

Fixed-rate Housing Loans: Monetary Policy Transmission and Financial Stability Risks

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Abstract

Fixed-rate borrowing increased significantly during the COVID-19 pandemic, which has delayed the effect of the higher cash rate on borrowers' cash flows. A key issue for the economic outlook, and by implication financial stability, relates to the ability of borrowers with fixed-rate loans to adjust to substantially higher borrowing costs when their fixed-rate mortgages expire. Borrowers with fixed-rate loans have had a considerable period to adjust their finances to prepare for the increase in their mortgage payments and many appear to have similar savings to borrowers on variable rates. However, on some metrics fixed-rate loans have higher risk characteristics than variable-rate loans. With many fixed-rate mortgages expiring in the period ahead, the Reserve Bank will continue to closely monitor the implications for household consumption and financial stability.

Introduction

During the COVID-19 pandemic, the value of fixed-rate housing loans increased substantially, peaking at almost 40 per cent of outstanding housing credit in early 2022, or roughly twice their usual share from prior to 2020 (Graph 1).^[1] Many borrowers also fixed

their interest rates for longer periods than is typically the case. Lenders lowered their advertised fixed rates below variable rates to compete for borrowers (Graph 2). Strong competition on fixed-rate loans was made possible, at least in part, by lenders' ability to obtain low-cost term funding via

the Reserve Bank’s monetary policy response to the pandemic, which included the introduction of the Term Funding Facility, the three-year yield target and forward guidance (RBA 2022a). Competing vigorously on fixed-rate loans also enabled lenders to attract new borrowers without reducing their reference rates for variable-rate loans (which would have lowered rates for their existing variable-rate customers). New fixed-rate lending slowed sharply from late 2021 as new fixed rates rose relative to variable rates, along with market yields around the period when the yield target ended. By mid-2022, new fixed-rate lending had declined to around 5 per cent of total new lending.

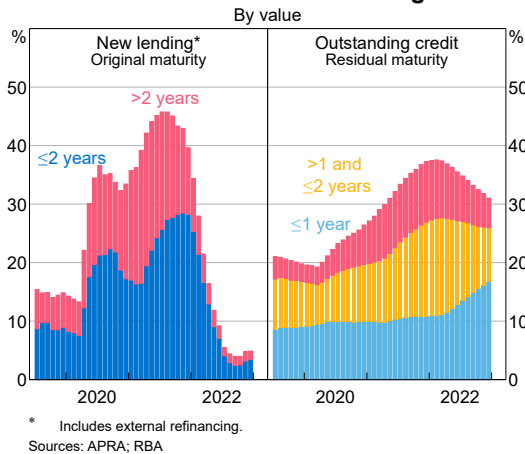
Most borrowers in Australia who fix their mortgage interest rate do so for three years or less. This means

that the fixed-rate term on most loans taken out during the pandemic has expired recently or will do so over the coming two years. One-quarter of fixed-rate loans outstanding in early 2022 have now expired; most have rolled on to a variable interest rate, rather than re-fixing at a higher rate. Another 40 per cent of fixed-rate loans outstanding in early 2022 will expire by the end of 2023 and a further 20 per cent by the end of 2024. This equates to 590,000 loan facilities in 2022, 880,000 in 2023 and 450,000 in 2024.^[2] The profile of expiring fixed-rate loans is similar across the states and territories and between capital cities and regional areas.

The analysis in this article draws largely on the Bank’s Securitisation dataset, which covers around one-third of outstanding housing credit (Fernandes and Jones 2018), liaison with major banks and survey data on household balance sheets.^[3]

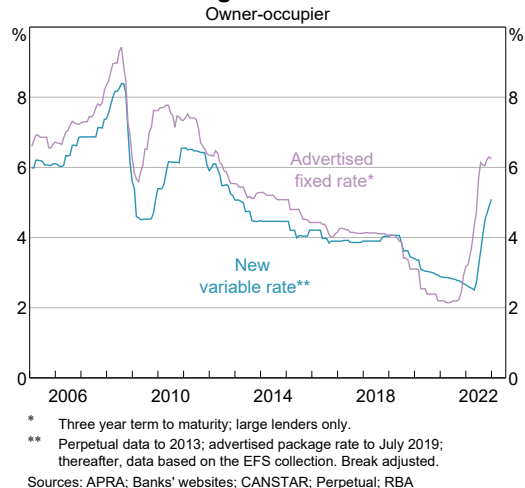
Graph 1

Fixed-rate Share of Total Housing Loans



Graph 2

Housing Interest Rates



Borrowers with expiring fixed-rate loans face large increases in their repayments

