20%
<1 yr loan commitment or cancellable commitment	0%
Other commitment	50%
Asset sale and purchase agreement whose credit risk remains at banks	100%

Source: CBRC

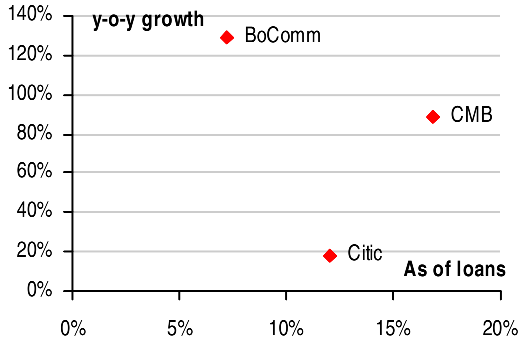
Size and growth of individual banks' off-balance sheet credit

Fig. 43: Bank acceptances (as of 1H11)



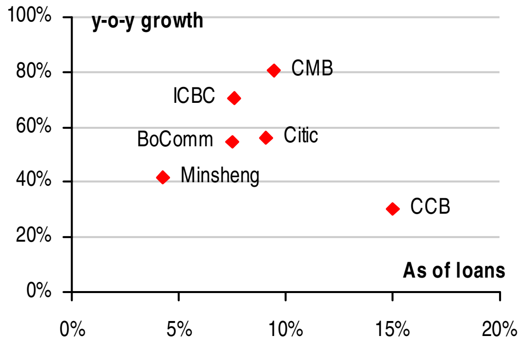
Source: Company reports, HSBC

Fig. 44: Wealth management products (as of 1H11)



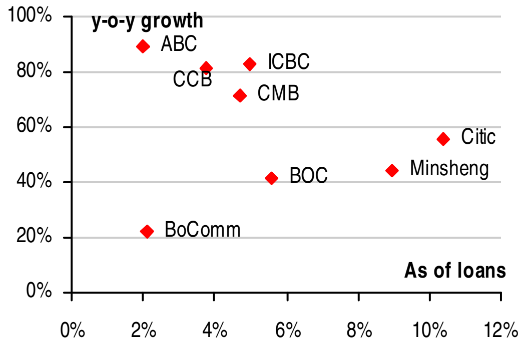
Source: Company reports, HSBC. Only includes those that disclose the number

Fig. 45: Entrusted loans (as of 1H11)



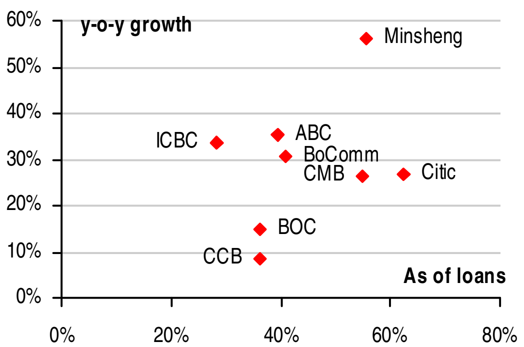
Source: Company reports, HSBC

Fig. 46: Letters of credit (as of 1H11)



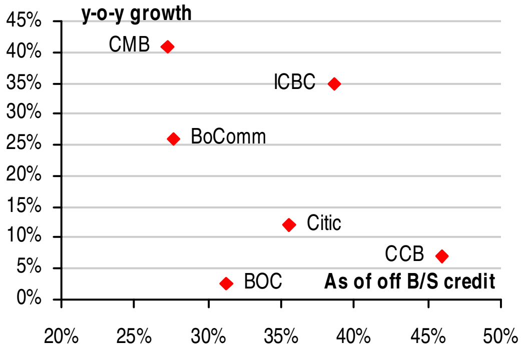
Source: Company reports, HSBC

Fig. 47: Off-balance sheet credit commitments (as of 1H11)



Source: Company reports, HSBC

Fig. 48: Risk weighted off-balance sheet credit commitments (as of 1H11)



Source: Company reports, HSBC

Bank acceptances

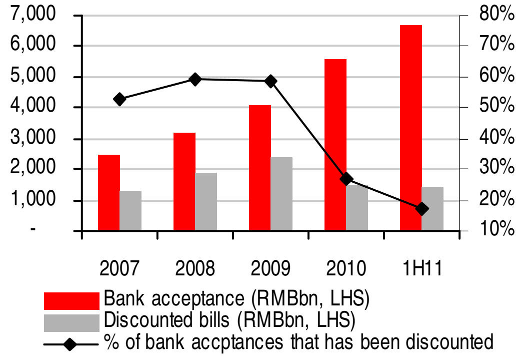
- New undiscounted bank acceptances reached 36% of new bank loans in 1H11 compared with 3% in 2008.
- Fewer bank acceptances are discounted as banks choose to move discounted bills away from balance sheets.
- Margin deposits pledged for bank acceptances have become a significant source of new deposits.

Undiscounted bank acceptances, an increasingly significant channel of off-balance sheet credit, reached RMB5.2trn in terms of the amount outstanding at end-1H11, or around 9% of total loans. New undiscounted bank acceptances reached 36% of new bank loans in 1H11, compared with 3% in 2008. Bank acceptances and related margin deposits have been used increasingly by banks to keep credit off balance sheet and increase deposits on the balance sheet.

Bank acceptances are trade payments guaranteed by banks. After pledging 30-50% margin deposits, corporates can use bank acceptances to pay for goods and services they have purchased or to settle utility and tax bills. When a bank acceptance is issued, it is recorded as an off-balance sheet item whereas when a bank acceptance is discounted, it is treated as part of total loans and classified under discounted bills on the balance sheet.

As bank acceptances and discounted bills are so closely correlated, their outstanding balances should move in line with each other under normal circumstances. As shown in Figure 49, prior to 2010, around 60% of bank acceptances were discounted and therefore transferred onto the balance sheet within the banking system. However, since 2010, the gap between outstanding bank acceptances and discounted bills has widened, and less than 20% of bank acceptances have been discounted.

Fig. 49: The gap between bank acceptances and discounted bills is getting larger



Source: PBOC, HSBC

1. Moving credit off the balance sheet

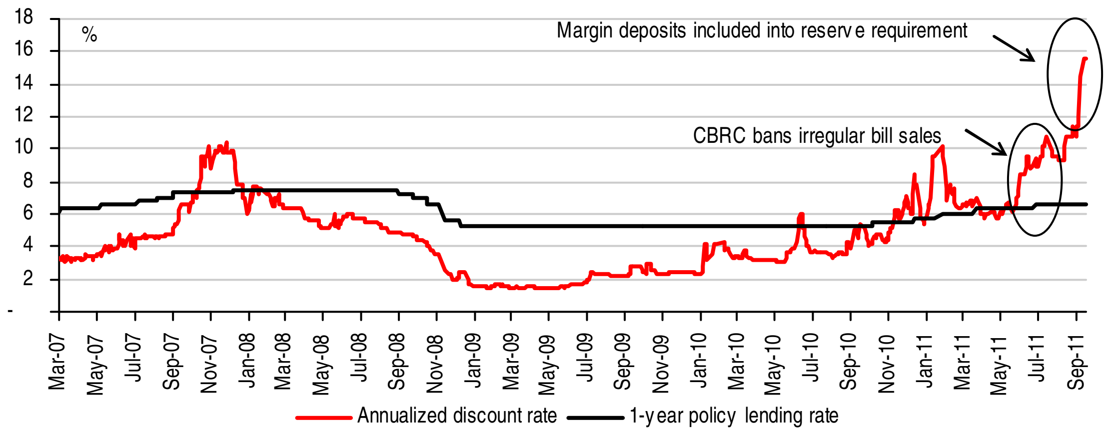
One key reason for the widening gap is that discounted bills have been sold to credit cooperatives or wealth management products whereas, previously, they may have been booked on banks' balance sheets. This systematically reduces the on-balance sheet credit of banks and collectively allows banks to meet the regulatory loan-to-deposit ratio.

(a) Sold to credit cooperatives

With tight credit quotas and liquidity conditions since 2010, some banks tend to sell discounted bills to credit cooperatives that are still using old accounting standards before period-end, when banks need to meet regulatory credit and liquidity requirements. After period-end, banks would buy back the discounted bills they have sold. For the credit cooperatives that are using old accounting standards, they do not need to book this type of transaction on the balance sheet. As a result, the amount of discounted bills in the banking system has been reduced. In late June 2011, the CBRC began to ban credit co-ops from using accounting loopholes to help banks move credit off the balance sheet. This can partly explain why: 1) the inter-bank rate and the discount rate suddenly jumped to an unprecedented level (Figure 50); and 2) new discounted bills began to surge in July (Figure 51). Selling assets to create balance sheet

HSBC

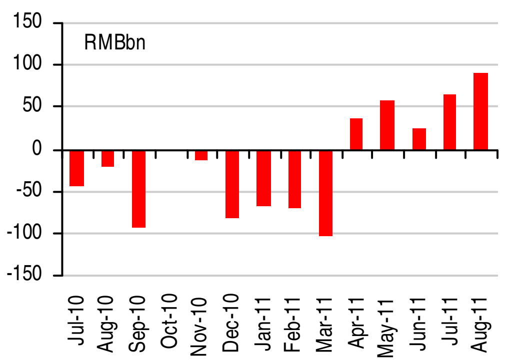
Fig. 50: Inter-bank lending and discount rate soared after CBRC banned irregular bill transactions between banks and credit co-ops



Source: China bill Bloomberg, HSBC

liquidity is not uncommon in the global banking space. However, in China's case, due to the discrepancy in accounting treatment, the aggregate data understates the credit amount in the banking system.

Fig. 51: Monthly change of on-balance sheet discounted bills



Source: PBOC, HSBC

(b) Sold to wealth management products

Discounted bills have also been sold to wealth management products and have been moved from banks' balance sheets. After the CBRC banned banks from directly buying their own discounted bills, banks opted to: 1) buy each other's discounted bills; and 2) purchase the discounted bills that had been put into their investment asset pool for wealth management products.

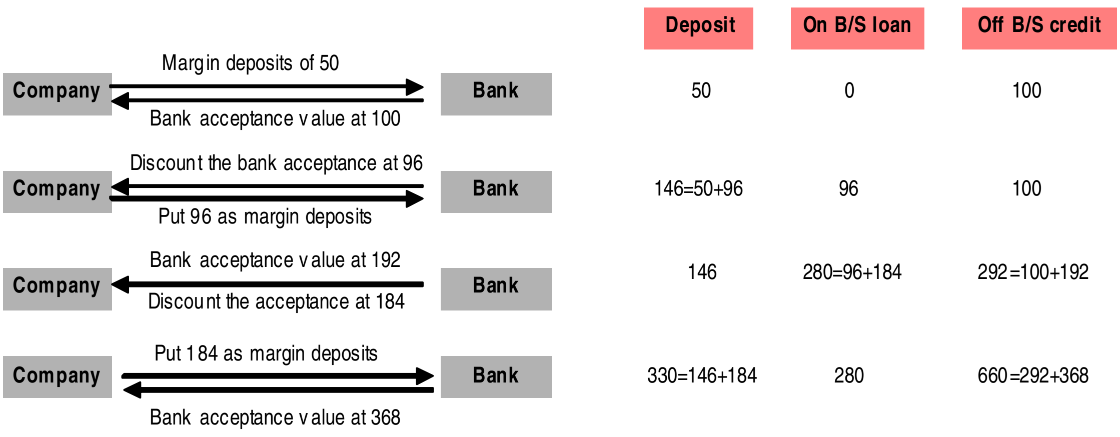
2. Increasing deposits on the balance sheet

Bank acceptances have also been used by banks to increase margin deposits. As mentioned previously, margin deposits accounted for 13% of new deposits from January to August, and 28% for small- and medium-size banks. Corporates are required to pledge margin deposits equal to 30-50% value of the bank acceptances for which they apply. With the urge to enlarge their deposit base, banks have cooperated with corporates to conduct repeated transactions to inflate deposits.

As shown in Figure 52, after a company puts down RMB50 as a margin deposit to get RMB100 in bank acceptances a bank can immediately discount the acceptance at RMB96. The company then uses the RMB96 as a margin deposit to get another bank acceptance at RMB192, which can again be used as a margin deposit.

After a few rounds, the company gets RMB368 credit with RMB50 real deposits, while the bank records RMB330 deposits on the balance sheet, despite the gap between on- and off-balance sheet items rising to RMB380 from RMB100.

Fig. 52: Bank acceptances have been used to increase on-balance sheet margin deposits



Source: HSBC

We are not sure about the scale of the increase in margin deposits through similar activities described above. For the banking sector as a whole, margin deposits account for 6% of total deposits at end-August 2011. Small- and medium-sized banks are more active in this area, with margin deposits accounting for 14% of the deposit base; their new margin deposits represent 40% of new deposits in August this year compared with 22% in March.

To curb this activity, on 26 August 2011 the PBOC issued a notice to include margin deposits tied to bank acceptances, letters of credit and letters of guarantee in computing the deposit required reserve (see *ACID, 29 August 2011)* This will increase banks' cost to increase deposits through off-balance activities, and will likely reduce such activities.

Wealth management products

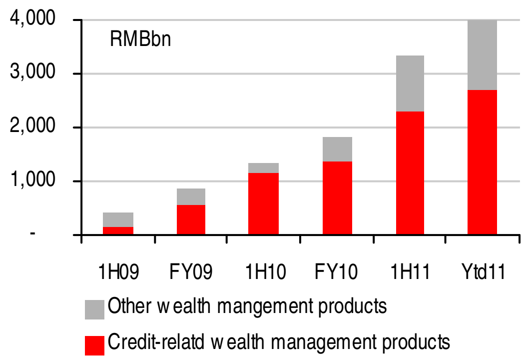
- Outstanding credit-related wealth management products reached RMB2.7trn as of mid-September, 5% of banks' loan book.
- To circumvent regulations, banks have developed more creative ways to move credit off the balance sheet.
- Banks will likely be exposed to the risk of asset quality deterioration and maturity mismatch from these products, despite the fact they are not classified as contingent liabilities by banks.

Wealth management products (WMPs), as defined by the PBOC, are investment management plans sold by banks. The underlying assets invested by WMPs can include loans, bills, bonds, equities, commodities, insurance deposits, bank deposits, works of art, or even expensive tea. The scope is far wider than the trust loans that have been widely discussed.

Based on information collected from 15,291 products announced since beginning of 2009, we estimate that the outstanding amount of bank WMPs is RMB4.0trn as of mid-September, of which credit-related WMPs account for RMB2.7trn (Figure 53), 5% of bank loans outstanding. This is more than double the level in 2010.

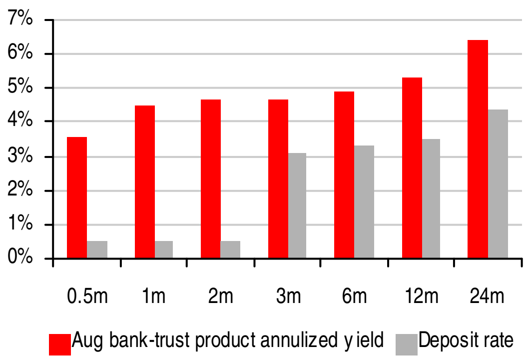
Newly issued bank wealth management products totalled RMB7trn as of 1H11 and RMB11.8trn for the year to September 2011, compared with RMB4.8trn for FY10 (Figure 59). WMPs are attractive to depositors because they offer higher yields than deposits and an implicit guarantee from banks (Figure 54). Banks have competed

Fig. 53: Estimated outstanding amount of bank wealth management products



Source: Wind, HSBC

Fig. 54: A proxy of yield offered by wealth management products



Source: Use-trust, HSBC

fiercely in this market in order to: 1) gain deposits and fee income; and 2) move credit off balance sheet, as WMPs can purchase banks' credit assets, taking them off banks' balance sheets.

We divide WMPs into three stages of development since 2009 (see Figures 55-60). Since 2010, regulators have began to: 1) ban banks from buying their own credit assets with proceeds from WMPs; and 2) require banks to put back on to their balance sheets the credit assets sold to trust companies through single-investor trust products.

To circumvent the regulations, banks have turned to: 1) investing in collective-investor trust products; 2) bank-to-bank cooperation, i.e. buying each other's credit assets; 3) managing their own asset pool; and 4) transferring assets to trust companies through a third party. This explains why new trust loans recorded by the PBOC's TSF declined dramatically to RMB91bn in 1H11 from RMB602bn in 1H10, while newly increased credit-related WMPs in our database rose by 59% during the same period (Figure 53).

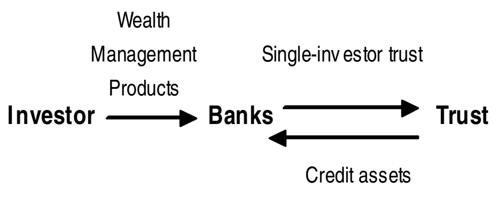
Based on our visit to local bank branches in China, we learned that some bank wealth management products offered 8-9% yield with a lock-in period of 18 months. In turn, these products are being used to invest in bonds issued by a provincial toll road company (a local government financing vehicle) or bonds issued by the bank itself.

