

Chinese Credit and Asset Market Speculation

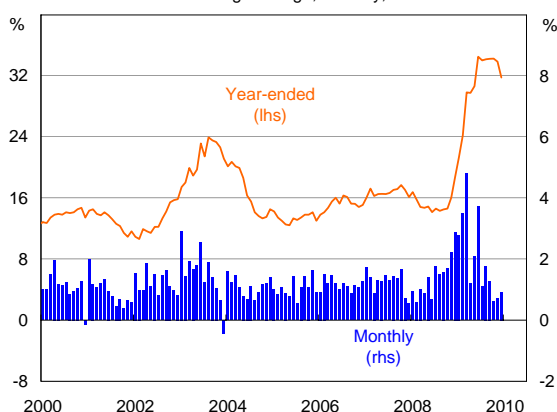
Chinese economic growth has been remarkably resilient given the severity of the global downturn. GDP increased by 8.7 per cent in 2009 – only slightly slower than in 2008 – while most other major economies contracted. A salient feature of China's performance has been the enormous increase in bank lending, equivalent to 28 per cent of nominal GDP in 2009. This note examines the nature of this lending and demonstrates that enterprises and households have used it to fund new investment.

The enormous monetary expansion has raised concerns that asset price bubbles may emerge. This note also briefly examines the housing and equity markets, concluding that neither are clearly overvalued at this stage. While both markets have the potential to become inflated with time, it would depend to a large degree on how authorities respond. So far the People's Bank of China appear to have shifted to a tightening bias and authorities have indicated a willingness to rein in the housing market.

Credit growth in China

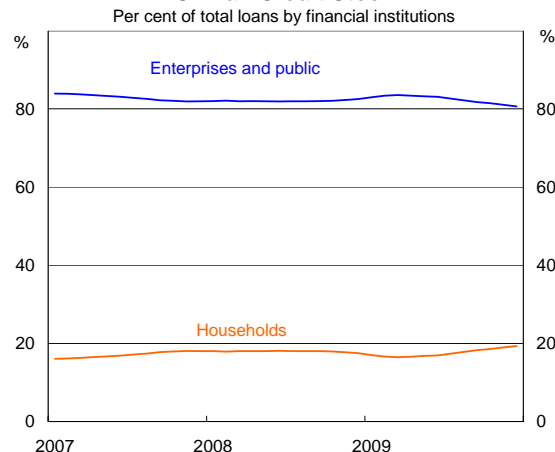
In 2009, financial institutions lent RMB9.5 trillion to the domestic economy, equivalent to 28 per cent of nominal GDP (Graph 1). Credit growth was most rapid in the first half of the year, being facilitated through a significant expansion in the money supply, and was encouraged by the People's Bank of China (PBOC). The latter is possibly illustrated by state-owned bank lending increasing more rapidly than other financial institutions.¹ Demand for credit was also encouraged by lowering benchmark lending rates and reducing down-payment requirements.

Graph 1
China - Credit Growth*
Percentage change, monthly, sa



* Manually break adjusted in January 2004. Credit growth in the latest three months estimated using 'new increase' data and is not seasonally adjusted.

Graph 2
China - Credit Stock
Per cent of total loans by financial institutions



Credit growth to both households and non-households (henceforth enterprises²) has been rapid. Lending to enterprises accounted for around three-quarters of new lending in 2009. The higher share is unsurprising as enterprises are traditionally larger borrowers, illustrated by the sector accounting for roughly 80 per cent of the stock of intermediated credit (Graph 2). In growth terms credit to households has been stronger, demonstrated by its share of the stock of credit rising over 2009. For

¹ Lending guidance remains an important monetary policy tool in China (known as 'window guidance'). In addition, the PBOC influences the type of lending, illustrated by their suppression of bill financing in mid 2009.

² Non-household sector includes non-financial enterprises and government. The flow of funds illustrates credit to government entities is small and sporadic. Thus, for the purposes of clarity we refer to non-households as enterprises.

more detail on external funding in China see Appendix A.