Scheduled loan payments will increase for borrowers when their fixed-rate terms expire, based on current interest rates and assuming the cash rate changes in line with the path inferred from financial market pricing as at 1 March 2023 (the ‘market path’). To date, borrowers have rolled off onto a rate similar to that faced by existing variable-rate borrowers (Graph 3). Many borrowers are likely to have subsequently reduced the initial variable rate they rolled off to by negotiating with their existing lender or refinancing with another lender, especially those of higher credit quality (RBA 2023b; Carse, Faferko and Fitzpatrick 2023).

How much the scheduled payment on an expiring fixed-rate loan increases depends on the loan’s current fixed rate, the timing of the expiry of that rate and the loan’s new interest rate (Graph 4). Scheduled loan repayments on some of the fixed-rate loans that expired in 2022 increased by up to 50 per cent at expiry, although around two-thirds of loans experienced an increase of 30 per cent or less (Graph 4, top panel, area under orange line).^[4] Most of these borrowers’ repayments have increased further since they switched to variable-rate loans, as they have for all borrowers with a variable-rate loan (Graph 4, top panel, blue line). The one-off increase

in scheduled payments when the fixed rates on these loans expire is large because fixed rates were very low when most were taken out.

Loans that are yet to roll off their fixed rate will face a larger initial increase in scheduled repayments than those that rolled over during 2022 because the cash rate increased over that year and the market path implies further increases until late 2023. Around 90 per cent of these loans will see their scheduled payments increase by 30 per cent or more (Graph 4, bottom panel, area under orange line) and most will experience the total increase upon the expiry of the fixed rate (bottom panel, orange and blue lines similar). Though these increases are large for many of the loans yet to roll off their fixed rate, they are similar in size to the total increases in scheduled payments for variable-rate loans since the first increase in the cash rate in May 2022.

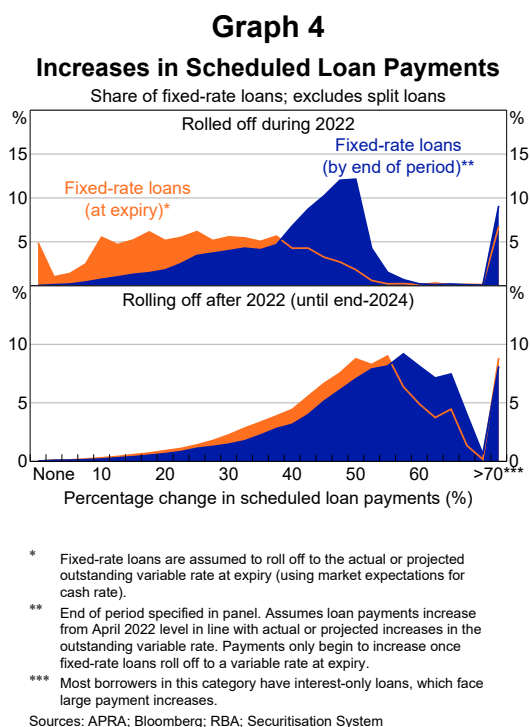
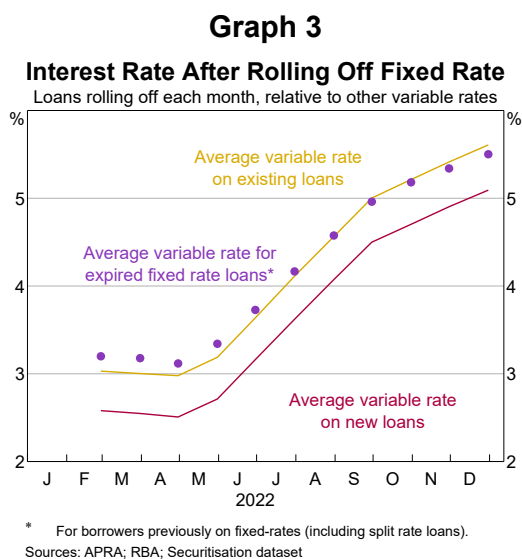
Borrowers with fixed-rate loans have benefited from a prolonged period of low interest rates, and will have had more time than borrowers with variable-rate loans to prepare for higher rates – including by accumulating savings. By having a fixed rate, around 60 per cent of fully fixed-rate loans (outstanding in December 2022) will have avoided higher loan payments equivalent to more than three months of their new required repayment after their fixed rate expires (Graph 5). Constructing this estimate compared the scheduled payment at the loan’s fixed rate with the scheduled payment the loan

would have had each month if it had a variable rate. Loans that have a fixed rate for longer will benefit most.

