# Are First Home Buyer Loans More Risky?

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## Abstract

Despite the rate of home ownership in Australia drifting down over recent decades, 2020 saw a large increase in first home purchases. Given the high level of housing prices and household indebtedness, this raises the question of whether first home buyer (FHB) loans contribute disproportionately to financial stability and macroeconomic risks. FHBs appear to be riskier than other owner-occupiers, at least during the first five years of the loan. They have higher loan-to-valuation ratios and lower liquidity buffers. While this might suggest FHBs would be more vulnerable than other borrowers during a negative income or housing price shock, recent experience indicates that FHBs have been no more likely to report financial stress or be in arrears. One potential explanation is that FHBs have historically experienced better labour market outcomes than other borrowers.

## Introduction

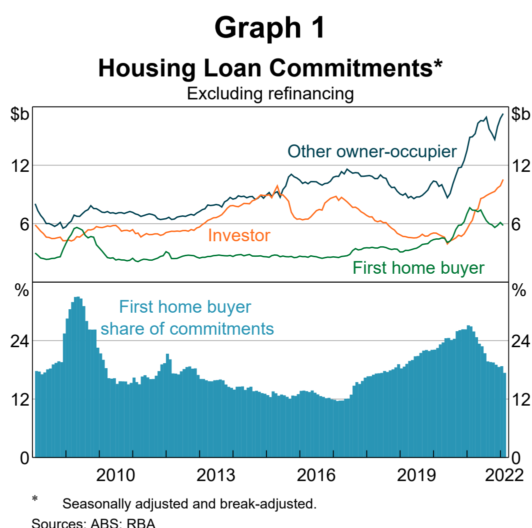
Over recent years, there has been a build-up of systemic risks associated with rising and high levels of household indebtedness. These risks can threaten the stability of the financial system as well as macroeconomic stability given the potential for highly indebted households to amplify economic shocks (RBA 2021). When assessing these risks, regulators monitor and analyse trends across various types of lending. This article focuses on whether lending to first home buyers (FHBs) contributes disproportionately to overall systemic risks.

Housing loan commitments to FHBs increased sharply over 2020, supported by government programs aimed at boosting home ownership such as the First Home Loan Deposit Scheme, as well as low interest rates (Graph 1). Over 2021, the value of FHB commitments declined a little as rapid growth in housing prices made it more difficult for FHBs to enter the market. Alongside the increase in investor activity, this saw FHBs' share of commitments

decline to just over 20 per cent of the value of total housing loan commitments in 2021.

To assess the riskiness of FHB loans relative to other loans, I used a broad range of metrics at different stages of the loan life. These metrics informed whether FHBs could be more at risk of defaulting on their loans or pulling back on their consumption during an economic shock than other borrowers. FHBs typically borrow a much higher share of the value of the property than other owner-occupiers or investors, as accumulating a deposit is often their main barrier to entering the housing market. FHBs also tend to have lower buffers of liquid assets that could be used to shield their consumption during a negative income or expenses shock in the first few years of the loan. However, FHBs are also generally at an earlier stage of their career, and so have historically experienced stronger income growth and have been no more likely to experience income loss than other borrowers.

A number of data sources were used to assess the relative riskiness of FHBs. For timely information on the characteristics of new FHB loans, I used monthly data collected by the Australian Prudential Regulation Authority (APRA) on a 'best endeavours basis' for the largest mortgage lenders and loan-level data from the Reserve Bank's Securitisation System. The Securitisation System contains detailed data on each of the mortgages underlying Australian residential mortgage-backed securities, representing roughly one-third of Australian mortgages. Household-level survey data from the ABS' Survey of Income and Housing (SIH) and the Household, Income and Labour Dynamics in Australia (HILDA) Survey provided a broader range of FHB borrower characteristics, including financial stress experiences and labour market outcomes.[1]




## Characteristics of FHBs

FHBs are typically younger than other new owner-occupiers and investors, although the average age of FHBs has been steadily increasing over time (Table 1). In 2017/18, the median age of FHBs (with loans up to three years old) was 33, which was around 10 years younger than the median age of other borrowers with loans up to three years old. This age gap has been relatively persistent over the past couple of decades. The rising age of FHBs has been driven by higher housing prices increasing the time required to save for a deposit, as well as demographic factors such as marriage and starting a family occurring later in life (Simon and Stone 2017). The average time required to save for a deposit on a median-priced dwelling across Australian capital cities has continued to rise to be almost eight years in 2021.

