# 3. Household and Business Finances in Australia


## Summary

Most households and businesses are well placed to manage the impact of higher interest rates and inflation, supported by continued strength in the labour market and sizeable savings buffers.

- However, the resilience of households and businesses is unevenly spread; some are already experiencing financial stress from higher interest rates and inflation, and the squeeze on household budgets is likely to continue for some time.
- Early-stage mortgage arrears have increased slightly from very low levels and lenders are provisioning for an increase in the period ahead. If unemployment were to rise more sharply than expected, the share of households and businesses experiencing financial difficulties – and ultimately falling into arrears on their loans – would increase further.


### Higher interest rates and inflation are putting pressure on household budgets …

Higher interest rates and inflation have increased household expenses considerably over the past year. This, in turn, has reduced the spare cash flow – that is, the income available to spend or save after meeting housing costs and essential living expenses – of most renting and mortgagor households. The impact on household budgets has been uneven, however. Lower income households, including many renters, have been most affected as they tend to have lower spare cash flows and savings available to absorb rising costs. Relatively recent borrowers, including first home buyers, are also likely to be more affected as they tend to have larger debts (relative to income) than other borrowers and have had less time to build up savings buffers (discussed below).

Higher interest rates and inflation have started to dampen growth in consumption and saving. Timely indicators suggest that real household spending growth remained subdued in the March quarter, while information from retailers in liaison indicates that consumers are cutting back on their spending 'wants' and are searching for more value. The household saving rate has also declined from the very high levels of recent years to be a little below its pre-pandemic average, and the pace of inflows to offset and redraw accounts has eased in recent months (discussed below). Consistent with these trends, consumer sentiment is at historically low levels, particularly for those with mortgages (Graph 3.1).

For those households with mortgage debt, higher scheduled mortgage payments are a key driver of declines in spare cash flow. Borrowers with variable-rate loans – including those who

have already rolled off very low fixed-rate loans – have experienced large increases in their scheduled loan payments (typically between 30 and 50 per cent). The remaining borrowers, accounting for around one-third of all housing credit, continue to benefit from low fixed rates. However, like earlier cohorts that have already rolled off fixed rates, these borrowers will face large discrete increases in their loan payments when their fixed rate expires, mostly over 2023 and 2024.

Pressures on household budgets will build further as previous increases in the cash rate continue to pass through to variable-rate borrowers – increases in the cash rate affect mortgage payments with a delay of a few months – and fixed-rate loans roll off onto higher variable rates. Total scheduled interest and principal payments are expected to increase to around 9¾ per cent of household disposable income by the end of 2024 (Graph 3.2). This would be around the level of total payments (including prepayments into offset and redraw accounts) that households have been making over the past year.

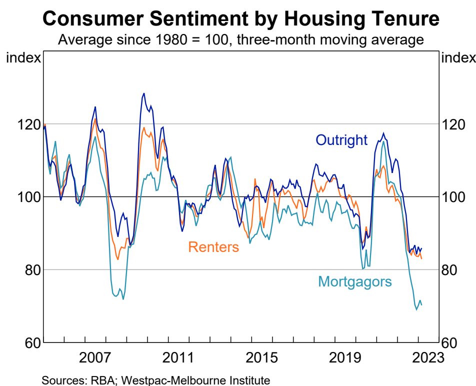
## … and there are some early signs of financial stress among some borrowers …

To date, the vast majority of borrowers have continued to service their debts as required, including by adjusting their spending and saving patterns. Early-stage mortgage arrears rates (i.e. 30–89 days past due) have increased slightly from very low levels, though this is likely in part due to seasonal effects (see 'Chapter 2: The Australian Financial System'). The share of credit card balances accruing interest – another indicator that could signal emerging financial stress – has been little changed over recent months. Nevertheless, liaison with community groups suggests there has been increasing demand from households for assistance with meeting their debt obligations. The share of low-income mortgagors (defined as the bottom quartile of mortgagor incomes) devoting more than one-third of their income to servicing their housing loan has increased from around one-quarter before the first increase in interest rates in May 2022 to around 45 per cent in January 2023. By contrast, around 5 per cent of borrowers in the highest income quartile spend more than one-third of their income on servicing their housing loan; however, these

