

What's Next for UK Mortgages After COVID-19

The COVID-19 pandemic continues to pose challenges for forecasting both economic losses and outlooks for UK mortgage portfolios. Most importantly, the winding down of government support measures has significantly affected the labor and housing markets, key drivers for mortgage portfolio performance. Understanding the pandemic's impact on mortgage portfolios and potential macroeconomic pathways forward is therefore essential for managing a sound risk and control framework.



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We assess the impact of lifting pandemic-related government support on the UK mortgage market, using a representative portfolio as an input into the econometric models hosted by Moody's Analytics Mortgage Portfolio Analyzer. We evaluate forward-looking risk metrics using baseline and severe downside scenarios, which account for diverse economic assumptions and severity.

We find that housing prices and unemployment affect portfolio losses not just in terms of magnitude, but also in terms of timing. In fact, we observe that the prolonged stress on the labor market threatens to keep mortgage defaults (and losses) high for a long-term horizon.

Challenge

Uncertainty related to COVID-19's future economic impacts, as well as potential monetary policy and government support changes, make forecasting mortgage performance significantly more challenging than in more benign times. Do banks and lending institutions fully understand the changes in the market and the impacts on the mortgage portfolios they manage?

Insights

As several COVID-19 support measures were lifted in September 2021, we continue to expect the UK economy to be affected on many fronts, including its large mortgage market. To assess its responsiveness to future events, we deploy two scenarios that account for diverse economic outlooks related to COVID-19, government support, and international factors. These scenarios shape the macroeconomic forecasts that feed our analyses on a representative portfolio of UK mortgages. We find that sensitivity to housing prices and unemployment rate shocks drive risk metric estimation with different magnitude and timing, and must be closely supervised. Projected probabilities of default (PD) are sensitive to the prolonged shock in the labor market, remaining significantly high even over the long run. On the other hand, falling housing prices strongly affect the scale of loss given default (LGD) projections, with a severe increase during the short term.

The combined effect of the stress peaks in PD and LGD leads to a notable increase in expected losses toward year-end. The impact measured on net losses reveals a dramatic difference between the baseline and severe downside scenarios, with expected losses 20 times higher over five years.

This joint influence of housing prices and unemployment, especially the prolonged stress to the latter, should be closely scrutinized when evaluating mortgage risk metrics. When changes in government support schemes create market uncertainty and potentially affect the timespan of shocks, relevant implications for impairment and capital allocation for mortgage books should be thoroughly measured and should not be underestimated by banks and lenders.

Analysis

Lifting COVID-19 support measures will affect various areas of the UK economy differently. The ending of the job retention scheme and the stamp duty tax holiday will significantly affect the mortgage market. The end of the job retention scheme is expected to lead to an uptick in mortgage defaults, as customers who remain without work might have difficulty meeting their financial obligations. Purchasing a new house becomes less attractive as the stamp duty tax holiday ends, potentially leading to a short-term slowdown in the housing market and mortgage originations. Understanding and forecasting these impacts on mortgage portfolios presents a challenge for lenders, as the exercise requires sound macroeconomic forecasts and modeling capabilities that interconnect economic outlooks with risk parameters.

For this study, we utilize Moody's Analytics Mortgage Portfolio Analyzer, an off-the-shelf tool that calculates and exports PD/prepayment and LGD term structure at the account level, conditional on a given macroeconomic scenario input.

Figure 1 summarizes the steps used to produce the analytics. We first input two types of data: loan-level data, with the reported arrears status for a specific snapshot (in this case July 2021); and economic scenarios from Moody's Analytics at the subnational level. Results help drive impairment staging and cash flow calculations, producing account-level and scenario-conditional cash flow and impairment projections.

We deploy Moody's baseline and severe downturn scenarios. Under the baseline scenario, COVID-19 death and hospitalization rates remain low thanks to the vaccination program. Inflation continues ramping up due to the reopening of the economy and increasing energy costs. In the other projection, the assumptions under the severe downside scenario predict a new vaccine-resistant strain that increases death and hospitalization rates and leads the government to reintroduce lockdown measures. Consumer spending declines, further curbed by international tensions between the United States and China, and between the United Kingdom and the EU.

Figure 2 displays the unemployment rate and yearly growth of house prices under both scenarios. Baseline assumptions forecast a rise in the unemployment rate at the end of 2021 and a fragile recovery that also affects housing prices. Under the severe downside scenario, driven by new COVID-19 restrictions and a decline in consumer spending, the unemployment rate, which peaks at 8.9% during the first quarter of 2023, pushes the national housing price average down for eight quarters, more than 22% peak to trough.

