Journal of Financial Economics 97 (2010) 369–397

Contents lists available at ScienceDirect

Journal of Financial Economics

journal homepage: www.elsevier.com/locate/jfec

Securitization and distressed loan renegotiation: Evidence from the subprime mortgage crisis ☆

Tomasz Piskorski [a], Amit Seru [b,*], Vikrant Vig [c]

[a] Columbia University, Graduate School of Business, USA
[b] University of Chicago, Booth School of Business, USA
[c] London Business School, UK

ARTICLE INFO

Article history:
Received 17 December 2008
Received in revised form
18 January 2010
Accepted 31 January 2010
Available online 24 April 2010

JEL classification:
G01
G21
G32

Keywords:
Securitization
Renegotiation
Incentives
Crisis
Defaults

ABSTRACT

We examine whether securitization impacts renegotiation decisions of loan servicers, focusing on their decision to foreclose a delinquent loan. Conditional on a loan becoming seriously delinquent, we find a significantly lower foreclosure rate associated with bank-held loans when compared to similar securitized loans: across various specifications and origination vintages, the foreclosure rate of delinquent bank-held loans is 3% to 7% lower in absolute terms (13% to 32% in relative terms). There is a substantial heterogeneity in these effects with large effects among borrowers with better credit quality and small effects among lower quality borrowers. A quasi-experiment that exploits a plausibly exogenous variation in securitization status of a delinquent loan confirms these results.

☆ We thank Heitor Almeida, Brent Ambrose, Patrick Bolton, Sergei Davydenko, Doug Diamond, Julian Franks, Kris Gerardi, Todd Gormley, Burton Hollifield, Victoria Ivashina, Anil Kashyap, Larry Katz, Benjamin Keys, Andreas Lehnert, Chris Mayer, Ed Morrison, Guillaume Plantin, Raghu Rajan, Michael Roberts, David Scharfstein, Todd Sinai, Doug Staiger, Phil Strahan, Jeremy Tobacman, Alan White, Paul Willen and Luigi Zingales and seminar participants at Berkeley, Chicago Booth Finance Lunch and Applied Economics Lunch, Columbia GSB Finance Lunch, Columbia Law, Harvard Economics, Harvard Law, Kellogg, London Business School, New York Fed, USC, Wharton (Finance and Real Estate) and Yale (SOM and Economics). We also thank participants at AEA, AFA, C.R.E.D.I.T conference, London Stock Exchange Conference, Michigan Mitsui Conference, Mid-year AREUEA, NBER Summer Institute (Market Institutions and Financial Risk; PERE; Law and Economics; Household Finance and Security Design), SED Meeting and Texas Finance Festival for discussions. Ira Yeung and Rembrandt Koning provided outstanding research assistance as well as many suggestions. Cristina Rosales from Arbor Residential Mortgage and Bob Falk from PEF Credit Union provided valuable insight into the practice of loan servicing and Laird Minor provided useful discussions on loan repurchase market. Piskorski thanks the Paul Milstein Center for Real Estate at Columbia Business School for financial support, Seru thanks the Initiative on Global Markets at University of Chicago for financial assistance and Vig thanks London Business School (RAMD) for financial support. All remaining errors are our responsibility.

* Corresponding author.
E-mail addresses: tp2252@columbia.edu (T. Piskorski), amit.seru@chicagobooth.edu (A. Seru), vvig@london.edu (V. Vig).

0304-405X/$ - see front matter
doi:10.1016/j.jfineco.2010.04.003

1. Introduction

This paper is motivated by the recent foreclosure crisis. The non-agency securitized market (i.e., securitized mortgages issued without a guarantee from government-sponsored entities) has been at the core of this debate, as it has accounted for more than half of the foreclosure starts, despite its relatively small size.[1] This could simply reflect the greater risk of these mortgages, since many were "subprime loans" granted to borrowers with low credit ratings. There has been a concern among policymakers, however, that the high foreclosure rate on securitized mortgages might also be driven by other factors. One factor that has generated a great amount of controversy and has been a subject of ongoing debate[2] is whether dispersed ownership and potential agency frictions brought about by securitization of residential mortgages inhibited renegotiation of loans at risk of foreclosure, thereby aggravating the current foreclosure crisis.

This paper contributes to this debate by empirically investigating the impact of securitization on renegotiation decisions of loan servicers, focusing on their decision to foreclose a delinquent loan. Using a large database of mortgages that has information on whether a delinquent loan is held on the banks' balance sheets or securitized, we find that securitization does induce a foreclosure bias.[3] Controlling for contract terms and regional conditions, we find that seriously delinquent loans that are held by the bank[4] (henceforth called "portfolio" loans) have lower foreclosure rates than comparable securitized loans (between 3% (13%) and 7% (32%) in absolute (relative) terms).