The younger age of most FHBs also means they are usually at an earlier stage of their career. Consistent with this, Securitisation System data on loans originated over the year to January 2022 indicate that the median gross income at origination of FHBs was below that of other borrowers.[2] More broadly, owner-occupiers tend to have lower incomes than investors at origination.

The survey data suggest that FHBs and other new owner-occupiers were equally likely to be in a couple household in 2017/18. More timely data from the Securitisation System show that FHB loans originated over the past year were less likely to be joint loans than other new owner-occupier loans. FHBs have historically been much less likely to have dependents; more than half of FHBs in 2017/18 had no dependents, compared with around 40 per cent of both other new owner-occupiers and investors. FHBs were also somewhat more likely to be employed full-time and less likely to be self-employed. Similar shares of FHBs and other borrowers purchased in a capital city.

**Table 1: Demographic Characteristics of New Borrowers**
Share by number

| | First home buyer | Other owner-occupier | Investor |
|---|---|---|---|
| Median age (years)[(a)] | 33 | 43 | 44 |
| Tertiary education (%)[(a)] | 62 | 56 | 65 |
| Employed full-time (%)[(a)] | 85 | 81 | 78 |
| Couple household (%)[(a)] | 73 | 75 | 80 |
| Average number of dependents[(a)] | 0.68 | 1.08 | 1.06 |
| Self-employed (%)[(b)] | 9 | 17 | 21 |
| Joint application (%)[(b)] | 55 | 71 | 63 |
| Capital city (%)[(b)] | 76 | 74 | 74 |
| Median gross income ($)[(b)] | 114,000 | 151,000 | 189,000 |

(a) Loans originated in the three years to 2017/18; age, education and employment status are for the household reference person.

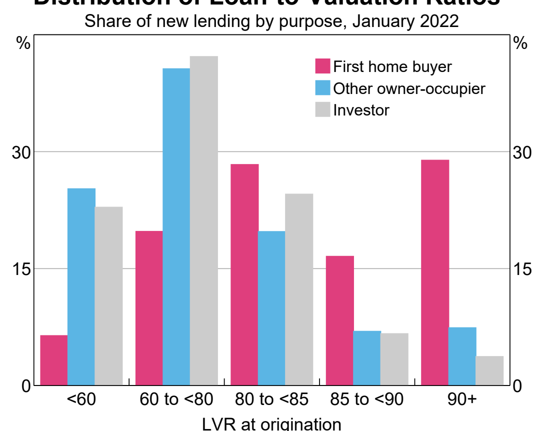
(b) Loans originated in the year to January 2022.

Sources: ABS; RBA; Securitisation System

## FHBs look riskier than other owner-occupiers

FHBs are more likely to be constrained by deposit requirements than owner-occupiers who are not purchasing their first property, as they have less savings due to their younger age and no equity in an existing dwelling to contribute to the deposit. As such, FHBs typically have to borrow a much higher share of the value of the property at origination. Almost 30 per cent of FHBs borrowed at a loan-to-valuation ratio (LVR) of 90 or more in January 2022, compared with 7 per cent of other owner-occupiers and 4 per cent of investors (Graph 2). Unsurprisingly, the LVR distribution of all outstanding FHB loans in the Securitisation System is more skewed towards higher LVRs than other owner-occupier loans (Graph 3). FHBs therefore have less of a buffer against housing price falls than other owner-occupiers and would be more likely to have their property price fall below the outstanding value of their loan (i.e. be in negative equity) for a given decline in housing prices. However, given the strong housing price growth over recent years, FHB loans were no more likely than other owner-occupier loans to be in negative equity in early 2022. The share of new lending to FHBs at high LVRs has also declined over the past year.

