

Research Note

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Mortgage borrowers and macroeconomic developments

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A network diagram consisting of numerous nodes (circles) of varying sizes and colors (teal, grey, light blue) connected by thin lines. A large, prominent teal circle is positioned on the right side of the image, partially overlapping the network. The overall aesthetic is clean and modern, with a focus on connectivity and data visualization.

FCA research notes in financial regulation

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Contents

1	Overview	3
	Purpose	3
	Key findings	3
	Equality and diversity considerations	3
2	Context	4
	Macroeconomic Outlook	4
	Falling real incomes	4
	Rising Interest rates	4
	Exposure of mortgage borrowers to interest rates	5
3	Our Model	7
	Assumptions and approach	7
	Key findings	7
	Caveats and limitations	10
4	Closing remarks	11

1 Overview

Purpose

How could mortgage borrowers be impacted by higher interest rates and cost of living challenges?

With significant recent rises in both interest rates and inflation, many consumers are finding their budgets squeezed. Mortgage payments are a significant expenditure for many households and the currently challenging macroeconomic conditions and uncertain future outlook raise questions about mortgage affordability.

In this short research note, we explore the potential combined impact of the expected path of interest rates and real incomes over the coming months, integrating external forecasts and highly granular transaction data on UK mortgages.

Key findings

We find that:

- As of June 2022, approximately 200,000 mortgages were in payment shortfall (by any amount) and a further 45,000 mortgages were associated with “financial stretch” (which we define as a situation where the borrowing household faces monthly mortgage payments exceeding 30% of gross income).
- By the end of June 2024, the number of mortgages with “financial stretch” may increase to 356,000, with monthly payments rising by 50% or more for 67,000 of these mortgages, and a median rise of £340 for fixed term mortgages with “financial stretch”.
- The biggest increase in the number “financially stretched” is expected in Q3 (July – September) 2023.
- Younger borrowers aged 18-34 may be more likely to be stretched than the rest of the working age population.
- The share of mortgages with “financial stretch” varies from 2.3% to 5.9% across UK regions.
- Whilst these estimates are a cause for concern, the majority of mortgages (around 90%) that are exposed to interest rate rises before the end of June 2024 are not expected to become financially stretched. This may demonstrate the value of prudent affordability checks conducted by lenders.

Equality and diversity considerations

We have considered the equality and diversity issues that may arise from the proposals in this Research Note.

Overall, we do not consider that the proposals in this Research Note adversely impact any of the groups with protected characteristics i.e. age, disability, sex, marriage or civil partnership, pregnancy and maternity, race, religion and belief, sexual orientation, and gender reassignment.