The use of credit by enterprises and households

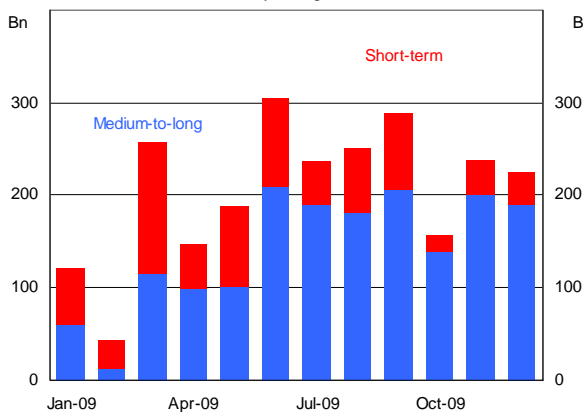
Credit growth has been exceptionally rapid, but how households and enterprises use this credit is critical in assessing its impact on the real economy and asset markets. Households and enterprises can use credit to purchase goods and services, tangible assets or financial assets. While data limitations make disentangling the exact nature of these flows difficult, the evidence suggests funds have supported new investment.

Household credit has mostly flowed into *new* dwelling assets. More than two-thirds of household credit lent this year was medium-to-long term, which is essentially mortgages (Graph 3). This seems reasonable in the current climate, with mortgage rates historically low and down-payment requirements reduced (from 30 per cent to 20 per cent). However, the value of mortgages was significantly less than the value of new dwelling sales in 2009 (Graph 4).³ This would suggest that a large proportion of household credit has funded *new* dwelling sales, rather than competing for *existing* dwelling assets.

The remaining one-third of household credit has probably supported consumption, especially given the strength of big-ticket purchases of automobiles and household appliances which are more likely to require some external financing. Households may have also invested in equity, although the value of non-mortgage credit is small compared with equity market capitalisation.⁴

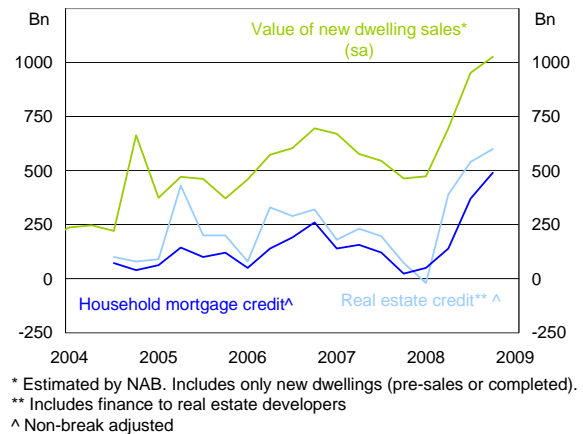
Graph 3

China - Household Credit Growth
Monthly change, RMB



Graph 4

Mortgage Credit and New Dwelling Sales
Quarterly, RMB



While enterprises' use of credit is more opaque, the sheer amount of fixed investment completed recently suggests a large proportion has been channelled into the real economy. Enterprises and government entities sourced almost RMB12 trillion in new funds in the first nine months of 2009, of which credit accounted for roughly three-fifths (Graph 5). This was only slightly less than the total value of fixed asset investment undertaken in the same period, limiting the extent to which credit could have fuelled speculation in existing assets. Admittedly, firms could also fund investment / asset speculation from their *stock* of financial assets, however, data limitations prevent this from being examined.⁵

Enterprises borrowed RMB5 trillion in medium and long-term loans in 2009, equivalent to 70 per cent of total lending to enterprises (Graph 6). A substantial proportion of this lending relates to fiscal stimulus

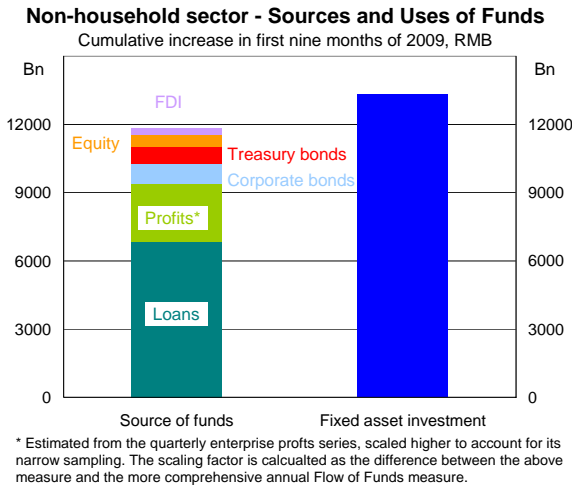
³ While large, the difference between credit and the value of new construction sales is probably not unreasonable. The minimum down payment is 20 per cent but, as significant savers, households are likely to provide more initial capital.