It is not possible to observe how much of the cash flow associated with experiencing lower loan payments that borrowers on fixed-rate mortgages have *actually* saved (or will save). As discussed later, borrowers have broadly similar levels of liquid savings – regardless of the type of interest rate on their loan – and have increased these over the past few years. While many borrowers on fixed rates may have saved or be saving in preparation for higher loan payments, some may have used the period of low fixed borrowing costs to consume more than they would have otherwise.

Fixed-rate loans delay the transmission of a higher cash rate to mortgage payments

In 2022, scheduled loan payments in aggregate increased a little slower than in the past because of the higher share of fixed-rate credit and because borrowers fixed their rates for longer than is typically the case. A higher cash rate is still transmitting quickly to most loans, though, because the majority have a variable rate, many have already rolled off their earlier fixed rates and many more will do so in the coming months.



The Reserve Bank raised the cash rate by 3 percentage points in 2022 to 3.1 per cent; over the same period, the average outstanding mortgage rate (for all loans) increased by almost 2 percentage points to 4.7 per cent. If all fixed-rate loans instead paid the variable rate on new loans, the average outstanding mortgage rate would be 70 basis points (bps) higher than it was in December 2022. This gap will slowly shrink as more fixed-rate loans expire and will be around 25 bps at the end of 2023 and close to zero by the end of 2024.

The Reserve Bank monitors the effect of interest rates on scheduled housing loan payments because they directly affect household disposable income; this cash flow channel is an important mechanism for transmitting monetary policy (La Cava, Hughson and Kaplan 2016). Borrowers can service their loans when their required loan payments increase by saving less, drawing on existing savings and wealth, or reducing consumption. If available to them, some borrowers may also choose to increase their income – for example, by changing jobs or working more hours. The higher share of fixed-rate loans (compared with past interest rate cycles) delays the cash flow channel in aggregate because some households will not face higher interest rates for a period. But this will also depend on how fixed-rate

borrowers prepare their finances ahead of their fixed rate expiring. For example, if they save a lot more in anticipation of the increase in required loan payments in the future, they may not need to reduce their consumption (further) when their loan payments actually do increase.

Fixed-rate loans have riskier characteristics than variable-rate loans ...

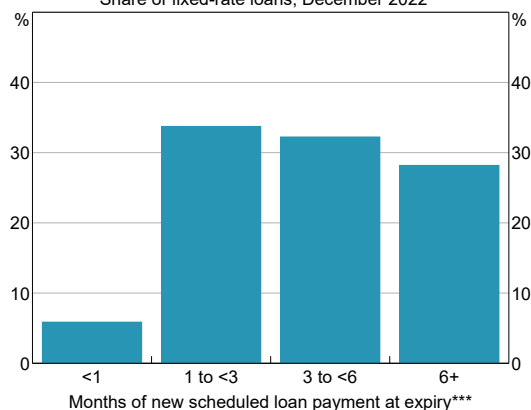
The large and discrete increase that borrowers with fixed-rate loans have faced or will soon face in their mortgage payments is one of the factors expected to contribute to slower household consumption in the period ahead. It could ultimately increase the potential for financial stability risks if many borrowers default on their loans (leading to losses for lenders) (Bergmann 2020) or reduce their consumption to the extent that unemployment increases significantly and other borrowers facing unemployment in turn struggle to service their debts.

In general, financial stability risks are more likely to eventuate if there are large numbers of borrowers with risky characteristics, including high levels of debt relative to income and assets, low income levels and low spare income after meeting loan payments and other essential expenses (RBA 2022b). On some of these metrics, borrowers with fixed-rate loans are more risky than those with variable-rate loans (who have seen large increases in their loan payments already and who to date have shown little evidence of increased financial stress). Nevertheless, while fixed-rate loans tend to be newer and to a degree are expected to have more debt outstanding relative to income (since borrowers have not yet had time to pay down their loan) the differences are not large.

