

**CHINA'S RISING HOUSEHOLD DEBT:
A NEW DEBT TRAP?**

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EAI Background Brief No. 1547

Date of Publication: 16 July 2020

Executive Summary

1. Since the global financial crisis, China's household debt has been expanding rapidly, growing at an average annual rate of more than 20% from 2008 to 2018. While the ratio of household debt to gross domestic product (GDP; 53% in 2018) is lower than in most advanced countries (for instance, the G20 average of 59%), it is higher than the 40% of many emerging market economies.
2. The rise in household leverage reflects financial deepening and development; when combined with rising incomes, it enhances access to credit due to improved financial inclusion.
3. Mortgage debt has been the biggest driver of the increase in household debt over the past decade and now accounts for more than half of China's household debt. By end-2019, housing-related debt accounted for 55% of total household debt. Credit card debt in total household borrowing had also risen by seven times from 2% in 2009 to 15% in 2018.
4. Higher household borrowing could increase macroeconomic risks. Empirical cross-country studies have found that higher household debt may lead to lower GDP growth, with higher debt repayment weakening aggregate demand by constraining future consumption growth and property investment. Property developers may face funding pressure and increase the probability of banking distress.
5. Household debt may further rise and amplify default risk amid rising unemployment due to trade tensions with the United States and the looming global recession brought about by the coronavirus pandemic. Weaker employment and income growth, resulting from a worsening job and export market, is likely to increase defaults in mortgages, credit card payments and overall household debt in China.
6. The risks are generally contained despite the buildup in household debt. Loans to households in China are still a smaller fraction of banks' total assets than that in advanced economies. Household balance sheets are still healthy with robust savings.

Financial regulators have also tightened supervision of consumer lending amid concerns about the surge in household debt.

7. For instance, multiple rounds of tough crackdowns had been launched on peer-to-peer lending platforms in 2018 while the authorities have forced banks to tighten their lending standards by imposing sale and purchase restrictions in a large number of Chinese cities in recent years, particularly for second and third dwellings.
8. To mitigate the risks associated with increasing household debt, household debt growth could be closely monitored with the use of macro-prudential measures to curb speculative activities in the real estate market and prevent over-borrowing for housing purchases.
9. There is also a need to put in place stringent credit standards by prohibiting households from using personal loans to finance home purchase as it will create a maturity mismatch problem. The government has so far adopted tools ranging from loan-to-value ratio caps to restrictions on purchases or resales to lessen the risk of a sharp housing correction in the short run.
10. Rising household debt will add to medium- to long-term challenges for domestic consumption and the financial sector. Going forward, the government would need to manage the risks between promoting consumption and averting potential financial distress, particularly given that economic growth is slowing both structurally and cyclically with ongoing structural transformation and weak global/external demand.

CHINA'S RISING HOUSEHOLD DEBT: A NEW DEBT TRAP?

Sarah CHAN*

Expanding Household Borrowing

- 1.1 Household debt in China has been expanding rapidly since the global financial crisis. According to data from the Bank for International Settlements (BIS), as of end-2018, the total debt of Chinese households stood at 52.6% of GDP (gross domestic product), above the emerging market average of 40% and 32 percentage points of GDP higher than in 2008. Part of the rise in household leverage reflects financial deepening and development, which, combined with rising incomes, facilitates more widespread access to credit as a result of improved financial inclusion.
- 1.2 The speed with which households¹ have accumulated leverage has raised concerns that further debt increases could adversely affect growth and financial stability. Fitch Ratings warned that the rapid pace of household debt growth in China is more of a concern than the level.² The People's Bank of China (PBOC) similarly warned that the figure of 60.4% at end-2018 was much higher than the average of emerging market economies (EMEs), even though the overall risks were still controllable and the bad loan ratio for household loans was still low.³
- 1.3 The sharp rise in household debt in China suggests that the risks facing households and the financial system have increased as household indebtedness could constrain future consumption growth and increase financial stability risks. Cross-country

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¹ According to China's System of National Accounts, household sector in China refers to the aggregation of urban and rural households, and individual businesses.

² In a report released in July 2019, Fitch wrote that "should China's gap with international peers effectively close in the next two to three years, this would add considerably to the country's overall macroeconomic vulnerabilities, given the corporate debt burden that is already among the world's largest by most measures".