⁴ The *Flow of Funds* show that households are increasingly active participants in equity markets, accounting for up to 40 per cent of new household investment in 2007.

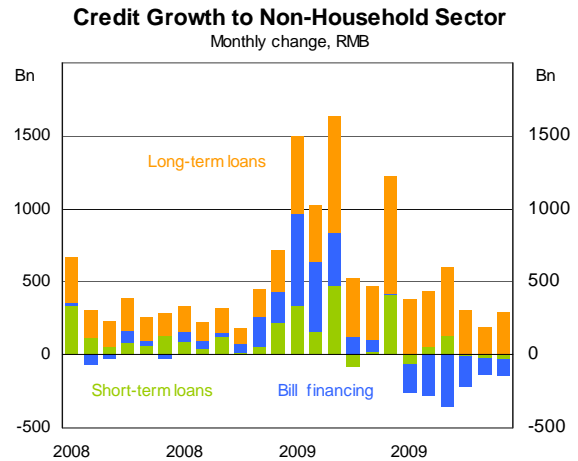
⁵ The money multiplier effect and redistribution of funds to owners would also complicate the relationship between funds sourced and investment over time.

projects; the central government was to finance one-third of the RMB4 trillion stimulus package, with the remaining amount funded via the financial sector. This is supported by the PBOC stating that RMB2.1 trillion of medium to long-term credit was channelled into water conservancy, environment & public facility and transportation, storage & postal sectors, both key areas targeted by the fiscal stimulus package.

Graph 5



Graph 6



The remainder of credit to enterprises was lent at shorter-maturities, and mostly occurred at the beginning of the year. One explanation is that enterprises sought to bolster capital levels as profits declined, with shorter-term lending an expedient and cheap method. On the other hand, anecdotal evidence suggests it also financed short-term speculation in equity markets. Irrespective of the validity of either explanation, the impact of this lending has since been largely unwound. Short-term lending slowed dramatically in the second half of 2009, and bill financing subtracted RMB1¼ trillion from net-credit as maturing loans were not rolled over.

Is there evidence of asset bubbles?

While credit has clearly funded new investment in the first instance, the subsequent effect of the enormous monetary injection is likely to be contributing to the escalation in asset prices. Notwithstanding the difficulty in identifying asset bubbles in real time, we suspect that neither market is yet clearly overvalued.

On the face of it, some recent housing market developments appear symptomatic of a bubble. Sales nearly doubled over the past year, housing credit has increased sharply, and house price growth in the secondary market has accelerated rapidly (Graph 7). However, for three reasons the housing market is less precarious than implied from the above indicators:

- The sector is pro-cyclical and the current upswing follows a policy-induced downturn through 2008 in which nominal house prices declined.
- There is significant regional discrepancy in price growth, with the measure skewed by rapid appreciations in a few cities.⁶ Illustrating this skewness more generally, the median increase of the 70 cities measured over the past year was almost half that of the overall index. Further, prices in only 13 cities increased by more than the overall index (Graph 8).
- A significant deterioration in affordability is not widely evident. The price-to-income ratio has increased in only 3 of the 35 cities that data exists for over the year to the September quarter 2009, and follows affordability generally improving over the proceeding year.⁷