Some borrowers could fall behind on their scheduled loan payments if they cannot adjust to higher loan payments. One rough metric for assessing whether a borrower might encounter difficulty servicing their loan is if they spend more than 30 per cent of their income on scheduled loan payments. In practice, however, other factors such as the borrower's income level and savings are also important. In April 2022, most borrowers with fixed-rate loans spent between 5 and 25 per cent of their

Graph 5

Months of Repayments Avoided* Share of fixed-rate loans, December 2022**



* Calculated each month using the difference between loan's current scheduled payment at its fixed rate and the payment they would face at the outstanding variable rate each month from May 2022 until expiry. Changes in the outstanding variable rate are assumed to take two months to pass through to scheduled payments.

** Excludes split loans and a small number of loans that are worse off on their fixed rate.

*** New scheduled payment calculated using outstanding variable rate projected at expiry (assuming full pass through of changes in the cash rate under the market path).

Sources: APRA; RBA; Securitisation System

income making mortgage payments before they rolled off; only around 10 per cent of borrowers on fixed rates spent more than 30 per cent (Graph 6). But after rolling off, roughly 25 per cent would need to spend more than 30 per cent of their income on loan payments – a slightly larger share than borrowers with variable-rate loans. Much of the increase comes from borrowers in the bottom half of the income distribution, who are more likely to have less spare cash flow and so may reduce their consumption and/or encounter difficulty servicing their debt as they roll off.^[5] This is a key group to monitor as fixed-rate loans roll off over the period ahead, especially if this group also has low savings buffers.

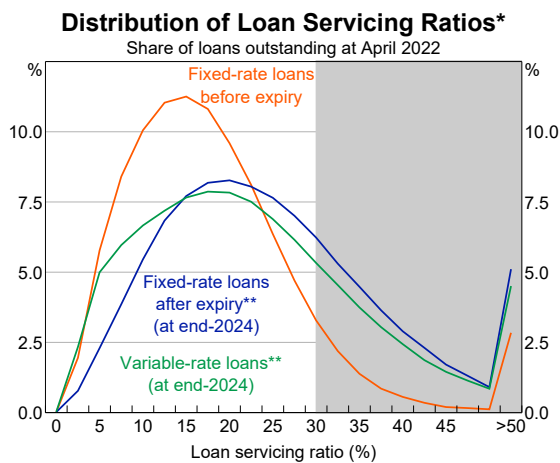
Fixed-rate borrowers are more likely to have larger loans relative to their incomes (LTI ratio > 6) or high loan-to-valuation ratios (LVR > 80) than borrowers on variable rates (Graph 7). This is especially so for some fixed-rate loans with low mortgage prepayments. These loans are more risky on average, but in part this reflects their tendency to be newer and so borrowers have had less time to accumulate equity or liquidity buffers. Borrowers with fixed-rate loans are also more likely to be first home buyers, although first home buyers on fixed rates tend to have more mortgage prepayments than other loans with otherwise similar characteristics.

... but many have built savings buffers to help mitigate risks

One way borrowers can adjust to higher loan payments is by using their savings. Comprehensive data are available on offset and redraw balances of owner-occupier variable-rate loans, which form a large part of these borrowers’ savings (La Cava and Wang 2021). However, assessing the savings buffers of borrowers with fixed-rate loans is more difficult because many hold more of their savings outside of their mortgage.

Most fixed-rate loan products do not have an offset facility and typically restrict mortgage prepayments. Nevertheless, some avenues exist for fixed-rate borrowers to save via their mortgages especially if they have a split loan. While there are no comprehensive data on the savings held by fully fixed-rate borrowers in non-mortgage forms, private survey data suggest that fixed-rate borrowers have similar levels of total liquid assets to borrowers with variable-rate or split loans. This is particularly true among borrowers with lower incomes, who might otherwise be regarded as potentially more vulnerable. In addition, liaison with some banks has indicated that borrowers on fixed rates in general have as many (and in some cases more) savings than other borrowers, in part because they have so far avoided higher loan payments.