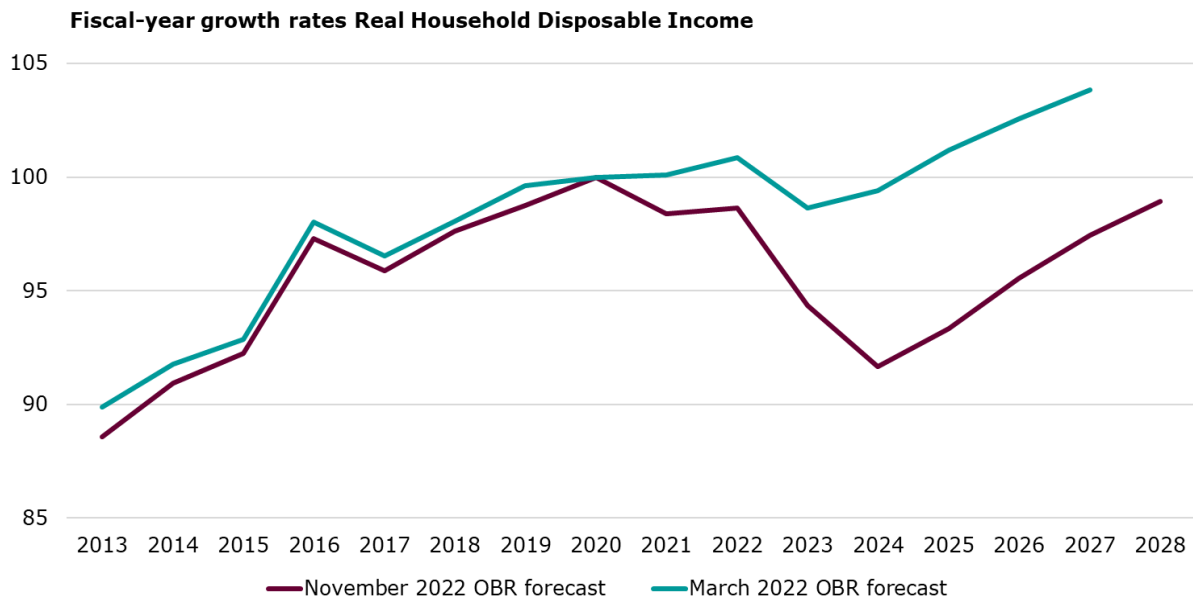
2 Context

Macroeconomic Outlook

Falling real incomes

The Office for Budget Responsibility (OBR) forecasts a 7% decline in real household net disposable incomes between 2022 and 2024 (Figure 1).

Figure 1: Real Household Disposable Income over time

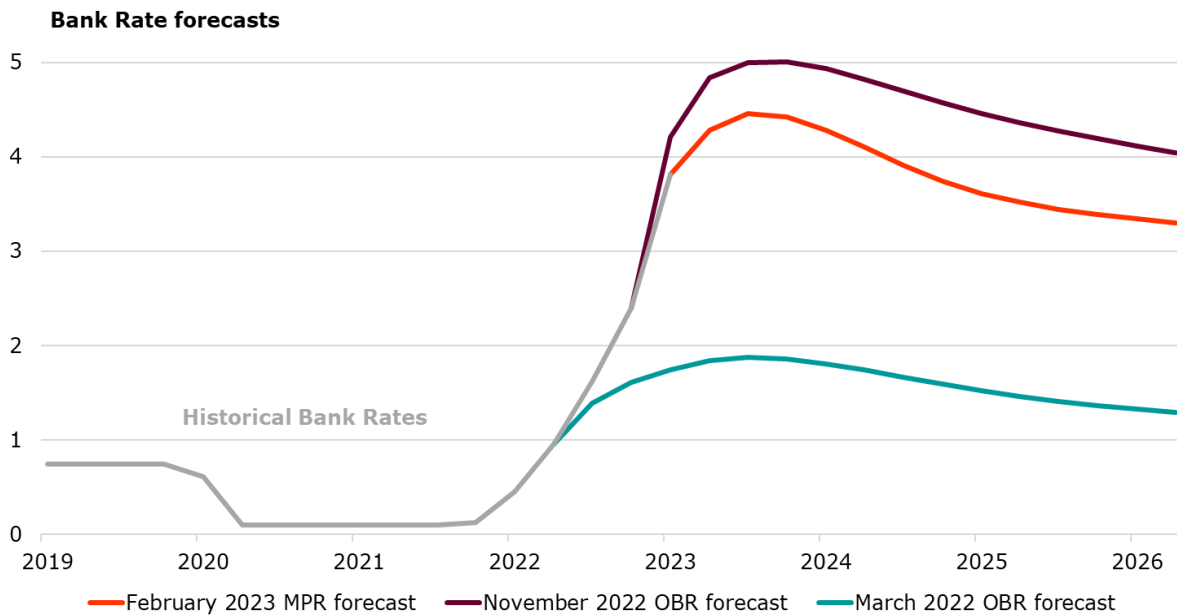


Source: OBR November 2022.

Rising Interest rates

The Bank of England base rate increased from 0.5% in February 2022 to 4% in February 2023, and the latest market expectations are that it will peak at around 4.5% in 2023 (Figure 2). Before February 2022, the base rate had been below 1% since March 2009.