³ PBOC, *China Financial Stability Report*, 2019.

studies⁴ indicate that higher household debt could increase consumption and GDP growth in the short term but reduce them in the longer term. The negative long-run effects will be intensified when household debt-to-GDP ratio exceeds the 60% threshold.⁵

- 1.4 Some studies also found that high household debt has been associated with lower consumption growth. The income elasticity of consumption is significantly higher in households with high levels of debt; as such, when facing a negative income shock, households with higher debt consume relatively less as they are more sensitive to income fluctuations.⁶
- 1.5 Household debt could also increase the probability of banking distress and financial stability risks. With high indebtedness, households are more vulnerable to adverse shocks which could force them to deleverage abruptly, particularly given that more than half of household debt in China is mortgages. As economic growth slows, the vulnerability of high household indebtedness is likely to amplify the impact of adverse income shocks on debt repayment capacity and hence household defaults, causing a deterioration in the quality of bank asset loans.
- 1.6 Overall, the risks are contained despite the buildup in household debt. Loans to households in China are still a smaller fraction of banks' total assets than that in advanced economies.⁷ Household balance sheets are still healthy with robust savings. Financial regulators have also moved to tighten supervision of consumer lending amid growing concerns about the surge in household debt. For instance, multiple rounds of tough crackdowns had been launched on peer-to-peer (P2P) lending platforms in 2018 while the authorities have forced banks to tighten their

⁴ Fei Han, Emilia Jurzyk, Wei Guo, Yun He and Nadia Rendak, "Assessing Macro-Financial Risks of Household Debt in China", International Monetary Fund (IMF) Working Paper WP/19/258, November 2019.

⁵ Lombardi, M, Mohanty, M and I Shim, 2017, "The Real Effects of Household Debt in the Short and Long Run", BIS Working Paper No. 607, BIS, Basel.

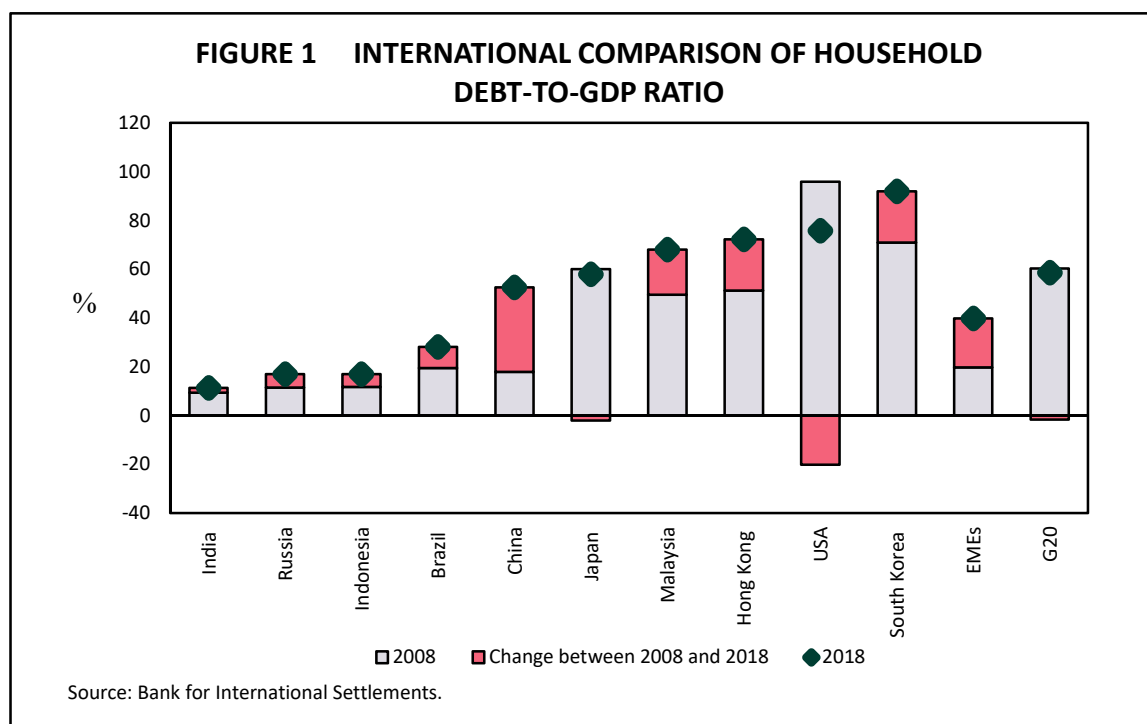
⁶ Nakajima J, 2018, "The Role of Household Debt Heterogeneity on Consumption: Evidence from Japanese Household Data", BIS Working Paper No. 736, 2018. Baker, S, 2013, "Debt and the Consumption Response to Household Income Shocks", Stanford University.

