# Cash Rate Pass-through to Outstanding Mortgage Rates

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Photo: Vertigo3d – Getty Images

#### **Abstract**

The interest rate paid by outstanding mortgage borrowers increased by around 320 basis points between May 2022 and December 2023, around 105 basis points less than the cumulative increase in the cash rate over this period. This pass-through from cash rate increases to the average outstanding mortgage rate has been slower than in recent tightening episodes due to a high share of outstanding fixed-rate loans and the effects of heightened mortgage lending competition. The average outstanding mortgage rate will increase further as the remaining share of low-rate fixed-rate loans expire and reprice at higher interest rates. By the end of 2024, overall pass-through is expected to be comparable to earlier tightening episodes.

#### Introduction

Monetary policy transmission occurs through several different channels. One of the most well-known is the effect on household cash flows arising from the cost of debt servicing. This cash flow channel is particularly evident through its impact on mortgage borrowers due to the high share of mortgage debt in Australia, and especially because most mortgagors have variable-rate loans that are responsive to changes in policy rates (Kent 2023).

Assessing the strength of this channel is therefore important for understanding how monetary policy is transmitting to the broader economy. At the same time, however, there are positive cash flow benefits to those with savings when interest rates rise, and higher interest rates provide an incentive for both borrowers and savers to save more than they otherwise would.

The RBA raised the cash rate target by 425 basis points between May 2022 and December 2023.<sup>[2]</sup>

Table 1: Cash Rate Pass-through to Outstanding Mortgage Rates

Tightening episodes	Increase in cash rate bps	Increase in outstanding mortgage rates bps	Proportion of pass-through per cent
May 2006 – Mar 2008	175	153	87
Oct 2009 – Nov 2010	175	153	87
May 2022 – Dec 2023 <sup>(a)</sup>	425	321	76

(a) Latest available data as of December 2023.

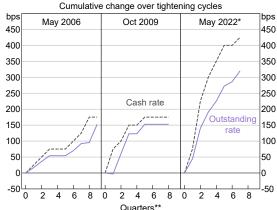
Sources: APRA; Perpetual; RBA.

Over this period, the average outstanding mortgage rate increased by around 320 basis points. This was around 105 basis points less than the cumulative increase in the cash rate. Hence, around 75 per cent of the increase in the cash rate had passed through to the average outstanding mortgage rate, compared with nearly 90 per cent over the course of earlier tightening episodes in 2006 and 2009 (Table 1; Graph 1).

This article explores two developments that have slowed the pass-through of cash rate increases to the average outstanding mortgage rate between May 2022 and December 2023:

- A high share of outstanding fixed-rate loans has contributed to slower pass-through compared with earlier tightening episodes in 2006 and 2009.
- 2. Outstanding variable rates have increased by less than the cash rate, alongside heightened competition between mortgage lenders.

Graph 1
Changes in Outstanding Mortgage Rates



<sup>\*</sup> Latest data to December 2023

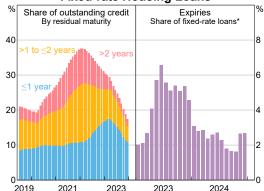
The average outstanding mortgage rate is projected to increase further as the remaining loans on low fixed rates expire and reprice at much higher interest rates. As this plays out, cash rate pass-through to the outstanding mortgage rate is expected to reach a similar proportion to that seen in previous tightening episodes.

#### The effect of fixed-rate borrowing on passthrough

Many borrowers took advantage of the low fixed rates on offer during the COVID-19 pandemic to lock in their mortgage repayments for a period. The very low fixed rates on offer reflected lenders' access to options to fund such products at low rates given the monetary policy settings at the time. Of particular note, unconventional policies implemented by the RBA, such as the Term Funding Facility and the yield target on the three-year Australian Government bond, supported lenders in obtaining low-cost term funding (RBA 2023a). These factors enabled lenders to price their fixed rates below the variable rates that were advertised to new borrowers (RBA 2023b). As a result, the share of fixed-rate housing loans increased substantially, from around 20 per cent of outstanding housing credit in early 2020 to a peak of almost 40 per cent in early 2022 (Graph 2). This share has since declined to around 17 per cent as of December 2023, reflecting the expiry of a significant proportion of fixed-rate loans and the very low share of new loans on fixed-rates.

<sup>\*\*</sup> Quarters since first cash rate increase. Sources: APRA; Perpetual; RBA.