Figure 2: Historical Bank rates and market expectations



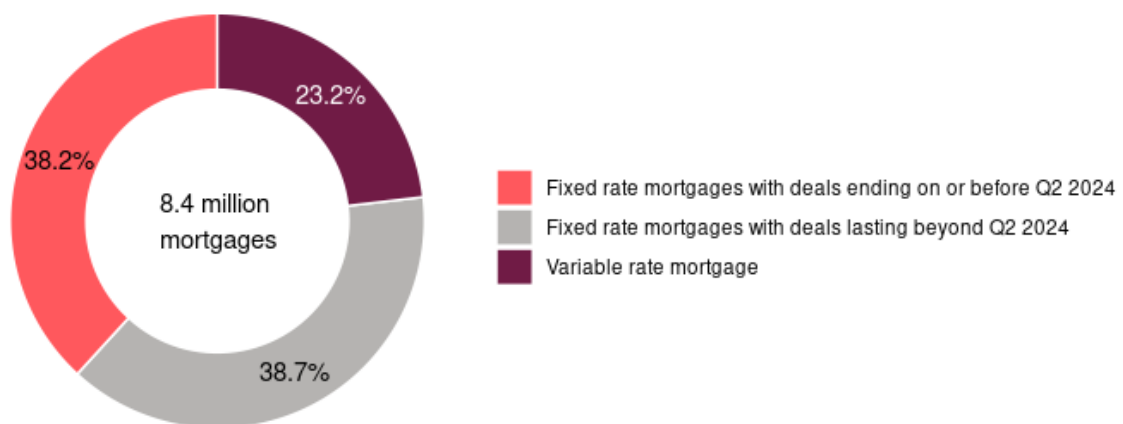
Source: OBR, November 2022, and BoE MPR February 2023.

Exposure of mortgage borrowers to interest rates

The latest cut of our Product Sales Data (see Figure 3) shows that 5.2 million mortgages may be exposed to changes in interest rates from the beginning of July 2022 to the end of June 2024:

- We know that 1.9m mortgages are on variable interest rate deals.
- A further 3.2m fixed rate mortgages will roll off their fixed rate deals.

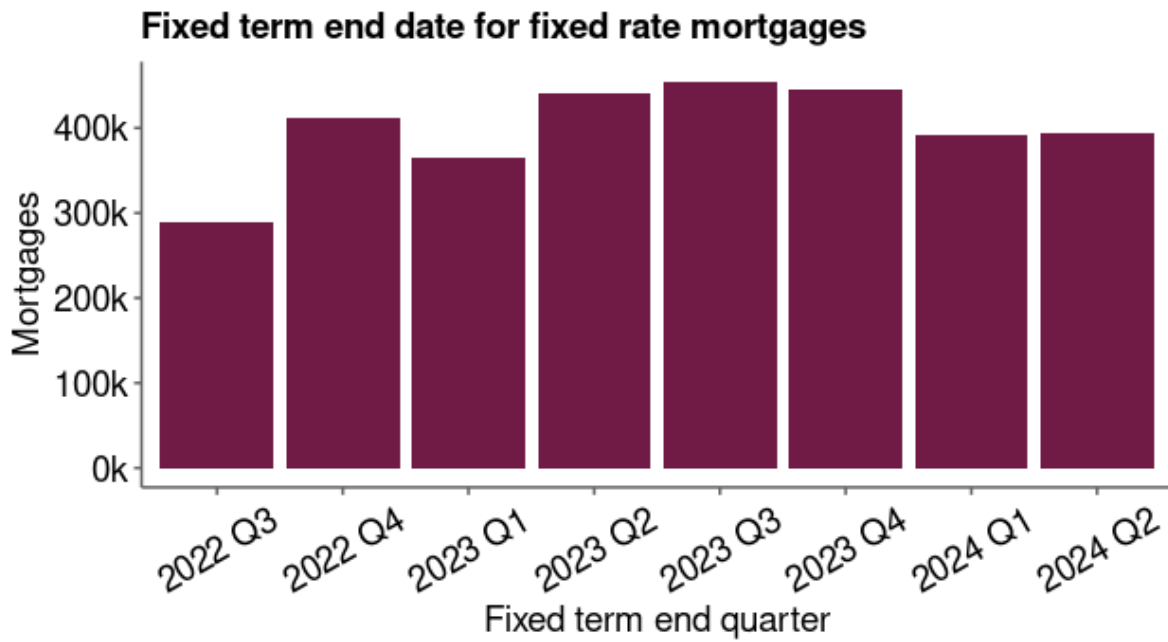
Figure 3: Breakdown of the mortgage market into variable and fixed rate mortgages



Source: PSD (Product Sales Data) data (as of June 2022), FCA own calculations.

Our PSD data in Figure 4 also shows us that the number of households rolling off fixed rate deals is set to peak in Q3 2023.

Figure 4: The number of fixed rate mortgages rolling off by quarter



Source: PSD (Product Sales Data) data (as of June 2022), FCA own calculations.

3 Our Model

Assumptions and approach

We combine external projections for macroeconomic developments with individual-level transaction data for a representative 10% sample of mortgages held in the UK (as of June 2022).