⁷ *IMF Financial Stability Report*, 2017.

lending standards by imposing sale and purchase restrictions in many Chinese cities in recent years, particularly for second and third dwellings.⁸

How Worrying is China's Household Debt?

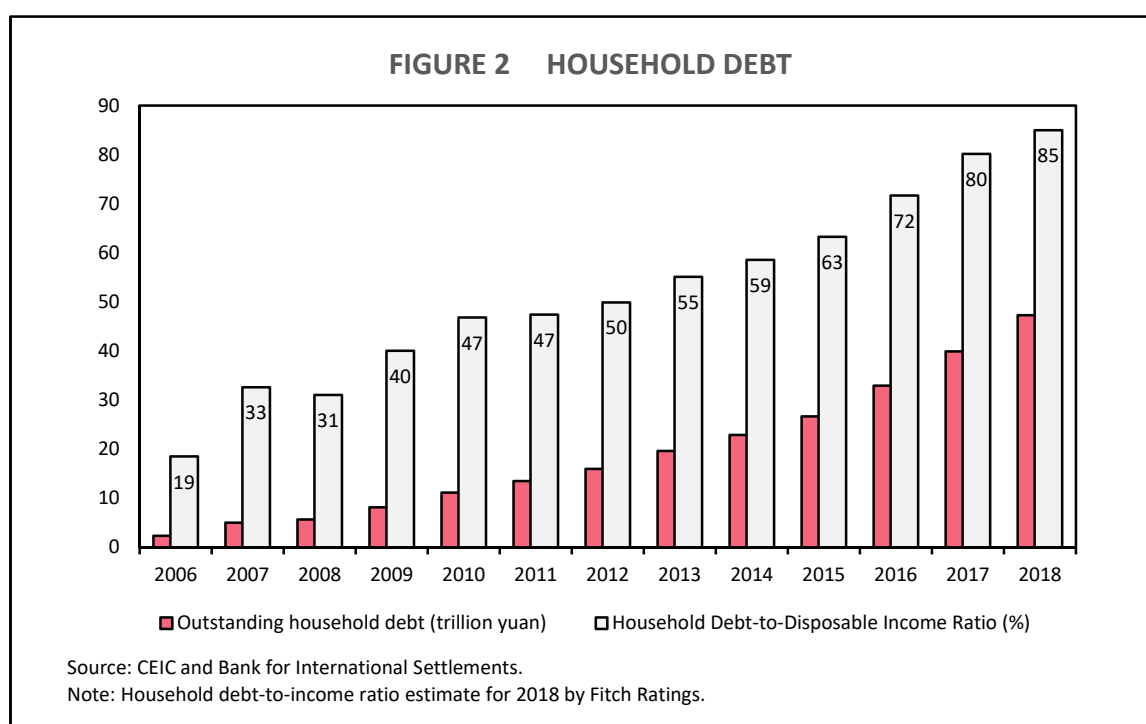
- 2.1 Household debt in China has grown at an average annual rate of more than 20% over the past decade (2008-2018). As a result, the ratio of household debt to GDP has increased sharply, from around 20% in 2009 to 53% in 2018.⁹ This ratio is comparatively lower than in most advanced countries (for instance, the G20 average of 59%) but higher than many EMEs of 40% (Figure 1). The pace of growth is particularly rapid when compared to the EMEs and China's regional neighbours like Malaysia and Korea.



⁸ Since 2018, China has changed its policy stance on household leverage, from encouraging to discouraging its growth. Its banking regulators have asked banks to cut lending to households. This is a policy reversal of the PBOC's encouragement to boost household lending, especially in mortgages, in 2016. It has implemented restrictive policies to curb housing speculation through very high (50%+) down-payment and caps on debt service-to-income ratio of less than 50% to discourage household borrowing.

⁹ To date, there are not many studies on China's household debt as there is no accurate data on household indebtedness (like local government debt). There are also idiosyncratic differences between the composition of household debt in China and other economies, which make international comparison and assessment difficult. For instance, China includes in its household debt, operating loans to small businesses due to their family-run nature, whereas this item usually comes under business loans in other economies. This complicates the international assessment of China's household sector risk.

2.2 The speed of growth in China's debt is also rapid when using the ratio of household debt to income as a measure of debt risk. Figure 2 shows that China's household debt to disposable income ratio doubled from 40% in 2009 to around 85-90% in 2018.¹⁰ The PBOC reported China's debt to income ratio to be 100% in 2018 whereas another estimate, using survey data by the National Bureau of Statistics (NBS), was 121% which was higher than some developed countries like the United States (99%), Germany (86%), Belgium (106%) and Japan (103%, 2017) but comparable to the UK (133%). The ratio appears alarmingly high as the denominator is calculated from the disposable income in household survey data collated by the NBS. Due to the process of data collection, residents may conceal or misreport their real income owing to tax evasion and this leads to an overestimation of the household debt-to-income ratio.



