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Resolving the Foreclosure Crisis: Modification of Mortgages in Bankruptcy

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RESOLVING THE FORECLOSURE CRISIS: MODIFICATION OF MORTGAGES IN BANKRUPTCY

Adam J. Levitin

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MODIFICATION OF MORTGAGES IN BANKRUPTCY

ADAM J. LEVITIN†

2009 WISCONSIN LAW REVIEW (forthcoming)

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RESOLVING THE FORECLOSURE CRISIS: MODIFICATION OF MORTGAGES IN BANKRUPTCY

ABSTRACT

For over a century, bankruptcy has been the primary legal mechanism for resolving consumer financial distress. In the current foreclosure crisis, however, the bankruptcy system has been ineffective because of the special protection it gives most home mortgages. Debtors may modify the terms of all debts in bankruptcy except those secured by mortgages on their principal residences. A bankrupt debtor who wishes to keep her house must pay the mortgage according to its original terms down to the last penny. As a result, many homeowners who are unable to meet their mortgage payments are losing their homes in foreclosure, thereby creating significant economic and social deadweight costs and further depressing the housing market.

This Article empirically tests the economic assumption underlying the policy against bankruptcy modification of home mortgage debt—namely that protecting lenders from losses in bankruptcy encourages them to lend more and at lower rates, and thus encourages homeownership. The data show that the assumption is mistaken; permitting modification would have little or no impact on mortgage credit cost or availability. Because lenders face smaller losses from bankruptcy modification than from foreclosure, the market is unlikely to price against bankruptcy modification.

In light of market neutrality, the Article argues that permitting modification of home mortgages in bankruptcy presents the best solution to the foreclosure crisis. Unlike any other proposed response, bankruptcy modification offers immediate relief, solves the market problems created by securitization, addresses both problems of payment reset shock and negative equity, screens out speculators, spreads burdens between borrowers and lenders, and avoids both the costs and moral hazard of a government bailout. As the foreclosure crisis deepens, bankruptcy modification presents the best and least invasive method of stabilizing the housing market.
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I. FORECLOSURE, BANKRUPTCY, AND MORTGAGES

The United States is in the midst of an unprecedented home foreclosure crisis. At no time since the Great Depression have so many Americans been in jeopardy of losing their homes. Over a million homes entered foreclosure in 2007\(^1\) and another one to two million are expected to enter foreclosure in 2008.\(^2\) Credit Suisse predicts that by 2012 around 6.5 million homes, or 12.7% of all residential borrowers could be in foreclosure.\(^3\) Nearly a quarter of a million homes were actually sold in foreclosure or otherwise surrendered to lenders in 2007.\(^4\) At the end of the first quarter of 2008, one in eleven homeowners was either past due or in foreclosure, the highest levels on record.\(^5\)

\(^1\) RealtyTrac, Press Release, *U.S. Foreclosure Activity Increases 75 Percent In 2007*, Jan. 29, 2008, at http://www.realtytrac.com/ContentManagement/pressrelease.aspx?ChannelID=9&ItemID=3988&accent=64847. There is no authoritative source on foreclosure statistics. The federal government does not track foreclosures, and states do not have meaningful measures as foreclosure procedures vary by state, and foreclosures often take place outside of the court system. There are private services that track foreclosures, but their reliability is questionable. Within these private statistics, foreclosure start statistics are generally much higher than completed foreclosure sale statistics because foreclosure starts are measured by the number of filings in foreclosure cases, which are frequently duplicative. Moreover, many foreclosures that are initiated result in cure and reinstatement, a workout, a short sale, or a deed in lieu.


\(^4\) E-mail from Daren Blomquist, RealtyTrac, Inc. to author, March 7, 2008 (on file with author).

\(^5\) Mortgage Bankers Association, Press Release, Delinquencies and Foreclosures Increase in Latest MBA National Delinquency Survey, June 5, 2008, at http://www.mortgagebankers.org/NewsandMedia/PressCenter/62936.htm. 2.47% of all one-to-four family residential mortgages outstanding were in the foreclosure process in the first quarter of 2008, and 6.35% were delinquent. *Id.* See also Vikas Bajaj & Michael Grynbaum, *About 1 in 11 Mortgageholders Face Problems*, N.Y.TIMES, June 6, 2008. Because of the steadily increasing level of homeownership in the US, see U.S. Census Bureau, *Housing Vacancies and Homeownership (CPS/HVS), Table 14, higher percentages of past due and
Both the increase in and the sheer number of foreclosures should be alarming because foreclosures create significant deadweight loss and have major third party externalities. Historically, lenders are estimated to lose 40%-50% of their investment in a foreclosure situation, and in the current market, even greater losses are expected. Borrowers lose their homes and foreclosed mortgage means that an even greater percentage of Americans are directly affected by higher delinquency and foreclosure rates.

6 Mortgage Bankers Association National Delinquency Surveys.


8 See id. See also Comments of Treasury Secretary Henry Paulson, Ask the White House, at http://www.whitehouse.gov/ask/20071207.html; Gretchen Morgenson, Cruel Jokes, and No One Is Laughing, N.Y. TIMES, Jan. 13, 2008 (citing 20-40% historical foreclosure loss rates).

Because most mortgages are held by securitization trusts, see Credit Suisse, Mortgage Liquidity du Jour: Underestimated No More, Mar. 12, 2007, at 28, the losses to holders of trust securities will vary by tranche. Some tranches may experience no losses, while other tranches may have complete losses.

9 Fitch Ratings, Revised Loss Expectations for 2006 and 2007 Subprime

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are forced to relocate, often to new communities. Foreclosure is an undesirable outcome for borrowers and lenders.

Foreclosures also impose costs on third-parties. When families have to move to new homes, community ties are rent asunder. Friendships, religious congregations, schooling, childcare, medical care, transportation, and even employment often depend on geography. Foreclosures also depress housing and commercial real estate prices throughout entire neighborhoods. There is, on average, a $3,000 property value decline for each of the closest fifty neighbors of a foreclosed property. The property value declines caused by foreclosure hurt local businesses and erode state and local government taxes base. Condominium and homeowner associations likewise find their assessment base reduced by foreclosures, leaving the remaining homeowners with higher assessments.

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10 See Phillip Lovell & Julia Isaacs, *The Impact of the Mortgage Crisis on Children*, at [http://www.firstfocus.net/Download/HousingandChildrenFINAL.pdf](http://www.firstfocus.net/Download/HousingandChildrenFINAL.pdf) (estimating two million children will be impacted by foreclosures, based on a projection of two and quarter million foreclosures.


Foreclosed properties also impose significant direct costs on local governments and foster crime.\textsuperscript{14} A single foreclosure can cost the city of Chicago over $30,000.\textsuperscript{15} Moreover, foreclosures have a racially disparate impact because African-Americans invest a higher share of their wealth in their homes\textsuperscript{16} and are also more likely than financially similar whites to have subprime loans.\textsuperscript{17} In short, foreclosure is an inefficient outcome that is bad not only for lenders and borrowers, but for society at large.

Traditionally, bankruptcy is one of the major mechanisms for resolving financing distress. Bankruptcy creates a legal process through which the market can work out the problems created when parties end up with unmanageable debt burdens. Although the process can be a painful one for all parties involved, bankruptcy allows an orderly forum for creditors to sort out their share of losses and return the deleveraged debtor to productivity; a debtor hopelessly mired in debt has little incentive to be economically productive because all of the gain will go to creditors. Moreover,

\begin{itemize}
  \item \textsuperscript{14} Dan Immergluck & Geoff Smith, \textit{The Impact of Single-Family Mortgage Foreclosures on Neighborhood Crime}, 21 \textsc{Housing Studies}, 851 (2006); William C. Apgar & Mark Duda, \textit{Collateral Damage: The Municipal Impact of Today’s Mortgage Foreclosure Boom}, May 11, 2005, at \url{http://www.995hope.org/content/pdf/Apgar_Duda_Study_Short_Version.pdf}.
  \item \textsuperscript{16} Melvin L. Oliver & Thomas M. Shapiro, \textsc{Black Wealth, White Wealth: A New Perspective on Racial Inequality} 66 (2006) (housing equity accounted for 62.5\% of all black assets in 1988, but only 43.3\% of white assets, even though black homeownership rates were 43\% and white homeownership rates were 65\%). \textit{See also} Kai Wright, \textit{The Subprime Swindle}, \textit{The Nation}, July 14, 2008; Brian K. Bucks, Arthur B. Kennickell, & Kevin B. Moore, \textit{Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances}, \textit{Fed. Res. Bull.} 2006, at A8, A12, A23 (noting that while there was only a $35,000 difference in median home equity between whites and nonwhites/Hispanics in 2004, there was a $115,900 difference in median net worth and a $33,700 difference in median financial assets. This suggests that for minority homeowners, wealth is disproportionately invested in the home.).
  \item \textsuperscript{17} Bob Tedeschi, \textit{Subprime Loans' Wide Reach}, \textsc{N.Y. Times}, Aug. 3, 2008; Mary Kane, \textit{Race and the Housing Crisis}, \textsc{The Washington Independent}, July 25, 2008.
\end{itemize}
the existence of the bankruptcy system provides a baseline against which consensual debt restructurings can occur. Thus, for over a century bankruptcy has been the social safety net for the middle class, joined later by Social Security and unemployment benefits.