**Graph 3.1**

**Consumer Sentiment by Housing Tenure**

Average since 1980 = 100, three-month moving average

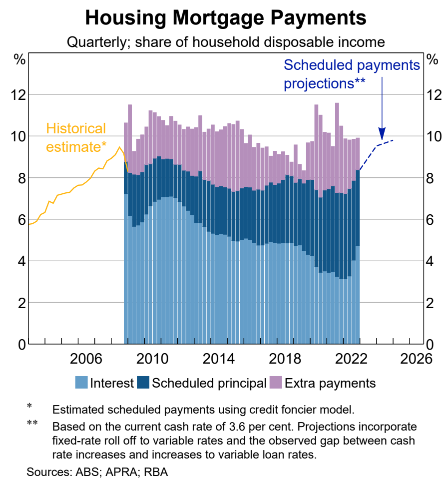



Sources: RBA; Westpac-Melbourne Institute

**Graph 3.2**

**Housing Mortgage Payments**

Quarterly; share of household disposable income




* Estimated scheduled payments using credit foncier model.

** Based on the current cash rate of 3.6 per cent. Projections incorporate fixed-rate roll off to variable rates and the observed gap between cash rate increases and increases to variable loan rates.

Sources: ABS; APRA; RBA

borrowers can generally meet larger debt-servicing costs relative to their incomes as they tend to spend a smaller share of their income on essential living expenses.

While borrowers in aggregate have continued to add to their savings in recent times (as discussed below), there has also been a pick-up in the share of borrowers who are drawing on their prepayment buffers. The share of owner-occupier variable-rate loans where borrowers have drawn on their buffers for three consecutive months has increased compared with the range of recent years (Graph 3.3). A higher share of borrowers are also making relatively small withdrawals compared with previous years, which could suggest that more borrowers are drawing on their buffers to fund regular expenses (as opposed to large discretionary expenses, such as holidays).

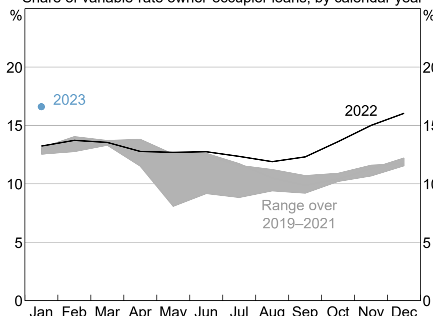
## … but most households continue to add to their savings buffers and are well placed to navigate a period of more challenging financial conditions

In aggregate, the household sector balance sheet remained strong as at the end of December 2022 (the period for which the most recent comprehensive data are available). The value of household assets fell by 2 per cent in 2022 due to the decline in housing and equity prices; however, it remained 25 per cent higher in December 2022 than at the end of 2019 (just prior to the pandemic) and around six times larger than the value of household debt. Households also have a large stock of liquid assets that is roughly equal to the total value of their liabilities. Furthermore, households continued to add to their savings over 2022 – including in the form of mortgage prepayments – albeit at a slower pace than in the preceding two years.

**Graph 3.3**

**Withdrawals from Mortgage Prepayments***

Share of variable-rate owner-occupier loans, by calendar year




* Share of borrowers that reduce their offset and/or redraw balances over preceding three consecutive months.

Sources: RBA; Securitisation System

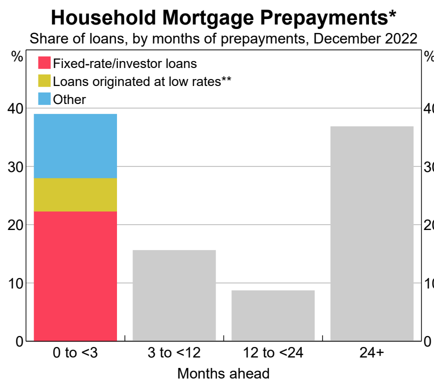
Household finances have been supported by the strong labour market, which has underpinned growth in nominal incomes. Consistent with this, indebted households across the income distribution have continued to add to their offset and redraw account balances, particularly those on lower and middle incomes. At the same time, most borrowers have experienced large increases in their scheduled loan payments, which means the number of months of scheduled loan payments that a given offset and redraw account balance can cover has declined. Accordingly, in early 2023, more than 60 per cent of all loans had balances in offset and redraw accounts equivalent to more than three months of their scheduled payments and almost half had buffers equivalent to more than a year (Graph 3.4). These shares are largely unchanged from the first increase in interest rates last May. Broader measures of liquid savings (beyond funds held in redraw and offset accounts) indicate an even larger degree of resilience to rising interest rates and higher costs of living (see below).