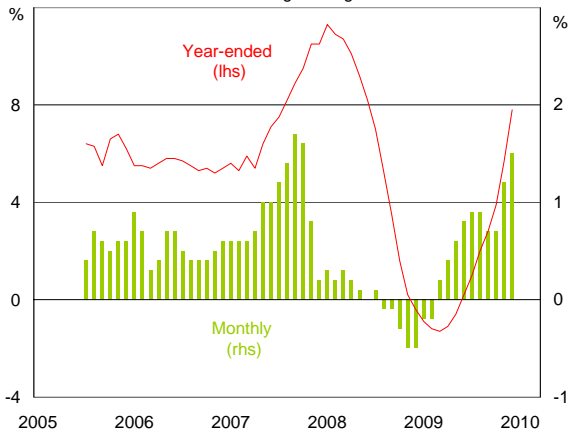
⁶ House prices in Shenzhen increased by nearly 20 per cent over 2009, and by more than 12 per cent in Wenzhou and Jinhua. Also, skewness may reflect city weights used in the construction of the overall index.

⁷ Only changes in affordability can be identified since house prices are indices (constructed from year-ended rate) not levels.

Additionally, a slew of measures introduced recently by authorities have attempted to minimise excessive speculation. This has included greater scrutiny of lending, some credit rationing, higher down-payment ratio for land purchases and the removal of tax-related incentives introduced a year earlier. The government has also committed to constructing 1.3 million low-cost homes and 1.8 million low-rent homes in 2010 which may help alleviate some price pressures while continuing to support growth and employment.

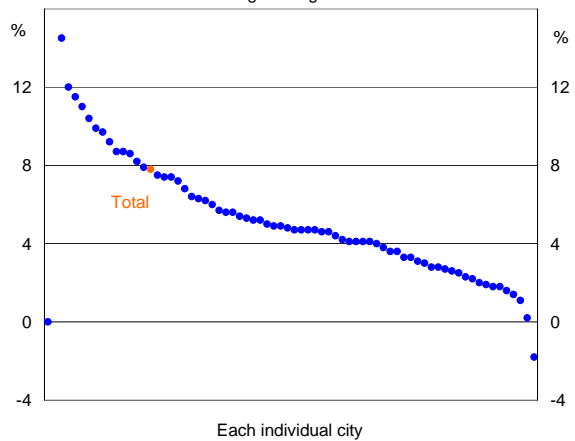
Graph 7

China - 70-cities Property Price Index
Percentage change



Graph 8

70-cities house Price Index - By City*
Percentage change over 2009



There has been a substantial inflow of funds into equity markets, with the capitalisation of the Shanghai and Shenzhen up by RMB13 trillion since late 2008 (Graph 9). While substantial, this follows a net outflow of RMB21 trillion over the preceding ten months. These swings are likely to reflect investors reallocating their portfolios away from deposits (or other low-risk assets) as risk appetite increases. Data limitations prevent this from being examined, but its effect is likely to be more significant than credit flows since the *stock* of deposits far exceeds the *change* in deposits.

Additionally, the rebound in Chinese equity markets is not that unique. The US equity market has increased by more than 40 per cent since their trough, while many Asian equity markets have recovered markedly faster (Graph 10). That China has outperformed most appears reasonable given the milder downturn and quicker recovery. India, which was also relatively unscathed by the global recession, has recovered by a similar degree. Further, Chinese enterprise profits are well above their levels prior to the onset of the global slowdown and price-to-earnings ratios are still well below the levels reached in late 2007 (Graph 9).

Graph 9

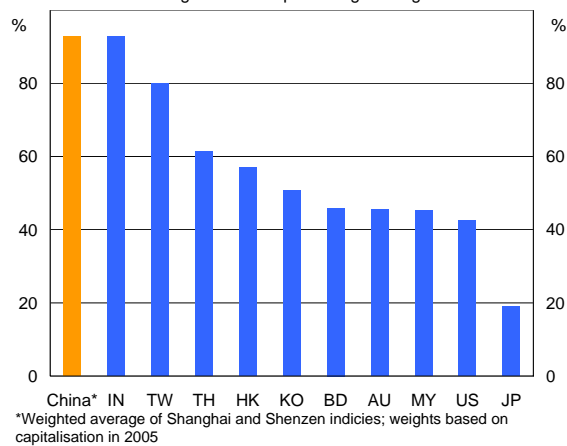
China - Equity Market



* Sum of A shares listed on the Shanghai and Shenzhen exchanges

Graph 10

Global Equity Markets
Trough-to-current percentage change



*Weighted average of Shanghai and Shenzhen indices; weights based on capitalisation in 2005

Appendix A: The nature of external financing in China

Financing in China is most comprehensively covered by the financial accounts of the annual *Flow of Funds* (2007 is the latest), illustrating who demands external financing, the form that it takes, and who provides it.