As credit-related WMPs are not even classified as contingent liabilities by banks, the provisions and capital provided for the exposure have been minimal. However, we believe WMPs will expose banks to risks of asset quality deterioration and maturity mismatch. Even though WMPs' term sheets show that investors need to bear losses when their investments fail to perform, given the recent resolution process for Lehman minibonds experienced by Hong Kong banks, we expect mainland banks, especially the big banks, to assume losses to maintain their reputations and client bases.

In addition, as shown in Figure 61, the average maturity of WMPs is getting shorter and shorter. However, the majority of the asset pool has been increasingly invested in products where maturity is longer and liquidity poorer, though they offer higher yield. We are concerned that, once cash flows stop coming into WMPs, banks will have to utilise on-balance sheet resources to fund off-balance sheet assets, further tightening the already tough liquidity conditions faced by China banks.

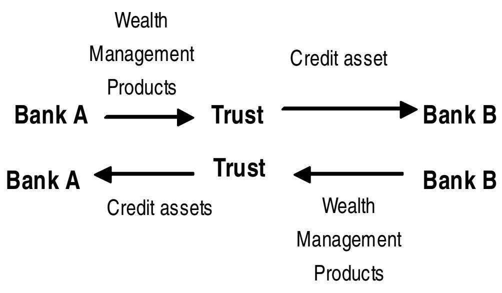
Development of bank wealth management products

Fig. 55: Stage 1, simple bank-trust cooperation



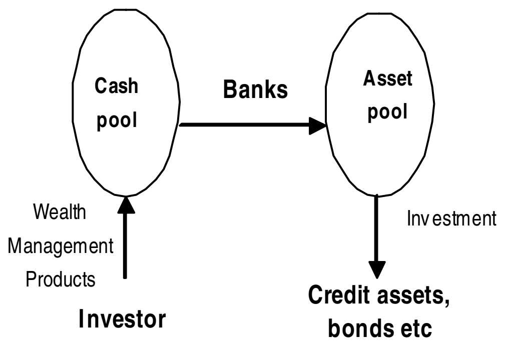
Source: HSBC

Fig. 56: Stage 2, bank-bank cooperation



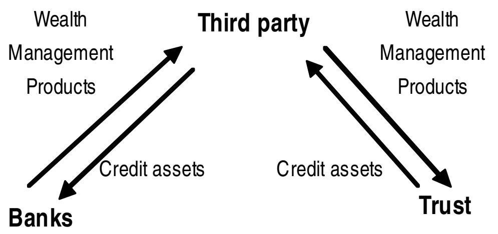
Source: HSBC

Fig. 57: Stage 2, banks manage own asset pool



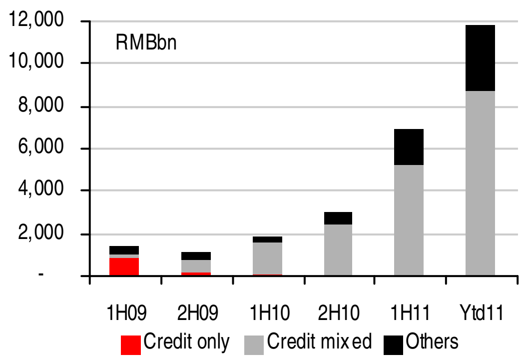
Source: HSBC

Fig. 58: Stage 3, third party involved to move credit assets



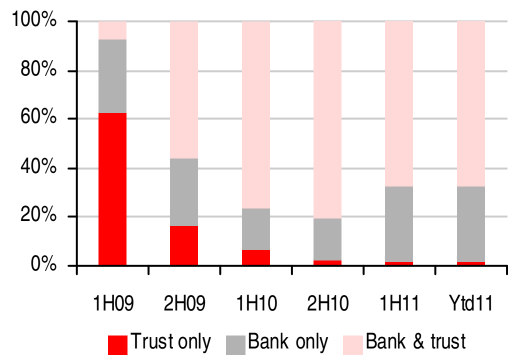
Source: HSBC

Fig. 59: Newly issued bank wealth management products by underlying assets



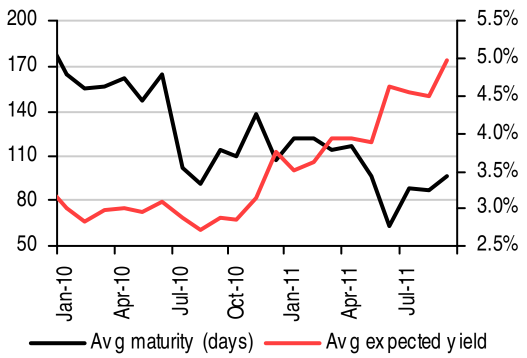
Source: Wind, HSBC

Fig. 60: Newly issued bank wealth management products by investment trustee



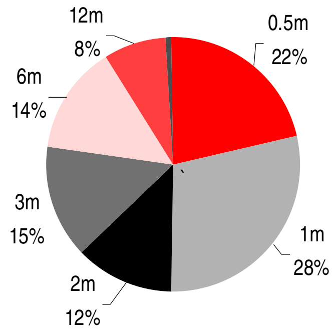
Source: Wind, HSBC

Fig. 61: Bank-trust product avg maturity and expected yield



Source: Use-trust, HSBC

Fig. 62: Newly issued bank trust product by maturity (year to Sep 2011)



Source: Use-trust, HSBC

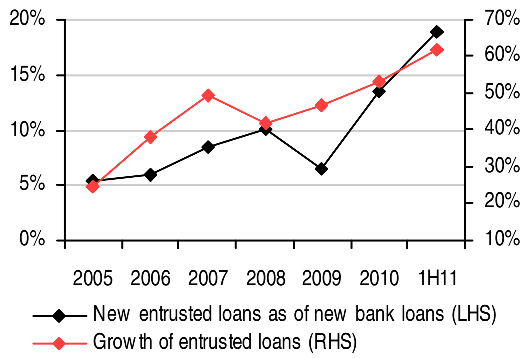
Entrusted loans

- Entrusted loans grew 62% y-o-y and accounted for 7% of loans.
- Government-related entities are the major lenders, while property-related companies are the major borrowers.
- Banks may be exposed to risk of asset quality deterioration of entrusted loans.

Entrusted loans are essentially inter-corporate lending in China, with lenders setting all the terms with targeted borrowers (including size, maturity, yield, and collateral). Banks therefore act as intermediaries and trustees to legalise the process and charge 20-30bp as fee income. As lenders are supposed to absorb losses if the loans fail to perform, banks do not recognise this lending as contingent liabilities or provide provisions or capital.

Outstanding entrusted loans are estimated to be RMB4trn in 1H11, which represents growth of 62% y-o-y and around 7% of outstanding bank loans. New entrusted loans in 1H11 are around 19% of new bank loans, compared with 6% in 2009 (Figure 63). As entrusted loans are not even classified as off-balance sheet items by banks, public information and bank disclosure is limited.

Fig. 63: Growth and share of entrusted loans

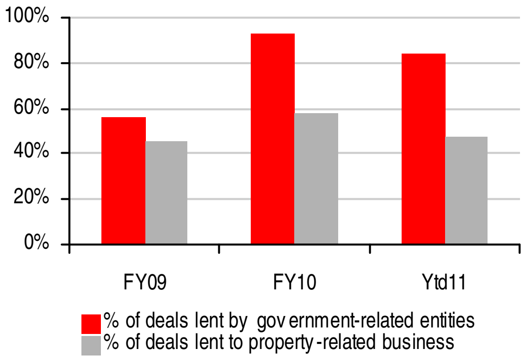


Source: PBOC, HSBC

We have collected 141 entrusted loan deals announced by listed companies since 2009 with a cumulative amount of RMB23bn. In the following analysis, we focus on entrusted loans to non-related companies, which amount to RMB4bn. Despite the narrow sample base, we believe our analysis provides some colour for investors on the underlying business and potential risk from this channel, which have not been appreciated so far.

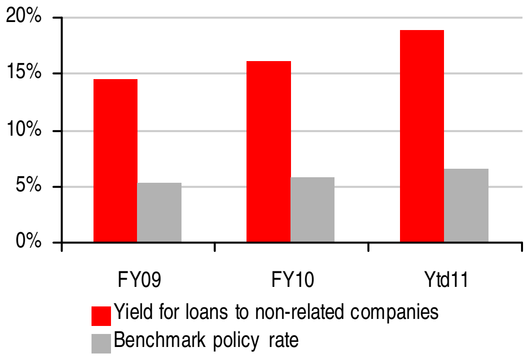
In our sample, we observed that around 80-90% of entrusted loan lenders are government-related entities, and 50% of loans have gone to borrowers with property-related business or for property development business (Figure 64). The interest rates charged on the one-year entrusted loans to non-related parties have climbed from 14.6% in 2009, to 16.1% in 2010 and 19.0% in 1H11 (Figure 65).

Fig. 64: Government-related lenders provided credit to property-related borrowers



Source: Shanghai Stock Exchange, HSBC

Fig. 65: Entrusted loan rate is 3x higher than policy rate



Source: HSBC

Case study

Sunny Loan Top Co (香溢融通控股集团股份有限公司, stock code 600830 CH) is a company classified in the materials industry and partly owned by a state-owned tobacco company. However, the interest income from its lending businesses (RMB39bn) accounted for around 40% of its total operating income in 1H11.

The outstanding loans entrusted by this company have reached RMB1.1trn, which is around 50% of its total assets and 67% of total equity. The borrowers are mainly property developers, construction and trade companies. The yield it has charged has risen from 18% in 2010 to 21% in 1H11. The company has also provided an asset quality analysis of its loan book. Interestingly, in contrast to banks, the non-performing loan ratio reported by this market lender rose from 12.5% at end-FY10 to 13.0% in 1H11.

Banks' risk exposure to entrusted loans

Even though banks are not obliged to absorb losses resulting from entrusted loans, we believe they are still exposed to the risk of asset quality deterioration for the following reasons:

1. Ultimate lenders are not just corporates

Banks sometimes also act as ultimate lenders in this area. When banks have committed credit to one company, but the exposure has reached its limit, they may ask other companies to redirect loans. Banks have also used the funding from wealth management products to extend credit to companies, in the guise of entrusted loans, and hence keep the credit off the balance sheet.

2. Exposure to property sector is high

As shown in our sample, around 50% of entrusted loans provided to non-related companies have been lent to property-related business. The problem is that some of these companies that have taken out loans are classified as medical, consumers and telecom companies.

3. Credit profile of bank loan borrowers could be weakened

The borrowing rate for lending to non-related companies reached around 20%, or 3x higher than benchmark lending rate, which is not sustainable in the medium term. Should there be a further credit squeeze or liquidity crunch, the entrusted loan borrowers could face difficulty with repayment, in turn weakening the credit profiles of entrusted loan lenders and, in the end, impairing the asset quality of banks' loan book.

Letters of credit (L/Cs)

- Despite its small size (5% of loans), the L/C credit channel grew 62% y-o-y in 1H11, outpacing import growth of only 19%.
- Letters of credit have been increasingly used for borrowing from Hong Kong banks and commodity financing.
- This is a credit channel that has not been included in the PBOC's total social financing data.

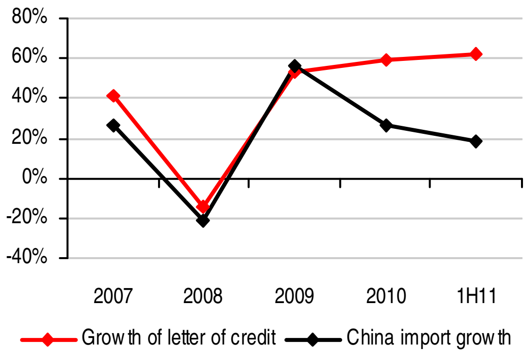
Letters of credit are bank guarantees to make payments for goods purchased overseas at the request of the buyer, and are widely used for international trade settlement. Since 2010, this credit channel has increasingly been used by corporates for borrowing, particularly from Hong Kong banks and for commodity financing.

The outstanding amount of L/Cs issued by the eight largest H-share China banks amounted to RMB1.4trn at end-1H11, or around 5% of loans from these banks. Newly issued L/Cs in 1H11 accounted for 12% of new loans from the eight banks.

Note that L/Cs have not been incorporated into the PBOC's total social financing data. Neither is there data for the sector as a whole. If we assume that L/Cs issued by the eight banks account for 70% of total L/Cs issued by the banking sector, the outstanding L/C amount could have reached RMB2trn in 1H11, or around 4% of loans.

Despite its relatively small size, the L/C credit channel grew 62% y-o-y in 1H11. By comparison, the growth of imports in China registered only 19% (Figure 66). This unusually high growth may be partly attributable to domestic guarantees for overseas financing, very popular since 2010.

Fig. 66: Growth of L/C outpaced trade growth



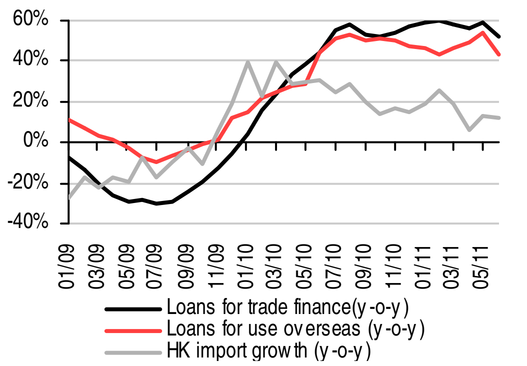
Source: Company reports, HSBC, CEIC

Essentially, mainland Chinese companies can pledge margin deposits or certain type of assets held with a mainland bank to obtain L/Cs or guarantees. Offshore subsidiaries of these mainland companies may use a L/C or guarantee as collateral to arrange for loans from banks overseas, mainly Hong Kong banks, at much lower rates. This is shown by the fact that Hong Kong banks' lending for trade finance soared 52% y-o-y in 1H11, while loans for overseas businesses (mostly mainland) increased 43% (Figure 67).

Therefore, Hong Kong banks' non-bank mainland exposure rose 63% y-o-y, to HKD2,034bn (RMB1,661bn) at end-June 2011, accounting for 13% of Hong Kong banks' total assets (Figure 68). Excluding exposure booked by Hong Kong banks' mainland subsidiaries, we estimate that net lending from Hong Kong banks to mainland corporates could reach RMB781bn by end-June 2011.

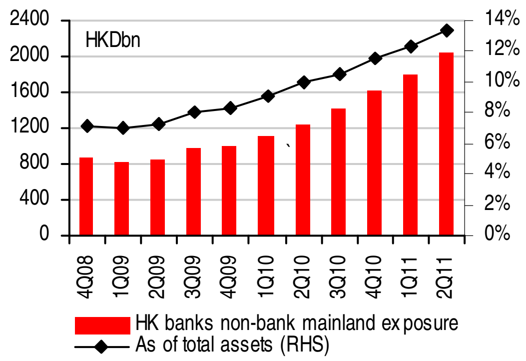
L/Cs have also been used to obtain financing through importing commodities, which range from copper to beans. As shown in Figure 69, a copper importer can apply for a six-month USD L/C and import copper. After disposing of the copper, the importer can either use the cash for itself or lend it. When the L/C matures, the importer converts RMB to USD to repay it. During the six months, instead of borrowing from banks at double-digit rates, commodity importers can obtain financing with additional gains, thanks

Fig. 67: Growth of HK banks' loans for trade finance and for use overseas



Source: HKMA, HSBC

Fig. 68: HK banks non-bank mainland exposure (incl exposure booked by HK banks' subsidiaries in China)



Source: HKMA, HSBC

to commodity price and renminbi appreciation. However, we do not think this type of financing is significant in scale.

To put this into perspective, China's copper inventories stood at 1.98m metric tonnes at end-2010, according to the China Non-Ferrous Metals Industry Association (*Financial Times,* 13 October 2011). Even if we assume all the inventories were used for copper financing, the outstanding amount is only around USD19bn (RMB129bn).

Informal lending

- Nationwide informal lending is estimated to be RMB2.4trn at end-2010, and could reach RMB3.5trn at end-1H11.
- Disruptions in the Wenzhou informal lending market have raised the risk of financial instability.
- Bank loans account for 30% of funding and could be asked to step in on behalf of government to help out borrowers.

