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February 18, 2010

## Did nonrecourse mortgages cause the mortgage crisis?

In trying to explain the severity of the foreclosure crisis in the United States, some commentators have argued that a peculiar feature of U.S. mortgage contracts is partly to blame. In the United States, they argue, in contrast to other countries, mortgage loans are *nonrecourse*, meaning that if the borrower fails to make payments, the lender can seize the collateral but has no recourse to any other of the borrower's assets. In other words, a borrower with a million dollars in the bank can stop paying the mortgage, and all the lender can do is foreclose and sell the house while the borrower suffers no other financial harm.

In our current environment, the argument goes, falling house prices mean that many borrowers have negative equity—homes worth less than what they owe on their mortgages—and so they can simply "walk away" from their mortgage without suffering any other financial loss. The policy implications of this argument are obvious: if lenders could go after other assets, we would not see nearly as many foreclosures as we do. (Martin Feldstein wrote in an October 4 column in the *Wall Street Journal* that "residential mortgages are generally 'no recourse' loans, meaning that if the homeowner stops making payments, the creditor can take the property but cannot take other assets or attach income.")

This argument has been made by many leading commentators, including several economists at top universities. But is it true? A new paper titled "Recourse and Residential Mortgage Default: Theory and Evidence from United States States," by Andra Ghent of Baruch College and Marianna Kudlyak of the Richmond Fed, seeks to answer this question. The authors take a three-pronged approach in the paper: They review the institutional evidence on recourse in the United States, develop a theoretical model, and conduct some empirical analysis using cross-state differences in foreclosure rules to estimate the effects of recourse versus nonrecourse mortgages. Let me discuss all three in turn.

First, the authors do a great job reviewing the evidence on the institutions. The paper, in an accompanying appendix, provides details of the foreclosure process and timeline for all 50 states. The bottom line, they find, is that the claim that all mortgages in the United States are nonrecourse is wrong. The authors show that only eleven states constrain the recourse that lenders hold over delinquent mortgage borrowers. The other 39 states place no limits on the ability of lenders to recover what they are owed by getting *deficiency judgments*, which are legal claims to any and all of the borrower's assets to cover the *deficiency*, or the difference between what the lender recovers from foreclosure and what the borrower owes. Of the 11 states that limit—but do not forbid—recourse, California, for example, prohibits deficiency judgments only if the loan is a purchase mortgage and the lender wants to pursue "fast-track," nonjudicial foreclosure. If the loan is a refinance or the lender wants to pursue a judicial foreclosure, California offers no protection from recourse.

One obvious question is that if lenders can chase down borrowers to recover unpaid debts, why are they losing so much money? The answer is pretty simple. Most borrowers who default on their mortgages probably have no assets to go after. The reason that the borrower defaulted on the mortgage was that they had run out of money. One important point to note is that the deficiency judgment is treated as an unsecured debt of the borrower's, and the borrower can extinguish that debt by filing for bankruptcy. And this complicates the whole argument, because it means that borrowers can walk away from their mortgage if *either* the loan is nonrecourse *or* bankruptcy laws are generous.

Second, the authors' theoretical model basically provides a more complicated version of the argument in the first paragraph. The less the lender can punish the borrower for defaulting, the more borrowers default. But the theory is not completely fulfilling. If we try to come up with a rational explanation for the crisis, then we would expect lenders to have anticipated the fact that the loans were nonrecourse. A testable implication of the model would be that lenders lent less in states where recourse was difficult. But as we will see below, the states the authors identify as nonrecourse experienced the largest expansion in lending.

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Many would argue that the lenders weren't rational, but then lender irrationality and not the inability of lenders to get deficiency judgments would explain the crisis.

Next, the authors present empirical analysis. This part of the paper is both the most provocative and most problematic. The authors claim to find evidence that borrowers protected from recourse default more often than borrowers who are not. Specifically, they estimate a probit specification in which the dependent variable is an indicator of whether or not the borrower defaults on the mortgage, and the independent variable of interest is the amount of equity in the home interacted with whether or not the state allows lender recourse. They find a statistically significant negative effect of recourse on the propensity to default—meaning that borrowers are more likely to exercise their default option (conditional on a given value of equity) in states that do not allow lender recourse.

A difficulty here is that to believe the authors, we need to make some very big assumptions. In order to interpret the estimate as a treatment effect of lender recourse on default, it has to be the case that all differences in the propensity to default (given the same levels of equity) between states that allow recourse and those that don't is actually caused by the existence or not of recourse.

The table below lists nonrecourse states, as defined by the authors. In terms of number of loans, the list is dominated by two states: Arizona and California, both of which had extraordinarily high growth in home prices *and* record-breaking construction booms. In fact, the results seem to be driven in large part by California, as the estimated effect of recourse becomes much weaker if California is taken out of the sample. If some other distinguishing characteristic of California is driving the higher default propensity compared to the rest of the United States, then attributing the effect to the absence of lender recourse would be a mistake. In fact, the ability to avoid a deficiency judgment on a purchase mortgage is not the only thing that makes California different from the rest of the country.