Household survey data show that FHBs historically had higher levels of debt relative to their income than other owner-occupiers when they took out their loans, and therefore had higher debt-servicing costs for a given interest rate. However, strong housing price growth in excess of income growth over recent years has led to the deposit constraint becoming more binding on loan sizes of FHBs than in the past. As such, recent FHBs have been less likely than other new borrowers to have high debt-to-income (DTI) ratios. In January 2022, FHBs were equally likely as other owner-occupiers to borrow at DTI ratios of six up to eight at origination, but they rarely borrowed at very high DTI ratios of eight or above (Graph 4). By comparison, investors are much more likely to have high DTI ratios, as they typically

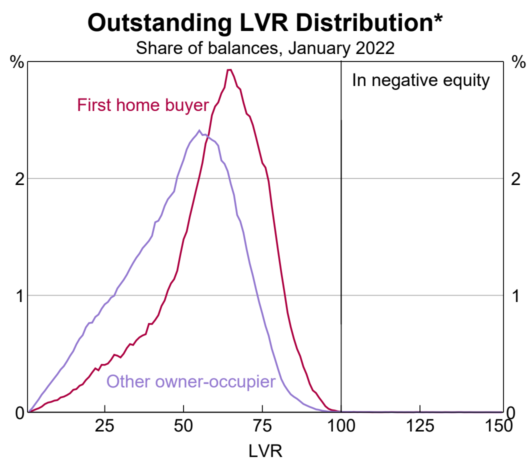


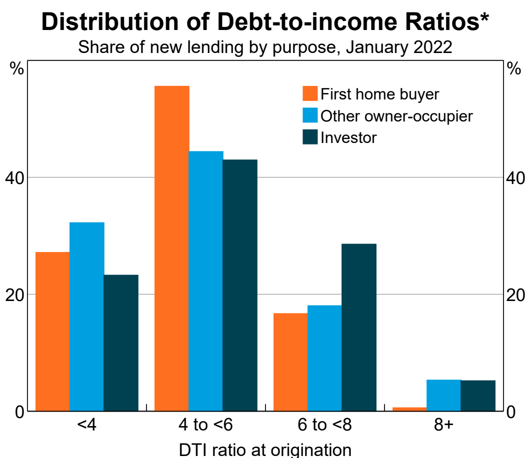

* For the largest ADI mortgage lenders; data provided on a 'best endeavours' basis.

Sources: APRA; RBA

have more than one mortgage and tax incentives discourage them from paying down debt ahead of schedule. Some repeat buyers take out bridging loans to finance the purchase of their subsequent property; almost 30 per cent of lending to non-FHBs at DTI ratios of eight or more in January 2022 was bridging finance. Lenders may also be less willing to extend very high DTI loans to FHBs as they have less credit history than repeat borrowers. The share of new lending to FHBs at DTI ratios of six or above has increased a little over the past year.

Another, more direct, measure of debt-servicing capacity is the net income surplus (NIS). The NIS refers to the amount of income remaining each month after covering basic living expenses and