## Borrowers who have low liquidity buffers face the highest debt-servicing risks …

While many borrowers have significant buffers, around 40 per cent of loans have less than three months of prepayment buffer. Borrowers with these loans are potentially more at risk of

struggling to service their debts, particularly if they experience shocks to their income or expenses. However, not all loans with low prepayment buffers are equally risky:

- Over half of these 'low-buffer' loans are fixed-rate or investor loans (Graph 3.4, red bar). Borrowers with these loans are less likely to hold their savings in mortgage redraw or offset accounts, and so the full scope of liquid savings buffers held by these borrowers cannot be observed in loan-level data. Private survey data that include broader forms of saving indicate that fixed-rate borrowers have substantial savings outside their mortgages (see below).[1] Historically, investors have tended to have larger pools of liquid assets to draw on compared with owner-occupiers.[2]
- The 15 per cent of low-buffer loans extended to owner-occupiers at very low variable rates (between March 2020 and April 2022) are potentially riskier loans (Graph 3.4, yellow bar). Given the increase in interest rates since these mortgages were taken out, these borrowers' scheduled payments are now more likely to be close to or above the maximum level that their lender assessed they could afford when the loan was originated. These borrowers are also less likely to hold savings outside their mortgages than comparable fixed-rate borrowers. This group includes some first home buyers, although they are not over-represented.
- Around one-third of low-buffer loans ('other' loans) are older loans (Graph 3.4, blue bar). These loans can also be riskier than others, to the extent they reflect borrowers who consistently have little spare cash flow to save.




* Months ahead expressed as number of months that prepayments (including offset and redraw balances) can cover minimum scheduled payments. Includes split loans. Only loans with less than 3 months of prepayments are broken down by loan type.

** Includes variable-rate and split owner-occupier loans originated from March 2020 to April 2022. Fixed-rate and investor loans originated in this period are in the fixed-rate/investor category.

Sources: RBA; Securitisation System

## … especially if they also have high debt and low incomes

Those borrowers with low mortgage prepayments who are also highly indebted are more likely to experience debt-servicing challenges. This risk is highest for those who also have low incomes. This is because low-income households typically have less ability to draw on wealth or cut back on discretionary consumption to free up cash flow for debt servicing. A little less than 2 per cent of variable-rate owner-occupier loans have fewer than three months of prepayments and a loan balance that is more than six times the borrowers' annual income (Graph 3.5). A large proportion of these loans are held by low-income borrowers.

## Most variable-rate borrowers are expected to remain resilient to rising interest expenses, but there is a group who will come under increasing stress

Scenario analysis can be used to gauge the resilience of variable-rate owner-occupier borrowers to higher interest rates and cost-of-living pressures (see 'Box B: Scenario Analysis on Indebted Households' Cash Flows and Prepayment Buffers'). This work suggests that, in a scenario where the economy is assumed to evolve in line with forecasts from the February *Statement on Monetary Policy*, the bulk of these

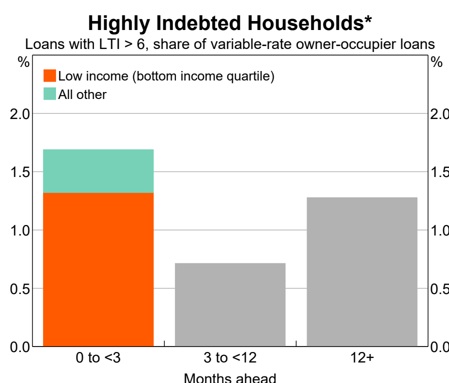
borrowers will be able to continue to service their debts through some combination of lower non-essential spending, lower saving and drawing down on existing savings buffers. However, there is a group of borrowers who, even if they cut back sharply on non-essential spending, will be at risk of exhausting their savings buffers within six months unless they can make other adjustments to their income or essential spending. As discussed above, those on lower incomes and recent first home buyers are over-represented in this group.

## Most borrowers on fixed rates appear well placed for the step-up to higher rates when their fixed-rate term expires

The one-quarter of loans that are still on fixed rates will face large increases in their scheduled payments when they roll off onto much higher interest rates over the next two years.[3] Borrowers with these loans will be aided in this transition by the following factors:

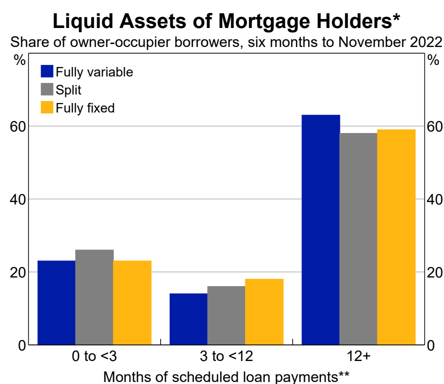
- *They have had considerable time to prepare for the coming increase in their mortgage payments.* By having fixed at a low rate, rather than paying the variable rate, they will have avoided making mortgage payments equivalent to several months of their new scheduled payment after their fixed rate expires.
- *Most have substantial savings, in both mortgage prepayments and other forms.* The one-half of fixed-rate loans that are 'split' (with a fixed and variable component) have similar levels of mortgage prepayments to fully variable-rate loans. In addition, private survey data suggest that when non-mortgage savings are accounted for, borrowers tend to have similar levels of savings regardless of the type of interest rate on their loan (Graph 3.6).