The bankruptcy system, however, is incapable of handling the current home foreclosure crisis because of the special protection it gives to most residential mortgage claims. While debtors may generally modify all types of debts in bankruptcy—reducing interest rates, stretching out loan tenors, changing amortization schedules, and limiting secured claims to the value of collateral—the Bankruptcy Code forbids any modification of mortgage loans secured solely by the debtor’s principal residence.\footnote{11 U.S.C. § 1322(b)(2). Cf. 11 U.S.C. § 1123(b)(5) (parallel residential mortgage antimodification provision for Chapter 11). Section 1322(b)(2) provides that a plan of reorganization may “modify the rights of holders of secured claims, other than a claim secured only by a security interest in real property that is the debtor’s principal residence...” Since 2005, section 101(13A) of the Bankruptcy Code has defined “debtor’s principal residence” as “a residential structure, including incidental property, without regard to whether that structure is attached to real property and...includes an individual condominium or cooperative unit, a mobile or manufactured home or trailer.” 11 U.S.C. § 101(13A). State law, however, still determines what is “real property.”}

 Defaults on such mortgage loans must be cured and the loans then paid off according to their original terms, including all fees that have been levied since default, or else the bankruptcy

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stay on collection actions will be lifted, permitting the mortgagee to foreclose on the property.\textsuperscript{19} As a result, if a debtor’s financial distress stems from a home mortgage, bankruptcy is unable to help the debtor retain her home, and foreclosure will occur. The absence of a bankruptcy modification option also reduces the incentive for creditors to engage in consensual non-bankruptcy debt restructuring. Because of bankruptcy’s special treatment of principal residential mortgages, the legal mechanism on which the market depends for sorting through debt problems cannot function properly, and this is exacerbating the impact of the mortgage crisis.

The Bankruptcy Code’s special protection for home mortgage lenders reflects a hitherto unexamined economic assumption. The assumption is that preventing modification of home mortgage loans in bankruptcy limits lenders’ losses and thereby encourages greater mortgage credit availability and lower mortgage credit costs,\textsuperscript{20} which in turn encourage homeownership, which has been a major goal of federal economic policy for the past half century.\textsuperscript{21} As Justice Stevens noted when the Supreme Court allowed the homeowner to unwind any acceleration on the loan, however. 11 U.S.C. § 1322(c). Therefore, if the homeowner’s problems stem not from a generally unaffordable mortgage payment level, but from a temporary loss of income or unexpected one-time expense, bankruptcy can still provide the homeowner with the breathing space to straighten out his or her finances, deaccelerate, and reinstate the mortgage.

\textsuperscript{19} Bankruptcy allows the homeowner to unwind any acceleration on the loan, however. 11 U.S.C. § 1322(c). Therefore, if the homeowner’s problems stem not from a generally unaffordable mortgage payment level, but from a temporary loss of income or unexpected one-time expense, bankruptcy can still provide the homeowner with the breathing space to straighten out his or her finances, deaccelerate, and reinstate the mortgage.

\textsuperscript{20} See, e.g., Donald C. Lampe, Fred H. Miller, & Alvin C. Harrell, \textit{Introduction to the 2008 Annual Survey of Consumer Financial Services Law}, 63 BUS. LAWYER 561, 568 (2008) (“Solutions designed to prevent future problems by reducing the availability of credit to marginal borrowers may (in addition to affecting adversely those future borrowers) worsen the current plight of existing marginal borrowers who need to refinance their homes. Direct relief for troubled borrowers, e.g., a foreclosure moratorium or expanded bankruptcy relief, may have the same effect. To some extent this has already happened. The tightening of mortgage law requirements and regulatory restrictions over the past few years in response to allegations of predatory lending have probably contributed to the dramatic increase in foreclosures by making it more difficult for troubled borrowers to refinance. A significant further tightening of these restraints—we have heard the further tightening referred to as “more robust regulation”—may worsen the problem and increase the number of consumers facing foreclosure as a result.”).

Court addressed the Bankruptcy Code’s anti-modification provision in 1993:

At first blush it seems somewhat strange that the Bankruptcy Code should provide less protection to an individual’s interest in retaining possession of his or her home than to other assets. The anomaly is, however, explained by the legislative history indicating that favorable treatment of residential mortgagees was intended to encourage the flow of capital into the home lending market.22 Congress, it seems, intended to promote mortgage lending by limiting lender losses in bankruptcy.23

Underlying the economic assumption embedded in the Bankruptcy Code’s anti-modification provision is another assumption—that mortgage markets are sensitive to bankruptcy modification risk. This Article empirically tests the policy assumption behind the Bankruptcy Code’s prohibition on the modification of single-family primary residence mortgages. It marshals a variety of original empirical evidence from mortgage

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23 The actual legislative history support is week; the Congressional Record itself has only one statement that indirectly reflects these economic concerns.
origination, insurance, and resale markets to show that mortgage markets are indifferent to bankruptcy modification risk.

The Article explains this indifference by reference to data on the relative losses lenders incur in modification and foreclosure, and argues that as long as lenders face larger losses in foreclosure than modification, the mortgage market will not price and ration credit based on bankruptcy modification risk. Accordingly, this Article argues that the Bankruptcy Code should be amended to permit debtors to modify all mortgages. Such an amendment would provide the most effective, fair, immediate, and tax-payer-cost-free tool for resolving the home mortgage crisis.

In a perfectly functioning market without agency and transaction costs, lenders would be engaged in large-scale modification of defaulted or distressed mortgage loans, as the lenders would prefer a smaller loss from modification than a larger loss from foreclosure. Voluntarily modification, however, has not been happening on a large scale for a variety of reasons, notably contractual impediments, agency costs, practical impediments, and other transaction costs.

If all distressed mortgages could be modified in bankruptcy, it would provide a method for bypassing the various contractual, agency, and other transactional inefficiencies. Permitting bankruptcy modification would give homeowners the option to force a workout of the mortgage, subject to the limitations provided by the Bankruptcy Code. Moreover, the possibility of a bankruptcy modification would encourage voluntary modifications, as mortgage lenders would prefer to exercise more control over the shape of the modification. An involuntary public system of mortgage modification would actually help foster voluntary, private solutions to the mortgage crisis.

Unlike programs for government refinancing or insurance of distressed mortgages, the bankruptcy system is immediately

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available to resolve the mortgage crisis. Government refinancing or insurance plans would take months to implement, during which time foreclosures would continue. In contrast, bankruptcy courts are experience, up-and-running, and currently overstaffed relative to historic caseloads. Moreover, the bankruptcy automatic stay would immediately halt any foreclosure action in process upon a homeowner’s filing of a bankruptcy petition.\(^{26}\) And, unlike government guarantees or refinancing, bankruptcy modification of all mortgages would not involve the public fisc.

Bankruptcy modification would also avoid the moral hazard for lenders and borrowers of a bailout. Lenders would incur costs for having made poor lending decisions thru limited recoveries. Borrowers would face the requirement of living for three or five years on a court-supervised budget in which all disposable income goes to creditors, a damaged credit rating;, and the inability to file for bankruptcy for a number of years.

Bankruptcy modification also provides an excellent device for sorting out types of mortgage debtors. It can correct the two distinct mortgage problems in the current crisis—payment reset shock from resetting adjustable rate mortgages (ARMs) and negative equity from rapidly depreciating home prices—while preventing speculators and vacation home purchasers from enjoying the benefits of modification. And, by providing an efficient and fair system for restructuring debts and allocating losses, bankruptcy will help stabilize the housing market.

