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Monthly condensed analyses of crucial real estate and economic issues offered by UCLA Anderson Forecast and UCLA Ziman Center for Real Estate. In this September 2021 Letter, UCLA Ziman Center for Real Estate Director Stuart A. Gabriel and U.S. Securities and Exchange Commission Financial Economist Chandler Lutz explore how lowering benchmark interest rates benefited distressed homebuyers and decreased foreclosures following the financial crisis.

The original research paper, "The Impact of Crisis-Period Interest Rate Declines on Distressed Borrowers," is available here.

Distress Signals

Lowering benchmark interest rates helped underwater homeowners, but some remained stuck in delinquency

By Stuart A. Gabriel

Our study measured the causal impact of reductions in benchmark interest rates on the renegotiation and performance of distressed loans, using 2000s subprime adjustable-rate mortgages as a laboratory. Subprime borrowers treated with larger benchmark Libor-rate declines benefited from increased debt-renegotiation and lower debt-service payments. The estimated effects are similar across both current borrowers and those in default. Renegotiation of mortgage debt also reduced foreclosures over the longer term.

However, following debt-renegotiation, surviving treated borrowers re-entered and lingered in serious delinquency. Findings suggest that while policy may effect reductions in benchmark rates and spur debt-renegotiation, such interventions may not lead to longer-run curative outcomes.

“Lower interest rates and widespread loan modification among distressed borrowers may not lead to longer-run curative outcomes as intended by monetary easing.”

Crisis-period economic policy often targets distressed borrowers so as to limit broad dead-weight loss to the economy and mitigate adverse distributional outcomes. In the case of monetary easing, however, distressed borrowers may experience problems of debt qualification that disrupt the refinance or debt origination channels of monetary policy. Even among borrowers who are provided immediate interest-rate relief, little is known about the longer-run salutary effects of monetary interventions.

Indeed, treated distressed borrowers may suffer from subsequent performance difficulties, further damping the efficacy of policy easing. In this paper, we provided new insights as to the short- and long-run causal impacts of crisis-period reductions in benchmark rates on distressed borrowers, using 2000s subprime adjustable-rate mortgages (ARMs) as a laboratory.

We found that reductions in benchmark interest rates during the 2000s crisis resulted in marked increases in debt-renegotiation probabilities. A one percentage point drop in 6-month Libor (the typical interest rate index for 2000s subprime ARMs) during the Great Recession increased the probability of a subprime mortgage interest rate modification by 5.46 percentage points. Given that the overall modification rate for subprime ARMs was 8.6%, an estimate of 5.46 percentage points is substantial.

Moreover, benchmark interest-rate declines translated into meaningful reductions in debt-service payments: Libor change-induced debt-renegotiations lowered monthly mortgage interest rate payments by $480 on average per borrower per month. This decline in mortgage payments also reduced total debt payments relative to income, coinciding with a broader easing of their debt-service obligations. These results extend both to current borrowers and those in default, indicating that benchmark interest-rate declines were similarly effective across current and distressed borrower groups.

Likewise, we find a similar relationship between Libor changes and modification probabilities for loans in zip codes sorted by ex-ante (before the change in broader interest rates and any corresponding modifications) house price growth and across sand states (California, Florida, Arizona, and Nevada) versus non-sand states. Hence, declining benchmark interest rates did not appear to exacerbate crisis-period non-performance and loan modification disparities among distressed and non-distressed borrowers via the debt-renegotiation channel.

Over the medium- and longer-term, the modifications induced by Libor declines led to markedly lower foreclosure rates for treated borrowers: after 48 months, the probability that a borrower loses their home to an REO (real estate-owned) foreclosure or forced sale with a loss to the loan investor fell by 41.6 percentage points. However, among surviving loans, borrowers that received benchmark rate change-induced modifications appeared to be of lower quality: they were less likely to be current in loan payment and more likely to linger in late-stage delinquency. This finding highlights the longer-run limits of interest rate declines in alleviating borrower distress in the wake of an economic crisis.

Overall, our findings highlight the potential longer-term limits of monetary accommodation and related interest-rate reductions in aiding distressed borrowers in the aftermath of a crisis. Indeed, lower interest rates and widespread loan modification among distressed borrowers may not lead to longer-run curative outcomes as intended by monetary easing. While policy interventions and related loan modifications appear successful in the immediate term in keeping distressed borrowers in their homes, they often result in ongoing salient performance difficulties among treated borrowers.

Finally, our results have important implications for mortgage market design. For example, a widely held view contends that adjustable-rate mortgages, relative to fixed-rate mortgages, may be advantageous as ARM payments adjust downwards during a crisis. In line with this position, our results suggest that ARM borrowers treated with lower benchmark rates are less likely to lose their homes to an REO foreclosure or forced sale. However, our results also indicate that these same treated borrowers are subsequently more likely to re-enter and linger in serious delinquency, limiting the crisis-era benefits of ARM mortgages.

Figure 1: Libor Changes, Modifications Rates, and Borrower Interest Rate Payments