However, on some metrics fixed-rate loans appear a little riskier than variable-rate loans. As set out in a recent *Bulletin* article on the characteristics of expiring fixed-rate housing loans,[4] borrowers on fixed rates tend to have larger balances relative to borrower incomes and higher loan-to-valuation ratios (LVRs) than variable-rate loans. Although the differences are not large and partly reflect that fixed-rate loans are newer than variable-rate loans and so borrowers have had less time to accumulate equity or liquidity buffers, some borrowers on fixed rates could be at higher risk of entering




* Loan-to-income (LTI) is measured as the ratio of households' current loan value (net of redraw balances) relative to their income in January 2023. Months ahead expressed as number of months that prepayments (including offset and redraw balances) can cover minimum scheduled payments. Only loans with less than three months of prepayments are broken down by income quartile.

Sources: ABS; RBA; Securitisation System




* Liquid assets include balances held in deposit accounts (including offset accounts), shares and holdings in managed funds; exclude 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

financial stress when their mortgage payments increase.

## Housing prices have fallen sharply at the national level, but most indebted households still have large equity buffers

Most borrowers have large equity buffers in their properties, giving them the option to sell their property and repay their loan if it becomes too difficult to service the loan. This reflects several factors:

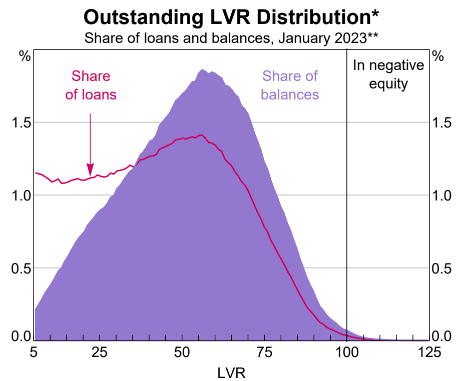
- The decline in housing prices over the past year has in many cases only partially reversed the gains of recent years.
- Generally strong lending standards over recent years mean only a small share of loans have been originated at high LVRs – that is, with small equity buffers.
- Most borrowers have made sizeable mortgage prepayments and therefore paid down the principal on their loans faster than required.

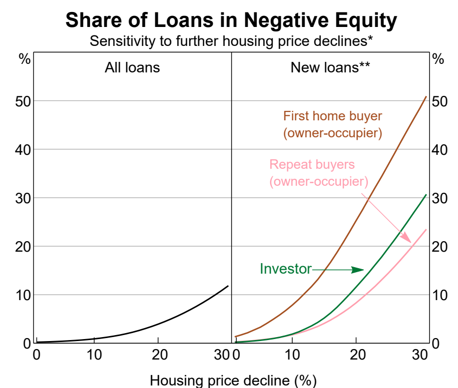
As at January 2023, 2 per cent of loan balances (by value) were estimated to have an outstanding LVR greater than 90 per cent (Graph 3.7). This share has increased by 1½ percentage points over the past year but remains well below levels observed in January 2020. The share of loans (by number and value) in negative equity (LVR> 100 per cent) remains negligible and much lower than prior to the pandemic.

If housing prices fell a further 10 per cent from January 2023 levels, the share of loan balances (by value) in negative equity is estimated to rise to 2 per cent (Graph 3.8). Around 90 per cent of these loans (by number) in negative equity have low prepayment buffers and would therefore be at a higher risk of default if these borrowers became unable to service their debts. In this situation, it is newer loans that are more likely to enter negative equity because their borrowers have benefited less (if at all) from earlier housing price increases and have had less time to accumulate equity and savings buffers. This includes a high share of recent first home buyers, who are more likely to have taken out loans at relatively high LVRs (because they are typically more deposit constrained).

