Box A

Household Sector Risks in China

The growth and level of corporate debt in China has received significant attention, but household debt has also grown rapidly, albeit from a much lower base. The rise in household debt over the past decade is notable because it can negatively affect both financial stability and economic growth.[1] This Box assesses the direct risk that household debt poses to the financial system in China.

Household debt in China has grown at an average annual rate of more than 20 per cent over the past decade. As a result, the ratio of household debt to GDP has increased sharply, from about 20 per cent in 2009 to around 55 per cent currently (Graph A.1). This ratio is lower than in most advanced economies, but is higher than in many other large emerging market economies. Further, the ratio of household debt to household disposable income is higher relative to other countries, because household income is a low share of GDP in China. This ratio reached 112 per cent in 2017, up from 43 per cent in 2008, and is now comparable to the United States, Euro area, Japan and the OECD average.[2]

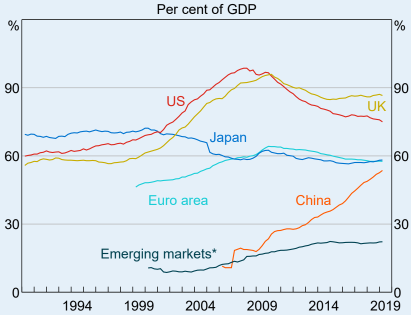
The increase in household debt reflects the rapid process of financial deepening following reforms that were in part designed to increase household consumption as a share of economic activity in China. These included the privatisation of the housing stock and introduction of mortgages in the 1990s and ongoing financial deregulation. The increase in household income and a decline in interest rates in China over the 2010s have also raised households' ability to service debt. The increase in debt has also been accompanied by a sharp rise in housing prices.

Mortgage debt has been the biggest driver of the increase in household debt over the past decade, and now accounts for around half of household debt in China (Graph A.2). Credit card debt has also risen strongly. Growth in personal business loans has been less pronounced, but these loans still account for around 20 per cent of household debt. Growth in some riskier types of household debt not measured in official household debt statistics, such as peer-to-peer (P2P) and other online lending, has been particularly strong in the past few years, although it has slowed recently after the Chinese authorities tightened regulation of this lending.

Graph A.1

Household Debt

Per cent of GDP



* Weighted average of selected emerging market economies

Sources: BIS; RBA; Refinitiv

Risks to the financial system from household debt have risen

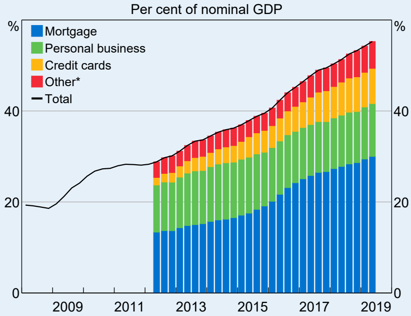
The sharp rise in household debt in China suggests that the risks to households and the financial system have increased, although household debt is still only one-third of the size of corporate debt in China. Higher debt makes households more vulnerable to adverse shocks, such as a fall in income, higher interest rates, or falls in housing prices. More generally, rapid growth in debt has often been found to signal heightened risk of financial crisis.[3] This is because rapid credit growth can coincide with weaker lending standards, and frequently with excessive increases in asset prices, which can reverse suddenly.

The direct risks to the financial system from household debt depend on the size of lenders' exposures relative to their balance sheets, the likelihood of households defaulting and lenders' losses in the event of default (loss-given-default). These elements are explored below, firstly from the perspective of lenders' exposures and loan characteristics, and then from the perspective of the characteristics of borrowers.

Graph A.2

China – Household Debt

Per cent of nominal GDP



* Other debt includes car loans and personal loans

Source: CEIC Data

Loans to households are a moderate share of banks' assets

In China, lending to households is mainly facilitated by banks. Household credit has risen strongly as a share of banking assets to almost 20 per cent (Graph A.3). Within the banking system, state-owned banks provide around half of credit to households. However, this share has declined in recent years because loans from some types of smaller banks have grown more rapidly. Overall, loans to households in China are still a smaller fraction of banks' total assets than in advanced economies.[4] Risk weights on residential mortgages in China, at around 50 per cent, also tend to be higher than in advanced economies, implying that banks hold larger capital buffers. This suggests that there would have to be relatively high rates of default, and loss-given-default, on loans to households to threaten banks' solvency.