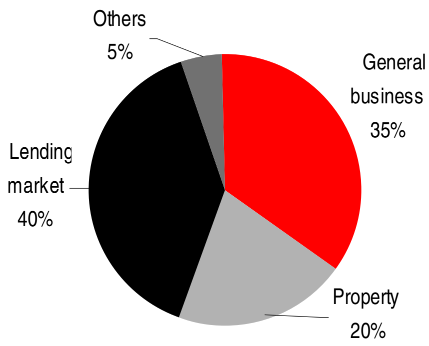
Informal lending is direct financing between individuals or groups of individuals and corporates, with a maturity usually of less than one year. Major participants include individuals,

Fig. 69: How importing copper can facilitate financing and arbitrage

		Cash flow	Profits
04 Jan 2011	Apply for 6mth USD L/C (USD9,754) to import 1-ton copper with 50% magin deposits	-32,237 = -9,754 * 6.61 * 50%	
04 Feb 2011	Copper arrived & sold at USD9,986	65,808 = 9,986*6.59	1,334 = 65,808 - (9,754*6.61)
04 Jul 2011	Repay 6mth USD L/C (USD9,754)	-30,774 =- (9,754 * 6.46 - 32,237)	1,463 = 9,754 * (6.61-6.46)
			Total gains: 2,797
Feb-Jul 2011	If the importer lens the RMB65,808 out in informal lending market at 20% annulized yeild for 5mth	5,484 = 65,808 * 20% *5/12	5,484 = 65,808 * 20% *5/12

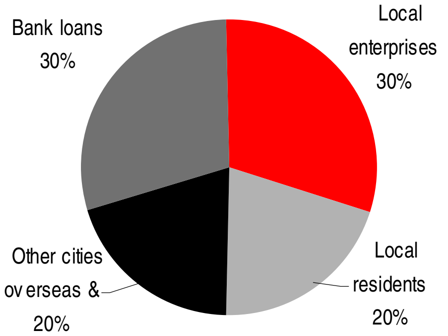
Source: HSBC

Fig. 70: Wenzhou informal lending market, by use of loan



Source: PBOC, HSBC

Fig. 71: Sources of funding of Wenzhou informal lending market



Source: PBOC, HSBC

credit guarantee companies, financial leasing companies, pawn shops, and banks. It was most active in South China and has spread to North and West China.

Under tight credit conditions this year, the scale of informal lending and interest rates charged has accelerated to an unprecedented level.

Informal lending is estimated to be around RMB2.4trn as of end-2010, or 5% of outstanding RMB loans in the banking system, according to a PBOC survey conducted nationwide. It could reach RMB3.5trn at end-1H11 (7% of bank loans), if we assume this market grew at the same pace as small loan companies (46% h-o-h).

Disruptions in Wenzhou informal lending market

The provincial government of Zhejiang has applied for RMB60bn (USD9.4bn) in loans from the PBOC to stabilise the financial system in Wenzhou, according to a local news agency, 21st Century Business. Wenzhou is the third-largest city in Zhejiang province, which is viewed as a centre for SMEs and informal lending in China.

Wenzhou's municipal government expects to need another RMB100bn (USD15.6bn) from banks to resolve the credit crisis in the city's informal lending market, according to 21st Century, citing a bank official who attended the meeting held by the local government. However, a local CBRC official subsequently denied knowledge of these events, according to the 11 October 2011 21th Century Business newspaper.

To put this into perspective, the outstanding bank loans in Wenzhou are around RMB600bn, and the size of the informal lending market in the city is estimated at RMB110bn (or 18% of the bank loan market), according to a survey done by the PBOC Wenzhou branch. Tensions in the Wenzhou informal lending market escalated recently as an increasing number of borrowers or prominent SME entrepreneurs absconded to escape debt repayment.

Borrowers in Wenzhou's informal lending market have faced increasing financing difficulty since start of this year due to: 1) tight credit from banks; 2) record-high interest rates in the informal lending market (24-100% annualized rate or even higher); and 3) squeezed profit margins resulting from higher input costs. Cash flows of many SMEs have been disrupted and the chain effect and linkages of the SMEs within the economy have escalated the problem. The crisis resulted in a visit by Premier Wen, Zhou Xiaochuan (the Central Bank Governor) and Xie Xuren (Finance Minister) to Wenzhou on 4 October 2011.

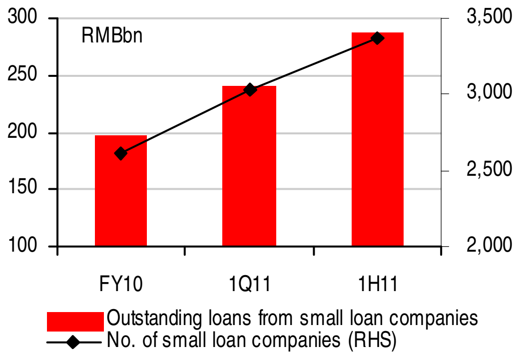
While Premier Wen asked the local government to resolve the crisis within a month, there is limited visibility about how this situation can be contained. Although the problem is regional in nature, our concern is that disruptions in informal lending and the subsequent impact on the real economy could spread.

Banks' exposure

We would also point out that Wenzhou banks account for about 30% of funding source for the city's informal lending, according to the survey done by the PBOC Wenzhou branch (Figure 71). Hence, this situation could hurt banks via credit losses. It is also possible that banks will need to step in on behalf of the government to help out borrowers.

The Wenzhou informal lending crisis is worth watching carefully as it has wider implications for the informal lending markets nationwide and poses a risk to the banking system, in our view.

Fig. 72: Lending from small loan companies grew 46% h-o-h



Source: PBOC, HSBC

HSBC

Credit quality: revelations from the bond market

- Corporate bond data reveal weaknesses in credit underwriting standards of China's banks
- Loans have been extended to weaker companies and property exposure is larger than reported
- The timeline to resolve losses at LGFVs is more urgent now due to refinancing risks and social housing initiatives

Corporate bond issuers have borrowed c27% of all loans or 34% of total corporate loans in China, based on our conservative estimates. Banks also have additional direct exposure to corporate bonds through direct investments, guarantees or underwriting obligations. Thus, the information that we have extracted from the corporate bond issuers sheds more light on the underlying risks facing China banks.

We share some concerns revealed by the bond data: 1) corporates' external guarantees understate their liability levels; 2) companies' cross guarantees increase risk concentration; 3) bank credit has been extended to weaker companies; and 4) banks' property exposure is larger than reported.

Local government financing vehicles (LGFVs) are amongst the bond issuers. We identify that around 29% of LGFV loans have no operating cash flow to cover interest expenses and another 4% are less than half covered. If this 33% of LGFV loans is treated as NPLs, the banking system NPL ratio would be pushed up to 8.3% from 2.4% as of end-2010, and loan loss coverage would be lowered to 31% from 105%.

The timeline to resolve losses at LGFVs is more urgent now as LGFV bonds start to mature in 2013 and the social housing programme requires funding from local governments. They are expected to contribute cRMB400bn out of a total social housing budget of RMB1.3trn this year.

Bond market revelations

- Corporates' external guarantees understate liability levels.
- Cross guarantees increase concentration risk.
- Loans have been extended to weaker companies
- Property exposure is larger than reported.

Corporate bonds in China

The corporate bond market plays an increasingly important role in financing China's economy. Although outstanding corporate bonds as at April account for only 7% of outstanding loans in the banking sector, the corporate bond market represents 12% of new credit available to the economy (Figures 73 and 74). At the end of May

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2011 there were 723 corporate bond issuers in the inter-bank long-term bond market with outstanding bond issues amounting to RMB3.1trn (USD475bn).

Setting aside the financing issues, it is the range of other information we can extract from the corporate bond issuers allows us to shed more light on the underlying risks in China's banks.

Link to the banking sector

There are three points to note about the link between corporate bond issuers and the banks. First, bond issuers are required to disclose the amount they have borrowed from the banking system. Second, the bond issuers are required to file audited annual financial reports with China Central Depository & Clearing. This provides us with a first hand view of the customer characteristics and credit profile of China's banking sector. Third, banks have direct exposure to corporate bonds through their direct investments and their guarantees or underwriting obligations.

Bank loans extended to bond issuers

Based on the disclosures, we know that the corporate bond issuers have borrowed a total of RMB11.7trn (USD1.8trn) from banks in China at the end of 2009, which represents 27% of all loans or 34% of corporate loans in China's banking system in that year. Not all bond issuers updated their records in 2010 (only 499 issuers have updated records), but we expect that the banking system's exposure to these bond issuers to be in the same order of magnitude in 2010.

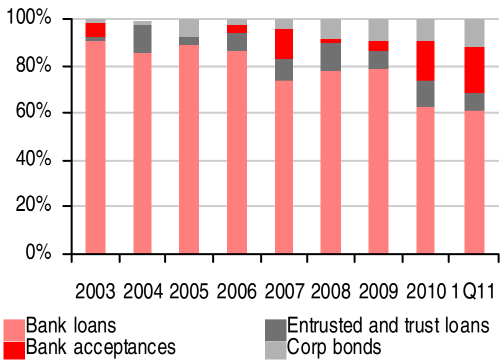
Asset quality based on bond issuer data

Given that we have the audited financial statements of the bond issuers, we can build a picture of the corporate asset quality profile of China's banking sector. We caution that there are limits to the availability and quality of information as the financial statements, which are audited by local accounting firms, can range from 11 to over 100 pages.

We would point out that in all likelihood the corporate bond issuers will be larger and of better credit quality than the average borrower as companies need to prove a 3-year track record of profitability or outstanding bonds/net asset ratio of below 40% in order to be eligible to issue bonds in China.

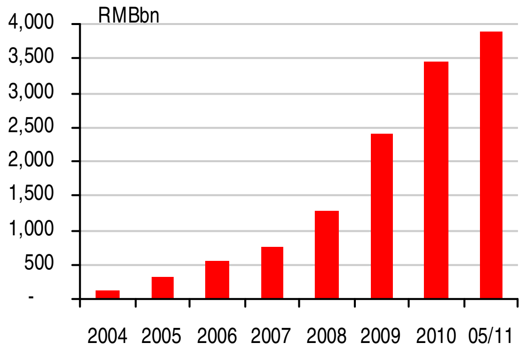
Bond issuers include the local governments through LGFVs. The corporate bond data also allows us to assess the credit quality of LGFVs that have issued bonds, giving us a better sense of the underlying risks. Note banks in China have come under greater scrutiny over the past year because of their adverse exposure to LGFVs.

Fig. 73: Composition of new credit in China



Source: PBOC, HSBC

Fig. 74: Outstanding domestic corporate bonds*



* *including short-term commercial paper*
Source: China bond, HSBC

Fig. 76: Credit metrics of largest five corporate bond issuers (RMBm, %)

	Bonds outstanding	As of total bonds	Loans outstanding	Return on capital	EBITDA interest coverage	Free cash flow / net debt	Net debt / EBITDA	Net debt / capital
Ministry of Railways	451,000	15%	804,773	6.4%	8.6x	-65%	410%	39%
State Grid	229,500	7%	363,970	5.8%	8,818x	-3%	224%	39%
CNPC	161,000	5%	95,337	12.0%	n.a	-78%	38%	4%
Sinopec	55,000	2%	88,193	17.5%	22.7x	30%	111%	29%
Shenhua Group	43,000	1%	76,949	18.5%	14.5x	86%	27%	5%

CNPC: China National Petroleum Corporation
Source: Wind, HSBC.

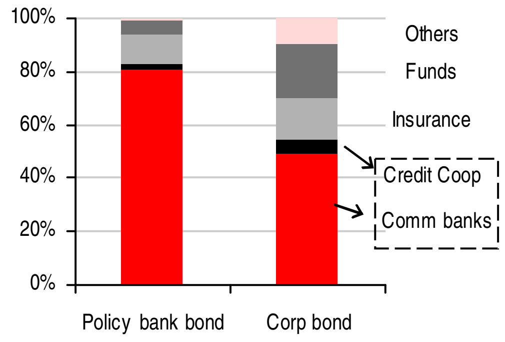
Direct exposure to the corporate bond market

Firstly, banks are the major holders and underwriters of domestic corporate bonds. As of end-May 2011, around 54% of corporate bonds outstanding in the inter-bank bond market were held by banks (Figure75).

As the underwriters of bond issues, banks may also be held responsible for any lack of proper due diligence and be liable to compensate investors where there is potential default concern, as happened in FuXi incident in 2007[8]. When there were concerns about a default by FuXi, the commercial paper issued by the company was traded at only 60% of face value and liquidity dried up quickly. However, the incident was resolved by the primary underwriter, who was held responsible for the lack of due diligence and had to fully compensate investors.

By end-2007 banks were even required to act as guarantors for the bonds issued by companies under the supervision of National Development and Reform Commission (NDRC), a strategy planning body reporting to the State Council. For 1,322 corporate bonds we have been tracking (RMB3.1trn), around 60% of the outstanding bonds (cRMB1.8trn or USD277bn) are either guaranteed or underwritten by domestic banks.

Fig. 75: Investor base for bonds issued by policy banks and corporates



Source: China bond, HSBC

Risks revealed by bond data

Here we share several underappreciated concerns regarding borrowers' credit quality based on hard data from corporate bond issuing documents.

1. Credit quality of top bond issuers are of good quality

Bonds from the largest five issuers accounted for 30% of total outstanding long-term corporate bonds traded in the inter-bank market. The largest issuer, Ministry of Railways, accounts for 15% of total bonds outstanding (Figure76). The largest five issuers, however, only borrowed RMB1.4trn (USD220bn) directly from the banks, which represented only 4% of corporate loans. All the five issuers are state-owned and have relatively strong credit profiles and obviously better access to the bond markets.

8 Zhang, Zhiming, "China: Emergence of credit markets and onshore IRS", Pg.4, Asia's Bond Markets – The View May 2007

Fig. 77: Issuers where external guarantees exceed 50% of bank borrowings or equity base (RMBm, %)

Bond ticker	Issuer (Chinese)	Issuer (English)	External guarantee	Loans	As of loans	Equity	As of equity
078063.IB	陕西省高速公路建设集团公司	Shaanxi Provincial Expressway Construction Group	47,753	63,348	**75%**	10,815	**442%**
088044.IB	无锡市市政公用产业集团有限公司	Wuxi Public Utilities Industrial Group	9,032	1,206	**749%**	8,457	**107%**
1182002.IB	北京首都创业集团有限公司	Capital Group	19,522	36,250	**54%**	18,857	**104%**
1082054.IB	日照港集团有限公司	Rizhao Port Group	8,000	11,258	**71%**	10,013	**80%**
0980116.IB	无锡市交通产业集团有限公司	Wuxi Communications Industry Group	6,945	6,595	**105%**	9,107	**76%**
0982118.IB	无锡市国联发展(集团)有限公司	Wuxi Guolian Development (Group)	7,709	6,602	**117%**	13,138	**59%**

Source: China bond, Wind, HSBC

2. External guarantees understate corporate liability

As we went through the data, we found that amongst the 499 issuers who have updated results in 2010, around 41% have provided guarantees to external parties. Companies may provide external guarantees for relationship purposes or to support a company under the same city or industry regulator. In absolute terms, these external guarantees are around 61% of loans these companies have borrowed from banks, and 42% of their total equity, based on latest available information from Wind, a database providing information on China-based companies.

We have identified issuers whose external guarantees have exceeded 50% of their equity base (Figure77). If these external guarantees are considered, the liability level of corporates would be larger than the loan and bond figures suggest.

3. Cross guarantees increases risk concentration

Since 2007 banks have not been allowed to provide guarantees for corporate bond issues. To

Fig. 78: Cross-guarantee between corporate bond issuers to boost bond rating

Bond ticker	Issuer (Chinese)	Issuer (English)	Guarantor (Chinese)	Guarantor (English)	Bond issue rating	Issuer rating	Coupon
0980105.IB	常州市武进城市建设投资有限责任公司	Changzhou Wujin Infrastructure Co	常州投资集团有限公司	Changzhou Investment Group	AAA	AA	5.42
0980114.IB	常州投资集团有限公司	Changzhou Investment Group	常州市武进城市建设投资有限责任公司	Changzhou Wujin Infrastructure Co	AAA	AA	5.8
088015.IB	宁波交通投资控股有限公司	Ningbo Comm Inv Hldg	宁波城建投资控股有限公司	Ningbo Infrastructure	AA+	AA	6.9
0980104.IB	宁波城建投资控股有限公司	Ningbo Infrastructure	宁波交通投资控股有限公司	Ningbo Comm Inv Hldg.	AA+	AA	4.79
1080174.IB	上海复星高科技(集团)有限公司	Shanghai Fosun Hi-tech	南京钢铁集团有限公司	Nanjing Iron & Steel United	AA	AA	6
098016.IB	南京钢铁集团有限公司	Nanjing Iron & Steel United	上海复星高科技(集团)有限公司	Shanghai Fosun Hi-tech	AA	AA-	6.13
0980116.IB	无锡市交通产业集团有限公司	Wuxi Comm Industry Gp	江苏华西集团公司	Huaxi Industry Miniature Area	AA	AA	5.58
098082.IB	江苏华西集团公司	Huaxi Industry Miniature Area	无锡市交通产业集团有限公司	Wuxi Comm Industry Gp	AA	AA-	6.05
098063.IB	海宁市资产经营公司	Haining Asset Mgmt Co	温岭市国有资产投资集团有限公司	Wenling State-asset Invt Group	AA	AA-	5.5
0980156.IB	温岭市国有资产投资集团有限公司	Wenling State-asset Invt Group	海宁市资产经营公司	Haining Asset Mgmt	AA	AA-	7.35

Source: China bond, Wind, HSBC

boost bond ratings and reduce funding cost, some corporates guarantee each other's debt, as shown in Figure78.We have also spotted some cases where corporates guarantee each other's bank loans to enhance the "security" of the lending.