### Graph 2 Fixed-rate Housing Loans



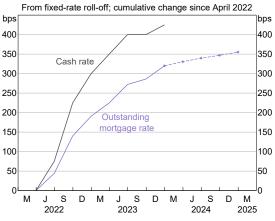
\* Share of fixed-rate housing loans outstanding for the major banks as at December 2022. Loans expiring beyond 2024 not available monthly. Sources: APRA; Major banks; RBA.

A little more than half of loans taken out at low fixed rates during the pandemic expired in 2023.[3] The pace of fixed-rate expiries was particularly elevated over the second half of 2023; fixed-rate loan expiries over the September and December quarters of 2023 each accounted for around 15 per cent of fixed-rate loans outstanding as of December 2022. The bulk of borrowers who have rolled off fixed rates have managed the transition to higher interest rates well (RBA 2023c). Most of these borrowers took out loans at low fixed rates of around 2-2½ per cent during the pandemic. These fixedrate loans have, on average, rolled-off onto interest rates close to the outstanding variable rate (Lovicu et al 2023). Based on prevailing mortgage rates as of December 2023, expiring fixed-rate loans have repriced to an average mortgage rate of around 6½ per cent.

While the pace of fixed-rate loan expiries has slowed, there remains a substantial share of low-rate fixed-rate loans – around 35 per cent of the stock of fixed-rate loans that was outstanding in December 2022 – that will expire over 2024. This will contribute to a further increase in the average outstanding mortgage rate as these fixed-rate borrowers transition to much higher prevailing interest rates than they are currently paying. Under the assumption that these fixed-rate loans reprice to the current outstanding variable rate, the average outstanding mortgage rate is projected to increase by an additional 35 basis points between December 2023 and December 2024 (Graph 3). Slightly more of this increase would occur over the first half of

2024 as the pace of fixed-rate loan expiries remains more elevated over this period compared with the second half of the year. Such an outcome would ultimately result in a similar degree of overall pass-through to outstanding mortgage rates as observed in the previous two tightening episodes in 2006 and 2009, albeit over a longer period beyond the tightening phase.

Graph 3
Projected Change in Mortgage Rates\*



\* Actual data to December 2023. Projections (dashed line) are derived based on the profile of expiring fixed-rate loan rolling-off to the average outstanding variable rate as at December 2023 (6.5%).
Sources: APRA: RBA.

By contrast with the most recent episode, fixed-rate loan expiries over the 2009 tightening episode *limited* the pass-through to outstanding mortgage rates. This is because most borrowers that took out fixed-rate loans prior to the 2009 tightening episode had fixed rates that were higher than the prevailing interest rates at the time when these fixed-rate loans expired. These fixed-rate borrowers transitioned from higher fixed rates to lower prevailing rates, which meant that these expiries contributed to a lower, rather than a higher, average outstanding mortgage rate.

Another factor affecting pass-through is the share of new fixed-rate lending that takes place *during* the tightening phase. While few borrowers have taken out fixed rates over the current tightening episode, fixed-rate loans accounted for a material share of new lending over the 2006 tightening episode. The outstanding share of fixed-rate loans increased from around 20 per cent in May 2006 to around 30 per cent by the middle of 2008 (Graph 4). Fixed rates also tracked variable rates more closely over

the course of the 2006 tightening phase relative to other episodes. Borrowers that took out fixed-rate loans during the tightening phase therefore experienced a smaller increase in their mortgage rates, as they did not incur the full increase in mortgage rates over the tightening period. This, in turn, limited the extent of pass-through to the total outstanding mortgage rate over the 2006 tightening episode.

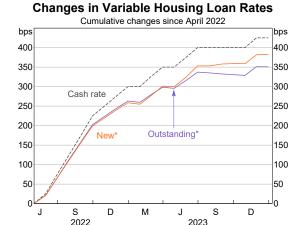
#### Graph 4

# Fixed-rate Housing Loans Share of outstanding credit % 30 20 10 2003 2007 2011 2015 2019 2023 Sources: APRA; Perpetual; RBA.

# The effect of funding conditions and mortgage lending competition on pass-through

The recent period of heightened mortgage lending competition – particularly over the second half of 2022 and early 2023 - has contributed to the average mortgage rate paid on outstanding variable-rate loans increasing by around 75 basis points less than the cash rate between May 2022 and December 2023 (Graph 5). Since the start of cash rate tightening, many borrowers have sought out lower mortgage rates by negotiating with their existing lender or by refinancing with another lender. At the same time, lenders have been more willing to accommodate requests to lower existing mortgage rates, particularly to retain good quality borrowers. The average rate on new variable rate loans increased by around 40 basis points less than the cash rate between May 2022 and December 2023, as lenders offered mortgage rates at lower spreads to the cash rate to attract new borrowers.