Making bankruptcy a forum for distressed homeowners to restructure their mortgage debts is both the most moderate and the best method for resolving the foreclosure crisis and stabilizing mortgage markets. Permitting modification of all mortgages in bankruptcy would thus create a low-cost, effective, fair, and immediately available method for resolving much of the current foreclosure crisis without imposing costs on the public fisc or creating a moral hazard for borrowers or lenders.

\* \* \* \* 

This Article proceeds in six sections. Section II reviews that state of the law on mortgage modification in bankruptcy and

the structure and cast of characters in the mortgage market. Section III tests the economic assumption behind the Bankruptcy Code’s prohibition on single-family primary residence mortgage modification in two ways. First, it examines whether current mortgage market pricing from the origination market, the secondary market, and the private mortgage insurance market reflects the risk of modification in bankruptcy that attaches to multifamily properties, vacation homes, and investor properties, but not single-family owner-occupied principal residences.

Second, Section III examines historical mortgage and bankruptcy filing data from a period when strip-down, a particularly significant type of modification, was permitted in approximately half of the federal judicial district. Taken together, the current market pricing and the historical data indicate that mortgage markets are largely indifferent to bankruptcy modification outcomes. The current market data suggests almost complete indifference, whereas the historical data shows some sensitivity, particularly for higher price and higher loan-to-value ratio (i.e. riskier) borrowers. Section III includes a significant amount of technical, detailed mortgage rate analysis that we believe provides important evidence for our argument, but which may not be of interest to all readers. We suggest that readers who are not concerned with our technical analysis skip to Section IV.

Section IV addresses why mortgage markets are so indifferent to bankruptcy modification risk. Using data from Chapter 13 bankruptcy filings, it examines the impact of permitting strip-down on mortgage lenders and shows that it is usually far less than the lenders would lose in foreclosure. Because lenders would generally fare better in bankruptcy than in foreclosure, they do not price adversely to a bankruptcy modification option. Section V considers the policy implications of market indifference to bankruptcy modification risk and compares bankruptcy modification to other proposed solutions to the mortgage crisis and establishes that bankruptcy modification offers unparalleled advantages over other potential solutions.

Section VI concludes by positing a new theory of the relationship of consumer finance and bankruptcy law, namely that changes in the structure of the lending market mean that bankruptcy law has little effect on consumer credit, so consumer
bankruptcy policy should not be guided by concerns over credit constriction. An appendix contains illustrative mortgage rate quote data.

II. THE STRUCTURE OF THE MORTGAGE MARKET

A. Treatment of Mortgages in Bankruptcy

There are two main types of consumer bankruptcy, Chapter 7 liquidations and Chapter 13 repayment plans. In Chapter 7, the debtor surrenders all non-exempt assets for distribution to creditors. In most circumstances this means that a Chapter 7 debtor will not be able to retain her home. In Chapter 13, in contrast, the debtor retains all of her property, but must devote all disposable personal income for the next three or five years to repaying creditors under a court supervised repayment plan and budget. Chapter 13, then, is the type of bankruptcy generally suited for a debtor seeking to retain major property, such as a residence.

Debtors in Chapter 13 repayment plan bankruptcies are able to modify almost all types of debts. This means they can change interest rates, amortization, and term of loans. They can also “strip-down” debts secured by collateral to the value of the collateral. Strip-down bifurcates an undersecured lender’s

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27 Consumers are also eligible for Chapter 11, but few who are eligible for Chapter 13, see 11 U.S.C. § 109(e), use Chapter 11 because of greater creditor control in Chapter 11 through creditor voting rights on plans of reorganization.
30 A debtor may enter into a court-approved reaffirmation agreement with a creditor and retain non-exempt property in exchange for continuing to make payments to the lender. 11 U.S.C. § 524(c). Alternatively, a debtor may redeem collateral in bankruptcy by paying the lender the value of the property. 11 U.S.C. § 722. Cf. UCC § 9-506 (redemption at state law requires paying the full amount outstanding on the loan plus reasonable lender expenses).
32 11 U.S.C. § 506. Strip-down is synonymous with “lien-stripping” and “cramdown”. Because cramdown has a distinct meaning in the context of Chapter 11 reorganizations—the confirmation of an plan of reorganization absent approval of all impaired classes of creditors and equityholders under the provisions of 11 U.S.C. § 1129(b)—we use the term strip-down.
claim into a secured claim for the value of the collateral and a
general unsecured claim for the deficiency. In Chapter 13, a
creditor is guaranteed to receive the value of a secured claim.\(^\text{34}\) In contrast, general unsecured claims are guaranteed only as much as
would be paid out in a Chapter 7 liquidation, which is often mere
cents on the dollar or nothing at all.\(^\text{35}\) Therefore, strip-down can function like a reduction in the principal amount owed on a debt.
Strip-down is thus the most significant type of modification because it affects the treatment of the principal amount of the creditor’s claim, not just the interest. And because of compound interest, a strip-down of \(x\)% of the principal will have a larger impact on the total return than a modification of \(x\)% of the interest rate.

Chapter 13 provides debtors with a very broad ability to restructure their debts. There is a significant limitation, however, for certain home mortgages. Section 1322(b)(2) of the Bankruptcy Code provides that a Chapter 13 repayment plan may “modify the rights of holders of secured claims, other than a claim secured only by a security interest in real property that is the debtor’s principal residence…”\(^\text{36}\) Section 1322(b)(2) thus prevents modification only of mortgages secured solely by real property that is the debtor’s principal residence.\(^\text{37}\)

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\(^{33}\) A loan is undersecured if the amount owned on the loan is more than the value of the collateral securing the loan. If there is no collateral securing the loan, the loan is unsecured. Undersecured lenders and loans are also referred to as “upside-down” or “underwater.” The homeowner in such a situation has “negative equity.” If there are multiple mortgages on the property, it is possible for the homeowner to have negative equity even though the senior mortgage is still oversecured.


\(^{37}\) Sections 1322(a) and 1325(5) place limitations on the modification of all mortgages. It is important to note that the protections given mortgage holders depend on owner-occupancy status, so mortgage holders’ protections are dependent upon debtor cooperation, a factor upon which mortgage holders cannot justifiably rely.
Under current law, debtors can modify mortgages on vacation homes, investor properties, and multifamily residences in which the owner occupies a unit. Debtors can also currently modify wholly unsecured second mortgages on their principal residences, as well as loans secured by yachts, jewelry,

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39 Every federal circuit court of appeals to address the issue has held that modification, including strip-down, of wholly unsecured second mortgages on principal residences is permitted. See, e.g. Zimmer v. PSB Lending Corp. (In re Zimmer), 313 F.3d 1220, 1227 (9th Cir. 2002); Lane v. W. Interstate Bancorp (In re Lane), 280 F.3d 663, 669 (6th Cir. 2002); Pond v. Farm Specialist Realty (In re Pond), 252 F.3d 122, 126 (2d Cir. 2001); Tanner v. FirstPlus Fin., Inc. (In re Tanner), 217 F.3d 1357, 1360 (11th Cir. 2000); Bartee v. Tara Colony Homeowners Ass'n (In re Bartee), 212 F.3d 277, 288 (5th Cir. 2000); McDonald v. Master Fin., Inc. (In re McDonald), 205 F.3d 606, 608 (3d Cir. 2000); In re Lam, 211 B.R. 36 (9th Cir. BAP), appeal dismissed, 192 F.3d 1309 (9th Cir. 1999). These are known as the “Son of Stripdown” cases.
household appliances, furniture, vehicles, or any other type of personalty. The Bankruptcy Code, however, forbids the modification of mortgage loans secured solely by the debtor’s principal residence. Such mortgage loans must be cured and then paid off according to their original terms, including all fees that have been levied since default, or else the bankruptcy automatic stay will be lifted, permitting the mortgagee to foreclose on the property. As a result, if a debtor’s financial distress stems from

40 Until 2005, loans secured by all vehicles could be stripped-down. Since October 17, 2005, purchase money loans secured by motor vehicle may not be stripped-down in their first two-and-a-half years, and other purchase money secured loans may not be stripped-down in their first year. 11 U.S.C. § 1325(a)(9).