Although we are not sure how pervasive the cross guarantees are amongst borrowers, we believe this increases banks' concentration risk as the solvency of the entities is tied to each other. For reference, we found that 29 of the 499 issuers guarantee each other's bonds.

4. Credit extended to weaker companies

The return on capital here is measured by EBIT (earnings before interest and tax) divided by the sum of net debt and total equity. We use this ratio as a good indicator to show the return on both credit and equity of corporates, and compare it with the benchmark lending rate (the cost of capital for the economy), which was 5.31% for 2010. Based on our data, 37% of issuers have a return on capital lower than the 1-year benchmark lending rate, which indicates that around 36% of total loans have returns lower than the cost of funding (Figure79).

Fig. 79: Return on capital vs. benchmark lending rate

Return on capital	No. of Issuers	As of total	Loans (RMBm)	As of total
0-5%	187	37%	3,788,279	36%
5-10%	133	27%	3,832,933	37%
>10%	179	36%	2,860,660	27%
Total	499		10,481,872	

Source: China bond, Wind, HSBC

Fig. 80: Increased borrowing by weaker corporates

	Loans outstanding (RMBbn)			Loan growth (%)	
	2008	2009	2010	2009	2010
AAA-BB	3,330	3,559	3,742	7%	5%
B-CCC	2,668	3,318	4,084	24%	23%
Total	5,997	6,877	7,826	15%	14%

Source: China bond, Wind, HSBC

We also note from our ratings of corporate bond issuers, that loan growth to companies rated "B" and "CCC" was 23% y-o-y in 2010 compared to 14% for all bond issuers (Figure 80).

5. Property exposure larger than reported

According to PBOC data, loans extended to property developers accounted for 8% of total corporate loans at the end of 2010. We checked the principal businesses and activities of bond issuers and found that 122 out of the 499 issuers that have provided 2010 financial statements explicitly state property or land management as part of the main businesses; only 18 issuers are classified in the property sector (Figure 81). The other 104 issuers are classified in the other sectors (Figure 82).

We don't have the revenue breakdown of companies classified according to the major business activity, but we think that revenues from property are significant enough to suggest that the property exposure of banks' loan books is understated by companies.

Fig. 81: Issuers, bond and loans breakdown by sector

	Issuer		Bonds		Loans	
	Number	As of total	RMBm	As of total	RMBm	As of total
Utilities	52	10%	458,328	20%	2,721,683	26%
IT	4	1%	8,300	0%	9,103	0%
Materials	63	13%	205,540	9%	1,259,778	12%
Industrials	221	44%	738,140	33%	3,915,276	37%
Consumer discretionary	29	6%	74,800	3%	145,323	1%
Consumer staples	9	2%	11,500	1%	44,365	0%
Health care	5	1%	5,800	0%	11,781	0%
Energy	38	8%	478,100	21%	1,101,260	11%
Telecom	3	1%	65,000	3%	62,733	1%
Financial services	72	14%	179,600	8%	876,768	8%
Property	**18**	**4%**	**27,610**	**1%**	**153,177**	**1%**
Multi-financials	54	10%	151,990	7%	723,591	7%
Total	499		2,255,908		10,481,872	
Property-related*	**122**	**24%**	**354,060**	**16%**	**1,971,024**	**19%**

* Companies that have stated property or land management as part of the main business
Source: China bond, Wind, HSBC

Fig. 82: Examples of companies that conduct property as a major activity but are classified in other sectors

Bond ticker	Issuer (CHN)	Issuer (ENG)	Sector	Major activities
1082018.IB	徐州矿务集团有限公司	Xuzhou Mining Business Group	Energy	Coal, electricity, machinery, building materials, **property,** logistics, etc.
1080174.IB	上海复星高科技(集团)有限公司	Shanghai Fosun Hi-tech	Industrials	Pharmaceutical, **property development,** steel, mining gold jewellery retail and catering business, business services and strategic investments, etc.
098060.IB	郑州宇通集团有限公司	Zhengzhou Yutong Group	Consumer discretionary	Buses and special vehicles, engineering machinery and **property**. Major supplier of vehicle parts manufacturing for own use
1082179.IB	吉林亚泰(集团)股份有限公司	Jilin Yatai (Group)	Materials	Cement, **property**
098069.IB	厦门海沧投资集团有限公司	Xiamen Haicang Investment Gp	Financial services	Infrastructure construction, **property development**, and modern services (including port and the bonded port area business, trade, logistics, education, property management, etc.)
1080086.IB	南昌市政公用投资控股有限责任公司	Nanchang Public Investment	Utilities	Urban water supply, city gas, city buses, municipal roads and bridges and **city property**

Source: China bond, Wind, HSBC

Revisiting local government financing vehicles

- LGFV bond/loan maturities and funding needs for social housing raise the level urgency for resolving problematic LGFVs.
- 33% of LGFVs generate inadequate cash flow to service interest payments.
- Potential resolution of LGFVs in 2H11 would see NPLs and loan provisioning rise at banks.

LGFVs back in the spotlight

We think the LGFV issue is becoming more serious as: 1) maturing LGFV loans and bonds will see a surge in NPLs in 2012-13, given the poor cash flow position of LGFVs; and 2) the need for local governments to help fund the central government's important social housing programme suggests that previous mistakes will have to be dealt with before banks/bond markets participate in meeting the government's social objectives.

We believe the solution to resolving the issue lies in matching the sometimes contradictory objectives of the central government, local government, bank management and banking regulators.

Clearly, the central government's main concern is the promotion of economic growth and social stability. The social housing programme – which involves starting to build 10 million affordable housing units at an estimated cost of RMB1.3trn (USD200bn) in 2011 – is a key part of the plan. The programme is also expected to support growth as the government tightens policy on speculation-driven private sector development, which has put prices out of the reach of average urban dwellers.

In our view, resolving the LGFV problem will require the apportioning of losses between the various stakeholders – the banks, local governments and the central government. Discussions between the various parties will probably result in a formula whereby the central government will carve out some of these bad loans into an asset management company, the banks writing down some loans and the local governments providing more collateral to banks where project cash flows are deemed weak.

There is no clarity or template as to how this process will work, but we believe this issue will be resolved in 2H11, given the increasing urgency of the situation. A solution would also head-off a surge in potential NPLs at banks from maturing LGFV loans and bonds.

Together with a proposal by the CBRC, China's bank regulator, to increase risk-weights on LGFV loans, we think a financing template will be put in place that will allow local governments to execute central government development policies.

Regulators, banks and the press have given different outstanding amounts of LGFV loans and levels of risk. Based on a detailed examination of the corporate bond data, we have found 184 LGFV issuers in our data base.

Rather than relying on what the banks or regulators have stated, we use a "bottom-up" approach to get a better sense of the credit profile of LGFVs. The assessment is based on information about 184 LGFV bond issuers – one of the few available public sources regarding the operating and financial conditions of LGFVs.

What have we found out?

Based on the LGFV bond issuer data, we found that the credit quality of LGFV issuers is even weaker than the overall corporate level. Note that, as discussed earlier, 37% of the issuers have a return on capital lower than the benchmark lending rate.

Here are our key findings from our study on 184 LGFV issuers.

Fig. 83: Potential impact on banking system if 33% of LGFV loans were regarded as NPLs (as of end-2010)

RMBbn	Total loans	NPLs	Provisions	NPL ratio	Loan loss coverage*
Commercial banks	39,418	434	1,031	1.1%	238%
Policy banks and credit coops	11,504	810	269	7.0%	33%
Banking system	**50,923**	**1,244**	**1,300**	**2.4%**	**105%**
	33% LGFV	**Adj. NPLs**	**Provisions**	**Adj. NPL ratio**	**Adj. loan loss coverage**
Commercial banks	1,980	2,413	1,031	6.1%	43%
Policy banks and credit coops	1,020	1,830	269	15.9%	15%
Banking system	**3,000**	**4,243**	**1,300**	**8.3%**	**31%**

* the loan loss coverage ratio here is higher than reported by CBRC, as include provisions for all assets here rather than just loans.
Source: CBRC, HSBC

Even weaker credit fundamentals

Bear in mind that the LGFVs in our study are mainly companies in the infrastructure and transport sectors, which have been the major contributors to China's strong economic growth.

Around 68% of the LGFVs we looked at reported return on capital (ROC) lower than 5%, compared to 37% level for overall corporates. The average ROC for LGFVs is 5-5.1% in 2009-10, lower than the 1-year benchmark lending rate for the past two years. On the cash flow side, around 26% of loans extended to the 184 LGFVs have negative operating cash flow in 2010.

What is the real NPL level?

To give investors a clear picture, we are not using discounted cash flow/principal and interest adopted by regulators.

Instead, we look at the basic principal of whether cash flow from operating activities can cover the interest expense. Based on the 144 LGFVs that have detailed 2010 interest expenses, 29% of the loans have no operating cash flow to cover interest expense, and another 4% are less than half covered.

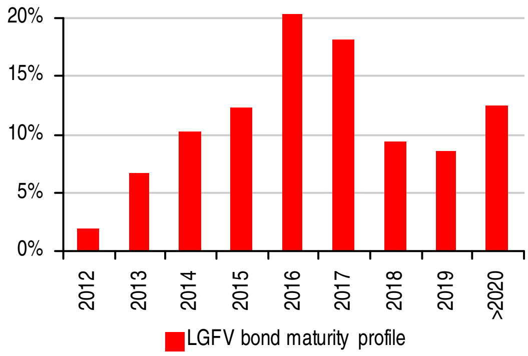
If we treat the 33% LGFV loans as NPLs, the banking system's total NPLs would more than triple to RMB4,243bn, and the NPL ratio would shoot up to 8.3% from 2.4% at end-2010 (Figure.83). The NPL provision coverage ratio would shrink from 105% to 31%.

As we argued before, the impact would be asymmetric, with policy banks bearing more losses due to their policy role to support infrastructure funding, greater exposure to LGFVs in counties and the western part of China, and relatively weaker risk management and provision levels.

When are the LGFV bonds due?

Based on our database, we plotted the maturity profile for 445 LGFV bonds (totalling RMB626bn). As shown in Figure 84, LGFV bonds start to mature in 2013 and peak in 2016. As corporates rarely disclose details on their bank loans, the information on LGFV loan maturity is very limited.

Fig. 84: LGFV bond maturity profile



Source: China bond, HSBC

What are the latest updates?

On 27 June 2011, China's National Audit Office (NAO) announced that local government debt amounted to RMB10.7trn (USD1.7trn) as at the end of 2010. This amount differs from the estimates by PBOC earlier in June, which suggested the figure was less than RMB14trn (USD2.2trn).

HSBC

We believe the differences lie in the breadth of coverage; the PBOC counted over 10,000 LGFVs while the NAOs report looked at 25,590 local governments and institutions, 45,023 public sector entities supported by local governments and 6,576 LGFVs. Total LGFVs accounted for only 46% of the RMB10.7trn debt associated with local governments (Figure 85).

Notwithstanding the differences in classification, the NAO audit provides more details on the financing activity of LGFVs (although the extent of the LGFV debt may be understated if compared to the PBOC's estimate). The NAO report highlights amongst others the nature of the local government liabilities; i.e. whether it is a repayment liability, an explicit guarantee, or a commitment to aid a company that is associated with the local government. It also provides a sector breakdown of loans to LGFVs and the maturity profile of loans (Figure 86).

From a sector perspective, our main concern lies with local governments getting involved in the real estate sector, which may be speculative. However, the sectoral classification from the NAO report does not show this breakdown. Instead the NAO report shows that 73% of local government borrowings go toward urban infrastructure, transportation and land reserve management. We think there is an element of real estate dependence within this classification of "infrastructure, transportation and land reserve management" as local governments tend to provide the infrastructure outlay (roads and utilities, for instance) in order to facilitate urbanisation and industrial development.

Fig. 85: Local government debt by entities involved in the NAO audit

By entity	Total		Local govt liable to repay		Local govt guarantee		Local govt may need to aid	
	Amount	as of total	Amount	as of total	Amount	as of total	Amount	as of total
LGFV	4,971.07	46%	3,137.53	47%	814.37	35%	1,019.17	61%
Local govts & institutions	2,497.56	23%	1,581.79	24%	915.77	39%	-	0%
Public sector entities subsidised by local govt	1,968.85	18%	1,233.14	18%	185.66	8%	550.05	33%
Others	1,280.01	12%	758.49	11%	421.18	18%	100.35	6%
Total	10,717.49		6,710.95		2,336.97		1,669.57	

Source: National Audit Office, HSBC

Fig. 86: Local government debt by sector and maturity (RMBbn)

Sector	Total		Govt liable to repay		Govt guarantee		Govt may need to aid	
	Amount	as of total	Amount	as of total	Amount	as of total	Amount)	as of total
Urban infrastructure	3,530.10	37%	2,471.12	42%	491.77	23%	567.22	37%
Transportation	2,392.45	25%	871.77	15%	1,076.96	49%	443.71	29%
Land reserve	1,020.88	11%	938.07	16%	55.70	3%	27.12	2%
Education, hospital and social housing	916.90	10%	437.47	7%	131.80	6%	347.63	22%
Others	1,752.71	18%	1,161.32	20%	424.43	19%	166.95	11%
Total	9,613.04		5,879.75		2,180.66		1,552.63	

Maturity	Total		Govt liable to repay		Govt guarantee		Govt may need to aid	
	Amount	as of total	Amount	as of total	Amount	as of total	Amount	as of total
2011	2,624.65	24%	1,868.38	28%	364.62	16%	391.64	23%
2012	1,840.25	17%	1,298.25	19%	297.21	13%	244.79	15%
2013	1,219.49	11%	799.14	12%	226.60	10%	193.76	12%
2014	994.14	9%	617.70	9%	227.33	10%	149.11	9%
2015	801.23	7%	493.47	7%	178.07	8%	129.69	8%
2016 & above	3,237.74	30%	1,634.01	24%	1,043.15	45%	560.58	34%
Total	10,717.49		6,710.95		2,336.97		1,669.57	

Source: China National Audit Office, HSBC

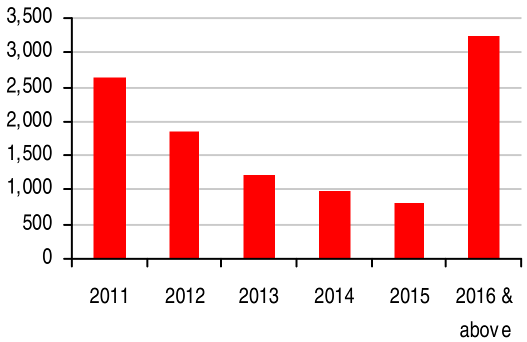
The NAO report has identified irregularities in lending in the form of fraudulently incorporated LGFVs and/or loans with invalid collateral. It also identifies local governments and public institutions that are forbidden to take on debt, but have assumed debt directly.

The NAO identified 1,033 LGFVs with outstanding debts of RMB244bn (USD38bn) that have been fraudulently incorporated as they lack the necessary capital from local governments. The NAO also identified RMB108bn (USD17bn) in loans to LGFVs that have invalid collateral. The agency also has noted that 26% of LGFVs are loss making.

The agency, however, does not take a view on the performance of the debt. However, the NAO's findings do not dispel our concerns about non-performing loans associated with LGFVs based on our study of individual borrowers from China's corporate bond market.

The maturity profile of loans of local governments also suggests that dealing with the issue of LGFVs is becoming more pressing, as 42% of local government debt is due before the end of 2012 (Figure 87).

Fig. 87: Maturity profile of local government debt



Source: NAO, HSBC

The positive aspect of the NAO's audit and the earlier PBOC estimates is that China's policymakers are now giving the LGFV problem serious attention. On 20 October 2011, the State Council approved a trial scheme to allow Shanghai, Zhejiang, Guangdong and Shenzhen to issue local government bonds. This will bring more transparency as participants in the bond market will require local governments to disclose financial data. However, we remain cautious as banks are the main underwriters and holders of these bonds.