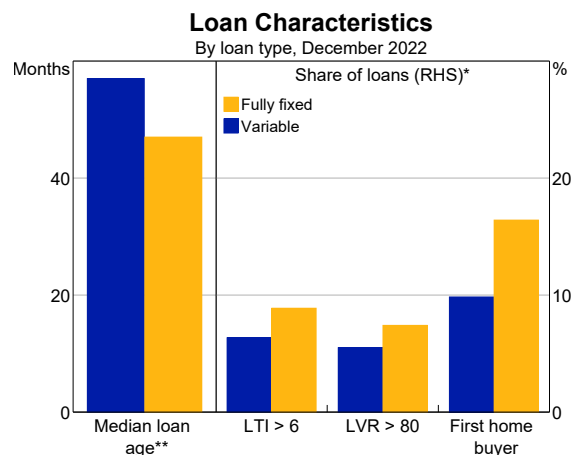
Graph 6



* Loan-servicing ratio is minimum scheduled payment after roll-off divided by an estimate of income at expiry. Excludes fixed-rate loans expiring after the end of 2024.
 ** Assumes loan rate increases according to increases in the cash rate since April 2022 (including any future increases implied by the market path until end-2024). Fixed-rate loans assumed to roll off to average outstanding variable rate (actual or projected) at their expiry date and then their rate changes in line with variable-rate loans.

Sources: APRA; Bloomberg; RBA; Securitisation System

Graph 7



* Loan-to-income (LTI) ratio is loan scheduled balance divided by an estimate of current income. LVR is scheduled loan balance divided by an estimate of current value of the property. Property valuation at origination adjusted using house price changes at SA3 level.

** Excludes externally refinanced loans.

Sources: ABS; CoreLogic; RBA; Securitisation System

Some borrowers on fixed-rates have large mortgage prepayments, especially those with split loans

Some fixed-rate borrowers have a 'split' loan with a fixed- and variable-rate component. A borrower may elect to split their loan into a fixed-rate facility and a variable-rate facility, with an offset and/or a redraw feature available to make prepayments on the variable-rate portion of their loan. Information from major banks suggests that over half of their owner-occupier customers on fixed rates have a split loan and that the majority of their loan balance has a fixed rate.

Borrowers with a split loan tend to exhibit similar savings behaviour in their mortgages to those with variable-rate loans, and most have substantial savings buffers that can help them meet higher repayments. Around three-quarters of owner-occupiers with split loans could cover their minimum payment for more than three months if they were to immediately roll off to a variable rate (and 60 per cent could cover their payments for more than a year) (Graph 8).

For loans that have a fully fixed rate, most lenders allow the borrower to make limited prepayments, which they can redraw but only when their fixed-rate term expires. Among the largest 10 lenders, the median prepayment allowance is \$10,000 per year of the fixed term.^[6] Additionally, borrowers who switched from an existing variable-rate loan to a fixed rate may have made additional payments prior to fixing their interest rate – for example, analysis of a sample of loans rolling onto fixed rates suggests that around half of borrowers had made mortgage prepayments of more than three months just prior to fixing their interest rate. Further, around 15 per cent of fully fixed-rate loans in the Securitisation database have an offset facility with a positive balance from one of the relatively few lenders offering this feature.

Consistent with the limited options available to them to save via their mortgage, only one-third of fully fixed owner-occupiers have excess payments to cover their minimum scheduled payment for three or more months if they were to immediately roll off to the average new variable rate (compared

to two-thirds of variable-rate and split loan borrowers) (Graph 8).^[7]

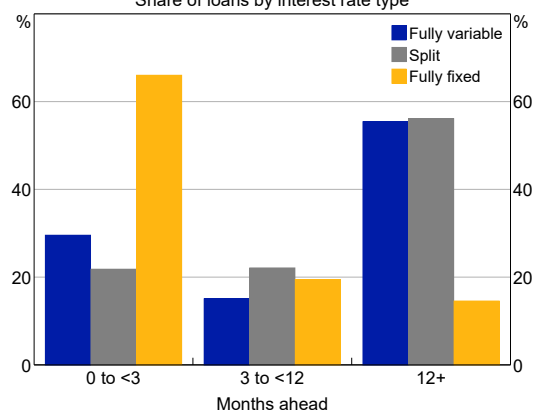
It is important to note that this does not necessarily suggest that fully fixed-rate borrowers are at higher risk of facing repayment difficulties or reducing their spending. Given they are restricted from saving via mortgage prepayments, many fully fixed-rate borrowers are likely to hold their savings buffers in other (non-mortgage) forms.