41 11 U.S.C. § 1322(b)(2). Cf. 11 U.S.C. § 1123(b)(5) (parallel residential mortgage anti-modification provision for Chapter 11). Section 1322(b)(2) provides that a plan of reorganization may “modify the rights of holders of secured claims, other than a claim secured only by a security interest in real property that is the debtor’s principal residence…” Since 2005, section 101(13A) of the Bankruptcy Code has defined “debtors’ principal residence” as “a residential structure, including incidental property, without regard to whether that structure is attached to real property and…includes an individual condominium or cooperative unit, a mobile or manufactured home or trailer.” 11 U.S.C. § 101(13A). State law, however, still determines what is “real property.”

Modification of principal residence is even permitted per 11 U.S.C. § 1322(c)(2) in cases where the last payment on the contractual payment schedule is due before the final payment on the plan. Am. Gen. Fin. Inc., v. Paschen (In re Paschen), 296 F.3d 1203 (11th Cir. 2002); In re Eubanks, 219 B.R. 468 (B.A.P. 6th Cir. 1998). But see In re Witt, 113 F.3d 508 (4th Cir. 1997).

It is unclear whether the anti-modification provision prevents an undersecured mortgagee from receiving postpetition interest and fees under 11 U.S.C. § 506(b). Cf. Campbell v. Countrywide Home Loans, Inc. (In re Campbell), 361 B.R. 831, 850 (Bankr. S.D. Tex. 2007) (§ 1322(b)(2) trumps § 506(b)) with Citicorp Mortg. v. Hunt (In re Hunt), 1994 U.S. Dist. LEXIS 13146, *8-*9 (D. Conn. 1994) (§ 1322(b)(2) does not vitiate § 506(b)). It would seem, however, that the legal fiction engendered by Nobelman’s interpretation of section 1322(b)(2) does not require anything beyond treating a principal home mortgage as fully secured; it need not be treated as oversecured, and if fully secured to the exact amount, there postpetition interest and fees could not accrue.

42 Bankruptcy allows the homeowner to unwind any acceleration on the loan, however. 11 U.S.C. § 1322(c). Therefore, if the homeowner’s problems stem not from a generally unaffordable mortgage payment level, but from a temporary loss of income or unexpected one-time expense, bankruptcy can still
an unaffordable home mortgage, bankruptcy is unable to help the debtor retain her home, and foreclosure will occur.

B. Structure of the Modern Mortgage Market

Mortgage markets’ reaction to bankruptcy modification risk, is shaped by the structure of modern mortgage markets Traditionally, mortgage lenders looked like the Bailey Building & Loan Association of Bedford Falls (“Bailey”) in Frank Capra’s classic Christmas film, It’s a Wonderful Life. Bailey would make mortgage loans to borrowers in the Bedford Falls community and keep the loans on its books as assets. Bailey had a portfolio of Bedford Falls mortgages and long-standing banking relationships with its borrowers.

Bailey faced two key problems with its business model. First, the mortgage loans held by Bailey were largely illiquid, long-term assets, however, so Bailey could not sell them to improve its short-term cash flow. Second, due to interstate banking restrictions, all the loans were made in the Bedford Falls area, which meant they were not diversified, making Bailey heavily exposed to the overall economic conditions of Bedford Falls. As a result, Bailey had to be careful about its lending, but having community-based relationships with its borrowers gave it additional information for sound loan underwriting.

Over the past quarter century or so, the mortgage industry’s traditional relational portfolio lending model has been replaced with an originate-to-distribute (OTD) model designed to increase liquidity and portfolio diversification in mortgage lending. (See Chart 2, below.) The OTD mortgage market involves a cast of several players: originators, private mortgage insurers, secondary market securitizers, including government-sponsored entities (GSEs), mortgage pool insurers, mortgage-backed security (MBS) investors, and servicers.

First, there are the financial institutions that advance (or in mortgage industry parlance “originate”) the mortgage loan to the homeowner, sometimes directly, and sometimes through mortgage brokers. These institutions include commercial banks, savings
banks, credit unions, finance companies, and mortgage banks. If the loan-to-value ratio on the mortgage exceeds 80%, mortgage insurance will generally be required to make the loan marketable on the secondary market. Usually the mortgage insurance is purchased by the homeowner, with the mortgagee as the payee, but it can also be lender-purchased.

Chart 2. Holders of Residential 1-4 Family Mortgages by Entity Type

Sometimes originators hold the mortgage loans on their own books, but often (indeed, almost always, in the case of mortgage banks) they sell them into the secondary market. Sometimes this is done through a direct securitization, in which the originator sells a pool of mortgage loans to a specially created

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43 Fannie Mae and Freddie Mac, the government sponsored entities that dominate the secondary mortgage market, will not purchase standard mortgages with LTVs of more than 80% without mortgage insurance coverage. Fannie Mae 2007 Selling Guide § V, 101.01; Freddie Mac, Single-Family Seller/Servicer Guide, § 27.1; Freddie Mac, Mortgage Insurance Coverage Options Matrix, at http://www.freddiemac.com/learn/pdfs/uw/flexmi.pdf.

44 Federal Reserve Statistical Release Z.1, Table. L.217 and Authors’ simplifications.
entity (“special purpose vehicles” or “SPVs”), typically a trust (a “securitization trust”). The SPV pays for the mortgage loans by selling securities, secured by the pooled mortgages, to capital market investors. These securities are the mortgage-backed securities (MBS) because they are collateralized or “backed” by the mortgages in the pool.

Often, however, the originator does not securitize the loans directly. Instead, the originator sells the loans to either a GSE like Fannie Mae or Freddie Mac or to a private securitization conduit, such as an investment bank. Sometimes these entities retain the mortgages in their own portfolios, but they generally pool mortgages originated by many different originators and undertake a multi-conduit securitization. Sometimes MBS are themselves pooled and securities are issued against a pool of MBS, in what is called a Collateralized Mortgage Obligation (CMO). It is estimated that 75 percent of outstanding first-lien residential mortgages are held by securitization trusts, and that two-thirds are in GSE MBS.45

The MBS issued by the SPVs are typically divided into slices or tranches of various risk, based on senior/subordinated status. The price of the various MBS tranches is largely determined by the rating given to them by rating agencies like Moody’s, Standard and Poor’s, and Fitch’s. The credit ratings of various MBS tranches are often enhanced through various guarantees, such as pool-level stop-loss bond insurance.

Although the securitizer does not carry the mortgages it has sold to the SPV on its books, it frequently keeps a relationship with the mortgages it has sold, by entering into a pooling and servicing agreement (PSA) with the SPV.46 Because the SPV exists only on paper, it needs an agent to manage and collect (“service”) the loans it owns. The PSA is the contract that creates the principal-agent relationship between the SPV and the servicer. The originator will thus service the loans even though it does not hold them on its books, creating a potential moral hazard. A homeowners’

45 Credit Suisse, Mortgage Liquidity du Jour, supra note 8, at 28.
46 Typically securitization originators retain the last-out “equity” tranche of the trust, which allows them to retain any excess spread over the trust’s payout.
mortgage may thus be transferred several times during its tenor, even as the servicer remains the same (or the servicer may change while the ultimate ownership of the mortgage remains constant.)

III. **Bankruptcy Modification Risk as Reflected in Mortgage Market Pricing**

Because only certain types of residential mortgages are subject to the Bankruptcy Code’s anti-modification provision, it is possible to examine different types of mortgage market pricing to see if they reflect differences in bankruptcy modification risk. One would expect that if the market were sensitive to bankruptcy modification, there would be a risk premium for mortgages on the types of property that can currently be modified in bankruptcy—mortgages on vacation homes, multifamily homes, and investment properties—and that this premium would not exist for single-family owner-occupied principal residence mortgages, which cannot be modified.

To test this hypothesis, we examined three different pricing measures in mortgage markets: effective mortgage interest rates (annual percentage rates or APRs), private mortgage insurance rates, and secondary mortgage market pricing from Fannie Mae and Freddie Mac. In each market we examined rate variation by property type in order to isolate the expected risk premium for bankruptcy modification risk on non-single-family owner-occupied properties. Astonishingly, all three measures indicate that mortgage markets are indifferent to bankruptcy modification risk, at least in terms of pricing.\(^{47}\)

**A. Mortgage Interest Rate Variation by Property Type**

1. **Experiment Design**

   Using on-line rate quote generators, we tested current mortgage pricing on six types of properties: owner-occupied single-family principal residences; single-family second homes; owner-occupied two-family residences; owner-occupied three-family residences; owner-occupied four-family residences; and

   \(^{47}\) It is possible that there is simply less available credit for modifiable properties. We were unable to test this possibility, however.
investor properties—to see if the pricing reflected variations in bankruptcy modification risk.\textsuperscript{48} We obtained the quotes from four major mortgage lenders: eLoan, IndyMac, JPMorgan Chase, and Wachovia. These lenders were selected because their on-line quote generators did not require disclosure of our personal information. The quotes were generated between January 17, 2008 and January 27, 2008.\textsuperscript{49}

Using the on-line quote generators, we tested 530 mortgage rate quotes from in eleven states. Our quotes divided into two subsamples. First we took a standardized sampling of 288 quotes in three states: California, Massachusetts, and Pennsylvania. We chose Massachusetts and Pennsylvania because of the clarity of the law in those states, which are located in the jurisdictions of the United States Courts of Appeals for the First and Third Circuits, respectively. There is unambiguous circuit level law in both the First and Third Circuits permitting the strip-down of mortgages on all multi-unit residences.\textsuperscript{50} We included California both because it is the largest single state mortgage market and because it has been hit particularly hard by the mortgage crisis.