We assume that:

- Household real gross incomes fall by 10% from the beginning of July 2022 to the end of June 2024 – this is broadly in the ballpark of recent projections with the OBR November 2022 Report forecasting a 7% decline in real-net disposable income between 2022 and 2024 (Chart 1).
- Interest rates rise in line with market expectations as reported in the Bank of England Monetary Policy Report of the 2nd of February 2023 (Chart 2),
- Households roll off onto a fixed term deal of the same fixation period (e.g., those currently on a 2-year fixed term deal, roll off onto a 2-year fixed term deal) with the same repayment term at the same loan to value (LTV).
- A mortgage becomes “financially stretched” if the household’s Mortgage Service to Income (MSTI) ratio exceeds 30% and the borrower is not already in payment shortfall. The MSTI is defined to be their monthly mortgage payment as a share of gross income. This threshold is used widely in the literature (e.g., by Eurostat and the OECD).

Key findings

There were around 45,000 mortgages with “financial stretch” at the end of June 2022. Using our model, we estimate that this number may increase to 356,000 by the end of June 2024.

For mortgages with expected “financial stretch” we further find that:

- The median projected increase in monthly payments is £340 (or a 33.9% increase over the original monthly payment) for those coming off fixed rate mortgages and £261 (or a 28.7% increase) for those on a variable rate.
- Almost 19% may experience an increase in monthly payments of 50% or more.
- Around 180,000 mortgages may have an MSTI of 30-32.5%, whilst around 90,000 mortgages have an MSTI of 32.5-35%.

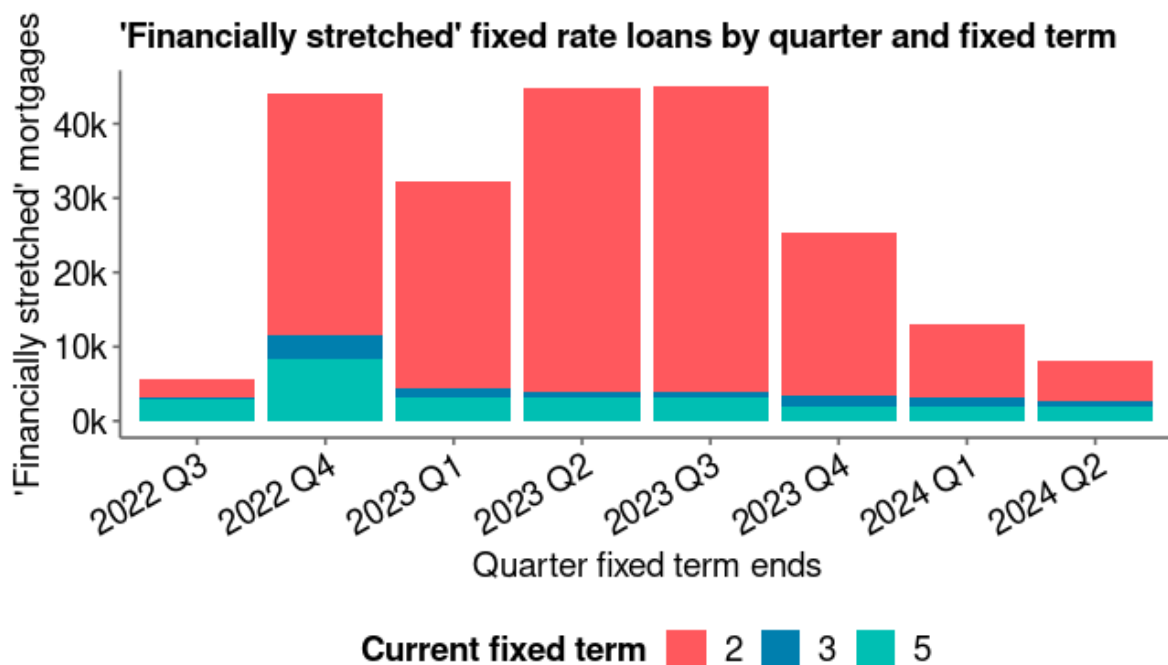
Since 2014, many prospective mortgage borrowers have been stress tested on their ability to meet mortgage repayments at higher interest rates to those at the time of application, under FCA rules and FPC Recommendation (withdrawn 1 August 2022). This means that many households in the UK mortgage market will have been stress tested at interest rates comparable to current rates and further increases. This may, in part, explain why the majority of mortgages that are exposed to interest rate rises by the end of June 2024 (around 90%) are not expected to go into financial stretch.