#### Non-recourse States

Alaska	North Carolina
Arizona	North Dakota
California	Oregon
Iowa	Washington
Minnesota	Wisconsin
Montana	

Source: Ghent and Kudlyak (2009)

But the problem with the authors' empirical analysis is even more serious because they also assume that legal differences across states are randomly assigned. In other words, they assume that it is completely accidental that California statute bars recourse and Illinois statute does not. But one can easily imagine that a state with lots of land speculators, for example, would legislate lots of protections for borrowers—and land speculators always default more, even when lenders have recourse. So really what the authors are picking up in the data is the presence of land speculators, not the legal differences across states.

There are also a few serious technical issues with the regressions in the paper. For example, the authors cannot link first and second mortgages or even find out if there were second mortgages connected to the first. Thus, in states where second mortgages were very common, as in California, the authors will systematically underestimate the debt of the borrower and thus the degree of negative equity, and then overestimate the sensitivity of the foreclosure decision to negative equity. There are datasets that at least allow researchers to detect the presence of second mortgages, and the authors must use one of these to do proper analysis. The mortgage performance data that they use from Lender Processing Services (LPS) is not one of those datasets. The most important benefit of LPS is that it includes agency and portfolio loans, which are of little use to the authors' analysis.

The authors have done an excellent analysis of the institutions, and we would very much welcome a descriptive analysis of the differences in borrower behavior between recourse and nonrecourse states. But establishing a causal link between recourse and foreclosure is a challenge that we believe goes beyond the data and econometric techniques that the authors have used.

By [Kris Gerardi](#), research economist and assistant policy adviser at the Atlanta Fed (with Boston Fed economists [Christopher Foote](#) and [Paul Willen](#))

*The author's comments have not been edited and appear as provided to the Real Estate Research blog.*

## A response from the authors: Andra Ghent and Marianna Kudlyak

We do not suggest, as Foote, Gerardi, and Willen's (FGW) title does, that non-recourse mortgages single-handedly caused the mortgage crisis. We also draw no policy conclusions from our results since we do not study the welfare implications of anti-deficiency statutes.

Rather, our study answers three specific questions: Does recourse deter default, does it change how default happens, and when does recourse affect default? FGW suggest that our work does not answer these questions for three reasons: First, the theoretical model does not explore the general equilibrium implications. Second, FGW do not believe that we adequately control for state-specific characteristics. Third, FGW suggest the data we use are inadequate. We disagree that these concerns undermine our main results, as we explain below.

We indeed focus on a partial equilibrium model to analyze the default decision in detail. A recent [study](#) by Dean Corbae and Erwin Quintin has looked at the issue in general equilibrium and finds that recourse has a large effect on default rates. Empirically, Pence, in her 2006 *Review of Economics and Statistics* article "Foreclosing an Opportunity: State Laws and Mortgage Credit" has found that recourse affects the size of loans. Rather than being evidence that recourse has no effect on default rates, the fact that lenders made a large number of loans in non-recourse states during the boom indicates that lenders may have thought a widespread, large drop in home prices was highly unlikely.

Regarding whether we control adequately for state-specific characteristics, FGW overlook that our results carry through when we include state fixed effects (see table 4 of the paper). This remains true even when we look only at data from 2005 onwards. As a falsification test, we also ran our specification using only FHA and VA loans (which are non-recourse in all states) and find that recourse does not deter default on these loans. If the only thing going on was that California has a lot of defaults, we should see the effect in these loans as well. The fact that we don't indicates that we are adequately controlling for state-specific characteristics. Regarding the possibility that recourse laws may be endogenous, all of the laws were in place long before the start of our sample; most of the laws date back to the 1930s. Note that Florida and Nevada also have widespread real estate speculation and yet are recourse states.

It is true that we don't have a complete picture of borrowing associated with the property due to our use of the LPS data. We have, however, considered a specification in which we exclude loans that have a LTV of exactly 80 percent, since this may indicate the presence of a second mortgage, and find similar results to our benchmark specification. Another database that has been used in academic research that has some measure of other borrowing associated with the property is the LoanPerformance database. Unfortunately, the LoanPerformance database mainly contains information on securitized non-prime mortgages. Using this data would considerably limit our ability to study when recourse has an impact.

Finally, a clarification regarding California refinancings being recourse mortgages. We defined a mortgage as non-recourse if deficiency judgments are prohibited or if the burden associated with pursuing a deficiency renders recourse impractical. For California refinancings, pursuing recourse requires the lender to use the substantially more time-consuming and costly judicial foreclosure process. As a result, foreclosure attorneys usually view California refinancings as non-recourse. For example, the NMSRD (2008, p. 5-5) lists no deficiency recovery strategy for California stating simply that it is impractical. North Carolina also prohibits deficiency judgments on purchase mortgages but there are no substantial barriers to recourse on refinancings, such that we classify North Carolina refinancings as recourse mortgages.

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