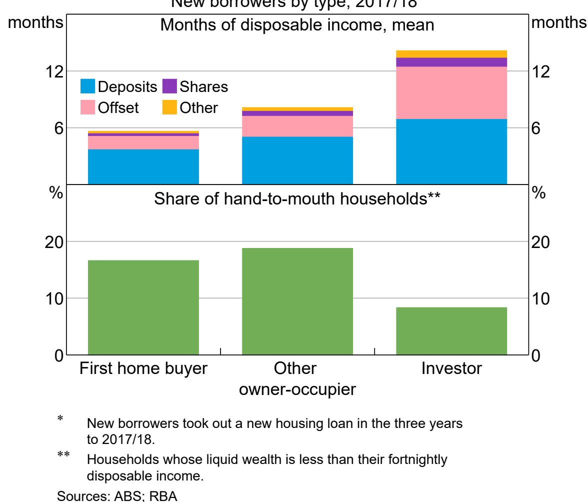



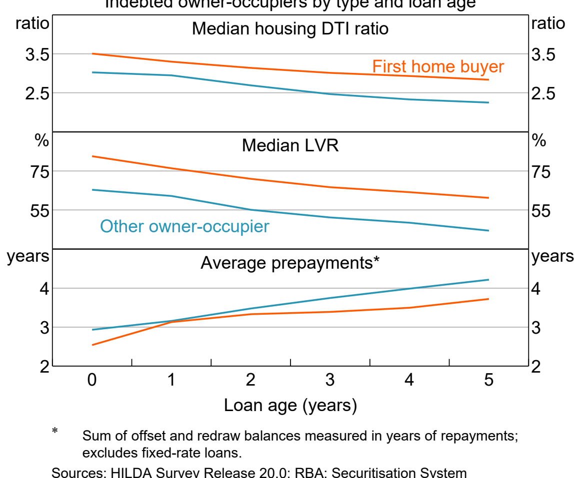

mortgage payments. Lenders calculate the NIS for all new borrowers as part of their serviceability assessment, incorporating various buffers to factor in future interest rate increases and potential falls in income. Estimates from household survey data suggest that FHBs who took out a loan in the three years to 2017/18 typically had a lower NIS than other owner-occupiers and investors who took out loans at a similar time. This implies that FHBs have less capacity to absorb negative shocks to their income or expenses than other borrowers, and therefore may be more likely to face repayment difficulties or cut back their consumption during a shock.

Consistent with their tendency to have a lower NIS, household survey data show that FHBs with loans up to three years old have also typically had lower liquidity buffers than other borrowers with loans of the same age (Graph 5). Liquid assets (e.g. cash) help households get through periods of financial stress such as a loss of job. A liquidity buffer is measured here as the number of months of a borrower's disposable income that could be covered by their liquid assets (including deposits, shares and bonds). FHBs have generally had less time to accumulate liquid assets than other borrowers and, being at an earlier stage of their career, also typically have lower incomes than other borrowers in the first few years of the loan life. However, despite having lower liquidity buffers, FHBs were no more likely to be liquidity constrained than other owner-occupiers, with similar shares of FHBs and other owner-occupiers having liquid wealth (i.e. liquid assets less liquid debt) that was below their fortnightly disposable income in 2017/18.[3]

For indebted households, a key component of liquid assets is prepayment balances in offset and redraw facilities. Data from the Securitisation System show that variable rate FHB loans have lower starting prepayment balances than other new variable rate owner-occupier loans on average. This is unsurprising, as the deposit constraint is generally more binding for FHBs and so they have less capacity to put excess funds in an offset or redraw account in the early stages of the loan life.

While FHB loans appear to be riskier than other owner-occupier loans at origination, it is also useful to see if this changes as the loan matures. Data from the HILDA Survey suggest that FHBs pay down debt at a similar pace to other owner-occupiers over the first five years of the loan life, as their median housing DTI ratio and median LVR decline at a similar rate over time (Graph 6). Meanwhile, data from the Securitisation System show that average prepayment balances of FHB loans remain below those of other owner-occupier loans for up to five years. These findings suggest that the relative risk factors of FHB loans are persistent.