## Credit conditions have tightened with the increase in interest rates

The growth in housing credit has continued to moderate, and the share of new, higher risk

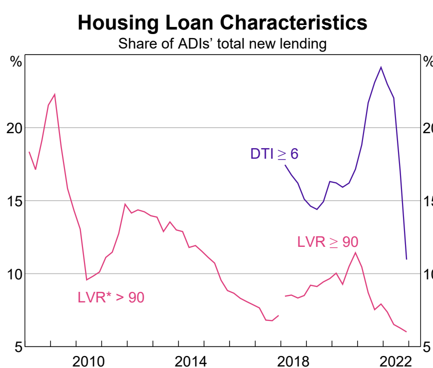


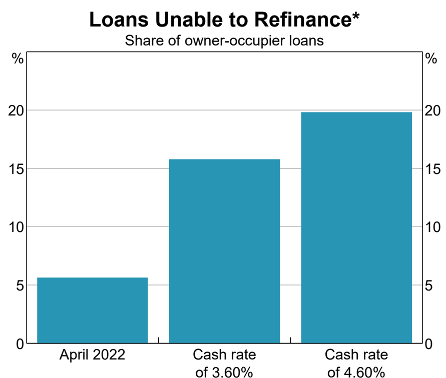
lending has continued to fall as interest rates have increased. For a given borrower, the maximum allowable size of a new loan (that passes a lender's serviceability assessment) has declined by around 30 per cent since the first cash rate increase in May 2022. Accordingly, the share of new lending to borrowers at a debt-to-income (DTI) ratio greater than six has fallen further and is now less than half of its late-2021 peak (Graph 3.9).[5] Lending at a LVR greater than 90 per cent has also continued to decline to new lows. Non-bank lenders have maintained similar lending standards to regulated lenders since the onset of the pandemic and have recently experienced materially slower growth in new lending compared with banks; this suggests there is little migration of housing credit risk away from regulated lenders (see 'Chapter 2: The Australian Financial System').

There is nevertheless strong competition amongst lenders, particularly for high-quality borrowers, with lenders offering discounted interest rates and cashbacks on new and refinanced loans. While rising interest rates have meant that some existing borrowers have become unable to refinance with a new lender because they cannot meet the serviceability criteria that lenders use to assess new and refinanced loans (which factor in an interest rate buffer of at least 300 basis points to the current loan rate), many existing borrowers have been able to refinance with a new lender on more favourable terms or achieve the same outcome by renegotiating and staying with their current lender. Estimates suggest around 16 per cent of existing loans are unable to meet serviceability assessments conducted at current interest rates (Graph 3.10). If mortgage rates were to increase by a further 1 percentage point, the share of loans unable to refinance with another lender is estimated to increase to around 20 per cent. Newer borrowers are over-represented in this cohort, especially the small share who borrowed close to their maximum capacity when interest rates were very low.

Rather than moving to another lender, many borrowers have been negotiating a larger discount from the reference rate with their existing lender. Around one-third of outstanding variable-rate owner-occupiers have renegotiated the discount on their loan since May 2022. Information from liaison suggests that most borrowers who are unable to refinance with another lender are still able to negotiate discounts with their existing lender, provided they meet other criteria including in relation to loan size and LVRs.



* LVR series breaks at March 2018 due to reporting changes.
Sources: APRA; RBA



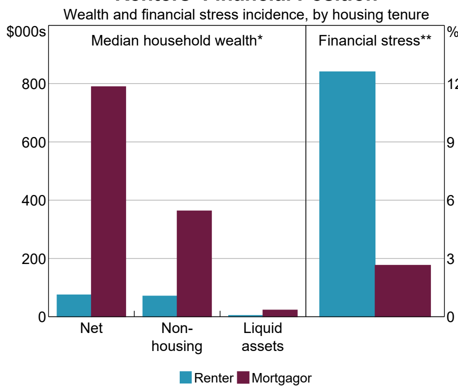
* Loans that would fail a serviceability assessment to take out a new loan equal to the current balance. Estimated using income at origination grown forward using growth in the Wage Price Index (WPI) and expenses in line with the Household Expenditure Measure (HEM).
Sources: ABS; Melbourne Institute; RBA; Securitisation System

## Renters are facing challenges from strong rental inflation and cost-of-living pressures

Strong growth in rents has put pressure on the budgets of renters who have signed new leases over the past year or so.[6] As renters tend to have lower incomes than other households and so spend a larger share of their income on essential items, they are less able to adjust their spending behaviour in response to high inflation. In addition, renters have historically been more likely to lose work during downturns. Since renters also tend to have fewer liquid assets and lower net wealth, they have historically been considerably more likely to experience financial hardship than other households (Graph 3.11). In line with this, liaison information suggests that increased demand for community services over recent quarters has primarily come from renters. While renters do not pose direct financial stability risks, if a large share of renters were to sharply reduce their consumption it could contribute to a more material economic downturn.