2.3 Using total disposable income data for the household sector in the flow of funds statement found in the National System of Accounts, China's household debt-to-income ratio of 90% in 2018 was lower than that of some advanced economies like

¹⁰ Fitch Ratings' estimate is 85% while the authors of the joint report released by CHFS and Ant Financial Group on "China Household Leverage Ratio and Consumer Credit Usage" estimate the ratio to be 90%.

the United States, UK and Japan but comparable to Germany, Chile (73%), Italy (80%) and Austria (85%).

2.4 Incidentally, a joint report released by the China Household Finance Survey (CHFS) and Research Centre (an academic institution established by Southwestern University of Finance and Law) and Ant Financial Group revealed a discrepancy when calculating China's household debt risk. In 2018, the total disposable income of residents derived from the funds of the national economic accounting system was 57.7 trillion yuan while the data of household survey collated by the NBS was 39.4 trillion yuan, a difference of 18.3 trillion yuan (Table 1). Per capita disposable income is hence underestimated by 13,000 yuan, suggesting that China's household debt-to-disposable income ratio (using survey data) may be higher than what is widely perceived.

TABLE 1 DIFFERENCES IN HOUSEHOLD DISPOSABLE INCOME REPORTED BY VARIOUS SOURCES

	Household Disposable Income (in trillion yuan) reported by NBS	Household Income (in trillion yuan) from Flow of Funds (FoF) data	Household debt-to-disposable income ratio, % (NBS)	Household debt-to-disposable income ratio, % (FoF)
2013	24.9	35.7	79.7	55.6
2014	27.6	39.1	83.9	59.2
2015	30.2	42.3	89.5	64.0
2016	32.9	45.6	101.3	73.1
2017	36.1	49.3	112.2	82.2
2018	39.4	57.7	121.6	90.2

Source: CHFS survey.

Note: Relying on a mix of CHFS and NBS data, the report's authors factor in transfer income sources that the NBS does not include, such as workers' compensation and subsidies to farmers, for instance. The National System of Accounts that the NBS relies on for its data also uses an accrual-based accounting method, whereas the report's authors use a cash-based method which can also contribute to reporting discrepancies. The authors note their methodology is more similar to the way OECD countries calculate household debt-to-income ratios.

2.5 The increase in household debt underscores the strong policy support in the past few years as part of financial liberalisation to facilitate economic rebalancing towards more consumption. It 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,

introduction of mortgages in the 1990s and ongoing financial deregulation.¹¹ The increase in household income and a decline in interest rates in China over the 2010s had also raised households' ability to service debt.¹²

- 2.6 Further, the deleveraging campaign launched in late 2016 redirected banks' incentives to lend to households rather than corporates. Following the regulatory crackdowns on shadow financing instruments that had previously delivered high returns, banks' net interest margins were reduced, giving banks the incentives to lend more to households since mortgage interest rates were higher than corporate lending rates particularly on loans to state-owned enterprises and local government financing vehicles.¹³
- 2.7 Mortgage debt has been the biggest driver of the increase in household debt over the past decade and now accounts for more than half of China's household debt.¹⁴ By end-2019, housing-related debt accounted for 55% of household's total debt (Figure 3), due largely to the booming property market and households' better access to credit. Housing loans for second and third homes have also increased rapidly. In 2018, 66% of housing loans were for the purchase of a second or third home, a sharp contrast to 2011 when fewer than 30% of home loans were for a second or third home.¹⁵