As shown earlier in the report, banks hold more than half of corporate bonds outstanding, and around 60% of the outstanding corporate bonds are either guaranteed or underwritten by banks. Essentially, we are concerned that the credit risk will remain unchanged and stay within the banking system, with only the classification changing from "loan" to "bond holding"

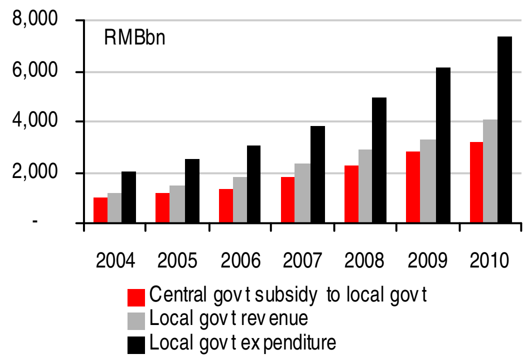
On the other hand, banks have reported that the asset quality of their LGFV loans is good. Gross NPL ratio is generally less than 1.5% and banks have stated most of the loans are covered by sufficient cash flow from underlying projects. One piece of evidence that large banks have been citing is that most of the LGFV loans they extended are used in economically developed areas where the government's financial situation is stronger. Interestingly, banks' reported LGFV exposure in 1H11 has shown a significant increase compared to end-2010 (Figure 88). This is largely due to a change to a broader classification criteria adopted by the CBRC.

Fig. 88: Selected banks' LGFV exposure

RMBbn	FY10	1H11	As of loans	NPL ratio	Provisions
ICBC	650	931	12.7%	0.25%	41
CCB	540	589	9.6%	0.59%	11
ABC	395	530	9.8%	1.20%	23
BOC	376	532	8.5%	0.17%	13
BoComm	177	308	12.7%	0.19%	
CMB	125	93	6.0%	0.38%	3
Citic	118	170	12.5%		
Minsheng	197	172	15.1%	0.00%	

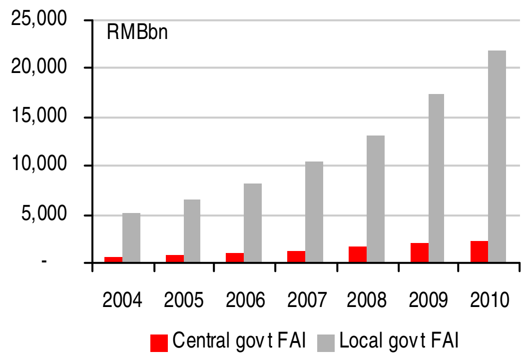
Source: Company reports, HSBC

Fig. 89: Local governments' revenue and expenditure



Source: CEIC, HSBC

Fig. 90: Fixed asset investment by central and local govt



Source: CEIC, HSBC

Definitions of LGFVs

Local government financing vehicles (LGFVs) are the funding entities of local governments. In China, local governments are not allowed to directly assume debt, including bank loans and bond issuance. However, local governments need to fund increasing budgetary shortfalls and soaring public spending, especially infrastructure (Figures 89 and 90).

After the financial crisis in 2008, in order to implement the central government's RMB4trn stimulus package, the PBOC and CBRC jointly issued guidance to urge local governments to set up financing entities to get access to credit and support infrastructure projects.

Local governments are divided into four layers: 1) 34 provincial autonomous regions and centrally administrated municipalities reporting directly to the central government; 2) 333 cities reporting to their respective provincial-level administration; 3) 2,862 counties reporting to the city-level governments; and 4) over 40,000 towns at a lower level.

According to the PBOC's most recent regional finance report, there are 10,000 LGFVs as of end-2010, and around 70% of the LGFVs are county-level entities. Policy banks are the major lenders to LGFVs in western China. It is assumed that the further down LGFVs the administrative level are, the higher the repayment risk as they have less access to government revenue.

As there are various definitions of LGFVs, we use the narrowest definitions in our study. Essentially, we include the entities that are owned by the local Bureau of Finance or State-Asset Management Commission, with major activities in infrastructure, transportation projects, land reserve management or industrial park development, as defined by banks.

We exclude the companies owned by local governments conducting business in relatively competitive industries (e.g. utilities or energy), as we assume they operate and are classified as general corporates. Based on the corporate bond data, bank loans extended to LGFVs in our definition account for around 25% of total corporate loans in our study, which is at a similar level given by the CBRC.

Property & credit stress

- Both stock and credit markets took another dive recently from an already deeply discounted level, led by property names
- A crackdown on trust borrowing, the shutdown of offshore funding and early signs of declining cash collection ratio overshadow developers' balance sheet strength
- Land acquisition has slowed to a crawl, which will likely worsen local governments' finances

China's property sector is extremely sensitive to credit conditions. Although balance sheets for most developers covered by our credit analyst Keith Chan remain solid, stocks and bonds for those property names have been depressed for more than a year. This suggests markets are very forward-looking and are pricing in the negative impact from prolonged policy tightening.

Despite deep discounts already built into stock and bond prices, the property sector took another big hit in September, and this time led the market decline. For example, stocks for China developers were down 33% (Figure 91), while property high-yield bonds had a negative return of 23%, the largest monthly losses in two years.

The recent large leg downward may have reflected investor concerns over a pending "perfect storm" where declines in land and property prices coincide with large adjustments in price expectation from both developers and property buyers as the cumulative negative impact from funding shortages finally hit the physical market.

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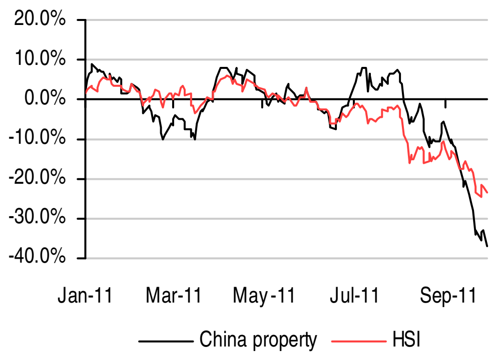
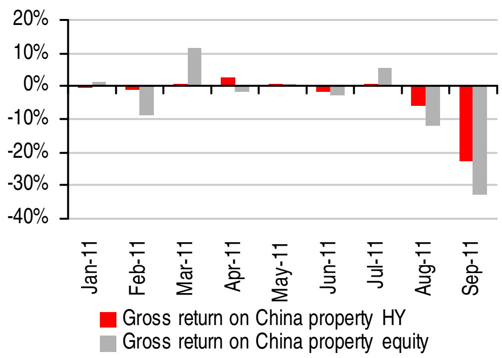
Fig. 91: China property equity sliding in Sept 2011



Source: Bloomberg, HSBC

Fig. 92: China property HY down 23% in Sept 2011



Source: Bloomberg, HSBC

Such a meltdown risk is reflected in a surge in the correlation of monthly returns for China property bonds and equities to 98% in 3Q11 from a 32% correlation in 1H11.

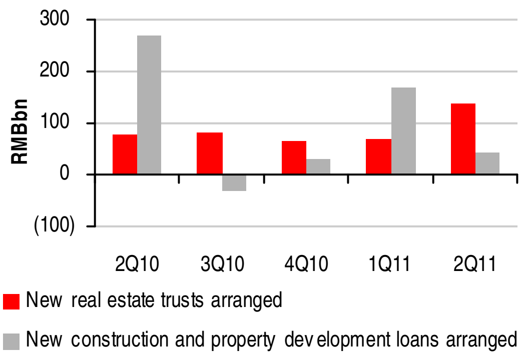
Credit conditions still tight

Onshore liquidity is very tight, slowing developers' cash inflows, and alternative funding channels such as trust financing may face scrutiny in coming months. Developers have all but stopped buying land, the local government debt problem remains unresolved and, with inflation still high, China's leaders are unlikely to release another wave of liquidity, as they did in 2008.

Crackdown on trust borrowing

While onshore trust borrowings for China property developers is only one-fifth of the size of onshore construction borrowings as of June 2011, the incremental amount of newly issued trusts in 1H11 is similar to that of onshore borrowings, both at RMB200bn (Figure 93).

Fig. 93: Trust financing helps fill the gap on construction loans



Source: People's Bank of China, China Trust Association

According to data from the China Trustee Association, property companies raised RMB136.7bn from trust financing in 2Q11, 92% higher than RMB71.1bn in 1Q11. Private property companies (e.g. Dalian Wanda, one of the largest Chinese commercial property developers) or those listed but domiciled in China (e.g. China Vanke, the largest developer in China in contracted sales) are the major fund raisers in the trust financing market.

Developers are raising trust loans for different reasons. In China, as developers cannot borrow directly from banks to fund land purchases trust financing is one of the viable funding routes to settle a land bill. In addition, for land located on city outskirts, which carry low land costs, developers need bridge financing to fund the initial construction expenditure as they cannot borrow from banks unless 35% or more of the project's total investment has been funded.

According to Fitch Ratings, some Chinese developers are paying as much as 25% interest to borrow from private trust companies as banks withdraw credit, suggesting that China's nonperforming loans could rise as high as 30% of total debt.

Despite that, we see little risk of defaults in the next 12-18 months. Developers' balance sheets are stronger than they were in 2008 and offshore bond maturities in 2012 and 2013 are limited.

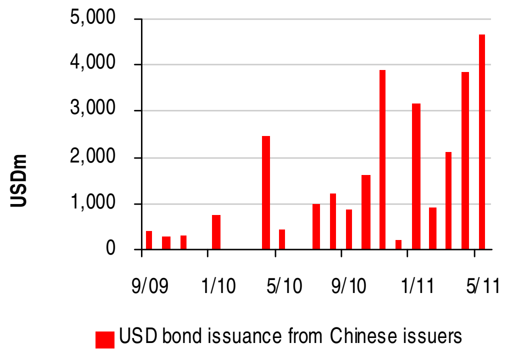
Reuters reported in September 2011 that the China Banking Regulatory Commission (CBRC) was asking trust companies to clarify their exposure to Greentown China, one of the highest geared China property developers.

The trust financing channel, which helped fill part of the funding gap and now accounts for 20% of the total onshore debt financing available to developers per our estimate, may face scrutiny in the coming months.

Shutdown in offshore bond markets

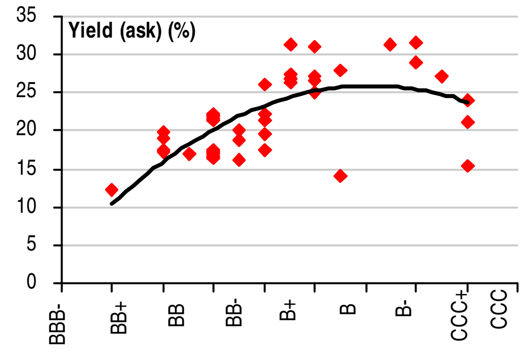
Offshore USD bonds used to be another important way for Chinese developers to raise money. Figure 94 shows that issuance of USD-denominated bonds by mainland non-bank companies had risen to a record level by May 2011. The cooling of the property market under increasing credit rationing has forced developers to rush to the dollar bond market in Hong Kong.

Fig. 94: Offshore USD bond issuance by Chinese companies



Source: HSBC

Fig. 95: Offshore bond market shut in the foreseeable future for China property developers



Source: HSBC

However, this source of funding is coming to an end as bond yields have surged to prohibitively high level of 15-30% (Figure 95), essentially shutting down the offshore bond market.

Sign of declining cash collection

Tight credit conditions have also shown up in a recent sharp decline in developers' cash collection ratio. Figure 96 shows the cash collection ratio or cash proceeds over contracted sales for 19 listed property developers for 1H11.

Before 2011, the collection ratio was nearly 100%, suggesting that contracted sales are a good proxy for cash sales. In 1H11, the ratio dropped to 68.6%, and although still two-thirds of sales are covered by cash, it is quite a dramatic change.

Rising debt versus diminishing equity financing and surge in negative FOCF

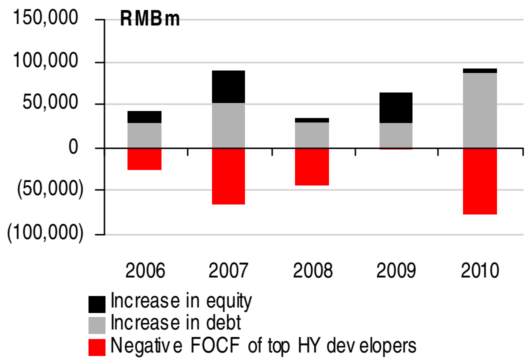
Other metrics also indicate worsening credit conditions. Figure 97 shows developers' rising debt versus diminishing equity financing over the last five years. At the same time, the top 15 developers had the biggest negative free operating cash flows (FOCF) for 2010.

Fig. 96: Cash collection ratio of contracted sales in 1H11 as of June 2011

	Developer	Ticker	Cash collection for 1H contracted sales (RMBm)	1H contracted sales (RMBm)	Cash collection ratio
1	Glorious	GLOPRO/ 845.HK	6,400	7,104	90.1%
2	Country Garden	COGARD/ 2007.HK	18,400	21,500	85.6%
3	Yuzhou	YUZHOU/ 1628.HK	1,700	2,067	82.2%
4	Longfor	LNGFOR/ 960.HK	14,875	18,260	81.5%
5	Shui On Land	SHUION/ 272.HK	4,240	5,300	80.0%
6	China Resources Land	CHIBEI/ 1109.HK	10,200	13,500	75.6%
7	Kaisa	KAISAG/ 1638.HK	3,350	4,489	74.6%
8	Franshion	FRANSH/ 817.HK	3,450	4,650	74.2%
9	KWG	KWGPRO/ 1813.HK	4,600	6,540	70.3%
10	Shimao	SHIMAO/ 813.HK	9,976	14,252	70.0%
11	Sino-Ocean	SINOCE/ 3377.HK	7,997	12,300	65.0%
12	R&F	GZRFPR/ 2777.HK	8,775	13,500	65.0%
13	Powerlong	PWRLNG/ 1238.HK	1,500	2,330	64.4%
14	Evergrande	EVERRE/ 3333.HK	25,646	42,317	60.6%
15	Yanlord	YLLG/ YLLG.SP	1,450	2,800	51.8%
16	Agile	AGILE/ 3383.HK	8,000	15,700	51.0%
17	Central China	CENCHI/ 832.HK	2,270	4,522	50.2%
18	Hopson	HPDLF/ 754.HK	2,600	5,300	49.1%
19	Renhe Commercial	RNHEF/ 1387.HK	600	1,900	31.6%
			136,029	198,331	68.6%

Source: Companies, HSBC

Fig. 97: Rising debt vs. diminishing equity financing



Source: Bloomberg, HSBC

The current credit outlook is arguably more challenging than in the crisis year of 2008. First, the equity financing windows were both all but closed in 2008 and 2010, yet debt raised in 2010 is more than twice the amount in 2008 (Figure 97). Second, the stock market bounced back strongly in 2009 on record monetary and fiscal stimulus that opened the door for equity financing, a scenario is unlikely to repeat any time soon, given the inflation overhang.

Playing defence

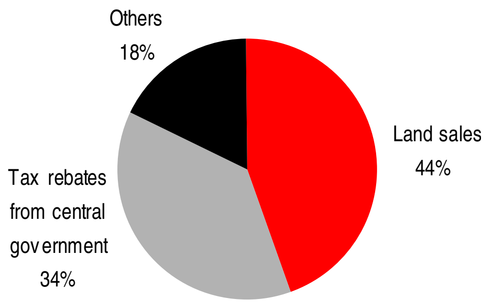
Having come close to defaulting in 2008 and recognising the much more limited options now available to policymakers, Chinese developers have been playing defence. Land acquisition has slowed to a crawl, which will worsen local governments' fiscal receipts. This, in turn, may eventually force Beijing to ease up on the property sector, a scenario that many developers are banking on.

In 2010, Chinese local governments collected RMB7.3trn in aggregate revenues, with land sales constituting 44% or RMB2.9trn of their fiscal revenues (Figure 98). Excluding RMB3.2trn in tax rebates from the central government to support local infrastructure, land sales account for 70% of local government revenue.

Developers have slowed further land purchases, particularly in 3Q11 on the back of policy tightening (Figure 99). We think this means the Chinese central government has to either let local governments go bankrupt, bail them out or revive the property market. With inflation hovering at still high levels and high inflation expectations, a broad policy bailout similar to 2008 is unlikely as this would escalate inflation risk. In other words, we believe the government will only be able to take subtle "mini-steps" to create the needed breathing space for stakeholders.

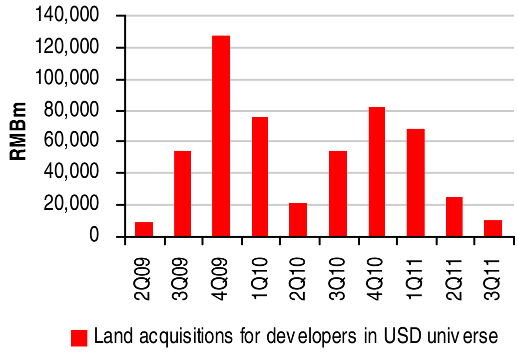
The cash flow cycle of developers has lengthened with mortgage tighte006Eing. Banks are slowing down mortgage disbursements to developers, causing a 1-2 month time lag between sales and cash collection. Developers in the offshore bond

Fig. 98: Land sales constitute 44% of local governments' revenue in 2010



Source: Local newswires, HSBC

Fig. 99: Developers slowed land purchases in 3Q11



Source: HSBC

space that we cover on the credit side recorded an average cash flow contract sales-to-collection ratio of 70% in 1H11(see Fig. 96), down from 90% or above in 2010.