## FHBs are no more likely to report financial stress or be in arrears

Despite appearing riskier across a range of metrics, survey data suggest that FHBs have been no more likely to report experiencing financial stress than other owner-occupiers over the loan life. The HILDA Survey asks respondents a number of questions relating to financial stress each year, such as whether they were unable to pay their mortgage on time, unable to pay their bills on time or had to miss a meal. In the loan origination year, FHBs were half as likely as other owner-occupiers to report making a late mortgage payment (Graph 7). The share of borrowers making late mortgage payments broadly increases in the years following the loan being taken out, as borrowers face a higher cumulative chance of shocks that may cause financial difficulty. But the differences between FHBs and other owner-occupiers with loans of the same age are small and not statistically significant. Similarly, FHBs and other owner-occupiers with loans of the same age were equally likely to report experiencing three or more financial stress events unrelated to paying their mortgage. Regression analysis, which controls for personal characteristics such as income and household composition, and loan characteristics such as LVR and loan age, confirms that being a FHB has no statistically significant impact on financial stress. Significant predictors of financial stress include having lower liquidity buffers, lower levels of income (both of which are more likely to apply to FHBs), a larger household size, poorer health or more negative perceptions of job security.

While making a late mortgage payment can be an early indicator of default, it may only represent a short-term liquidity problem. Loan-level data from the Securitisation System on 90-plus days housing loan arrears was used to complement the analysis on financial stress from the HILDA Survey.[4] Loans that are behind on their payments by at least three monthly contractual payments are more likely to correspond to borrowers experiencing serious financial difficulty.

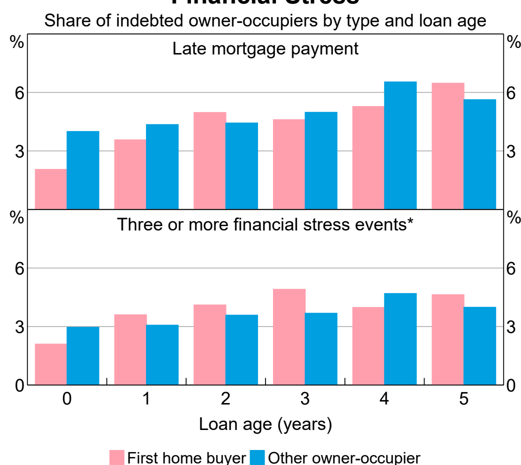
Aggregate arrears rates for FHB loans and other owner-occupier loans tracked reasonably closely until the beginning of 2020 (Graph 8). FHB arrears

rates then experienced a much sharper drop and have remained lower since.

Arrears rates are influenced by both changes in the composition of outstanding loans and time effects that are common to all loans. The composition of outstanding loans changes with the shares of loans of different ages and loans originated in different years (cohorts). Common time effects on arrears include macroeconomic or housing market conditions as well as policy changes relating to how banks treat loans in arrears. A model that separates out the effects of the age, cohort and time period of the loan on arrears was estimated to better understand trends in FHB arrears rates.

**Graph 7**

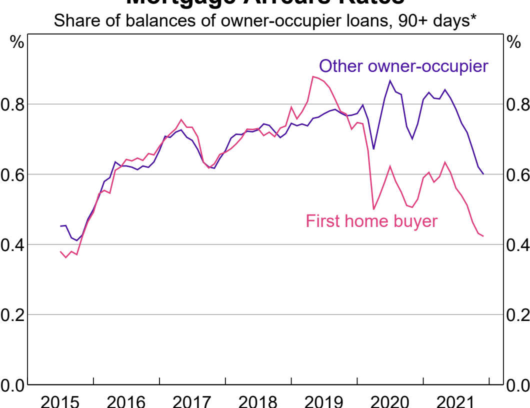
**Financial Stress**




* Includes being unable to pay bills on time, unable to heat home, etc.
Sources: HILDA Survey Release 20.0; RBA

**Graph 8**

**Mortgage Arrears Rates**




* Excludes self-securitised loan pools that have been actively managed to remove loans in arrears.
Sources: RBA; Securitisation System

The drop in arrears rates in April 2020 was driven by a sharp decrease in the average age of outstanding owner-occupier loans in the Securitisation System at this time.[5] All else equal, younger loans tend to display lower arrears rates as they have had less time to encounter shocks to employment or family circumstances. The decrease in average loan age was much more pronounced for FHB loans, following stronger growth in new FHB lending. Age effects have since had a stronger downward influence on arrears rates for FHBs than for other owner-occupiers, as the average age of FHB loans has remained lower. The model suggests that after around five years old, FHB loans become slightly more likely to be in arrears (after controlling for cohort and time effects), which makes the downward influence of rapid growth in new FHB lending on arrears even more pronounced.