For this three-state sample we obtained 288 quotes for 30-year fixed-rate, first-lien purchase money mortgages, the most common traditional mortgage product. We tested assuming a loan-to-value (LTV) ratio of 80\%, representing a 20\% down payment. Half of the quotes obtained were for loan amounts within the GSE conforming limits, and half were for non-conforming “jumbos.”\textsuperscript{51}

\textsuperscript{48} The reliability of on-line quotes was confirmed in interviews with veteran mortgage brokers.

\textsuperscript{49} IndyMac was placed in an FDIC conservatorship on July 11, 2008. Louise Story, \textit{Regulators Seize Mortgage Lender}, \textit{N.Y. TIMES}, July 12, 2008.

\textsuperscript{50} \textit{In re} Scarborough, 461 F.3d 406, 413 (3d Cir. 2006); Lomas Mortg., Inc. v. Louis, 82 F.3d 1 (1st Cir. 1996).

\textsuperscript{51} 12 U.S.C. § 1454(a)(2)(C) limits the size of loans that GSEs may purchase. Loans above the conforming limit are known as “jumbos.” The limits are adjusted annually by the Office of Federal Housing Enterprise Oversight (OFHEO). 12 U.S.C. § 1454(a)(2)(C). For 2007, the limit was $417,000. Press Release, Office of Federal Housing Oversight, 2007 Conforming Loan Limit to Remain at $417,000, Nov. 28, 2006; OFHEO, Supervision and Regulations: Conforming Loan Limits, at \texttt{http://www.ofheo.gov/Regulations.aspx?Nav=128}. In 2008, the limit was temporarily raised for selected metropolitan statistical areas by different amounts. \textit{See} Metropolitan Statistical Areas, Micropolitan
The conforming quotes were for loan amounts based on the average mortgage loan amount in the state. The quotes for the jumbos were for loan amounts slightly higher than the conforming limit for a 3-family residence. For each of the six types of residences we recorded the quoted interest rate, points, and APR for the lowest APR quotation.

For IndyMac and eLoan, we obtained a full set of quotes for each of three different credit scores: 760, 660, and 560, representing prime, Alt-A, and subprime borrowers respectively. For JPMorgan Chase and Wachovia, we were not able to test for specific credit scores and have assumed that the single set of quotes generated are for prime borrowers, based on rate comparisons with IndyMac and eLoan. Accordingly, in each state we tested thirty-six quotes for IndyMac and eLoan and twelve for JPMorgan Chase and Wachovia, for a total of 96 quotes per state and 288 quotes total. Appendix A provides an illustrative example of the data. Appendix A shows the rate quotes generated by IndyMac on January 27, 2008 for mortgages in California within conforming limits at 20% and 10% down (Tables A1-A3 and A4-A5, respectively) with variations by credit scores.

As a cross-check on our ability to extrapolate from 30-year fixed-rate, first-lien purchase money mortgage rate quotes in California, Massachusetts, and Pennsylvania, we also tested an additional non-scientific sample of 242 quotes from those three


By testing just above the conforming limit for 3-family residences, all of our 4-family residence quotes ended up being for conforming properties because of the higher conforming loan limit for 4-family residences. We tested just above the 3-family limit out of concern that the loan amount necessary for a 4-family jumbo might be so large as to distort our results for single- and two-family properties. Since there is no difference in legal treatment of three-family and four-family residences, we do not believe that the absence of four-family jumbos from our sampling is significant.

JPMorgan Chase permits specification of credit by characterization (excellent, good, fair, etc.), but not by score. We used “excellent” as our assumption.
states as well as from eight additional states: Illinois, Florida, Maryland, Michigan, Missouri, Ohio, Nevada, and Texas. In this sample we tested at a variety of credit scores, ranging from 540 to 760, a range of LTV ratios from 90% to 70%, a variety of property values, as well as other mortgage products, such as 15-year fixed mortgages, 2/1 and 5/1 LIBOR ARMs, and interest-only mortgages.

2. Experiment Results

The samplings produced three general rate quote patterns that did not vary by either state or mortgage product type. First, for all conforming mortgage loans with 20% down payments from eLoan, IndyMac, and Wachovia, there was no difference within each credit score between the quotes offered for single-family primary residences, vacation homes, or any multi-family unit in which one unit is owner occupied.\(^5\) Interest rates, points, and APRs were identical for these property types, despite the variation in bankruptcy modification risk. Uniformly, however, investor properties had higher interest rates and points.

The rate spread patterns in the quotes make sense intuitively. Investor properties share the same bankruptcy modification risk as vacation homes and multifamily residences. Therefore, the rate premium on investor property mortgages cannot be attributed to bankruptcy modification risk because there is not also a corresponding rate premium for vacation homes or multifamily homes. Instead, to the extent that investor property mortgages have a premium over mortgage on single-family owner-occupied properties, it reflects risks distinct from bankruptcy modification.

It is unsurprising that vacation homes have the same rates as single-family principal residences. Vacation homes reputedly have lower default rates than principal residences because typically only well-heeled buyers purchase them. They do not have tenant

\(^5\) Chase rate quotes for conforming 20% down mortgages presented a variation on this pattern. Single-family principal residences, vacation homes, and four-family residences had identical quotes, but two- and three-family residences were priced around 25 basis points higher, and 30-year fixed quotes were unavailable for investor properties.
risks such as vacancy, non-payment, or damage, and they are typically well-maintained because of the pride of ownership factor.

Arguably neither vacation homes nor investor property mortgages reflect a premium for bankruptcy modification because neither is likely to be modified in bankruptcy. A mortgage loan modification in bankruptcy can occur only as part of a plan.\textsuperscript{55} The automatic stay would likely be lifted on an investment property (or vacation home) before a plan could be confirmed. The Bankruptcy Code provides that the automatic stay shall be lifted for cause, including either lack of adequate protection of a secured creditor’s interest in the property—that is payments to compensate the secured creditor for depreciation in its collateral during the bankruptcy—or if the debtor does not have equity in the property and the property is not necessary for an effective reorganization.\textsuperscript{56} Thus, debtors with positive equity who could not handle mortgage payments prepetition would be unlikely to be able to make the adequate protection payments necessary to prevent the lifting of the stay,\textsuperscript{57} and debtors with negative equity would find the stay lifted because investment properties and second homes are not essential to their reorganizations.\textsuperscript{58}

Thus, investor properties and vacation home mortgages do not provide particularly meaningful comparisons to single-family owner-occupied properties when considering bankruptcy modification risk because both are unlikely to be modified. In contrast, multifamily residences in which the debtor occupies a unit are essential to a debtor’s successful reorganization and therefore present a valid comparison to single-family owner-occupied properties.

Multifamily residences in which the owner resides carry the same tenant risks as investor properties. We do not have default rate data on multifamily residences, but owner residency likely reduces default risk and ensures reasonable property maintenance.

Significantly, for all four lenders, single-family primary residences, which are not modifiable in bankruptcy, were priced

\textsuperscript{55} 11 U.S.C. § 1322(b) ("A plan may…") (emphasis added).
\textsuperscript{56} 11 U.S.C. § 362(d).
\textsuperscript{57} 11 U.S.C. § 362(d)(1).
\textsuperscript{58} 11 U.S.C. § 362(d)(2).
the same as both vacation homes and at least one of the multi-family residence types, property types which are modifiable in bankruptcy. The expected rate premium differential among property types does not exist.  