Land in lower-tier cities is difficult to monetise, particularly in a prolonged market downturn as LGFVs facing loan maturities in the next 1-2 years are forced to sell real estate. At the same time developers are lowering property prices to speed up cash inflows, which could potentially create a downward spiral and lead to further price corrections.

Equity: credit-driven

- Free cash flow is negative for CSI 300, which highlights the credit-driven growth for Chinese companies
- Capex demand is still strong and cash flow from operations can not generally fully fund the expansion
- Companies still face tight liquidity; overall leverage ratio is increasing

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Credit-driven growth

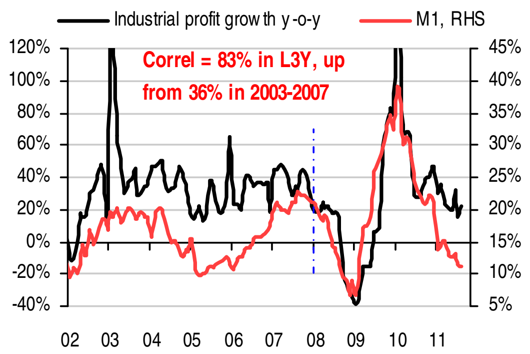
China's economy has become increasingly addicted to credit to generate growth. Using the data of industrial profit growth and China money supply growth, we estimate that the correlation between profit and money growth has risen to 83% in the past three years from 36% (Figure 100). This should not be a surprise to investors as the latest round of earnings growth has been largely driven by the stimulus package and strong liquidity since the 2008 financial crisis.

For the listed companies, the dependency on credit is more apparent as we use free cash flow (FCF) analysis to study the CSI 300 universe, excluding financials. (FCF = cash flow from operations – capex). The CSI 300 is an index based on the performance of 300 stocks listed on the Shanghai and Shenzhen stock exchanges.

The average quarterly FCF is -RMB5.4bn. If we exclude two large oil-exploring companies (Sinopec, PetroChina) from the analysis, average FCF drops to -RMB11.7bn (Figure 101).

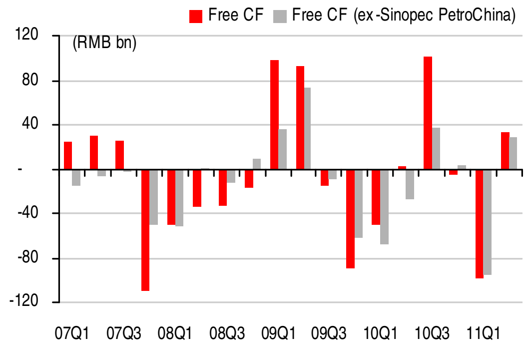
This highlights the dilemma that Chinese companies are facing. The capex trend is still increasing, which indicates stronger demand and potential better earnings in the future. On the other hand, the cash flow from operations can not fully fund this expansion. Thus, financing capability is a critical factor for business expansion in China.

Fig. 100: China Industrial profit growth and M1 growth



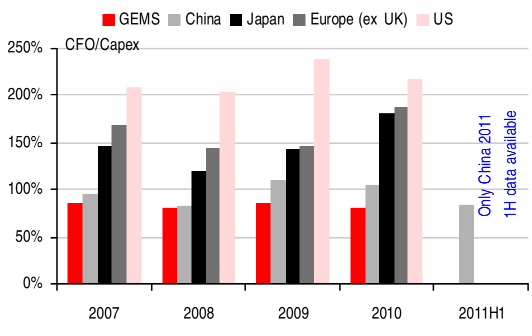
Source: HSBC Equity Strategy Research , CEIC

Fig. 101: CSI300 (ex-financial) Free CF, Free CF (ex Sinopec, PetroChina)



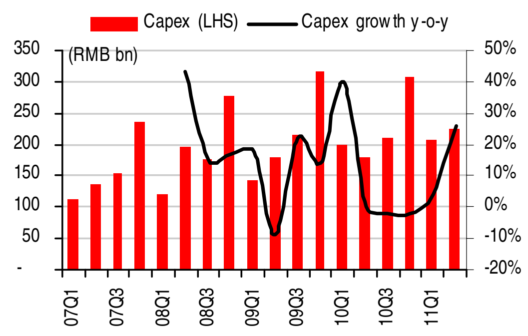
Source: HSBC Equity Strategy Research, Wind

Fig. 102: CFO/Capex ratio for GEMS, China, Japan, Europe(ex UK), US



Source: HSBC Equity Strategy Research, Thomson Reuters Datastream, Wind

Fig. 103: Capex trend for CSI300 (ex-financials)

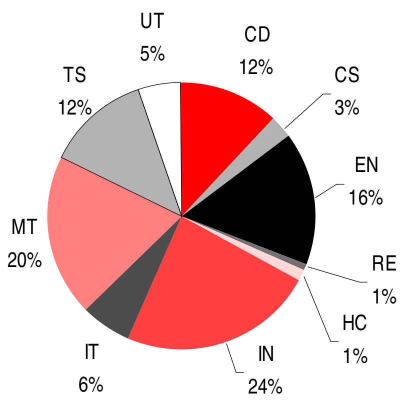


Source: HSBC Equity Strategy Research, Wind

Capex needs

Riding on the booming economy, Chinese companies are always in need of capex for further business expansion. Compared with other major economies, China's CFO-to-capex ratio is 100% for the past few years and roughly in line with GEMS. However, developed economies such as the US, Europe (ex UK) and Japan, have kept this ratio at 150-200% (Figure 102). This trend reinforces our belief that Chinese companies are capital constrained.

Fig. 104: 2011 first half capex for different sectors of CSI300 (ex financial, Sinopex, PetroChina)



Source: HSBC Equity Strategy Research, Wind

If we look at quarterly earnings for the CSI300 (ex-financials), average capex y-o-y growth has been at around 14.3% for the past four years (Figure 103). Capex growth has recently surged to 26% y-o-y.

Capex is disproportionally allocated between sectors even if we exclude the two oil giants (Sinopec, PetroChina). It is no surprise that capital-intensive industries, such as energy, materials, industrial and automobile manufacturing (consumer discretionary), account for a significant amount of capex (Figure 104).

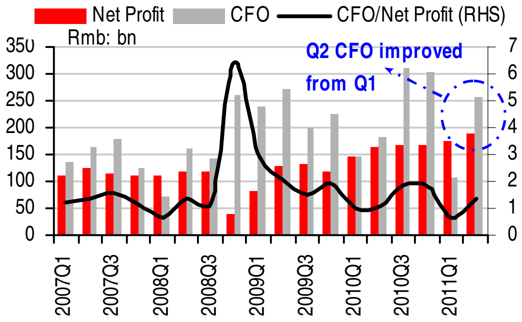
At the company level, Sinopec, Yanzhou Coal, China, Shenhua, Changan Automobile are amongst the companies with the heaviest capex. This, to some degree, reflects the current structure of China's economy.

Cash flow from operations

Cash flow from operations (CFO) is one of the major funding sources for capex. If a firm can consistently deliver strong CFO to fund its expansion needs, its growth is sustainable. Otherwise, it has to seek alternative funding sources for expansion.

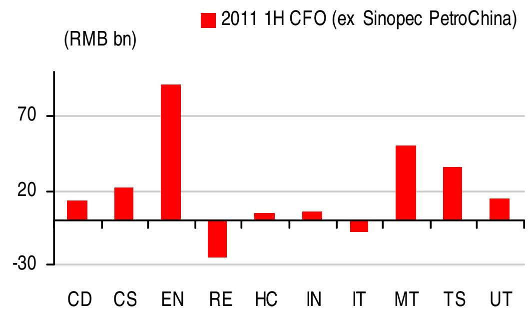
For the CSI300 (ex-financials), the latest quarterly CFO has grown 42% y-o-y and the CFO-to-net profit ratio also rebounded from its low level in 1Q08 (Figure 105). However, the contribution of CFO varies greatly amongst sectors. Excluding Sinopec and PetroChina, the energy sector still accounts for the largest share of CFO for the overall market (Figure 106). This is followed by the materials and telecom services sectors, which have showed good momentum to keep positive

Fig. 105: CSI300 (ex Financials) net profit, CFO and CFO/net profit ratio



Source: HSBC Equity Strategy Research, Wind

Fig. 106: 2011 1st half CFO (ex Financials, Sinopec and PetroChina) for different sectors



Source: HSBC Equity Strategy Research, Wind

CFO in the first half of 2011. Real estate and IT are laggards when it comes to generating cash. At the company level, China Shenhua, Yanzhou Coal, Anhui Conch, China Unicom, all contributed strong CFO in 1H 2011.

What factors contribute to CFO profitability, as measured by net profit, is a good contributor. Besides that, we want to evaluate whether inventory and credit sales control could reduce working capital and improve cash. For better analysis, we aggregate CSI300 (ex-financials) into a simplified cash flow statement (Figure 107).

Based on the data we compiled, cash conversion (defined as cash conversion days = account receivable days + inventory days – account payable days) was up six days on a y-o-y basis, which indicates the increased inventory and the negative impact on CFO. Account receivable days are stable at 17 days. The implication is that firms are still conservative in providing credit sales.

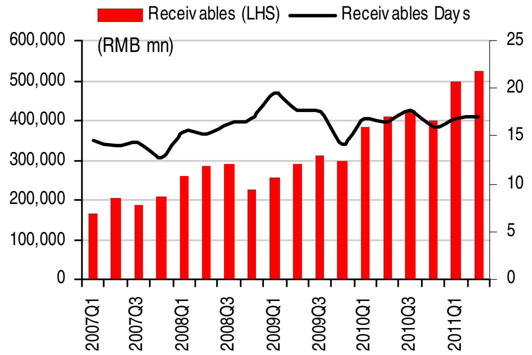
The main deterioration is the increase in inventory days and account payable days on a y-o-y basis. Inventory days increased four days, indicating more "sell-in" than "sell-through" due to weaker end demand. Account payable days decreased two days, which implies the firm needs to pay its liabilities sooner and it may be more difficult to get credit for accounts payable. More comprehensive charts on inventory management are on the next page.

Fig. 107: Cash flow statements for CSI300 (ex-financials)

(RMBm)	1Q 2010	2Q 2010	3Q 2010	4Q 2010	1Q 2011	2Q 2011	y-o-y	q-o-q
Net Profit	144,838	164,281	168,746	168,173	173,436	187,874	14.4%	8.3%
Cash Flow from Operations (CFO)	147,986	180,834	311,853	303,908	108,541	257,073	42.2%	136.8%
Capex	-198,723	-178,046	-210,334	-308,600	-207,102	-224,289	26.0%	8.3%
Cash Flow from Investment (CFI)	-200,923	-167,191	-229,250	-342,980	-227,689	-256,395		
Equity Financing	25,940	20,122	31,969	96,148	23,121	44,909	123.2%	94.2%
Borrowing	727,816	573,778	540,533	579,471	703,307	648,292	13.0%	-7.8%
Bond Issuance	3,992	44,539	28,027	31,797	37,900	32,062	-28.0%	-15.4%
Debt Due	-583,736	-528,004	-549,213	-516,057	-557,868	-537,426		
Dividend & Interest Payment	-22,516	-100,817	-73,958	-66,251	-30,252	-157,133		
Cash Flow from Financing (CFF)	145,541	6,932	-37,982	83,821	202,136	21,356		
Account Receivable Days	17	17	18	16	17	17	0	0
Inventory Days	81	74	80	78	82	78	4	-4
Account Payable Days	51	47	50	48	48	46	-2	-2
Cash Conversion Days	47	43	47	47	51	50	6	-1

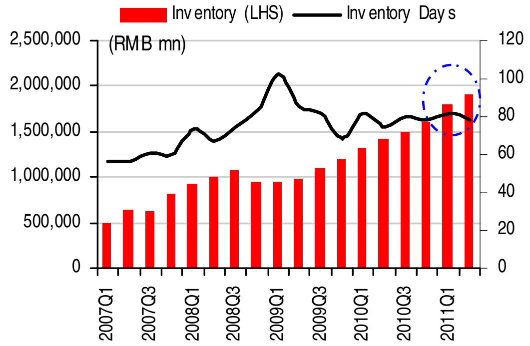
Source: HSBC Equity Strategy Research, Wind

Fig. 108: Receivables and Receivables Days for CSI300 (ex-financials)



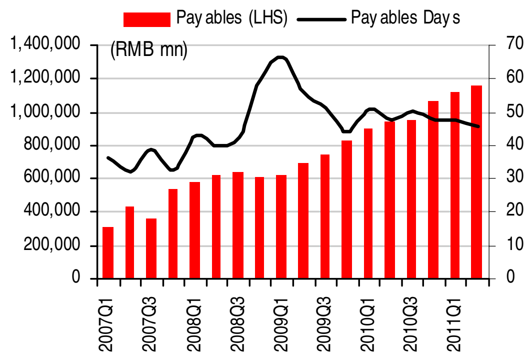
Source: HSBC Equity Strategy Research, Wind

Fig. 109: Inventory and Inventory Days for CSI300 (ex-financials)



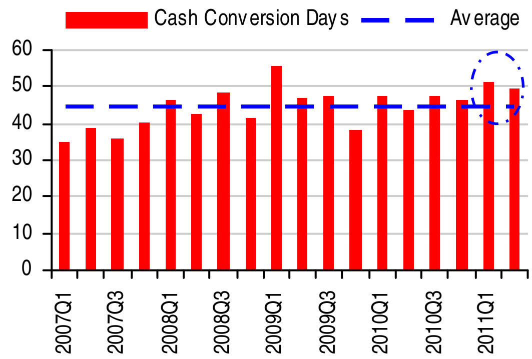
Source: HSBC Equity Strategy Research, Wind

Fig. 110: Payables and Payables Days for CSI300 (ex-financials)



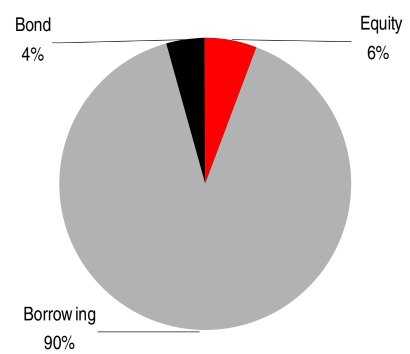
Source: HSBC Equity Strategy Research, Wind

Fig. 111: Cash Conversion Days for CSI300 (ex-financials)



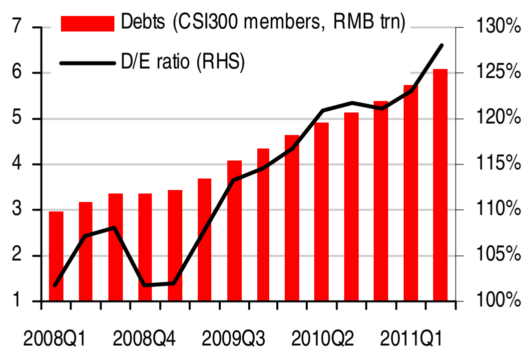
Source: HSBC Equity Strategy Research, Wind

Fig. 112: Financing options for CSI300 (ex-financials), based on average quarterly cash inflow from financing



Source: HSBC Equity Strategy Research, Wind

Fig. 113: D/E ratio for CSI300 (ex-financials)



Source: HSBC Equity Strategy Research, Wind

Capital financing options

So how do companies fill the capital shortfall (from CFO) to sustain long-term growth? Based on our analysis of the aggregated cash flow inflow from financing (Figure 107), the majority of financing is done via bank borrowing (90%). The rest is secondary equity financing (6%) and bond issuance (4%) (Figure 112). Another interesting point is that a large portion of financing cash outflows goes on repaying loans, which implies that most loans are either short-term or revolving.

Thus, it is not surprise that the CSI300 (ex-financials) debt-to-equity ratio has risen sharply to 130% from 100% over the past three years and the absolute amount of debt has doubled to RMB6trn (Figure 113). The aggregated balance sheet for the CSI300 (ex-financial) has shown a similar trend (Figure 114).

Companies have responded rationally to China's RMB4trn stimulus package by increasing financial leverage to ride the up-cycle. However, now they have to face the adverse consequences of a down-cycle as global growth cools and China's growth continues to moderate, coupled with a higher interest rate environment due to sticky high inflation.