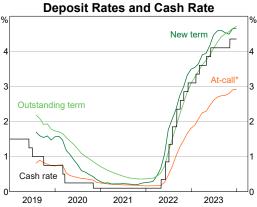
Graph 5



\* Actual interest rates paid on all outstanding and newly funded variable-rate housing loans.
Sources: APRA: RBA.

Lending competition for variable-rate mortgages increased over the second half of 2022 as a sustained willingness by banks to compete for mortgage loans at the time coincided with a slowing in housing credit growth. At the same time, banks had access to cheap and abundant funding, including deposits. Deposit funding from households and businesses grew strongly during the pandemic, which contributed to a more subdued increase in banks' overall funding costs than would have otherwise been the case (ACCC 2023). The interest rate paid on at-call deposits, which makes up around 65 per cent of all deposits, increased by around 160 basis points less than the cash rate from May 2022 to December 2023 (Graph 6). These lower funding costs allowed banks to offer more competitive pricing, especially at the start of the current tightening episode. This was particularly the case when compared with nonbank lenders with no access to deposit funding.

#### Graph 6

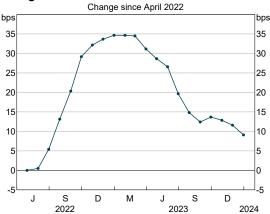


Excludes deposits in housing loan offset accounts; inclu bearing deposits Sources: APRA; RBA

Heightened lending competition was evident in lenders offering cashback deals of between \$2,000 and \$5,000 to attract both new and refinancing borrowers. Lenders also increased the discounts offered on their advertised variable lending rates (relative to benchmark standard variable rates). The average increase in discounts on these advertised rates peaked at around 35 basis points around the start of 2023 (Graph 7). These measures provided an incentive for many existing borrowers to seek out a lower mortgage rate by negotiating with their existing lender or by refinancing externally.

#### Graph 7

#### Average Discount on Advertised Variable Rates\*



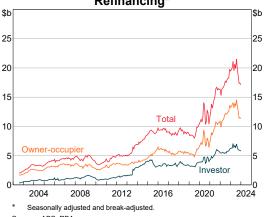
Discounts to benchmark standard variable rates. Advertised rates are for basic principal-and-interest products offered for LVR <80% borrowers at large housing lenders

Sources: Banks' websites; CANSTAR; RBA

Signs of easing competition have emerged since the start of 2023. Most lenders withdrew their cashback offers in the first half of 2023 and reduced the discounts offered on their advertised variable lending rates. While the average variable rate on new loans increased by slightly more than the cash rate over some periods, the cumulative increase in the average new variable rate over the current tightening phase was still around 40 basis points less than the cash rate as at December 2023 (RBA 2023b). Despite some signs of easing competition, many lenders have generally remained willing to negotiate discounts to retain existing borrowers. External refinancing activity has also remained at elevated levels after increasing sharply over the second half of 2022 (Graph 8).

Graph 8



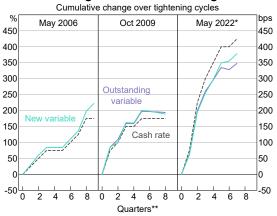


Sources: ABS: RBA

Over the most recent tightening episode, banks' average funding costs have increased by a little less than the cash rate (De Zoysa, Dunphy and Schwartz 2024; Carse, Faferko and Fitzpatrick 2023). By comparison, tighter funding conditions emerged during the 2006 and 2009 tightening phases due to increased volatility in financial markets and a structural shift in demand by the banks for more stable funding sources such as deposits and longterm wholesale funding.<sup>[5]</sup> Higher funding costs were subsequently passed through to existing borrowers and resulted in the average mortgage rate on outstanding variable-rate loans increasing by more than the cash rate during these earlier

tightening episodes (Graph 9). Lenders passed through these costs to their variable-rate borrowers in addition to passing through the increases in the cash rate. As a result, variable rates increased by more than the cash rate in the latter stages of the tightening phases in 2006 and 2009, leading to more pass-through to the overall outstanding mortgage rate.