Loans in different cohorts display different arrears rates, reflecting differences in lending standards or borrower expectations for future macroeconomic conditions in the year the loan was taken out. The model suggests that average cohort effects have been consistently lower for FHB loans than for other owner-occupier loans. One potential explanation is that tighter lending standards have been applied to FHB loans, which implies that for a given standard of lending, the quality of FHB borrowers is higher. Kelly, O'Malley and O'Toole (2014) and Giuliana (2019) found that FHBs were less likely to default on their loans in Ireland from 2013 to 2017; they suggested that banks applied stricter lending standards to FHBs due to lack of credit history. Another possible implication of having lower average cohort effects is that FHBs have more conservative expectations for future housing price and income growth, though this would be difficult to prove.

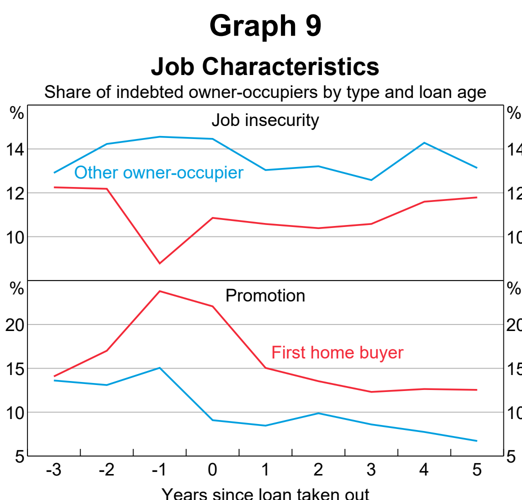
Macroeconomic conditions, which are part of the common time effects, are important drivers of changes in arrears rates. For example, periods of high unemployment or slow income growth can push arrears rates higher if borrowers experience income loss and struggle to meet their mortgage payments. Similarly, weak housing market conditions make it harder for borrowers to get out of arrears by selling their property. Estimates of common time effects have been lower for FHB

loans than for other owner-occupier loans since early 2020. This suggests that on average FHBs may have experienced better economic outcomes than other owner-occupiers through the pandemic. Without timely survey data, it is difficult to look into this further at present. It may be the case that FHBs were more likely to defer their loan repayments during the pandemic, which would have reduced the number of FHB loans entering arrears relative to other owner-occupier loans.[6]

## FHBs have historically had more favourable labour market outcomes

One possibility for why FHBs have been no more likely to experience financial stress than other owner-occupiers despite having higher LVRs and lower buffers, is that they experienced more favourable labour market outcomes. Data from the HILDA Survey show that FHBs experienced faster income growth than other owner-occupiers on average for a couple years before and after taking out their loan. Consistent with this, FHBs were persistently less likely than other owner-occupiers of the same loan age to report job insecurity and more likely to receive a promotion over the loan life (especially in the year the loan was originated) (Graph 9). This has meant that while FHBs have typically started out with lower incomes than other owner-occupiers at origination, their level of income has caught up after two to three years.

These results are unsurprising as FHBs are generally younger and therefore have greater potential for




future income growth. Indeed, regression analysis shows that after controlling for the age of the borrower, the positive effect of being a FHB on job security and income growth is no longer statistically significant. Without timely information on the age profile of the recent cohort of FHBs relative to other owner-occupiers, it is unclear whether the trend towards older FHBs continued or if the above income findings held during the pandemic. The better labour market outcomes of FHBs relative to other owner-occupiers may also be partly explained if only those who expect strong future income growth choose to enter the housing market as FHBs.