When we reduced the down payment to 10% on conforming mortgages, a slightly different pattern emerged. First, rate quotes were not always available with subprime credit scores (560 and 540). Second, for prime and Alt-A credit scores, there were four tiers of pricing by property type. Single-family principal residences and two-family owner-occupied properties were priced identically. Vacation homes also had the same interest rates and points, but APRs were about 10 basis points higher because of additional private mortgage insurance premiums. Investor properties and three- and four-family owner-occupied residences had significantly higher APRs (around 150 and 250 basis points respectively). This makes sense because 3-4 family properties have significant tenant risk, much like investor properties.

When we tested jumbos, Wachovia followed its price pattern for conforming loans at 80% LTV, and did not differentiate among property types except for investor properties. At 90% LTV, investor property quotes were unavailable, and the interest rate and points were the same for all other property types. The APR, however, was lower for single-family properties at 90% LTV ratio, though, because of the higher closing costs for the other property types due to items such as higher appraisal fees.

For Chase, jumbo quotes were only available at 80% LTV. For single-family principal residences the quotes were identical to those for two-family residences. Vacation homes were quoted

59 In theory, the lack of the differential could be explained by the market anticipating bankruptcy reform legislation which would impose the same basic modification risk on all properties, even if the risk would actually be less for investor properties and vacation homes because of the greater likelihood that the stay would be lifted on those properties.

60 Again, Chase rate quotes were different. At 10% down, rate quotes were still unavailable for investor properties for 30-year fixed mortgages. Rates for vacation home mortgages were actually slightly lower (5 basis points) than for single-family principal residences. Notably, interest rates and points for two-family residences were the same as for single-family principal residences, but APRs were higher, by 38 basis points. We were unable to ascertain the source of the APR variation.
slightly higher, and three- and four-family and investor property quotes were unavailable from Chase for jumbos.

IndyMac and eLoan had a different pattern for jumbos. First, quotes were simply unavailable for subprime credit scores with 10% or 20% down payments, and for some Alt-A products. We were only able to generate quotes when we significantly increased down payments. Second, a three-tier rate spread emerged for prime borrowers depending on property type. Single-family principal residences were priced the lowest. Vacation homes and two-family properties were priced with slightly higher interest rates, but lower points, and APRs (the unit price) that were approximately 8-12 basis points higher. Finally we were unable to obtain rate quotes for jumbo mortgages on three- or four-family properties or investor properties with 20% down or less. As with the subprime and Alt-A mortgages, we were able to get quotes when we decreased the LTV ratio.

The major insight from these rate quotes is that current mortgage rates evince a marked indifference to bankruptcy modification risk, at least among conforming loans. Regardless of the LTV ratio, there was no difference among conforming loans between the rates for single-family owner-occupied properties, which may not currently be modified in bankruptcy, and those for two-family owner-occupied properties, which may currently be modified. This means that the rate differences that emerge at 90% LTV ratios between one- and two-family owner-occupied residences and other property types are not attributable to bankruptcy modification risk.

For both conforming and jumbo products, the higher interest rates for three- and four-family properties and investor properties are a function of risks other than bankruptcy modification. Mortgages on three- and four-family residences may carry higher prices at low LTV ratios because of higher default rates given the difficulties in managing income-producing properties for amateur landlords and the extremely limited foreclosure sale market for these properties outside of a few urban

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61 On $500,000 30-year 6% fixed mortgage, this translates into an additional $3.00-$3.59.
Likewise, the higher interest rates and points required on investor properties at all LTV ratios are explained by higher default rates on investor properties, the greater likelihood of investor properties being non-recourse, and the more limited secondary market for investor property mortgages. Investor properties have inherently greater default risk in part because an investor has the additional rent or mortgage expense that an owner-occupier does not. Investor properties also carry a variety of tenant risks—vacancy, non-payment, and damage. Because investor properties mortgages are often financed through rental payments, tenant risk adds to the default risk.

GSE conforming mortgages have the same bankruptcy modification risk as jumbos. Therefore, it seems unlikely that the small difference in the APR between single-family and two-family owner-occupied properties for some lenders’ jumbo mortgages relate to bankruptcy modification risk. We suspect it is a function of the significantly smaller secondary market for jumbos, particularly for two-family owner-occupied properties.

While there is variation in rate quote patterns among the four lenders surveyed, all four lenders provided identical quotes for single-family owner-occupied properties, which cannot be modified in bankruptcy and for certain types of multi-family properties, all of which can be modified in bankruptcy. This indicates that current mortgage pricing variations by property type do not reflect bankruptcy modification risk, but other risk factors. Current mortgage origination rates indicate that mortgage lending markets are indifferent to bankruptcy modification risk, a conclusion confirmed by private mortgage insurance pricing.

### B. Private Mortgage Insurance Rate Premiums

Another way to examine mortgage market sensitivity to bankruptcy modification is through private mortgage insurance (PMI) premiums. Private mortgage insurance is generally required for all mortgages on which there is less than 20% down payment.\(^{63}\)

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\(^{62}\) Chase’s outlier pricing for four-family conforming loans is puzzling in this regard.

\(^{63}\) Fannie Mae and Freddie Mac, the government sponsored entities that dominate the secondary mortgage market, will not purchase standard mortgages
The borrower pays the PMI premiums, but the lender is the insurance payee. Private mortgage insurers stand in the mortgage lender’s shoes and assume all the risks that the mortgage lender bears, with three exceptions; PMI policies typically exclude coverage for bankruptcy modification (including strip-down), fraud, and special hazards, such as earthquakes and floods.\textsuperscript{64}

with LTVs of more than 80\% without mortgage insurance coverage. Fannie Mae 2007 Selling Guide \textsection V, 101.01; Freddie Mac, Single-Family Seller/Servicer Guide, \textsection 27.1; Freddie Mac, Mortgage Insurance Coverage Options Matrix, at \url{http://www.freddiemac.com/learn/pdfs/uw/flexmi.pdf}. As a result most mortgage originators require some form of mortgage insurance coverage, typically from a private mortgage insurer, in order to access the full secondary market. For a detailed examination of private mortgage insurance, see Quintin Johnstone, \textit{Private Mortgage Insurance}, 39 \textit{Wake Forest L. Rev.} 101 (2005).

Lender PMI coverage requirements are required to terminate when the loan-to-value ratio reaches 78\%. 12 U.S.C. \textsection\textsection 4901(18), 4902(b).

Private mortgage insurers do not appear to be taking the sort of losses they suffered in the savings and loan crisis of the 1980s. Notably, many of the subprime mortgages made in recent years did not include loan-level PMI. Rating agencies and investors did not require this because risk was managed through credit enhancement techniques such as tranching MBS to concentrate losses in the junior tranches, funding loss reserves with excess interest, and pool-level insurance provided by bond insurers. Because of this it is the bond insurers like MBIA and Ambac that insured subprime mortgage pools that have been taking the worst hits.\textsuperscript{64} Andrew Lipton \& Shiv Rao, \textit{Valuing Lender-Paid Mortgage Insurance in MBS and ABS Transactions}, Moody’s Investor Service Special Report, Feb. 9, 2001, available at \url{http://www.natlaw.com/seminar/doc34.pdf}, at 5. Notably, Radian Guaranty Co. does not exclude bankruptcy losses from its coverage and specifically covers losses from strip-down. Radian Master Policy at 16.

Mark Scarberry has observed that lenders are uniquely vulnerable because of the private mortgage insurance (PMI) exclusion. Statement of Mark S. Scarberry Before the Senate Committee on the Judiciary Hearing on “The Looming Foreclosure Crisis: How To Help Families Save Their Homes,” December 5, 2007. Some private mortgage insurers, however, do not exclude bankruptcy strip-down from their master policies. \textit{See, e.g.}, Radian Insurance Corp., Master Policy, at \url{http://www.radian.biz/pdf/master_policy.pdf}, at 16; State of New York’s Mortgage Agency’s Mortgage Insurance Fund’s Master Policy, at \url{http://nyhomes.org/docs/pmigenc3pol.pdf}, at 28. Thus lack of PMI coverage for strip-down from major private mortgage insurers seems to be attributable to lack of lender demand, as indicated in the lender’s own pricing.