Survey data suggest borrowers have similar savings buffers, regardless of interest rate type

Private survey data suggest that many borrowers with fully fixed-rate loans hold substantial non-mortgage savings (Graph 9). These data are based on a smaller sample than the Securitisation data, but provide a more complete comparison between the savings of borrowers on fixed rates and variable rates (non-mortgage savings are not visible in the Securitisation data). The additional savings are held in (non-offset) bank deposits and other liquid assets (such as managed funds and shares) but exclude funds available for redraw from a loan account. These additional savings show borrowers on fixed rates have meaningful savings buffers that are comparable to variable-rate and split loan borrowers. Borrowers on lower incomes have similar savings regardless of the type of interest rate on their loan.

Graph 8

Household Mortgage Prepayment Buffers* Share of loans by interest rate type



* Number of months that prepayments (offset and redraw balances) could cover a loan's minimum scheduled payment. For variable-rate loans this is calculated using the loan's current variable interest rate, for fully fixed and split loans this is calculated using the average new variable rate.

** Owner-occupier loans in December 2022.

Sources: APRA; RBA; Securitisation System

There are still some borrowers (regardless of the type of interest rate) with low savings buffers that are vulnerable to higher loan payments, especially those with lower incomes. But, based on these data, borrowers on fixed rates appear at least as prepared as other borrowers for the coming increase in their loan payments.

One-fifth of fixed-rate loans increased mortgage prepayment by six months or more after roll-off

Once a loan’s fixed-rate term has expired, if it has rolled off to a variable rate most lenders will allow the borrower to make unlimited payments into an offset or redraw facility linked to the loan (they may also be able to redraw any extra payments made before or during the fixed-rate term). At this point, the borrower has an incentive to convert at least some liquid savings they hold elsewhere (e.g. in a deposit account) into mortgage prepayments since they will most likely receive a higher return (and a tax benefit) from doing so.^[8] Observing loans after their fixed-rate term expires can therefore provide insights into the non-mortgage savings buffers these borrowers held while they were on a fixed rate.

A material share of borrowers make large transfers into their mortgage after their fixed rate expires. Around one-fifth of fully fixed-rate loans rolling off between February and October 2022 increased

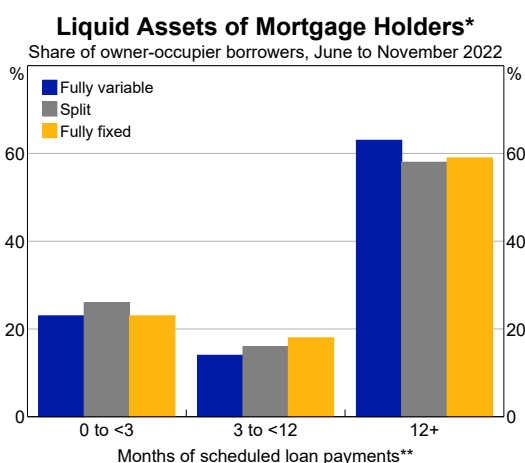
mortgage prepayments by more than six months of their new required payment within a few months of rolling off to a variable rate. The share of fixed-rate loans that made large prepayments was twice as high compared with variable-rate loans over the same period (Graph 10). A little under half of these loans did not have meaningful mortgage prepayments prior to rolling off, which suggests that these borrowers held substantial non-mortgage savings to transfer into their loan after their fixed rate expired.

However, two to three months after roll-off, the distribution of buffers among recently rolled off loans remains lower than for variable-rate loans; only around half covered the new scheduled payment for three or more months (compared with around two-thirds of variable-rate and split loans). This suggests that some fixed-rate borrowers are either choosing to hold their savings outside their mortgage or, for some reason, this particular cohort have fewer savings than all variable-rate borrowers.

Conclusion

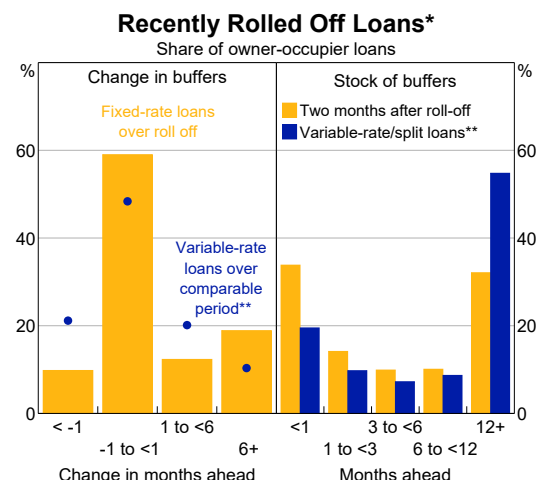
Borrowers with fixed-rate loans have faced or will face large, discrete increases in their loan payments when their fixed-rate terms expire. Loans that are yet to roll off will face the largest increases, although these borrowers have also benefited the most from avoiding higher loan payments to date and have