We also anticipate that some “financially stretched” households may be able to continue to meet their monthly payments. They may be able to make difficult decisions to cut back spending, dip into savings (where available) and find ways to increase income. Some may prioritise their monthly mortgage repayments but face challenges keeping up with other bills (e.g., credit cards, utilities).

It is particularly significant that most mortgages with “financial stretch” are relatively close to the 30% threshold, as a higher MSTI is likely to mean a higher chance of payment shortfall, on average.

Our model further suggests that the biggest increase in mortgages with “financial stretch” may be in the second and third quarter of the 2023 calendar year (Figure 5). This is when an expected peak in base rates (Figure 2) coincides with many borrowers rolling off fixed rate deals (Figure 4).

Figure 5: A deeper look at fixed rate mortgages with “financial stretch”



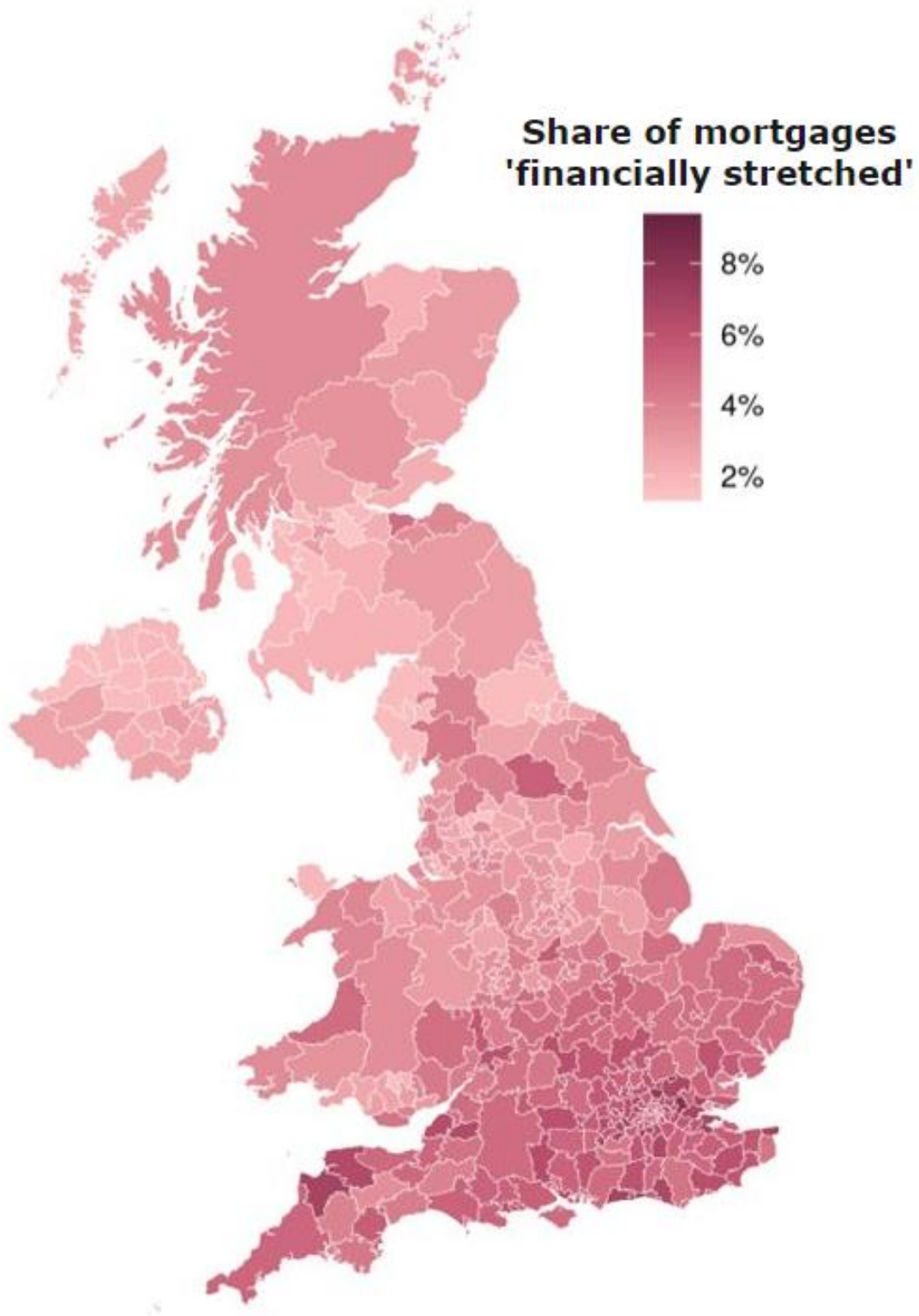
Source: PSD (Product Sales Data) data (as of June 2022), FCA own calculations.

