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Underwater homeowners and foreclosure

One of the important policy questions that has developed from the recent turmoil in financial markets is, What steps should be taken to try and mitigate the rising tide of foreclosures? Many have identified "negative equity" as one of the primary culprits for the huge increase in foreclosures. Negative equity refers to the situation in which a homeowner would not be able to fully repay his mortgage from the proceeds of a sale. Mark Zandi, chief economist at Moody's Economy.com, emphasizes the current role of negative equity in the housing crisis in a recent article.

There have been various policies put forth to try to address the negative equity issue. Perhaps the most popular is a widespread loan modification plan, in which lenders/servicers agree to write down or forgive a portion of the principal mortgage balance. A variation of this idea was included in the American Housing Rescue and Foreclosure Prevention Act of 2008. The specific plan was labeled a "rescue refinancing" package. This package consisted of a voluntary program in which a lender who agreed to write down the mortgage of a delinquent borrower to 85 percent of the current market value of the home could obtain a federal guarantee (through the FHA). The idea is basically that curing the problem of negative equity can solve the foreclosure problem.

It turns out that my colleague, Kris Gerardi, who recently joined the Atlanta Fed by way of the Boston Fed and Boston University, has conducted some research on this topic, which was discussed in yesterday's *Wall Street Journal*.

> "Christopher L. Foote, Kristopher Gerardi and Paul S. Willen of the Boston Federal Reserve Bank studied more than 100,000 homeowners who were underwater in Massachusetts in 1991 and found that just 6.4% of them lost their homes to foreclosure over the next three years, according to a paper published in the September issue of the *Journal of Urban Economics* (For non-subscribers, a version of the paper can be found on the Boston Fed's working paper series). The vast majority of homeowners simply continued paying as usual because they focused on the affordability of their payments, not on what they owed, and they believed home values would eventually recover."
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> "The economists found that homeowners typically lost their homes only after at least two things happened: Their home values dropped and they either couldn't afford the payments or they stopped making payments after losing hope that prices would eventually recover."

In a follow-up article presented last week at a conference on "The Mortgage Meltdown, the Economy and Public Policy" at the University of California, Berkeley, Gerardi and Willen consider the principal write-down policy discussed above:

> "Many commentators have recently argued that lenders should eliminate negative equity for borrowers in such a position by writing down a portion of the principal balance on their respective loans. The argument runs that such a plan benefits the lender as well because the new principal balance exceeds the yield from foreclosure once one takes into account the costs of foreclosure. Many commentators have argued that this solution is so obvious that one wonders why lenders do not implement it on a large scale."

What are the potential pitfalls?

> "Think of two mistakes a lender could make. One mistake is to not offer assistance to a borrower in distress. The lender loses here if the increased probability of foreclosure, and high costs incurred by foreclosure, make inaction more costly than assistance. We call this scenario "Type I Error." But, there is another mistake, often overlooked, which is to assist a borrower who does not need the help. The lender loses here because it receives less in repayment from a borrower who would have paid off the mortgage in full. We refer to this case as 'Type II Error.'"

That Type II error is, according to the authors, a nontrivial problem. Using their empirical results as a basis, they conduct the following thought experiment:

> "Our policy experiment here is to lower the principal so that the borrower moves from 20 percent negative equity to 10 percent positive equity. Types I and II error and net gains are measured as a percentage of the original loan balance."

The results, as the authors say, "illustrate both the limits and the opportunities for principal reduction":

> “For most groups, Type II error is large relative to Type I error. The reason is straightforward: most borrowers will repay their loan, even if they are in negative equity positions. For the subprime single-family borrower, a 33 percent foreclosure rate implies a 67 percent repayment rate.”

There may be resolutions to this problem, but they wouldn’t be easy:

> “One potential criticism of the above argument is that one could minimize Type II error by requiring proof that a borrower is likely to default. However, as a practical matter, this would be extremely difficult to enforce. Tax documents and even credit reports in many cases would not suffice, as many borrowers in need of assistance are likely suffering from very recent adverse events. Instead, policymakers would need to obtain and verify current information on income, wealth, employment status, and perhaps even more personal events, such as marital status. This would be extremely costly. Furthermore, [our results] suggest that even if qualification requirements reduced Type II error by half … [the only group for which] principal reduction makes economic sense is the multi-family, subprime borrower.”

Basically Gerardi and Willen are arguing that the key to a successful principal write-down policy would be to target the borrowers who are at the most risk of defaulting (in the absence of any assistance). For these borrowers, Type I error is high, while Type II error is very low. Their example is an owner of a multifamily property who financed the purchase with a subprime mortgage. In the Northeast, 2-4 family units are very common, where there's one owner who usually (but not always) lives in one unit and then rents out the other units. Since many of these owners relied on rental income to stay current on the mortgage, they were very susceptible to foreclosure. Further, there is an obvious externality to foreclosure on these properties, as the tenants (who have nothing to do with the delinquent mortgage) are also affected by foreclosure.

This discussion, however, is not to say that efforts to help households facing foreclosure are not effective. In fact, many organizations, from nonprofits to the U.S. government, are working to assist borrowers who face foreclosure.

Tricky business, this.

By David Altig, senior vice president and research director at the Federal Reserve Bank of Atlanta

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