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PMI insurers are in the business of pricing for risk, so the slight coverage difference between the risks covered by PMI policies and the risks incurred by mortgage lenders creates a natural experiment for testing the sensitivity of mortgage originators to bankruptcy modification. We can examine the differences in the spread between PMI rates for certain property types and the spread in mortgage interest rates between the same property types. In other words, by subtracting the additional PMI premium on two-, three-, or four-family properties, vacation homes, or investor properties relative to single-family owner-occupied properties, from the additional interest rate charged on two-, three-, or four-family properties, vacation homes, or relative to single-family owner-occupied properties, we can isolate the amount of the additional interest rate in mortgage origination pricing that covers the PMI exclusions of bankruptcy modification, special hazard, and fraud. To the extent that there is no difference, it indicates that the origination market, which bears the risk of bankruptcy modification, strip-down, and fraud, does not price for these risks.

Table 1 shows major private mortgage insurers’ current premium adjustments for various property types above the premium for single-family principal residences. The seven companies listed issue substantially all of the private mortgage insurance in the United States.65 The premiums vary from insurer to insurer, but a couple of points are notable. First, the additional PMI premium for investor properties is typically 38 basis points.66

This is exactly the average additional premium mortgage

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65 Johnstone, supra note 63, at 107.
66 A basis point is 1/100\(^{th}\) of a percent (0.01%).
originators charge for investor property mortgages above single-family principal residence mortgages.  

Second, the additional PMI premium charged for vacation homes is 14 basis points. We do not have national average figures for the additional interest rate premiums for vacation home mortgages. Often there was no premium for vacation homes in our rate quote sampling, but when there was, it was for high LTV properties and was around 12-14 basis points. The near perfect fit between additional PMI premiums and additional mortgage interest rates premiums for investor properties and vacation homes indicates that origination markets are indifferent to bankruptcy modification risk because PMI does not cover bankruptcy modification risk, yet is priced identically.

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68 The explanation for this additional premium is that most second home purchasers put down at least 20% of the purchase price so they are not required to have PMI coverage. Therefore, the additional PMI premium for second homes likely reflects the smaller (and riskier) coverage pool of second home buyers who do not put down at least 20% of the purchase price.
Table 1.  Current Additional Private Mortgage Insurance Premiums Above Single-Family Principal Residence by Property Types in Basis Points\(^{69}\)

<table>
<thead>
<tr>
<th></th>
<th>2- Family</th>
<th>3-4 Family</th>
<th>VACATION HOME</th>
<th>INVESTOR PROPERTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIG United Guaranty</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>CMG</td>
<td>0</td>
<td>32</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>Genworth</td>
<td>0</td>
<td>38</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>MGIC</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>Radian Guaranty Co.</td>
<td>0</td>
<td>38</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>Republic Mortg. Ins.</td>
<td>0</td>
<td>38</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>Triad Guaranty(^{70})</td>
<td>0</td>
<td>0</td>
<td>14-50</td>
<td>38-75</td>
</tr>
</tbody>
</table>

Of course, debtors often surrender investor properties and vacation homes in bankruptcy; these properties are not essential to their reorganizations. Therefore, modification risk may not be particularly significant for these types of properties, so we would not expect to see price sensitivity. Debtors are more reluctant to surrender their own residences, however. Therefore the data on 2-, 3-, and 4-family residences is of more relevance.

PMI insurers do not distinguish between 3- and 4-family residences. Of the seven major private mortgage insurers, four charged a 38 basis point premium for 3-4 family residences, but three charged no premium. We do not have an explanation for the


\(^{70}\) The range of rates for vacation homes and investor properties is dependent on credit scores.
differences between insurers on 3-4 family rate quotes. Mortgage origination rates for 3-4 family properties, however, are often priced exactly like single family properties, but are sometimes priced significantly higher than 38 basis points. It is hard to infer a bankruptcy modification risk premium in mortgage origination pricing from 3-4 family residence PMI rates.

What is significant, however, is that none of the PMI insurers charged more for policies on two-family residences than for single-family residences. This matches with origination pricing that does not distinguish between single-family and 2-family residences despite the different bankruptcy modification risks.

The additional PMI premiums for the types of properties that can currently be modified in bankruptcy are essentially the same as the additional interest rate premiums for these property types. Because most PMI coverage excludes bankruptcy modification, it indicates that mortgage lenders, who bear the cost of bankruptcy modification, do not price for the modification risk.

C. Secondary Market Pricing Variation by Property Type

The indifference of the market to bankruptcy modification risk in mortgage pricing is also apparent from the delivery fees charged by Freddie Mac and Fannie Mae, government-sponsored entities (GSEs) that are the two largest purchasers of home mortgages on the secondary market. Freddie Mac and Fannie Mae charge a delivery fee, essentially a discount rate, on the mortgages they purchase from originators. The discount rate varies by the

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71 It is not clear how competitive the PMI industry is on the consumer level. If PMI insurers have quasi-captive relationships with lenders or mortgage brokers, it would provide an explanation for the variation in rate quotes for 3-4 family properties.

72 Notable too, Radian Guaranty Co., the sole insurer that we have been able to verify does not exclude bankruptcy losses (including strip-down) from its coverage, does not price two-family properties differently than single-family properties.

Securitized mortgage pools often have pool-level stop loss bond insurance to enhance their credit ratings. The existence of pool-level insurance may weaken the conclusions that can be drawn from PMI pricing. Nevertheless, not all mortgages are securitized and there can also be a pre-securitization exposure period for those that are.
characteristics of the mortgage product, such as property type, LTV ratio, and the borrower’s credit score.

Notably, Freddie and Fannie have additional discount fees for investor properties and some multi-family residences, but not for vacation homes or for certain multi-family residences configurations. The absence of a risk premium on all properties that can currently be modified in bankruptcy indicates that Freddie and Fannie are not pricing for bankruptcy modification risk. This evidence conforms to the pricing in the mortgage origination market. Given that a significant percentage of mortgage originations are sold into a secondary market and that GSEs are the largest players in the secondary market, Freddie and Fannie pricing shapes mortgage origination pricing, so it is not surprising to see parallel pricing indifference. All current observational evidence indicates that the mortgage lending market is indifferent to bankruptcy modification risk.

To be sure, the current mortgage market data only shows price insensitivity to bankruptcy modification risk. The data does not tell us whether mortgage markets reflect bankruptcy modification in other ways, such as by limiting credit availability or requiring higher loan-to-value ratios rather than by raising price. We think it highly unlikely that contemporary mortgage markets would reflect variations in bankruptcy modification risk solely in ways other than price, but the available data do not permit us to rule out this possibility. Historical data, however, provides some insight.

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74 Credit Suisse, *Mortgage Liquidity du Jour, supra* note 8, at 28 (estimating that 75 percent of outstanding first-lien residential mortgages are held by securitization trusts, and that two-thirds are in GSE MBS). Freddie and Fannie MBS alone comprise over 44% of residential first-lien mortgage debt outstanding. *Id.*

75 Likewise, there has been no problem securitizing mortgage debts that are modifiable, such as family farm mortgages, vacation home, multiunit, and investor properties. Indeed, the largest securitization market is in bankruptcy-modifiable, non-mortgage debts, such as credit cards and car loans. *See* Federal Reserve Statistical Release G.19.
D. Historical Impact of Permitting Strip-Down

In addition to the current data on mortgage markets, there is historical data on the impact on permitting strip-down on the mortgage market. After the effective date of the Bankruptcy Code in October, 1979, but prior to the Supreme Court’s Nobelman decision in 1993, federal judicial districts varied as to whether they permitted “strip-down” of mortgages on debtors’ principal residences. This variation between districts in the timing and results of their decisions creates a natural experiment that permits the isolation of the effects of allowing strip-down on the home mortgage market.

In a companion article coauthored with Joshua Goodman, we undertook a detailed regression analysis of the impact of strip-down using data from the Federal Home Finance Board’s Monthly Interest Rate Survey. We examined five outcome variables: loan-to-value ratio, interest rates, loan size, loan volume, and bankruptcy filing rates.

For loan-to-value ratios, our analysis found a statistically significant impact, especially for the highest interest rate, that is the most risky, loans. For these loans, permitting strip-down resulted in a 1.373% reduction in loan-to-value ratios. The reduction increased to 2.794% when a six-month time lag from ruling dates in introduced. For the least risky loans, however, no statistically significant impact was observed. These results are exactly what one would expect—lenders are less willing to take big risks on the (presumably) riskiest borrowers, who have to pay the highest interest rates.