“ The forward-looking nature of the LGD calculation means that future property auction values are affected by the 22% peak-to-trough decline in housing prices. ”

Figure 1 Moody's Mortgage Portfolio Analyzer modular structure

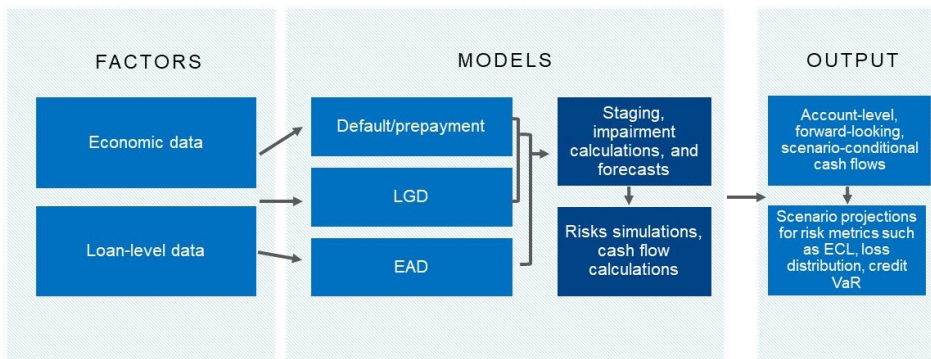
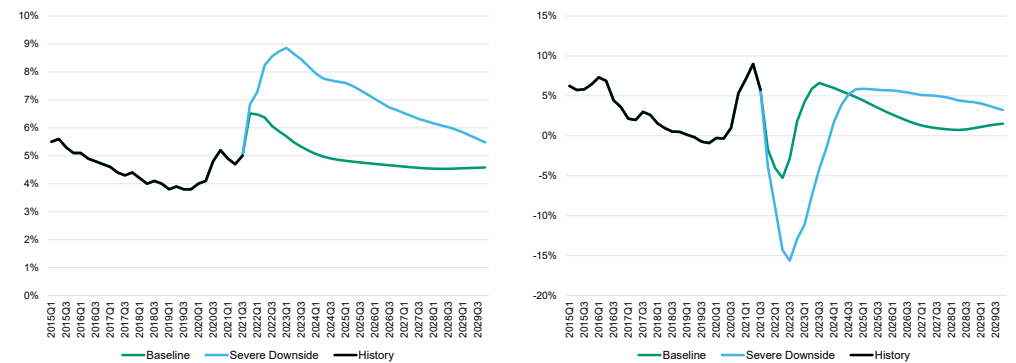


Figure 2 Projections of the unemployment rate and yearly house price growth



We evaluate the scenarios' impacts on a snapshot of 164,000 mortgages originated between early 2000 and 2020, characterized by a homogeneous geographical distribution across the United Kingdom. Figure 3 plots the 12-month PD forecasts using Moody's baseline and severe downside scenarios. The stress forecast spikes in line with predictions for the unemployment rate, while we observe a slight decline for the baseline projections. We expect these decreasing rates over time, given the fact that the portfolio is in run-off.¹

Figure 4 plots the distribution of non-zero LGD estimates for baseline and severe downside scenarios. The rise in house prices over recent years results in the calculated LGD being zero for many accounts, as the expected auction value would exceed the outstanding mortgage balance. This isn't the case under stress, where there are immediately twice as many accounts predicted to have a non-zero LGD estimate compared with the baseline, driven by the stressed scenario's housing crash having a significant impact on LGDs.

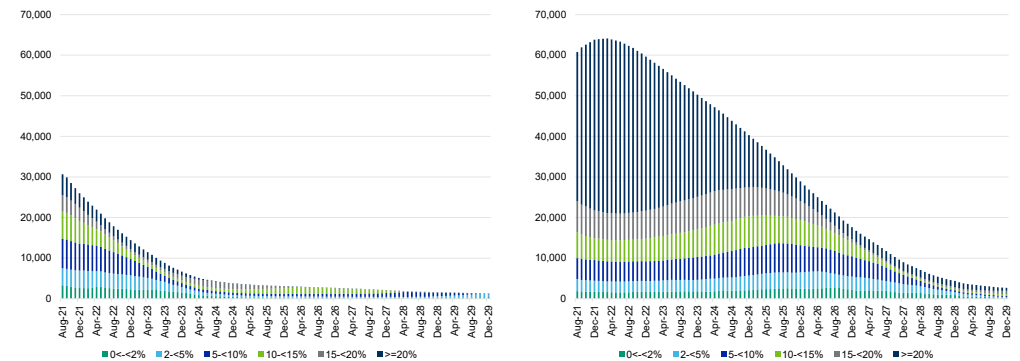
The forward-looking nature of the LGD calculation means that future property auction values are affected by the 22% peak-to-trough decline in housing prices, which in turn affects the LGD calculation today. Risk is concentrated in recent originations, where customers have not yet generated positive equity. As housing prices have increased during recent years, older mortgages can absorb some decline in housing prices before losses would be expected, given default.