Graph 9
Pass-through to Variable Lending Rates

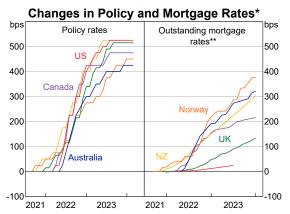


- Latest data to December 2023.
   Quarters since first cash rate increase
- Sources: APRA; Perpetual; RBA.

## Pass-through from mortgage rates to total scheduled mortgage payments

Despite slower pass-through to outstanding mortgage rates over the current tightening episode, the flow through of a higher cash rate to housing mortgage rates has still been an effective transmission channel for monetary policy in Australia. The relatively high share of variable-rate mortgages in Australia has meant that the average outstanding mortgage rate had increased by more than in other developed peer economies such as the United States, New Zealand and Canada as of December 2023, despite a smaller increase in policy rates in Australia (Graph 10; Kent 2023).<sup>[6]</sup> Housing mortgage payments have increased considerably as a share of household disposable income, even though slower pass-through to mortgage rates than previous cycles has meant that the aggregate repayment burden faced by mortgagors has - so far – increased by less than otherwise.<sup>[7]</sup>

Graph 10

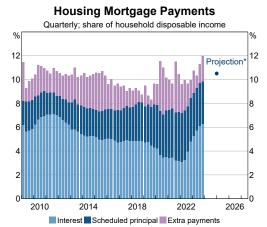


- Cumulative basis point increase in the policy rate and average outstanding mortgage rate relative to the month immediately preceding first policy rate increase since the onset of the pandemic.
- Data for the US is interpolated between September 2022 and June 2023, remaining data to December 2023.

Sources: APRA; Black Knight; central banks; RBA

Total scheduled household mortgage payments (comprising both interest and scheduled principal payments) have increased to around 10 per cent of household disposable income as of December 2023, exceeding the estimated previous historical peak in 2008 (Graph 11). These scheduled mortgage payments are expected to increase further to reach around 10½ per cent of household disposable income by end-2024 as more fixed-rate loans expire and reprice at higher interest rates. While this suggests a significant increase in household mortgage payments over the current tightening phase, this article does not consider other forms of household debt such as personal or small business loans. These forms of household debt also affect households' cash flows, although they account for a much lower share of household income compared with a decade prior (Kohler 2020).<sup>[8]</sup>

Graph 11



\* Projections incorporate fixed-rate roll off to variable rates assuming a cash rate of 4.35 per cent.
Sources: ABS: APRA: RBA.

#### Conclusion

The increase in the average outstanding mortgage rate relative to the cash rate has been slower over the current tightening episode than in some previous tightening phases. This has been due to the high share of loans at very low fixed rates taken out during the pandemic and the effect of elevated mortgage lending competition on variable-rate

mortgages. The average outstanding mortgage rate relative to the cash rate is expected to increase further as more fixed-rate loans expire. As a result, the extent of pass-through by the end of 2024 is anticipated to be similar to previous tightening episodes.

#### **Endnotes**

- The author is from Domestic Markets Department. A version of this article was prepared for the Melbourne Money and Finance Conference in February 2024. The author would like to thank Peter Wallis for his help with this article.
- Higher interest rates have lowered households' net [1] interest income as aggregate household debt is much larger than household sector holdings of interest-earning assets (Kent 2023); the cash flow channel for households is best thought of as the net effect of changes on debt servicing costs for indebted households and interest income for lender households.
- [2] Data figures referenced in this article are up to December
- [3] As a share of fixed-rate loans outstanding as of December
- Most fixed-rate loans were taken out in early 2008, with the fixed-rate share peaking around 30 per cent in the March quarter. The fixed rates taken out during this period were significantly higher than the new lending rates that prevailed over the course of the 2009 tightening episode,

- consistent with the higher interest rate environment prior to the global financial crisis.
- [5] The shift in funding sources was partly motivated by changes to regulatory requirements that incentivised banks to secure more stable and longer term funding (Senate Economics References Committee 2012).
- A higher share of variable-rate mortgages suggests that the cash flow channel is stronger in Australia, although other channels of monetary policy transmission are likely to be stronger in peer economies.
- Higher mortgage rates have also affected economic conditions through other channels, including by influencing the decisions of new prospective borrowers around whether and how much to borrow: see Kent (2023).
- Interest payments on overall household debt including both mortgage debt and consumer credit products remain below their estimated historical peak as a share of total household disposable income, largely owing to a significant decline in the use of consumer credit since 2008: see RBA (2024).

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