Graph 9



* Liquid assets include balances held in deposit accounts (including offset accounts), shares and holdings in managed funds. Excludes balances available for redraw from the loan.
 ** Monthly scheduled payment calculated using credit foncier model assuming all borrowers face the outstanding variable rate as at December 2022.
 Sources: DBM Atlas; RBA

Graph 10



* Change in buffers within two to three months of rolling of fixed term to variable rate; includes loans that rolled off between February and October 2022; all buffers expressed relative to the loan’s variable rate in December 2022.
 ** Buffers as at December 2022.
 Sources: RBA; Securitisation System

had more time to prepare for the rise in mortgage payments. Although higher mortgage payments will strain the finances of some borrowers, most are facing higher interest rates from a position of strength, with very low rates of mortgage arrears, a very low unemployment rate and a high rate of participation in the labour market.

The historically high share of fixed-rate lending during the pandemic means that a rising cash rate will take slightly longer than usual to pass through to mortgage payments for all borrowers. However, aggregate mortgage payments have still increased substantially because the majority of households have variable-rate loans and most fixed-rate mortgages are fixed for relatively short periods of time (RBA 2023b).

Aside from encountering a large step up in their loan payments, borrowers on fixed rates tend to have newer loans and, on some measures, more risky loan characteristics than borrowers on variable rates. While the differences are not large in aggregate, more vulnerable borrowers (such as those with lower incomes, more leverage and first home buyers) are more exposed to large increases

in interest rates and typically have fewer margins of adjustment to their financial situation. They should, therefore, be monitored carefully for signs of emerging stress.

Borrowers' savings buffers can help them to adjust to higher loan payments. Many borrowers on fixed rates have built savings buffers to help them adjust to higher loan servicing obligations. In particular, many borrowers on fixed rates have split loans with sizeable prepayment buffers, and one-third of fully fixed-rate borrowers have also accumulated savings in their mortgages. Many borrowers with fully fixed-rate loans are likely to hold substantial non-mortgage savings: a material share of loans make large transfers in to their mortgage after their fixed rate expires and private survey data shows borrowers have a similar distribution of savings, regardless of the type of interest rate on their loan. The Bank will continue to monitor the expiry of fixed-rate loans closely in the period ahead, especially given its importance for the consumption outlook and, by implication, financial stability. ❖

Endnotes

- [*] The authors are from Financial Stability and Domestic Markets departments.
- [1] While such a high share of fixed-rate housing credit is unusual in an Australian context, fixed-rate housing loans are much more common in some other economies, such as New Zealand, Canada, the United Kingdom and the United States. In New Zealand, the most popular fixed-rate term is two years for mortgages; for Canada and the United Kingdom, it is five years (RBA 2023a).
- [2] The number of facilities is not equivalent to the number of households with fixed-rate loans. For example, a household may have multiple loan facilities (potentially across different lenders) or borrowers from different households may be responsible for the same loan facility.
- [3] The share of new loans in the Securitisation data is lower than in the total stock of outstanding housing credit; this stems from a delay between origination and securitisation. Fixed-rate loans are less likely to be securitised so are underrepresented in the Securitisation data. The share of outstanding fixed-rate credit in the Securitisation data is around 27 per cent, compared with 30 per cent for all housing credit as at December 2022.
- [4] See RBA (2022c), RBA (2022d) and Bullock (2022) for scenarios for increases in scheduled loan payments using some different assumptions.
- [5] This refers to the income distribution of mortgage holders (which make up roughly one-third of households). Mortgage holders tend to, on average, have higher incomes than other households.
- [6] Based on fixed-rate loans advertised in December 2022. This allowance is over seven months of prepayments for a \$500,000, 30-year loan at the average new variable rate in December 2022.
- [7] Investors are excluded from this analysis because they tend to hold their savings buffers outside their investment property.
- [8] The mortgage interest saved due to balances held in an offset facility is not taxable; interest earned from savings held in a deposit account is taxed at the marginal income tax rate.

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