DuPont Analysis (2000-1H 2011)

Over the past decade, DuPont analysis shows that ROE (return on equity) has been rising in the A-share non-financial universe. The most recent results in 1H 2011 show that A-share ROE expanded slightly to 11.4% from 11.3% (Figures 115-119) at the aggregated level, thanks to a lower interest burden and higher leverage ratio. We have identified the following ROE drivers:

- EBIT margin declined moderately due to the elevated inflation pressure in China.
- Asset turnover is kept at a healthy level.
- Leverage ratio has steadily increased given the loose liquidity environment.

For reference, we have included the DuPont analysis data in the following pages.

Fig. 114: Balance sheets for CSI300 (ex-financials)

RMBm	1Q 2010	2Q 2010	3Q 2010	4Q 2010	1Q 2011	2Q 2011	y-o-y	q-o-q
Cash	1,073,711	1,111,714	1,128,129	1,183,564	1,293,089	1,355,855	22.0%	4.9%
Inventory	1,333,182	1,419,965	1,486,748	1,612,623	1,800,174	1,912,303		
Current Asset	3,475,294	3,658,228	3,836,803	4,016,057	4,504,069	4,735,546		
Non-Current Asset	5,170,139	5,321,420	5,532,841	5,868,098	5,938,626	6,134,041		
Total Asset	8,645,434	8,979,649	9,369,644	9,884,155	10,442,695	10,869,587		
ST Debt	718,745	694,379	718,203	774,109	870,831	921,872	32.8%	5.9%
Current Liability	3,202,148	3,353,950	3,503,288	3,751,705	4,029,824	4,329,740		
LT Debt	859,684	892,893	931,384	915,531	966,118	1,005,816	12.6%	4.1%
Bond	348,154	408,644	428,576	436,856	449,767	446,726	9.3%	-0.7%
Non-Current Liability	1,454,774	1,561,221	1,641,468	1,659,805	1,730,559	1,772,052		
Total Liability	4,656,922	4,915,172	5,144,755	5,411,510	5,760,384	6,101,792		
Equity	3,988,511	4,064,477	4,224,888	4,472,644	4,682,312	4,767,796		
Liability + Equity	8,645,434	8,979,649	9,369,644	9,884,155	10,442,695	10,869,587		
Net Debt	852,872	884,202	950,034	942,931	993,626	1,018,559		
Net Debt/Equity	21.4%	21.8%	22.5%	21.1%	21.2%	21.4%		

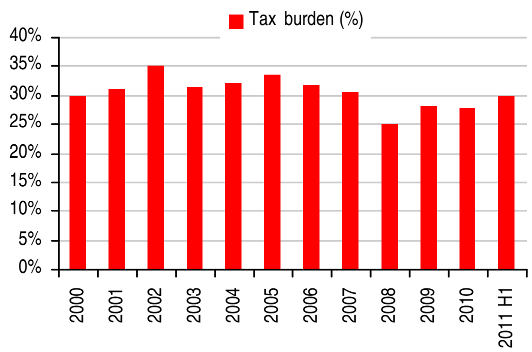
Source: HSBC Equity Strategy Research, Wind

Fig. 115: DuPont analysis on all A-share equities (exclude financials)

			2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 H1
EBIT/sales	Margin (%)	**M**	14.5%	11.5%	10.6%	11.4%	11.9%	10.8%	10.5%	11.6%	7.4%	8.9%	9.2%	9.0%
Sales/assets	Asset turn (x)	**AT**	0.64	0.60	0.64	0.72	0.81	0.87	0.95	0.95	0.91	0.79	0.89	0.89
ROA		**M*AT**	9.2%	6.9%	6.8%	8.2%	9.7%	9.4%	9.9%	11.0%	6.8%	7.1%	8.2%	8.0%
1-(PBT/EBIT)	Interest burden (%)	**I**	12.3%	14.5%	16.8%	11.6%	9.4%	10.1%	10.5%	9.1%	18.6%	13.3%	11.1%	11.9%
1-(NP/PBT)	Tax burden (%)	**T**	29.9%	31.1%	35.1%	31.6%	32.1%	33.5%	31.7%	30.5%	25.0%	28.2%	27.7%	30.0%
ROI		**ROA*(1-I)*(1-T)**	5.6%	4.1%	3.7%	5.0%	5.9%	5.6%	6.0%	7.0%	4.1%	4.4%	5.3%	4.9%
Assets/Equity	Leverage(x)	**L**	1.73	1.78	1.86	1.86	1.92	2.03	2.04	1.97	2.11	2.14	2.14	2.31
ROE		**ROI*L**	9.8%	7.2%	6.8%	9.2%	11.4%	11.4%	12.3%	13.7%	8.7%	9.4%	11.3%	11.4%
Compound Leverage		**(1-I)*L**	1.52	1.52	1.54	1.64	1.74	1.83	1.82	1.79	1.71	1.86	1.91	2.03

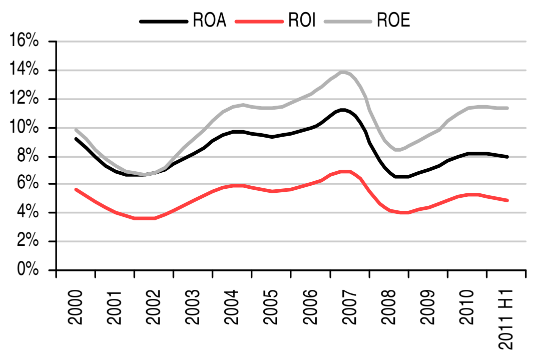
Source: HSBC Equity Strategy Research, Wind

Fig. 116: Tax burden



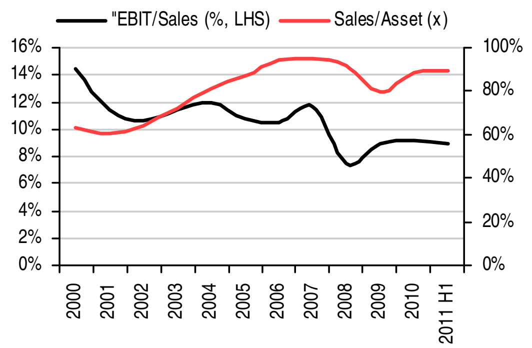
Source: HSBC Equity Strategy Research, Wind

Fig. 117: ROE, ROA, ROI



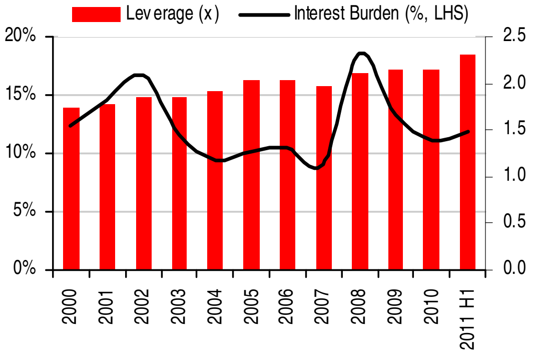
Source: HSBC Equity Strategy Research, Wind

Fig. 118: EBIT margin and asset turnover



Source: HSBC Equity Strategy Research, Wind

Fig. 119: Leverage and interest burden



Source: HSBC Equity Strategy Research, Wind

HSBC

Informal financing

- The crisis in Wenzhou has brought China's informal lending market into the spotlight
- Extremely high rates, originally for bridge financing, result in more speculative activities
- Proper regulatory framework needed to ensure SME funding and limit bank risk exposure

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Informal lending

China's informal financing has grown out of a need to fund SMEs. Traditionally, the SME market is unattractive to banks because: 1) low cost/reward – high costs in terms of personnel for client appraisal versus small levels of financing compared with large SOEs; 2) SMEs are more vulnerable to economic cycles; and 3) a lack of financial and credit records. This means that for years SMEs have had to rely on informal financing and the recent policy tightening hit them very hard indeed.

Behind the run

The recent SME crisis in Wenzhou put the informal lending market in the spotlight. It was reported that billions of RMB are owed to private lenders after the breakdown of the informal financing chain. The problem was caused by extraordinarily high borrowing costs, which exceed SME operation margins by 10-fold on average, if not more; the costs even outpaced the legal limit of four times the central bank's benchmark rate of 6.56% p.a. However, the real reason for these difficulties is the lack of a transparent channel to fund the SME sector.

Lenders and scale

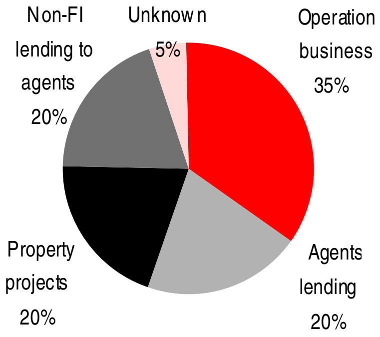
Informal lending can be defined as private lending amongst individuals and corporates without intermediate agents at a mutually agreed interest rate not exceeding four-times the central bank's lending rate. The typical lenders/borrowers in this market are individuals, corporates, credit guarantee companies, microfinance companies and pawn shops.

According to a PBOC survey, total informal lending market size reached RMB3.38trn this May, about 6.7% of outstanding loans. The size of this market is relatively small compared to the banks, but the problems are still worrying.

Firstly, Wenzhou crisis may be the tip of the iceberg. There are other areas with similar insolvency issues, such as Ordos in Inner Mongolia, according to the 21th Century Business newspaper. Secondly, the scale of the potential losses is hard to predict, especially as some bank credit has leaked into this market. Thirdly, SMEs, which create 80% of the country's jobs, will likely suffer most from the crunch and the social repercussions could be painful.

A week after Premier Wen's visit to Wenzhou, the State Council introduced measures to help cash-strapped SMEs. As such, the chances of a similar chain of defaults spreading nationwide appear slim, but a regulatory framework is needed to make the informal market more transparent.

Fig. 120: Majority of informal lending not to the real economy



Source: PBOC, HSBC

Cause of Wenzhou crisis: property speculation

Wenzhou, an industrialised city in Zhejiang province in eastern China, is one of the most vibrant areas of the country for SMEs and informal lending. However, one-fifth of the city's 360,000 SMEs have stopped operating due to cash shortages, according to the city's SME council.

Cash flow breakdown

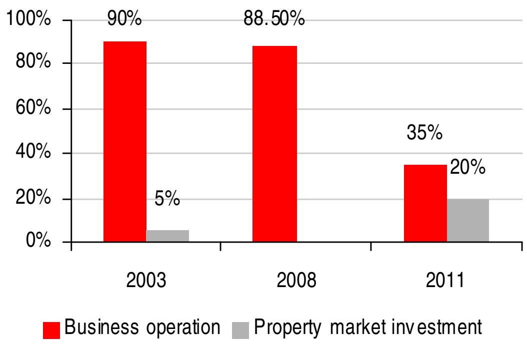
The majority of the informal loans used to go into Wenzhou's real economy between 2003 and 2008. That's changed. With interest rates soaring, credit is now flowing into the property market or to third party agents. In Wenzhou's RMB110bn informal lending market as of August 2011, 35% was used in business operations, 20% went into the property market, and another 40% circulated amongst private agents (Figure 120), according to the PBOC Wenzhou branch.

Moreover, there has been a sharp decline in the amount of credit going into business operation versus property development in recent years, according to the PBOC (Figure 121)

It is clear that the cash flow of some SMEs has dwindled alarmingly as credit costs have kept rising. Some have simply stopped doing business as their margins can not keep pace.

What's more, some property developers can not roll over their bank loans anymore, forcing them to seek bridge loans from whatever sources, including the informal market. The worse-than-expected property sales in recent months have further increased competition for funding.

Fig.121: Slump of credits in business operations



Source: PBOC, HSBC
* 2008 data is for June 2008 and 2011 figure is up to Aug 2011

Rescue plans from government

To help Wenzhou SMEs and avoid the problem spreading to surrounding areas, the State Council has pledged stronger financial and fiscal support as follows:

- Expanded financing channels, such as issuing bonds and short-term papers that involve 2-10 small firms.
- Commercial bank loans below RMB5m will not be taken into account in calculating loan-to-deposit ratios; the NPL ratio for small business is to increase to 5% from 2%.
- Commercial banks are prohibited from charging fund management fees, financial consulting fees and other unreasonable fees for services to small firms.

- Small financing institutions that meet the loan growth target for small businesses may be subjected to lower RRR.
- Fiscal policies, such as raising the tax threshold for small firms paying corporate value-added taxes and business taxes.

Fig.122: Weighted average informal lending rate in 2010

Province	Lending rate (% p.a.)
Beijing	19.19
Inner Mongolia	28.5
Shanxi	22.33
Zhejiang	17.96
Sichuan	12.15
Guizhou	25-30*

Source: PBOC, HSBC
*: 25-30 is an estimate based on yr 08 and 09 figures

Other problem areas with a large scale of informal financing such as cities in Inner Mongolia, Shanxi and Guizhou are likely to benefit from similar policy support, in our view.

Speculation pushes up rates

Policy tightening and negative real interest rates have pushed rates higher everywhere. This includes bank rates and bond yields, with rates in the informal markets being pushed to c20-30% p.a. last year, according to the PBOC (Figure 122) and as high as 100% this year. Rising funding costs further erode SME operating margins, forcing many to participate in the lucrative lending business that is increasingly driven by speculative rather than business motives.

SME financing in two leading provinces

Guangdong and Zhejiang, the top and third-ranked provinces in China, have the highest level of informal lending business, according to the 21th Century Business newspaper. Local SMEs usually borrow from the informal market to ease cash flow pressures. This accounts for more than 50% of the financing amount and bank loans for 30% or less (Figure 123), according to a survey by Beijing University and Alibaba Group carried out between July and October.

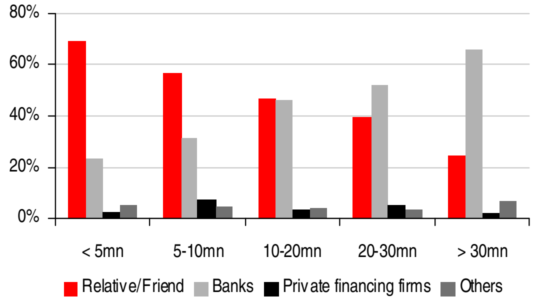
Fig. 123: Informal lending is the main source for SME financing

Financing channels	Zhejiang	Guangdong
Relative/friend lending	50%	61%
Banks credits	21%	30%
Microfinance lending	7%	3%
Own capital financing/ others	22%	5%

Source: Beijing University, Alibaba Group, HSBC

To cope with the shortage of cash, partly caused by rising costs of raw material and labour, entrepreneurs of micro-sized firms with annual turnover of less than RMB10m have been inclined to borrow from relatives, friends or other informal channels in Guangdong province (Figure 124).

Fig. 124: Smaller firms mainly finance via informal lending



Source: Peking University and Alibaba Group Joint Survey, HSBC
* Enterprise turnover in RMB

Speculative players pushing the limit

With business operating margins on the decline, entrepreneurs with adequate cash have been keen to lend in the informal market for double-digit annual returns. For individuals without much cash, they choose to borrow first from either banks or the informal market before lending it out on the informal market. This practice increases the leverage in the whole chain.

It is worth noting that lenders in the informal lending market who are in property have switched their strategy from house purchases to property development project financing. The downside risk for informal lenders is that when the property market cools down and banks cut funding support to property projects, developers are likely to suffer liquidity pressure. If the lenders themselves rely on the informal market for funding, then the chain effect could become even worse.

Risky types of informal lending

A PBOC survey showed that about 6,000 enterprises had raised a total of RMB3.38trn funding via informal financing as of the end of May 2011.

Financing guarantee companies (FGCs) are supposed to help SMEs to get bank loans by providing guarantee services; however, some of them have been lending unlawfully. Similarly, microfinance companies provide small loans to SMEs without raising funds from the public, except for capital investors. Many have been collecting deposits although it is clearly forbidden. The CBRC has introduced rules to rein in such practices in the past couple of years, but unlawful lending via these agents is still a lingering concern for the central government, according to Xinhuanet.

Financing guarantee companies

FGCs assist SMEs get access to bank financing. They allow a SME to meet the qualifications for a bank loan by pledging either their own or a third party's capital as loan collateral, for a price. They also provide guarantees for acceptance bills, project finance guarantee, and guarantee of letters of credit. They are forbidden from collecting deposits or lending directly to debtors, as stipulated in the rules introduced by seven top central ministries and banking authorities in March 2010.

SMEs have become important customers for FGCs in the past couple of years. According to the CBRC, by the end of 2010 their financing guarantee loan balance totalled RMB893.1bn, 77.2% of which was for SMEs, up 69.9% from the previous year; 142,000 SMEs received guarantees for loans from FGCs in 2010, up 58.3% y-o-y.

Along with the rapid growth in this sector, concerns have also risen because some of the FGCs have unlawfully profited by offering loans directly to SMEs, with interest rates above 50%. FGCs usually don't sign agreements with the borrower in the name of the company; instead, they provide loans as individuals and avoid mentioning the actual lending rate on the agreement, according to a CBRC official in Fujian province. In addition, some FGCs collect deposits in the name of wealth management products and then lend them out at a much higher rate.