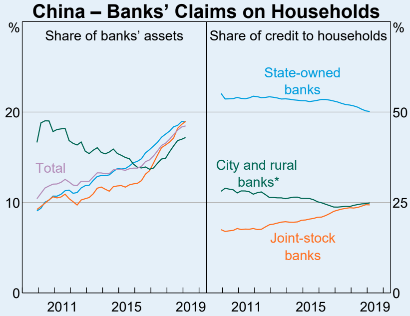
A key determinant of loss-given-default is the extent to which loans are collateralised. For housing loans, this depends on loan-to-valuation ratios (LVRs). In 2017, LVRs at origination in China averaged around 60 per cent.[5] This is consistent with the imposition of maximum LVRs by authorities of 80 per cent for first homes and 70 per cent for second homes, with some city and provincial authorities imposing lower caps. In practice, current LVRs for outstanding loans are likely to be lower still, because housing prices have risen significantly in recent years. Accordingly, LVRs in China appear to be low in absolute terms, and comparable to those in other countries, which somewhat mitigates the risk of loss to lenders.

Lenders' loss-given-default also depends on the ability to take control of and liquidate collateral, and pursue debtors more generally. Mortgage loans in China are full recourse, meaning that defaulting borrowers remain liable when the proceeds from the sale of their home are less than the outstanding balance on their loan. In principle, this should reduce the risk of losses for lenders. More generally, it should also discourage borrowers' risk-taking and reduce the incentive to default. However, liquidation of collateral and asset seizures may not always be straightforward in China for legal and other reasons.[6] The net effect of these two opposing influences on lenders' ability to pursue full repayment, and so their loss-given-default, is uncertain. The effect on lenders' and borrowers' willingness to make and take on riskier loans is also unclear.

Until mid 2018, household borrowing via non-bank channels, including P2P and other online lending platforms, had been increasing rapidly. This is likely to be riskier – for borrowers, lenders and the financial system – than traditional bank lending. In particular, non-banks are subject to less regulatory oversight, so lending standards and both lender and borrower resilience can be weaker. There is also some evidence that households have been using non-bank channels – as well as personal bank loans – to finance housing deposits. While still a relatively small part of borrowing by households, this suggests that household debt is more concentrated among home buyers, and that LVRs are higher, than the mortgage data indicate. This raises both the probability of default and the size of losses to bank lenders in the event of default.

Graph A.3

China – Banks' Claims on Households



* Includes cooperatives

Source: CEIC Data

The risks to lenders also depend on downside risks to housing prices, given the importance of housing as collateral. Large price falls would both reduce household equity buffers and raise the likelihood of default, because distressed households would be less likely to be able to sell their property to fully repay their loan. Housing prices in China have risen rapidly over recent years and are generally seen as high relative to incomes. An element of speculative activity has likely been a driver of this growth, raising the spectre of overvaluation and possible large price falls. In particular, investors may be more likely than owner-occupiers to sell their properties in a downturn, amplifying any fall in prices. In response, authorities have forced banks to tighten their lending standards and have imposed sale and purchase restrictions in a large number of cities over recent years, especially for second and third dwellings. This appears to have slowed the increase in prices. More generally, the Chinese authorities have displayed a willingness over the past decade to employ policy measures to prevent large housing price falls, which reduces the risk to lenders.

Household debt is concentrated among high-income households

Risks to the financial system from household debt depend on households' ability to service and repay their debts. At present, households seem to be having little difficulty meeting their financial obligations. The available data suggest that the non-performing loan (NPL) ratio for household loans remains low at 1.5 per cent.[7] In assessing the risks from household debt, it is important to take account of the distribution of the debt across households. For example, if most debt is owed by high-income and high-wealth households, it poses less risk to lenders because these borrowers are better able to repay.

Survey estimates suggest that household debt is concentrated in a relatively small share of Chinese households. Only around 15 per cent of Chinese households participate in formal debt markets, although the use of informal channels, such as borrowing from family and friends or online non-bank lenders, means that the share of households with some form of debt is likely to be somewhat higher.[8]

Household debt is concentrated among high-income and high-wealth households, as it is in many other countries. For urban households, around three-quarters of debt is owed by households in the top two income quintiles. Only around 10 per cent of debt is owed by households in the lowest income quintile.[9] Similarly, households in the richer coastal provinces tend to be more indebted. The concentration of debt implies that those households with debt have much higher debt-to-income (DTI) ratios than the aggregate figures suggest. Indeed, the IMF estimates that almost half of all household debt in China is owed by households with a DTI ratio greater than four.[10] However, household income growth remains rapid in China, which will help households service and ultimately repay their debts.