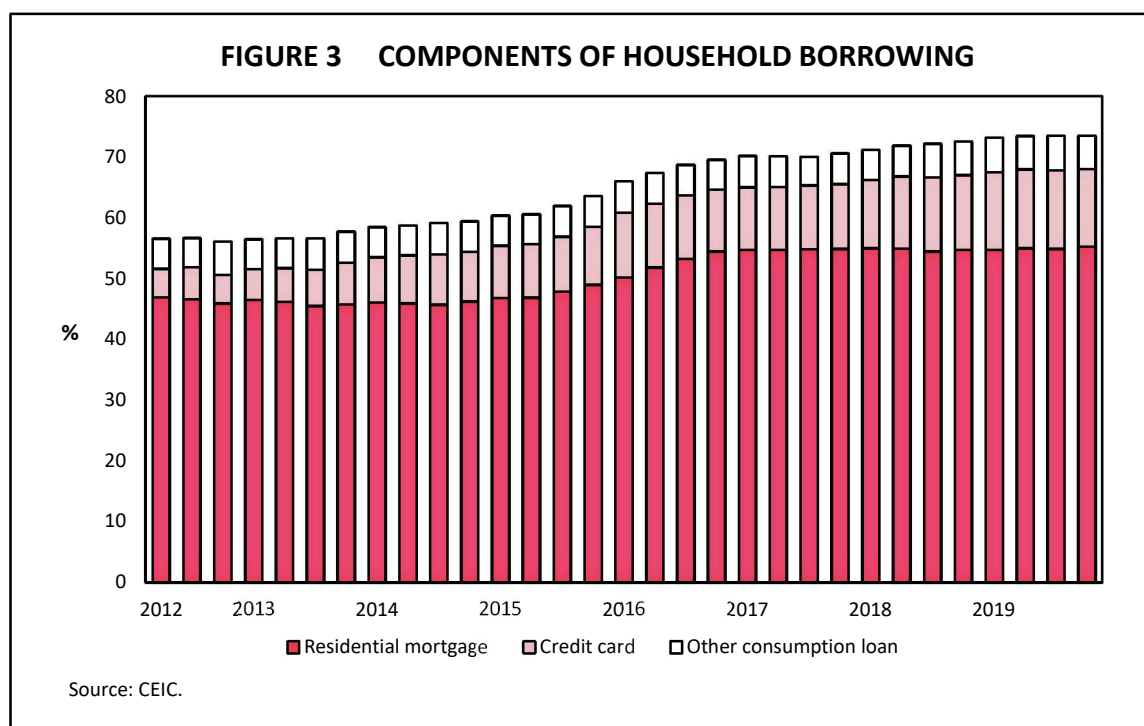
¹¹ Reserve Bank of Australia, "Household Sector Risks in China", *Financial Stability Review*, October 2019. Article available at < <https://www.rba.gov.au/publications/fsr/2019/oct/box-a-household-sector-risks-in-china.html> > (accessed 24 February 2020).

¹² Ibid.

¹³ Rhodium Group, "Covid-19 and China's Household Debt Dilemma", 12 May 2020.

¹⁴ Between 2013 and 2019, mortgages accounted for half (51%) of China's household debts.

¹⁵ Joint Report on "China Household Leverage Ratio and Consumer Credit Usage" by Survey and Research Centre for China Household Finance at the Southwestern University of Finance and Economics and Ant Financial Group. Article available at <<https://chfs.swufe.edu.cn/thinktank/resultsreport.html?id=2380>> (accessed 2 February 2020). The authors conducted survey on nearly 40,000 households in 29 provinces in China, excluding Tibet.



2.8 While much of China’s household debt has been led by property-related borrowing, consumption borrowing via auto financing and credit card facilities has seen rapid increase too. Card debt has risen strongly, with such debt experiencing a sevenfold surge in total household borrowing from 2% in 2009 to 15% in 2018. Such consumer credit access has been vital for supporting consumption since it allows households to tap into their “expected future earnings or income”, hence enhancing their current spending power via inter-temporal spending.

2.9 The aggregate debt-to-GDP ratios may well hide significant differences among China’s regions. Household indebtedness varies significantly across regions and is unevenly distributed among provinces. In 2018, provinces with a household leverage ratio above national average include Zhejiang (84%), Shanghai (83%), Beijing (72%), Guangdong (71%), Gansu (70%), Chongqing (69%), Fujian (66%) and Jiangxi (63%). The difference was as large as 50 percentage points between the highest Zhejiang province and the lowest Shanxi province. Among those provinces, the household debt-to-income ratios of Zhejiang, Shanghai, Beijing, Guangdong, Fujian and Chongqing were also above national average, indicating heavy household indebtedness.¹⁶

¹⁶ Refer to source in Footnote 15.