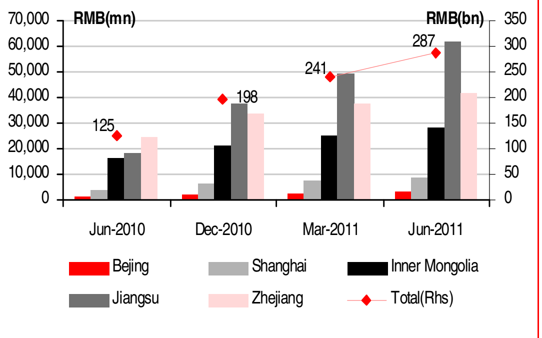
To rein in this unlawful practice, the CBRC instructed its local branch to re-examine local FGC practices. By the end of May, a total of 9,192 local FGCs are on the watch list and subject to re-certification, according to the CBRC.

Despite that, other types of credit guarantee companies, which are not being scrutinised, are still unlawfully borrowing low and lending high. According to the China Securities Journal, there are far more of these guarantee companies than certified FGCs.

Microfinance companies

Microfinance companies were launched in 2005 to provide financing specifically to SMEs. This sector experienced strong growth, with nationwide y-o-y outstanding loans more than doubling by the end of 1H11. The provinces of Jiangsu, Zhejiang and Inner Mongolia have the three most active markets (Figure 125).

Fig. 125: Jiangsu and Zhejiang lead on outstanding loans table



Source: CEIC, HSBC

Defined as quasi-financial institutions, by law microfinance companies are not allowed to collect deposits from the public. The source of funding has always been a problem until lately because they can only get capital from private investors or banks; injections from banks must stay below 50% of their total capital. 50% leverage is obviously not enough to provide sufficient funding to meet demands from SMEs during this round of credit tightening. Many microfinance companies had lent out all their capital just a few months after opening.

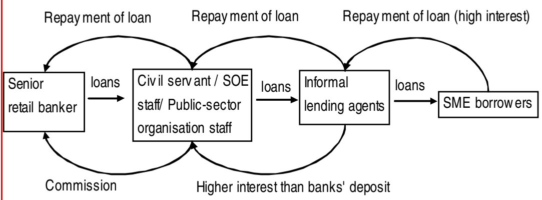
Some microfinance companies without excess cash started to attract deposits from the public by providing higher interest rates than banks and then lending them out at much higher rate. To mask the actual rate, the portion over the legal limit is charged in the form of consultancy fees or management fees.

The way FGCs and microfinance companies are supervised at local levels is not clear. Four organisations are involved – the local departments of the Ministry of Finance, Ministry of Industry and Information Technology, local SME Bureau and the Finance Affairs Office. The decentralisation of this regulation system creates potential difficulties for risk disclosure and control. Going forward, we expect the local Finance Affairs Office (金融办) will take the lead in regulatory responsibility.

Bank credit leakage

According to Xinhuanet, Credit from banks has been channelled into informal lending markets via different routes. Xinhuanet on 20 October 2011 has reported that senior retail bankers, civil servants, SOE and public-sector staff participate in the credit chain. Civil servants and SOE staff have better access to loans through their personal or company relationship with banks. Once they get the loans, they lend them out to agents in the informal lending market for higher returns. Retail bankers also help in the loan issuance (Figure126).

Fig.126: Credit leakage with bankers/ civil servants involvement



Source: HSBC based on Xinhua reports

Banks may be increasingly exposed to informal financing risk. There is an added incentive to ensure proper disclosure and regulation in this otherwise under-regulated sector.

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Offshore fund raising

- Policy tightening onshore and cheap funding offshore led to a surge of borrowing in Hong Kong by mainland entities
- HKD loan growth constrained by rising loan-to-deposit ratio, doors for USD issuance for developers are closed
- Yet, top-tier names remain active in both offshore RMB (CNH) and USD markets

The domestic policy tightening since mid-2010, which has pushed up onshore rates and spreads, has coincided with an offshore credit cycle that has the opposite characteristics. This is especially the case in Hong Kong where rates are near zero due to the currency peg to the US dollar. Moreover, the resumption of RMB appreciation against the US dollar since late last year pushed offshore RMB rates lower, providing a cheaper source of funding in Hong Kong.

However, growth in HKD loans is quickly being constrained by a rising loan-to-deposit ratio (up to 85%) as some deposits in Hong Kong are moving from HKD and into RMB. Meanwhile, the door for USD bond issuance for mainland developers was closed by mid-year. However, top-tier names remain active in both offshore RMB (known as CNH) and USD credit markets.

After a sharp divergence between onshore and offshore rates early this year, spreads have started to show signs of narrowing; at the same time, spot RMB exchange rates no longer exhibit a one-way appreciation move. Both these factors help sustainable growth for the CNH markets.

Funding offshore

Policy tightening onshore has forced many domestic companies to seek funding offshore, mainly in Hong Kong, in the form of loans and bonds mainly denominated in USD and HKD. They offer lower borrowing costs versus the RMB, expected depreciation (versus the RMB) in the near future, and easier remittance approvals should they wish to use the funds in mainland China.

In comparison, RMB-denominated loan growth has been extremely slow – total RMB loans stood at only RMB11bn by the end of June. Although some of the offshore borrowing is to pay for the issuers' overseas direct investments, a good portion are being used onshore, easing onshore liquidity and supporting a credit-thirsty economy.

Surge in offshore loans and bonds

Low rates and a flood of liquidity (the HKD is pegged to USD) have motivated banks in Hong Kong to switch from low-rate mortgage lending to local borrowers to high-rate lending to mainland or mainland-owned companies facing credit tightening onshore.

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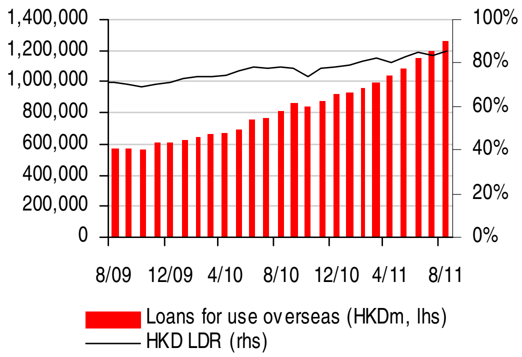
Fig. 127: HKD loans to offshore corp vs. HKD loan-to-deposit



Source: HKMA, HSBC

Figure 127 shows that the total amount of HKD loans to overseas companies, the majority of which are mainland operations, rose sharply to HKD1,263bn by end-August, up from HKD864bn a year ago. Since the start of the offshore RMB market, growth in RMB deposits in the Hong Kong banking system has been much faster than that of USD and HKD.

With new loans mainly in USD/HKD and new deposits mainly in RMB, the HKD loan-to-deposit ratio has reached 86%, up from 78.5% a year ago. The trend could continue for some time as growth of RMB deposits is poised to carry on increasing, driven by the rise of RMB cross-border trade settlement.

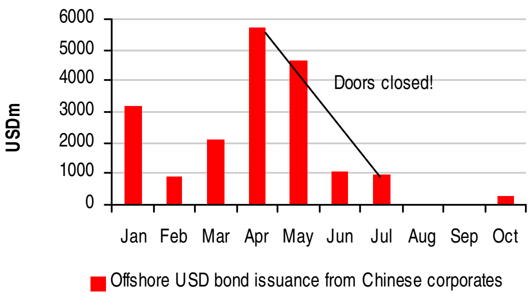
More specifically, according to the HKMA, banks in Hong Kong increased their lending to non-banking mainland corporations to HKD1.799trn in 1Q11 from HKD1.621trn in 1Q10, up 11%, accounting for 12.3% of total bank assets. This is on top of last year's 47% annual increase.

Rising Eurobond issuances

Tight domestic liquidity conditions, coupled with a high conviction currency view and attractive offshore borrowing costs, have driven Chinese companies to seek funding offshore. The deep and liquid Eurodollar bond market provides an excellent offshore funding channel, in particular for issuers looking for sizeable funding and longer borrowing tenors. Since late 2010, Chinese issuers have flooded the Eurodollar bond market with a large variety of names. Quality ranges from top-tier SOEs (rated on par with sovereign) to highly speculative entities (single B and non-rated).

Traditionally, Chinese property issuers were the main issuers of offshore USD bonds due to restrictive onshore borrowing conditions. They have to mainly fund land purchases offshore as onshore bank loans are restricted. Annual gross issuance by Chinese companies was in the range of USD2-3bn or lower before 2010. This figure rose to USD12bn in 2010 and is USD18bn year-to-date. Figure 128 shows monthly issuance of Chinese credits in the Eurodollar bond market y-t-d. Clearly, the USD credit market was pretty much closed for new issuance by July 2011.

Fig. 128: Offshore USD bond issuance by Chinese companies



Source: HSBC

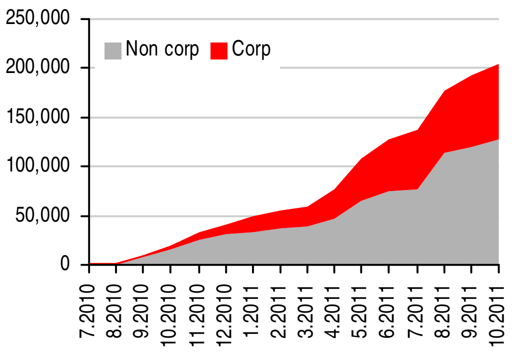
Funding from the new CNH market

The new offshore RMB market will likely become one of the major funding channels for Chinese companies to borrow overseas, despite its still small scale. The offshore RMB bond market has tripled YTD, topping RMB200bn by October.

The difficulty of remitting RMB under the capital account was previously a curb to growth in the dim sum bond market. The situation is changing and in October regulators released guidance specifically to streamline the process for approving offshore remittance of RMB as foreign direct investment (FDI). The clearer guidance and simplified procedures could further boost the growth of the offshore RMB market.

We are already starting to witness a rise in corporate borrowing in the offshore market. The share of outstanding corporate bonds of the total offshore market increased to 38% from 30% at the beginning of the year, despite record issuance of Chinese government bonds in August (Figure 129).

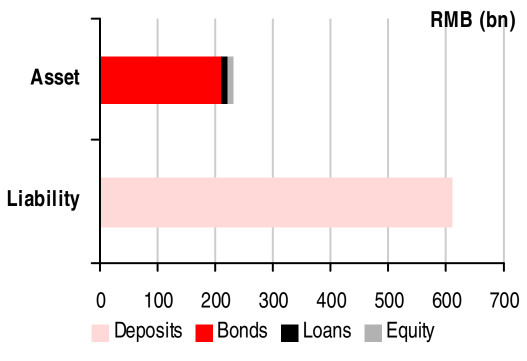
Fig. 129: Cumulative CNH issuance: Corp vs. non-corp



Source: HSBC

From the demand side, a mismatch of RMB assets and liabilities in the offshore market will likely continue to support demand for dim sum bonds. Figure 130 shows that with offshore renminbi deposits topping RMB600bn by August, the size of investment products and loans totalled only RMB230bn, slightly over one-third of deposits.

Fig. 130: Asset-liability imbalance in the offshore market



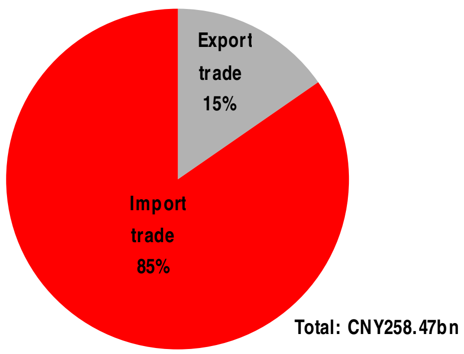
Source: HSBC, Bloomberg

The offshore RMB deposit base is poised to grow further. This will be supported fast growing cross-border trade settlement denominated in RMB. Over RMB950bn of China's cross-border trade was conducted in RMB in the first half of this year, and we expect the annual settlement amount will soon reach RMB2trn.

In addition, there is an incentive to arbitrage the onshore-offshore exchange rate and interest rate differentials. With the RMB mostly trading at a stronger exchange rate in the offshore market than onshore for the most part the year until recently, there has been a clear skew in trade settlement activities towards imports rather than exports.

Figure 131 shows that even as of 1Q11, RMB settlement for imports accounted for a dominant share of RMB trade settlement at 85% versus 15% for exports. Although better than previous quarters, this further contributed to the unwelcome surge in China's foreign reserves, and at the same time resulted in a rapid build-up of the offshore RMB pool.

Fig. 131: RMB trade settlement by imports vs. exports (1Q11)

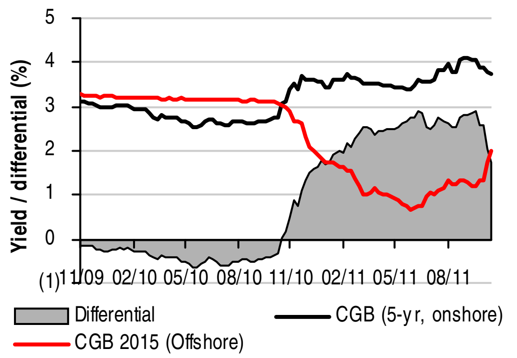


Source: SAFE, HSBC

In terms of the supply side, low yields of offshore RMB bonds had been one of the reasons for companies to borrow from this market, but this factor is now less significant. Following the prolonged correction that started in June, it might not be economical for issuers who also have access to the Eurodollar bond market. For instance, offshore Chinese government bonds are now trading as much as 150bp outside comparable US Treasuries (USTs), from 90-100bp inside USTs a few months ago.

However, the large interest rate differential between the onshore and offshore market has been, and will likely continue to be, the major incentive for issuers to raise offshore funding, should they have the approval for remitting such funds onshore. Although narrowing from record-highs, the differential is still significant – for example, yield differential between the 5-year Chinese government bonds in the onshore and offshore markets stood at 175bp by late October, down from 290bp a month ago (Figure 132).

Fig. 132: Widening gap between on and offshore RMB rates



Source: HSBC

Quiet offshore entry to the inter-bank market

Offshore participation of the onshore bond markets used to be available only to QFIIs for bonds listed on the stock exchanges. However, exchanges account for less than 2%[9] of the total onshore markets, and poor liquidity there further restricts any meaningful participation by QFIIs.

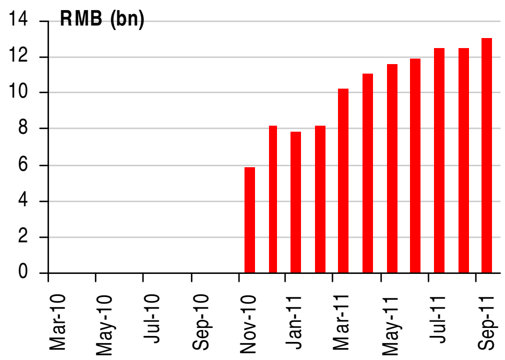
In August 2010, the PBOC announced the "Notice on Pilot Scheme for RMB Clearing Bank and other eligible institutions outside the mainland to invest in the onshore inter-bank bond market". Thirty-five qualified foreign institutions, mainly foreign RMB settlement banks, have been approved to enter China's onshore inter-bank bond market. This is a significant step forward, allowing foreign participation in China's deepest market. The purpose is not for investment, but to underpin the internationalisation of the RMB by supporting settlement banks – the major entities that conduct RMB cross-border trades.

There has been little transparency in terms of the quota assigned to these entities, but it widely believed to be relatively small. The only quota that has been officially announced was that of the HKMA, at RMB15bn, far smaller than the size of its bilateral swap line with the PBOC at RMB200bn.

There is also little transparency regarding foreign institutions' holding of onshore bonds as most of them do not wish to disclose details. However, a special custodian category under "other commercial banks" at CDC, the central custodian for all bonds trading in China's inter-bank market, suggests that the total amount of offshore purchasing since end 2010 has already hit more than RMB10bn.

There are separate entries for all major types of commercial banks, such as "national commercial banks", "city commercial banks", and "foreign-owned commercial banks". Obviously, these foreign institutions do not belong to any of these categories. Moreover, although holdings by domestic entities could also be under this special category, the amount was always near zero. It only started to increase after three special types of offshore institutions received approval to enter the onshore market (Figure 133).

Fig. 133: Estimated inter-bank bond holding by offshore entities



Source: CDC, HSBC

9 *As of end 2010, the inter-bank and the exchange market accounted for 94% and 1% of the total bonds in depository with the remaining 5% at commercial bank counters offered to retailers. Both bond issuance and market volume are on the decline in the Exchange, prompting the CSRC, the PBOC and the CBRC to allow banks to enter the Exchange market in 2009, but with limited impact so far.*

Notes

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Disclosure appendix

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Overweight: The credits of the issuer are expected to outperform those of other issuers in the sector over the next six months

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