**Graph 3.11**

**Renters' Financial Position**




* SIH 2019/20 release.

** Share of households reporting at least three financial stress events in HILDA wave 21, including being unable to pay bills on time, being unable to pay mortgage or rent on time, pawning or selling household items, being unable to heat home, going without meals, asking for financial help from friends or family, or asking for help from welfare or community organisations.

Sources: ABS; HILDA; RBA

## The business sector has a stronger balance sheet than before the pandemic

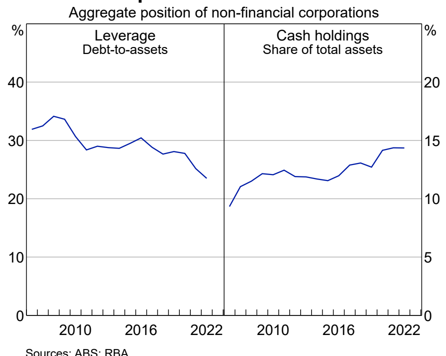
In aggregate, non-financial businesses' balance sheets strengthened over the three years to June 2022 (the latest available annual data). Aggregate leverage (measured by the debt-to-assets ratio) continued to decline, while cash buffers (measured by the ratio of cash holdings to total assets) increased further (Graph 3.12). However, the rate of accumulation of cash buffers has slowed since early in the pandemic and has been distributed unevenly across businesses. Data on bank deposits suggest that larger businesses' cash buffers have expanded by proportionally more than those of smaller businesses.

## Most businesses were able to pass on higher input costs to rebuild their profit margins after the pandemic

Firm-level data suggest strong demand following the pandemic allowed most businesses to rebuild their operating profit margins, despite rising input costs. As of the September quarter of 2022 (the latest available quarterly data), the median operating profit margin had recovered to around pre-pandemic levels (Graph 3.13). This trend is broadly consistent with large listed companies' profit

**Graph 3.12**

**Corporate Balance Sheet**

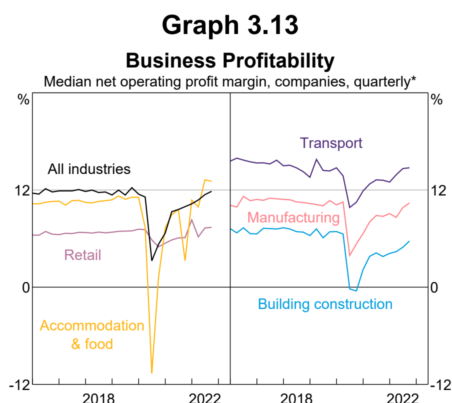



Sources: ABS; RBA

results for the second half of 2022. However, not all businesses were able to rebuild their margins by this time. Operating profit margins remained lower for firms in the building construction industry, as builders continued to work through fixed-price contracts that were written before input costs rose substantially.[7] However, higher energy costs do not appear to have had a substantial effect on firms' margins. Most energy-intensive firms were able to maintain their operating profit margins, including those in the transport industry.

## Indebted small businesses are more exposed to higher interest rates than larger businesses

Indebted smaller businesses are more exposed to rising interest rates than larger businesses. Around half of small business lending is collateralised with a residential mortgage, and most of these loans are on variable rates, meaning higher interest rates have already passed through to these borrowers' scheduled payments. Given smaller businesses have also been more affected by ongoing cost pressures, some may have difficulty servicing these higher interest expenses, particularly as small business income tends to be volatile from quarter to quarter. The non-performing share of banks' business loans remains low. For those with loans secured by residential property, some will face difficulties meeting serviceability criteria for external refinancing, similar to households. In addition, recent declines in housing prices may limit the ability of these businesses to resolve serviceability issues by restructuring their loans (e.g. by accessing additional equity from their home). In contrast to the household sector, small businesses do not appear to face a large and concentrated volume of fixed-rate loan expiries over the next few years. Although fixed-rate loans account for around 35 per cent of outstanding small business lending, these loans tend to be relatively small (e.g. for equipment finance), have shorter maturities and are likely be fully repaid by the time they mature.