The combined impact of the stress peaks in PD and LGD leads to a notable increase in stressed expected losses, peaking toward the end of 2022 (Figure 5). Banks would likely see some relief to their expected losses after the stressed trough in housing prices. A relatively strong recovery would see LGDs return to pre-crash levels. However, the unemployment rate under stress is expected to recover at a much slower rate. Therefore, PDs would not return to current levels until toward the end of the decade.

Figure 3 12-month probability of default forecast



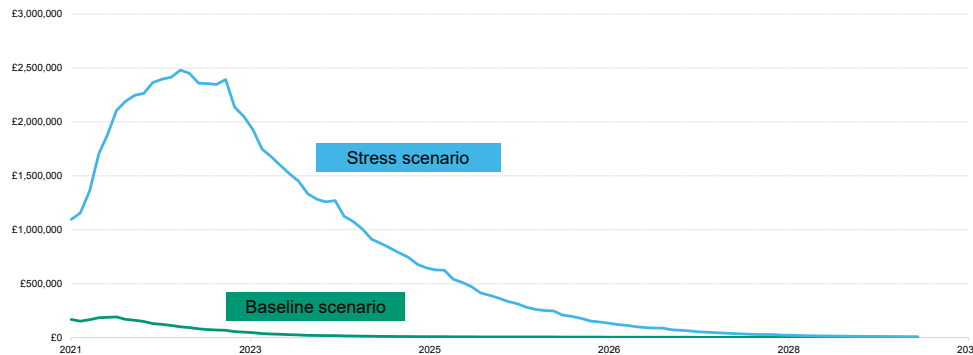
Figure 4 Non-zero LGD distribution, baseline and severe downside



¹ This trend is not expected for a typical, dynamically evolving portfolio. If this book had significant new business included in the forecast, we would likely see an increase in the baseline PD forecast, following a similar shape to that observed under stress.

In addition to forecasting risk parameters and expected losses, account-level projections enable predicting capital requirements under varying macroeconomic conditions. Basel IV will result in some changes to how capital is calculated, such that mortgage loan-to-value determines the assigned risk weight under a standardized approach. This change will provide an element of stress testing across scenarios, as variations in housing prices will affect loan-to-value ratios, subsequently impacting the risk weights applied. Meanwhile, Basel IV will introduce floors to ensure the amount held under IRB calculations is not unreasonably below standardized calculations (at least 72.5% of the requirement under a standardized approach).

Figure 5 Expected loss distribution



Takeaways

- » Measuring and correctly understanding the inputs and outputs of a risk assessment framework is critical to quantifying uncertainty. A model that clearly uncovers the link between losses and macroeconomic variables can help decompose the sources of risk.
- » Moody's Analytics Mortgage Portfolio Analyzer estimates losses under specific macroeconomic stress scenarios. We can generate punctual estimates for a representative portfolio, calculating losses and risk metrics under specific macroeconomic assumptions and relative projections that account for the pandemic's aftermath.
- » Analyzing a representative UK mortgage portfolio under two scenarios unveils a strong link between short-term and long-term economic outlooks and associated losses. Under a baseline scenario, rising unemployment given the job retention scheme ending causes an increase in default rates, which triple during severely adverse conditions. A slight decline in the baseline house price forecast minimally impacts LGD, while a significant decline in house prices due to a demand shock increases both impairment and capital allocations.

www.economy.com/products/consumer-credit-analytics/portfolio-analyzer

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Portfolio Analyzer is a robust impairment solution for forecasting probabilities of default, loss given default, and prepayments for all retail credit lending portfolios. This tool leverages retail credit data from multiple sources and Moody's Analytics highly regarded economic forecasts to produce predictive measurements of loan behavior.

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