- 2.10 The aggregate debt-to-GDP ratios may also mask differences among household types. Low income groups are found to have very high debt burdens. According to the China Family Panel Studies conducted by the Peking University in 2016, debt burdens on low-income families were generally heavier than those on high-income families. For indebted families, the average debt-to-income ratio of families with an annual income of less than 60,000 yuan (US\$8,460) was 286% while that of families with an annual income of more than 360,000 yuan (US\$50,780) was 89%.¹⁷
- 2.11 Low-income families, with limited financial assets and inelastic spending on essentials, are therefore easily vulnerable to worsening financial conditions. They also tend to rely heavily on non-bank sources of credit compared to high-income groups. Nearly 75% of low-income earner debt came from non-bank sources of credit, whereas non-bank sources of credit accounted for 26% of high-income earners' debt.¹⁸ The main non-bank entities providing credit are consumer finance companies, auto finance firms and online lenders. They allow low-income groups, which have generally been overlooked by traditional financial service providers, more opportunities to gain access to credit. While some of the non-bank lenders are subject to regulatory control, most online lenders (including P2P lending platforms), are not licenced and could pose credit risks when they lend indiscriminately to households and individuals.¹⁹ Growth in these riskier types of household debt not measured in official household debt statistics has been particularly strong in the past few years, though it has slowed recently after the Chinese authorities tightened regulation of this lending.
- 2.12 A recent survey²⁰ published by the PBOC reveals that middle-class wage earners, young mortgage holders and small business owners also face huge risks from household indebtedness. According to the survey which looked at

¹⁷ Additionally, of the families earning less than 60,000 yuan annually, 0.8% owed debts of more than 500,000 yuan, which means that it will take them nearly a decade to repay debts with all their income on condition that there are no changes to their income levels. Refer to source in Footnote 3.

¹⁸ Refer to source in Footnote 15.

¹⁹ For example, they provided a way around loan-to-value requirements by allowing households with insufficient savings to also finance the down-payments of consumer items.

²⁰ The survey results were released by *China Finance*, a magazine affiliated to the central bank. It was the first national survey gauging the scale of household debt released to the public by the PBOC in recent years.

30,000 households nationwide in October 2019 and their balance sheets, property accounted for 59% of household assets (a higher proportion than that in the United States) and three quarters of liabilities for an average family having a mortgage of 389,000 yuan (US\$54,860). Households may have difficulty meeting their financial obligations as only 20% of the assets these households held were financial assets, making it difficult to turn them into liquid assets in times of emergency.²¹

Risks from Rising Household Debt

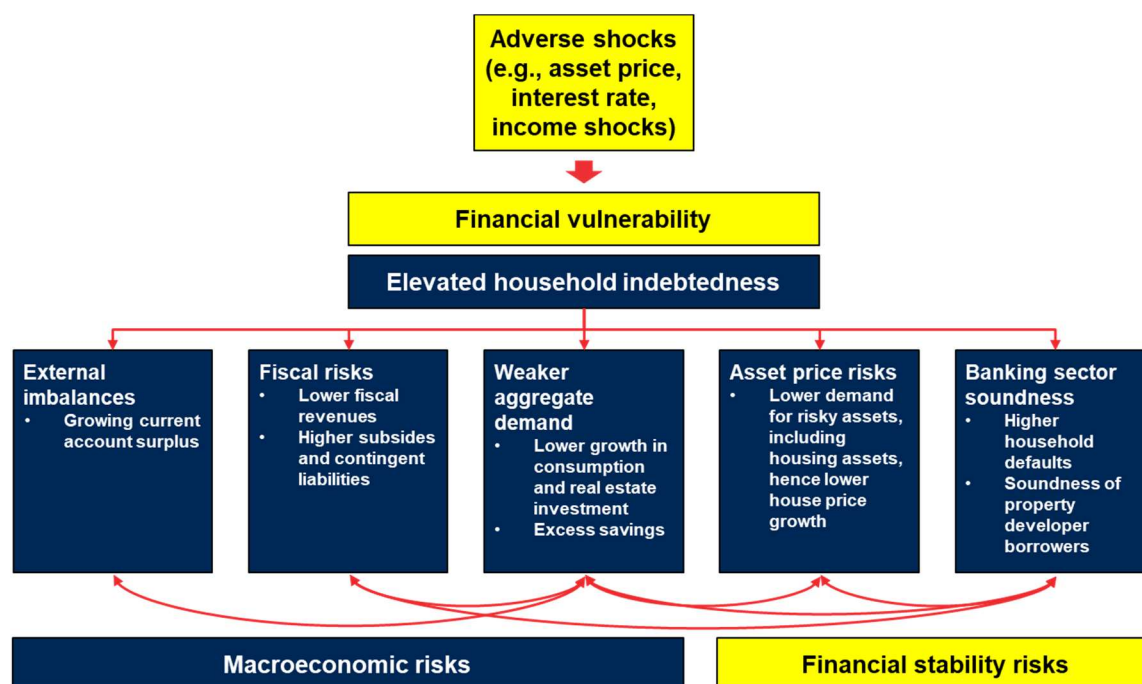
- 3.1 Higher household borrowing could increase macroeconomic risks. Empirical cross-country studies have found that higher household debt may lead to lower GDP growth.²² Higher debt repayments could weaken aggregate demand by constraining future consumption growth and property investment (Figure 4). Real estate investment may be affected as housing demand slows, property developers face funding pressures and banks are more reluctant to lend due to higher household credit risk. Lower fiscal revenues and public support of home ownership also create risks for the fiscal sector. These in turn could contribute to excess savings and growing external imbalances.²³
- 3.2 Financial stability risks may also be heightened with increasing household debt since households that are more indebted are more vulnerable to adverse shocks, which in turn may force them to deleverage abruptly. This could lead to a significant macro-financial impact. As mortgages make up more than half of household debt in China, deleveraging could constrain housing demand growth and consequently put pressure on housing price growth, and affect the financial soundness of property developers.