There are several reasons why securitized loans might be serviced differently from those directly held on the banks' balance sheets. First, servicers may have different financial incentives to service securitized loans relative to the portfolio loans as, in the latter case, a servicer fully internalizes the costs and benefits of the decision to foreclose a delinquent loan (Jensen and Meckling, 1976).[5] Second, even if the incentives were well aligned, PSAs may legally restrain servicers from performing certain types of renegotiations.[6] Third, securitization creates dispersion in property rights—cash flow rights on a mortgage are held by several bondholders with varying seniority of claims. This raises concerns that complex capital structure, brought about by securitization, may create a coordination problem amongst investors making it harder for servicers to alter mortgage contracts.[7] It is important to note that this coordination problem not only makes it harder to renegotiate debt contracts, but it may also make it harder for the investors to correct the servicer incentive structure and the ensuing agency problem.[8] Finally, securitization could also affect some of the institutional constraints faced by lenders. For example, lenders may postpone foreclosures on their own delinquent loans to delay accounting recognition of their losses.[9]

It is of course possible that these constraints do not exist or that borrowers and investors are able to circumvent these frictions. As a result, securitization may not affect the decision of servicers to foreclose a delinquent loan. Ultimately, whether securitization affects this decision is an empirical question, one which we investigate in this paper. We do so by examining differences in servicing of securitized loans at risk of foreclosure relative to the loans held on the banks' balance sheets for every loan originated in 2005 and 2006. The main test of the paper assesses whether differences in foreclosure rates of delinquent loans depend on their securitization status.

Since loans that are securitized might differ on observables (such as credit scores) from those banks keep on their balance sheet, it is important to control for ex ante characteristics of the loan (i.e., when loans are originated). Our data set provides rich information for each loan in the sample, allowing us to use a relatively flexible specification with a host of loan and borrower

[1] The size of the market is about 15 percent of all outstanding mortgages. These numbers are as of January 2009. Source: Federal Reserve Bank of New York, Credit Conditions in the United States, http://www.newyorkfed.org/regional/subprime.html.

[2] See, among others, Adelino, Gerardi, and Willen (2009), Gelpern and Levitin (2009), Mayer, Morrison, and Piskorski (2009), Posner and Zingales (2009), and White (2009a, 2009b).

[3] We use the term bias in comparing the rate of foreclosure of securitized loans with the corresponding rate for portfolio mortgages without any efficiency implications.

[4] Throughout our paper we denote the loans owned by the lending institutions as "bank-held" irrespective whether these institutions have a formal bank status.

[5] In the case of a securitized loan, the servicer is an agent of the investors, and its rights, duties, and compensation are set out in a "Pooling and Servicing Agreement" (PSA). Typically, servicers are compensated by fees, which are annually about 20–50 basis points of the outstanding loan balance. Moreover, they are reimbursed for costs incurred during the foreclosure process but typically are not reimbursed for costs incurred during renegotiation of loans—benefiting only through the extension of servicing fees. In general, these renegotiation costs may be quite substantial and can easily cost as much as $1,000 per loan (see Barclays, 2008 Global Securitization Annual). Thus, to break even on a $100,000 mortgage loan can take anywhere between two and five years absent any re-default or prepayment. In other words, servicers may incur up front costs in exchange for uncertain fees when they renegotiate a loan. Foreclosure, by contrast, allows servicers an immediate, low-cost exit.

[6] For instance, some outstanding subprime and Alternative A-paper (Alt-A) mortgages have explicit restrictions that forbid servicers to alter the loan contract terms. Even when there are no explicit restrictions, the servicer is required to follow some vaguely specified instructions when deciding to renegotiate a mortgage (e.g., "best interest of certificate holders"). See, for example, Credit Suisse Fixed Income Research, The Day After Tomorrow: Payment Shock and Loan Modifications, April 5, 2007.

[7] Gilson, John, and Lang (1990), Asquith, Gertner, and Scharfstein (1994), Franks and Tourus (1994), Bolton and Scharfstein (1996), and Zingales (2008) are some related papers that highlight coordination problems brought about my dispersion of financial claims.

[8] For example, even if the bank does not service its own loans it might renegotiate the contract with the outside servicers in order to change their incentives. Alternatively, a bank can freely sell the delinquent loans in its portfolio to entities that might specialize in servicing of distressed mortgages. Such a change of servicing contract or transfer of loans to other servicers might be much harder to implement in the case of securitized loans due to coordination problems among dispersed owners of a mortgage pool.

[9] Alternatively, it might easier for policymakers to exert political pressure aimed at reducing foreclosure on banks; servicers of securitized loans whose behavior is bound by contractual arrangements with a large group of dispersed investors might be less prone to such pressure. Securitized loans might therefore be foreclosed at a higher rate due to lack of such considerations.