Financial institutions source roughly 70 per cent of their funding requirements through deposits, and around 15 per cent via bond issuance.^{8 9} The share of bond issuances has risen noticeably over the past decade, which has subsequently reduced the banks' reliance on deposits. Roughly a third of these funds are used to provide loans to the domestic sector and another third is for the purchase of bonds and equity. In terms of intermediated credit, market share is dominated by the four state-owned banks and commercial banks (Graph 1A).

Non-financial enterprises have the largest external financing needs and various avenues through which to source funds. In 2007, the sector received RMB4.7 trillion in funding, with nearly three-fifths via intermediated credit from the domestic financial sector (Graph 1B). The other main sources include foreign direct investment (~20 per cent), new equity issuances (~10 per cent) and corporate bonds (~5 per cent). These shares have been fairly stable over time.

Household external financing tends to be relatively small – the sector received RMB1.1 trillion in 2007 - with intermediated credit its sole source. The household sector only accounts for around 20 per cent of the stock of credit, which is substantially lower than in developed economies.¹⁰ This is unsurprising given that households are high savers (these factors may be inter-related as poor accessibility to intermediated credit in turn requires households to save for high-value purchases).

The public sector is a historically small borrower, consistent with the budget deficit having not exceeded 2½ per cent in over two decades. Funding is mostly by treasury bond issuance, and sporadically via intermediated credit. The value of bond issuances has generally exceed funding requirements – on occasions by more than 5 per cent of nominal GDP – implying the public sector has acquired financial assets (largely deposits). In 2009, public funding has increased substantially with authorities anticipating a budget deficit of nearly 3 per cent of nominal GDP.

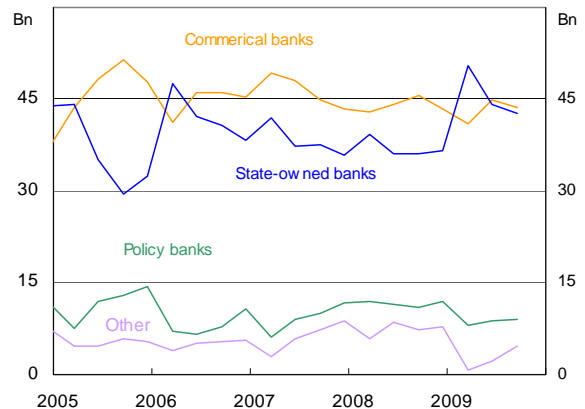
⁸ Financial institutions include the Peoples Bank of China and 'other depository institutions'. The latter category includes the four state-owned Chinese banks, the three policy banks, commercial banks and other financial companies.

⁹ Reserve funds are excluded from the calculation as these are recorded as both a source and use.

¹⁰ For instance, in Australia roughly three-fifths of the stock of credit is held by the household sector.

Graph 1A

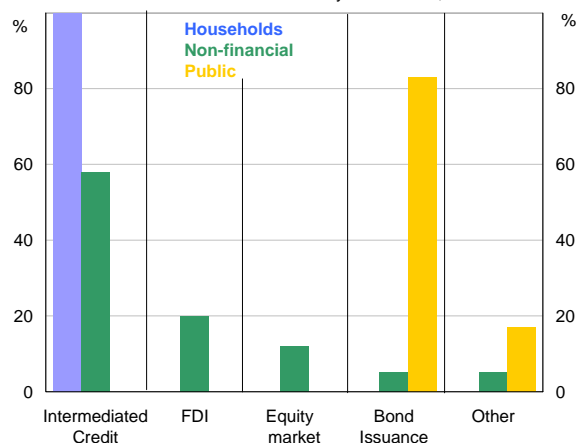
China - Intermediated Credit
Per cent of total new credit



Graph 1B

China - Source of Funds

Per cent of total funds raised by each sector, 2007



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