²¹ <<https://www.scmp.com/news/article/3081560/chinese-households-faced-high-debt-risk-coronavirus-hit>> (accessed 8 June 2020).

²² Mian, A, Sufo, A and E Verner, “Household Debt and Business Cycles Worldwide”, *The Quarterly Journal of Economics*, 132(4), 2017. See also Jorda, O, Schularick, M and A M Taylor, “The Great Mortgaging: Housing Finance, Crises and Business Cycles”, *Economic Policy*, 31 (85), 2016.

²³ Refer to source in Footnote 4.

FIGURE 4 MACRO-FINANCIAL RISKS FROM ELEVATED HOUSEHOLD DEBT INDEBTEDNESS



Source: IMF.

- 3.3 Severe housing price corrections could further reduce banks' financial soundness as the collateral on their real estate loans would have a lower value and increase funding pressure for property developers, further increasing banks' risk aversion to lend. Consequently, higher household debt may increase the probability of banking distress and worsen any subsequent recessions as research shows that recessions preceded by housing busts are longer and more severe.²⁴ A housing crash or large declines in property prices could also put financial pressure on local governments reliant on property-related taxes and land sales as sources of revenue.

Policy Implication

- 4.1 While the risk of a systemic crisis is not imminent at the moment, there are indications that household debt may further rise and amplify household default risk amid rising unemployment due to the trade tensions with the United States as well as the looming global recession brought about by the ongoing coronavirus pandemic. Weaker employment and income growth, resulting from a worsening job and export

²⁴ Refer to source in Footnote 4

market, has led to rising defaults in mortgages, credit cards and overall household debt in China.

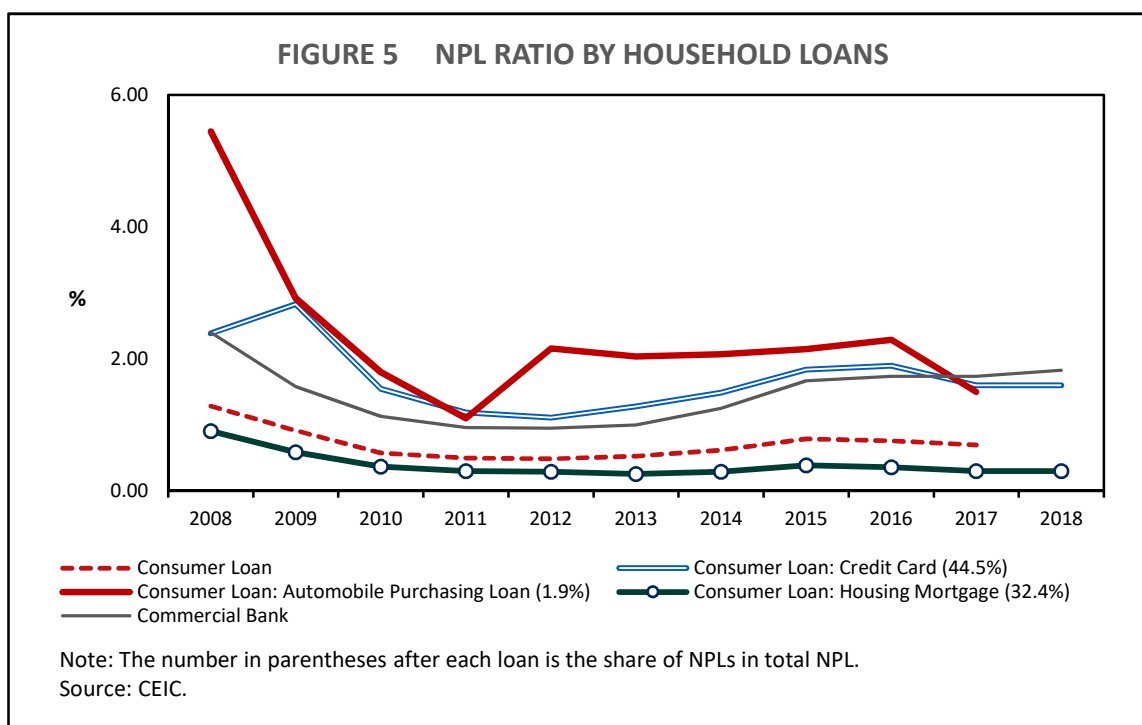
- 4.2 There are indications that delinquencies on credit-card debt, mortgages and micro loans have increased; for instance, Qudian Inc, a Beijing-based online lender, reported that its delinquency ratio jumped to 20% in February 2020 from 10% in 3Q 2019.²⁵ As more than 10 million jobs are estimated to be at risk,²⁶ households may have difficulty servicing their loans and adversely impact on household indebtedness even if private consumption is expected to decline as economic growth slows and uncertainties increase.
- 4.3 Further, a surge in corporate insolvencies is also expected due to the COVID-19 pandemic which has shuttered businesses and forced many firms to close down. There is no data on business closures; however, an indication of corporate insolvencies is the new bond defaults in China which are reported to have topped US\$1 billion.²⁷
- 4.4 On the whole, risks appear contained at the moment despite rising household debt. In China, lending to households is mainly facilitated by banks. Household credit has risen strongly as a share of banking assets but overall loans to households in China are still a smaller fraction (18%) of banks' total assets than that in advanced economies.²⁸
- 4.5 Further, the risk of household debt to the banking system is manageable. In terms of non-performing loan (NPL) ratio, the quality of household loans is better than other loans. As at end-2017 (latest data available), the NPL ratio for credit cards and home mortgages was only 1.6% and 0.3% respectively, lower than the banks' overall NPL ratio of 1.74% (Figure 5). Households seem able to meet their financial obligations and the risk of household debt to the banking system is limited.