With higher debt-servicing burdens and lower liquidity buffers, FHBs would be more vulnerable to a negative income shock in the early years of their loans than other borrowers. However, FHBs have been no more likely to experience a negative income shock than other indebted households throughout the loan life. In particular, the HILDA Survey suggests they have been no more likely to report losing their job. FHBs have been less likely than other owner-occupiers to report income that is more than 20 per cent below the income they received in the previous year. This finding is consistent across a range of indicators of income loss, though the difference between FHBs and other owner-occupiers loses statistical significance after controlling for personal characteristics. There was also no difference in volatility of working hours across FHBs and other owner-occupiers.

Overall, the HILDA Survey suggests that FHBs and other owner-occupiers have historically had similar probabilities of losing their job or experiencing partial loss in income or hours worked. As new FHBs could only be identified in HILDA up to 2018, more timely survey data is needed to determine whether these results held during the pandemic. Given the strong increase in FHBs entering the housing market over the past couple years, it is possible that the characteristics of recent FHBs are different from earlier cohorts.

## Conclusion

First home buyer loans appear more risky than other owner-occupier loans across a range of

metrics. They start with higher LVRs and lower liquidity buffers than other borrowers, which persists several years after the loan is taken out. However, FHBs have been no more likely to report financial stress or be in arrears than other owner-occupiers. One possible explanation is that FHBs have historically experienced more favourable labour market outcomes, including higher levels of job security and income growth. Overall, there are some mitigating characteristics that partially offset the risks associated with FHBs, but it remains the case that FHBs would be more vulnerable than other owner-occupiers for a given housing price or income shock. The risks associated with FHB borrowers should be weighed against broader policy aims of housing affordability and accessibility for FHBs. As more household survey data for the past couple years become available, further research can look at whether the characteristics of FHBs who have taken out loans in recent years have changed. ✠

## Endnotes

[*] The author is from the Financial Stability Department. The author would like to thank Amelia Gao for the analysis of first home buyer loans in the Reserve Bank's Securitisation System, and Natasha Cassidy for her assistance in drafting this article.

[1] The SIH household-level data are available every second year from 2003/04 to 2017/18. FHB households are identified by a question that asks whether the dwelling purchased or built in the last three years is the first home owned. The HILDA Survey is a longitudinal study that has tracked a panel of around 9,000 Australian households from 2001 to 2020. Every four years it includes a wealth module, which collects detailed information on household assets and liabilities; the latest observation is for 2018. I followed the method of Simon and Stone (2017) to identify FHBs in HILDA. This method relies on responses to the wealth module and so can only identify FHBs in the year they took out their loan up to 2018.

[2] Loans in the Securitisation System are not representative of the entire mortgage market in some aspects. Issuers of securitisations may face incentives to disproportionately select higher quality loans to meet credit rating agencies' criteria. Recently originated loans are also under-represented due to lags between loan origination and securitisation. For more information, see Fernandes and Jones (2018).

[3] This is the definition of 'hand-to-mouth' households from Kaplan, Violante and Weidner (2014).

[4] As loans in the Securitisation System tend to be of higher credit quality, the level of arrears rates in the Securitisation System is lower than that of the broader mortgage market, but the trends are similar.

[5] The sharp decrease in average age followed a significant increase in the Reserve Bank's holdings of self-securitised residential mortgage-backed securities (RMBS) at the creation of the Term Funding Facility (TFF). The Bank introduced the TFF as part of its response to COVID-19, providing $188 billion in three-year funding to banks by the time the program closed in June 2021. These loans were backed by collateral, mostly in the form of self-securitised RMBS. See Black, Jackman and Schwartz (2021).

[6] APRA offered capital concessions to lenders providing loan repayment deferrals to COVID-19-impacted customers for up to six months, with a possible extension of four months. This meant that the period of deferral did not need to be treated as a period of arrears for capital adequacy and regulatory reporting purposes.

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