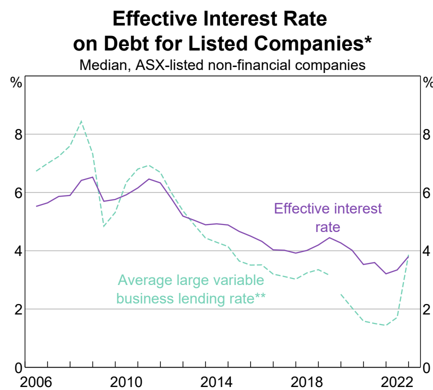

The average variable rate on large businesses' outstanding loans increased by around 320 basis points between April 2022 and February 2023. However, the debt-servicing costs of many ASX-listed companies have increased by much less than this and remain low by historical standards (Graph 3.14). This is because many large companies hedge their interest rate exposures. Many also issued long-term fixed-rate debt prior to the increase in interest rates, which will delay the pass-through of higher interest rates to interest expenses; for most issuers only a small share of bonds is due to expire in the next 12 months. Moreover, as of December 2022, the majority of ASX-listed companies had ample liquidity and annual profits that were at least double their interest expenses, while 60 per cent of unprofitable companies had enough cash to cover their liabilities.

## Company insolvencies have increased to around pre-pandemic levels, but remain low

Company insolvencies have returned to close to pre-pandemic levels (Graph 3.15). Almost all insolvencies over the past year were relatively small companies, typically with an annual

turnover less than $2 million and limited potential for spillovers to households and other businesses. The construction sector continues to account for around 30 per cent of company insolvencies, reflecting ongoing margin pressures as builders work through fixed-price contracts that were written before input and labour costs rose substantially, with labour and materials shortages having added costly delays. The increase in interest rates has also raised debt-servicing costs for many firms. While the direct implications for the financial system are limited because banks have very small exposures to builders, there is potential for financial stress to spread to other businesses within the broader construction industry and to some households.[8] More broadly, insolvencies are expected to rise further as small businesses face ongoing pressures, as discussed above. However, the impact on the financial system and the broader economy is unlikely to be material unless there is an increase in large company insolvencies (which are more likely to transmit stress to households and other businesses).

**Graph 3.14**




* Effective interest rate is annual interest expenses over interest bearing liabilities. Excludes companies with a ratio of debt to assets less than 10 per cent.

** Six-month average. Series break in 2019 due to a change in the definition of a large business loan.

Sources: APRA; Morningstar; RBA

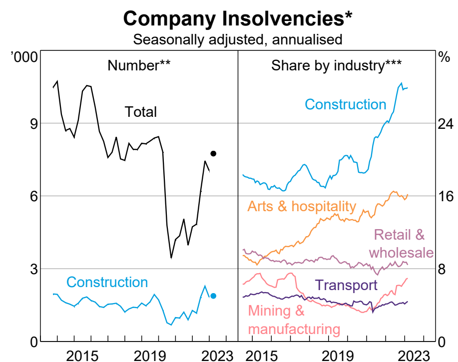
## A sharp slowing in demand is a key risk for businesses with inflexible cost bases

Weaker demand could constrain businesses' ability to pass on increases in input costs, putting pressure on margins. A sharp decrease in demand would create challenges for businesses that cannot reduce costs quickly when revenues fall. Based on a sample of larger firms (with annual revenue of at least $10 million), those in the arts and recreation, and business services industries have tended to have less flexible operating costs than other firms (Graph 3.16). By comparison, retail, transport and wholesale firms have tended to have more flexible operating costs.

## Leasing conditions in retail and office markets remain challenging and valuations are expected to decline further

Vacancy rates remain high for office and most retail properties, especially in Central Business Districts (CBDs). Reflecting high vacancies, market rents in these sectors remain around 10 per cent below their levels in 2019 (Graph 3.17). By contrast, tenant demand for industrial property remains strong and rents have elevated as the shift to e-commerce

**Graph 3.15**




* New external administrations and controller appointments.

** The dots are March quarter estimates based on monthly observations for January and February 2023.

*** 12-month rolling basis; selected industries.

Sources: ASIC; RBA

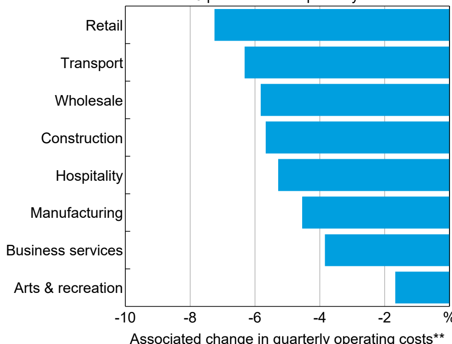
continues to support the demand for distribution and warehouse space.