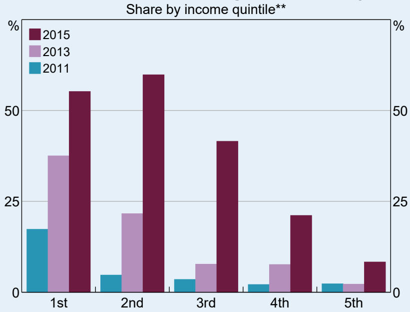
In aggregate, debt-service ratios in China (DSRs; required principal and interest payments relative to household disposable income) are higher than some advanced economies. As noted above, most debt is owed by high-income households, who are better placed to support high DSR ratios since a smaller share of their income is needed for essential items like food. Further, interest payments take up more than 40 per cent of disposable income for only around 15 per cent of households in the top two income quintiles.[11] In contrast, interest payments take up more than 40 per cent of disposable income for just over half of indebted households in the bottom income quintile, up from around one-fifth in 2011 (Graph A.4). These households appear significantly more vulnerable than high-income households, but they account for only a small share of household debt and so are a limited risk to the financial sector.

For the household sector as a whole, the debt-to-asset (DTA) ratio is very low. The low ratio is consistent with the high household saving rate in China, which has resulted in a large accumulation of both property and financial assets. Survey evidence suggests that the DTA ratio for indebted households is still relatively low at around 15 per cent.[12] Further, only around 2 per cent of indebted households in the top two income quintiles,

Graph A.4

China – Households with High Interest Payments*

Share by income quintile**



* Interest payments greater than 40 per cent of disposable income
** The 1st income quintile is the lowest income quintile
Source: CHFS

and 7 per cent of those in the lowest income quintile, are estimated to have more debt than marketable assets. Almost all households should then be able to sell their assets to repay their debt if they needed to because of a shock to their income or expenses. However, the share that do not have enough assets to cover their debt would obviously increase if asset prices were to fall.

Overall risks appear contained

The rapid growth of household debt, to a relatively high level given China's stage of development, is a risk for the Chinese financial system. Rapid lending growth may have resulted in some poor quality loans. However, overall the risks seem contained at present. The debt is concentrated among high-income households, loans to households still comprise a fairly small share of banks' assets, banks are required to hold relatively high levels of capital against housing loans, and households seem to have considerable equity buffers (albeit likely smaller than available data suggest). Nonetheless, pockets of vulnerability exist, with some households having quite high DTI and DSR ratios. Further, higher household debt may pose risks to the macroeconomy. In particular, international experience suggests that high levels of household debt can amplify income and wealth shocks. In response to negative shocks, indebted households can cut back spending by more than non-indebted households, even if the banking system remains resilient. Policy-makers have implemented a range of prudential policies in response to these risks. More generally, the Chinese authorities have also shown a willingness to support households in ways that are not common in advanced economies. Nonetheless, ongoing strong growth of household debt may suggest a further build-up of risk.

Endnotes

[1] A growing literature suggests that higher household debt can lead to slower future growth in consumption spending and GDP (see Drehmann M, M Juselius and A Korinek (2017), 'Accounting for Debt Service: The Painful Legacy of Credit Booms', *BIS Working Papers*, No. 645). Recessions can also be deeper when the preceding boom involves higher-than-normal credit growth (including to households; for example see Mian A, A Sufi and E Verner (2017), 'Household Debt and Business Cycles Worldwide', *The Quarterly Journal of Economics*, 132(4), pp 1755–1817).

[2] People's Bank of China (2018), 'Financial Stability Report', p 48.

[3] For example, see Schularick M and AM Taylor (2012), 'Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870–2008', *American Economic Review*, 102(2), pp 1029–61.

[4] See IMF (2017), Household Debt and Financial Stability, *Global Financial Stability Report*, October, p 74.

[5] People's Bank of China, loc. cit.

[6] There are some protections for debtors built into the law. For example, debtors may be able to pay their obligation in instalments and can keep a minimum level of assets that allows them to take care of themselves and their families. See IMF (2019), 'People's Republic of China: Selected Issues', IMF Country Report No. 19/274, p 25.

[7] However, this is likely to be a lower bound. For example, some loans in arrears for more than 90 days may be classified as 'special mention loans', although banks have made progress in recognising such loans as NPLs, after the authorities tightened NPL recognition standards. Some analysts also suggest that some NPLs have

been moved off banks' balance sheets or repackaged as 'investment receivables' to avoid recognition.

[8] See Funke M, R Sun and L Zhu (2018), 'The Credit Risk of Chinese Households: A Micro-level Assessment', BOFIT Discussion Paper No 12/2018.

[9] Gan L (forthcoming), based on findings from the 2017 wave of the China Household Finance Survey.

[10] IMF (2019), 'People's Republic of China: Selected Issues', IMF Country Report op. cit., p 20. However, alternative survey evidence suggests that the share of highly indebted households may be much lower (see Funke M, R Sun and L Zhu, loc. cit.

[11] Funke M, R Sun and L Zhu, loc. cit.

[12] Gan L (forthcoming), based on findings from the 2017 wave of the China Household Finance Survey.