We estimate that those aged 18-34 may be more likely to become “financially stretched” than the rest of the working age population. Contributory factors may include higher loan-income multiples, larger outstanding loan amounts, and less time for wages to grow as younger people are more likely to be recent first-time buyers.

Regional differences may also be significant (Figure 6). We estimate that 5.9% of mortgages in both London, and the South-East may have “financial stretch” by the end of June 2024, whilst this is the case for only 2.3% of loans in the North-East. This is likely caused by higher salary multiples required to buy homes in these regions – our PSD data shows that outstanding mortgage balances are 2.7 times greater than household incomes in London and the South East, as opposed to 1.9 times greater in the North East.

However, it may be that households in London and the South East are more resilient to these financial shocks. It is worth noting that, as of June 2022, payment shortfalls are more prevalent in the North of England and Northern Ireland.

Figure 6: Regional variations in the share of mortgages with “financial stretch”



Source: PSD (Product Sales Data) data (as of June 2022), FCA own calculations.

Caveats and limitations

It is important to consider the analysis presented in this paper within the context of several important caveats and limitations:

- In this analysis, we have only used one scenario for interest rates and real wage growth, but many other plausible scenarios are possible.
- Results are particularly sensitive to changing base rate expectations. Previous FCA analysis, reported to the [Treasury Select Committee](#), which used base rate expectations from 23rd September 2022, estimated that the number of mortgages with “financial stretch” would increase to 570,000 by the end of June 2024.
- Unemployment may be another important factor in whether someone can afford their mortgage payments. We are unable to capture that in this simple model. We anticipate that an increase in unemployment may increase the number of mortgages with “financial stretch”; and would be likely to place significant financial strain on those households affected. We are exploring ways to extend our analysis to account for unemployment.
- Our assumption that households move onto an identical deal (in terms of repayment period, fixed term, and loan to value) is unlikely to fully reflect what might happen in practice. People may shop around for the cheapest deal, perhaps opting to take a different kind of product, such as a tracker deal, or opt for a longer repayment term which reduces their monthly payments. Households may also have accrued sufficient equity to take advantage of cheaper deals associated with a lower LTV.
- The 30% MSTI threshold is widely used in the literature, but any cut off point is inevitably somewhat arbitrary. Some households above the threshold may not struggle to meet payments, whilst some below it may struggle.
- Our PSD data only records household income at the date of mortgage application. Although we adjust each household’s income to account for average real wage growth between the date of mortgage application and the end of June 2022, we may not be accounting for systematic differences in real wage growth across households.
- Our modelling does not account for the forbearance options that are available to help consumers through periods of financial difficulty. These measures, alongside wider government policy (for example, recent changes to the Support for Mortgage Interest eligibility policy) are expected to ease the burden on households.

4 Closing remarks

Our analysis estimates that the number of mortgages with “financial stretch” may increase to 356,000 by the end of June 2024, should interest rates rise in line with the latest market expectations and should real incomes have fallen by 10% from July 2022 to June 2024. Borrowers aged 18-34 are more likely to be impacted than the rest of the working age population as are those in London and the South-East, though the latter may be more likely to be able to cope with these rising mortgage costs.

Whilst these estimates are a cause for concern, the majority of mortgages (around 90%) that are exposed to interest rate rises before the end of June 2024 are not expected to become financially stretched. This may demonstrate the value of prudent affordability checks conducted by lenders.

It is important to emphasise that our estimates are not a forecast of expected arrears or default. A sharp increase in mortgage payments may force households to make difficult decisions on spending and may lead households to find ways to increase income.

Our analysis has helped inform the FCA’s newly published guidance to firms. This sets out the flexibility firms have to support borrowers who are either in payment shortfall or are worried they may not be able to make future payments. These measures, alongside wider government policy, are expected to provide a robust buffer for many households to help them through this uncertain situation.

The FCA will continue to monitor the situation as it develops and is watching the data closely to understand how these payment pressures feed into payment shortfall and arrears. We will review our analysis as the situation develops and may provide further updates.

Annex 1: References

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