Following a strong run-up in office and industrial valuations in previous years, valuations have recently come under pressure across all segments in response to higher interest rates. If the outlook for tenant demand deteriorates, this will further depress valuations. Based on measures that are largely modelled and therefore are only partly informed by the small number of recent transactions, valuations fell by 2–5 per cent across the office, retail and

**Graph 3.16**

**Response of Businesses' Costs**

To a 10 per cent fall in quarterly revenue*




* Selected industries; based on sample of companies (annual turnover >$10 million) covering 2017–2019; estimated using a generalised additive model (GAM).

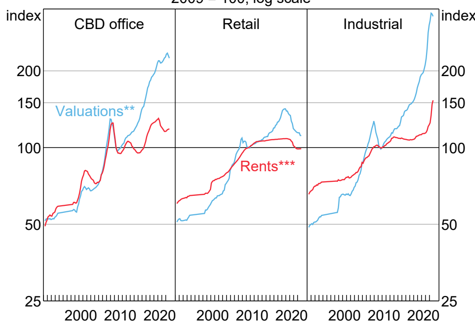
** Includes wages and other operating expenses.

Sources: ABS; RBA

**Graph 3.17**

**Commercial Property***

2009 = 100, log scale




* CBD office and industrial are prime property; retail is regional (large) centres.

** JLL Capital Value Indicator.

*** CBD office is effective rents; industrial and retail are face rents.

Sources: ABS; JLL Research; RBA

industrial segments in the second half of 2022. Further recorded falls are likely as more transactions occur (at lower prices) in a higher interest rate environment, with the recent increase in volatility in financial markets adding to uncertainty about the likely magnitude of declines. The marking down of asset book values may put pressure on the balance sheets of some commercial real estate owners and lenders.

## Commercial property risks would increase if economic conditions were to deteriorate substantially

Landlords appear to be coping with soft leasing conditions and higher interest rates; however, if rental income were to fall sharply in an economic downturn, some landlords are likely to become financially distressed. Listed A-REITs (Australian Real Estate Investment Trusts) – which directly own around 10 per cent of office space and 60 per cent of retail properties, and are exposed to some property developments – are generally well placed to weather a decline in rental income and valuations because they have strong balance sheets. In general, A-REITs are not highly leveraged, although their leverage will increase if declining valuations lead to mark-downs of the book value of their properties. Little information is available on the financial health of smaller landlords, but liaison with banks suggests the vast majority of those with bank loans continue to meet rising debt payments.

The risk of forced property sales (or in severe instances, defaults) could emerge if some leveraged investors cannot refinance expiring loans. This could occur if higher interest rates cause some existing loans to fall below minimum interest coverage or maximum LVR requirements and the investor cannot contribute more equity to the property to offset this. Liaison information suggests most borrowers who are unable to refinance with

banks are currently still able to refinance with non-banks, although at higher interest rates. Australian commercial property investors who borrow in global capital markets (including most large A-REITS) could also face refinancing difficulty if liquidity in these markets is significantly reduced.

For banks operating in Australia, direct exposures to commercial property represent only 6 per cent of total assets and non-performing bank exposures to commercial property remain negligible. Moreover, banks have significant protection against declining commercial property valuations, owing to conservative credit policies. Banks typically only extend commercial property loans at low LVRs (less than 65 per cent) and require borrowers to have certain debt-servicing capabilities (e.g. ratios for minimum interest coverage and maximum debt-to-assets).

Little information is available on the exposures to commercial property outside the banking sector. The commercial property sector is funded in part by institutions that are typically not highly leveraged (including foreign sovereign wealth and pension funds, and domestic superannuation funds). Liaison suggests that non-bank lenders also have some exposure to commercial real estate, and on slightly different terms to banks. However, broader systemic risks posed by the non-bank sector are limited by its relatively small size in Australia (see 'Chapter 2: The Australian Financial System').

## Endnotes

[1] Lovicu G-P, J Lim, A Faferko, A Gao, A Suthakar and D Twohig (2023), 'Fixed-rate Housing Loans: Monetary Policy Transmission and Financial Stability Risks', RBA *Bulletin*, March.

[2] La Cava G and L Wang (2021), 'The Rise in Household Liquidity', RBA Research Discussion Paper No 2021-10.

[3] See Lovicu *et al*, n 1.

[4] Lovicu *et al*, n 1.

[5] The sharp decline in new high-DTI lending is also evident after excluding borrowers who have refinanced their existing loan with a new lender (refinancing activity tends to be at a lower DTI).

[6] See Agarwal N, R Gao and M Garner (2023), 'Renters, Rent Inflation and Renter Stress', RBA *Bulletin*, March.

[7] See RBA (2022), 'Box C: Financial Stress and Contagion Risks in the Residential Construction Industry', *Financial Stability Review*, October.

[8] See RBA, n 7.