²⁵ S&P Global, "Chinese banks seen withstanding rising household defaults", 15 April 2020.

²⁶ Bloomberg, "China Faces Worst Job Market in 20 Years as Growth Slumps: UBS", 8 April 2020.

²⁷ Ravi Velloor, "Coronavirus: Lessons already learnt, and more to come", 22 March 2020. <<https://www.straitstimes.com/opinion/lessons-already-learnt-and-more-to-come>> (accessed 29 June 2020).

²⁸ CEIC data.



- 4.6 On the whole, the balance sheets of China's households are relatively healthy. Household debt service burden appears reasonable at approximately 17% of monthly income, according to a UBS report.²⁹ An imminent insolvency risk for Chinese households seems unlikely, given that the liabilities-to-assets ratio of 9.2% was lower than the 12.8% of the United States, 18% of Australia, 17.4% of Japan, 16.8% of Canada or 17.2% of Italy.³⁰ China's household income has continued to rise, making debt manageable; however, debt repayments could worsen amid a slowdown in economic growth. Although the debt burden of mortgage borrowers in urban areas has increased in recent years, the mortgage loan participation rates are still relatively low compared with that of advanced economies.³¹
- 4.7 Although household debt risks remain controllable, the authorities would do well to continue with their macro-prudential supervision by subjecting household borrowing to stringent credit standards. There is also a need to closely monitor rising property prices as well as low income households which generally have lower

²⁹ UBS, "Does China Face a Looming Debt Crisis?" 10 September 2019.

³⁰ Except for China (2016), the figures for other countries are for 2018.

³¹ IMF, *Global Financial Stability Report*, October 2017. Refer to <https://www.elibrary.imf.org/doc/IMF082/4427-9781484308394/24427-9781484308394/Other_formats/Source_PDF/24427-9781484320594.pdf> (accessed 8 June 2020).

repayment capacity. This is particularly so given that household debt is now the second largest type of debt in China (following corporate debt) and household borrowing has increased considerably in recent years with important implications.

- 4.8 The government has so far adopted a variety of tools, ranging from loan-to-value ratio caps to restrictions on purchases or resales. This lessens the risk of a sharp housing correction in the short run. The authorities could put in place stringent credit standards, further regulate and monitor the use of personal loans, and strictly prohibit households from using personal loans to finance home purchase as it will create a maturity mismatch problem.
- 4.9 The risks emanating from the rise in household debt in China bear close monitoring. Rising household debt will add to medium- to long-term challenges for domestic consumption and the financial sector. Hence, the government would need to manage the risks between promoting consumption and averting potential financial distress, particularly given that economic growth is slowing both structurally and cyclically with ongoing structural transformation and weak external demand.