The LTV ratio outcome validates our empirical model, which makes it possible for us to draw conclusions from our inability to reject the null hypothesis when using other outcome variables. When we substituted interest rates, we observed an increase of 11-15 basis points from permitting stripdown and this impact was only marginally statistically significant. Likewise, we did not detect any statistically significant impact on the availability of mortgage credit or on bankruptcy filings. Because of the

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508 U.S. 324.
statistically significant outcome for LTV ratios, we believe that the lack of a statistically significant outcome for other outcome variables can be read to show that there is little or no effect on these outcome variable from permitting strip-down.

Taken together, the historical data and current market pricing data indicate that mortgage markets are largely indifferent to bankruptcy modification outcomes. The current market data suggests almost complete indifference, whereas the historical data (from a time when far fewer mortgages were securitized) shows some sensitivity, particularly for higher price and higher loan to value (i.e. riskier) borrowers. As a predictive matter, we would not expect permitting strip-down or other forms of modification for all mortgages to have anything more than a negligible impact on interest rates or on mortgage credit availability, and if it were to have an impact, it would be primarily on marginal borrowers, which might be a good thing because, prospectively, it would help discourage the aggressive lending (such as no-doc and low-doc loans and high LTV ratios) and irresponsible borrowing (such as borrowing based on an assumption of refinancing before teaser rates expired) that was at the root of the current mortgage crisis.

IV. EXPLAINING MORTGAGE MARKET INDIFFERENCE TO BANKRUPTCY STRIP-DOWN

Basic economic theory posits that when lenders will charge more when faced with larger potential losses. Yet studies on the impact of variation in debt collection laws, including bankruptcy, show that consumer credit markets are sensitive to some changes, but not to others. Karen Pence has shown that mortgage credit availability is sensitive to whether non-judicial foreclosure is available.78 Likewise, Mark Meador has found an increase in interest rates in states that do not permit deficiency judgments,79 and Claudia Wood has shown that states with defaulter-friendly laws have higher interest rates.80

79 Mark Meador, The Effects of Mortgage Laws on Home Mortgage Rates, 34 J. Econ. & BUS. 143 (1982) (estimating 13.87 basis point increase in interest rates as a result of antideficiency laws).
80 Claudia Wood, The Impact of Mortgage Foreclosure Laws on

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and Michelle White have found that creditors charge more on car loans in states that exempt significant property from creditor attachment. \(^{81}\) Jeremy Berkowitz & Rich Hynes have estimated that increases in state property exemptions lead to an increase in mortgage rates. \(^{82}\) Lawrence D. Jones has found that Canadian lenders increased down payment requirements in response to increased costs imposed by Canadian deficiency laws. \(^{83}\) Robert N. Collender has extrapolated an increase in farm loan interest rates as the result of the enactment of Chapter 12 of the Bankruptcy Code, which offers fewer creditor protections than Chapter 11. \(^{84}\) Lee J. Alston has shown that there were higher interest rates and a decreased supply of mortgage credit in states that prohibited foreclosure during the Great Depression. \(^{85}\) Dragos Ailoae has detected a greater drop in auto loan rates in states with high exemption levels as a result of the 2005 Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) amendments to the Bankruptcy Code, which restricted strip-down for purchase money loans secured by automobiles used primarily for personal use and made within two-and-a-half years before the bankruptcy filing. \(^{86}\) And Nadia Massoud and her coauthors have shown that credit card late fees and overlimit fees correlate with aggregate loss levels to banks. \(^{87}\)


\(^{81}\) Reint Gropp et al., Personal Bankruptcy and Credit Supply and Demand, 112 Q. J. OF ECON. 217 (1997).


\(^{86}\) Dragos Ailoae, The Auto Loan Market Post BAPCPA, working paper, May, 2008, on file with the authors (15 basis point drop in high exemption states above low exemption states). When cramdown is permitted, a secured lender is more likely to end up with an unsecured deficiency claim, which will be paid only after the debtor’s property exemptions are taken. 11 U.S.C. § 522(c)(2). See also 11 U.S.C. § 1325(a)(9) (“hanging paragraph”) (limiting cramdown for automobile loans, inter alia).

\(^{87}\) Nadia Massoud et al., The Cost of Being Late: The Case of Credit
In contrast, Frederick Link has found that the cost and availability of general unsecured credit in states with high exemption levels was statistically indistinguishable from those in states with low exemption levels.\textsuperscript{88} Jeremy Berkowitz & Rich Hynes have estimated that an increase in state homestead exemptions correlates with a decrease in interest rates.\textsuperscript{89} Michael Simkovic has shown that credit card interest rates did not decline following the 2005 amendments to the Bankruptcy Code that made it harder for debtors to file for bankruptcy and harder to discharge credit card debt in bankruptcy.\textsuperscript{90} And Mark Kantrowitz has found that making private student loans non-dischargeable in bankruptcy has had only a de minimis impact on their availability.\textsuperscript{91}

Our examination of current and historical pricing shows that permitting strip-down and other modifications has little or no impact on mortgage pricing, and only a small impact (historically) on the size of down payments required for the highest risk borrowers. Although we find scant evidence of mortgage market sensitivity to bankruptcy modification risk (other than for LTV ratios), we believe the key to explaining this lies in mortgage market sensitivity to foreclosure costs. The market’s indifference to bankruptcy modification risk is because losses due to modification (including strip-down) would generally be smaller than those incurred in foreclosure.\textsuperscript{92} There is no reason for the


\textsuperscript{88} Frederick Link, \textit{The Economics of Personal Bankruptcy}, doctoral dissertation, MIT, June 2004.

\textsuperscript{89} Berkowitz & Hynes, supra note 82.


\textsuperscript{91} Mark Kantrowitz, \textit{Impact of the Bankruptcy Exception for Private Student Loans on Private Student Loan Availability} (Aug. 14, 2007), at \url{http://www.finaid.org/educators/20070814pslFICOdistribution.pdf}.

\textsuperscript{92} It is possible that the apparent market indifference is actually the result of cross-subsidization between mortgages that can be modified in bankruptcy and those that cannot. We do not believe that this is likely, however. First, it would require cross-subsidization to occur in several different segments of the market—originations, secondary market, and insurance. Insurers, in particular are unlikely to have cross-subsidized price structures. Second, competition in these markets is a major force against cross-subsidization. If
market to price against bankruptcy modification if bankruptcy modification would result in smaller losses than foreclosure. Instead, modification (be it voluntary or in bankruptcy) represents the best realistic outcome for a defaulted loan. Moreover, bankruptcy modification risk is small in likelihood and magnitude of relative to all the other risk factors that determine mortgage interest rates above the cost of funds.\footnote{We noted, however, that another explanation might be possible, namely that even though foreclosure may be a worse outcome for lenders for any particular mortgage, it benefits lenders’ portfolios overall by creating a general deterrence both against borrowers entering into overly burdensome mortgages and against borrowers not keeping their financial affairs in order after they have a mortgage. There is no empirical evidence to support such an explanation, however, and it is not clear that the deterrence effect would be less costly than more diligent initial underwriting. Moreover, the fact that lenders rarely pursue deficiency claims on mortgages, even when permitted, cuts against a deterrence function to foreclosure instead of workouts. Cf. Berkowitz & Hynes, supra note 82. (“It is default and not necessarily bankruptcy which creates losses for creditors.”).}

\section{The Baseline for Loss Comparison: Foreclosure Sales}

The baseline for examining bankruptcy modification losses is not zero losses, but the losses lenders incur in foreclosure.\footnote{State foreclosure procedures can vary significantly.} Foreclosure is a remarkably expensive process. The costs vary by lender and by state, with the availability of non-judicial foreclosure apparently being a major factor both because of the greater speed of non-judicial foreclosure and the lower costs of foreclosing outside of the court system. There is very little hard data on foreclosure losses, and they are likely fluid over time and regional markets.\footnote{See Pence, supra note 78, at 1 (listing estimates).} Nonetheless, most estimates put lender losses between 30\% and 60\% of the outstanding loan value.\footnote{Lenders incur legal}
costs in foreclosures, do not receive interest on defaulted properties (time-value loss), and often are forced to sell the property at a significant loss.

Sheriff’s foreclosure sale data from Monmouth County, New Jersey provides some sense of lender losses.\textsuperscript{97} We do not claim that Monmouth County is in any way representative or typical, only that it is the most detailed publicly available data set on foreclosure sale outcomes we have been able to obtain.

New Jersey does not permit non-judicial foreclosure, so our data on 568 completed foreclosure sales between July 2005, and March 2008 captures all completed foreclosures sales in Monmouth County in this period.\textsuperscript{98} The average foreclosure judgment was for approximately $195,000. The average foreclosure sale netted only around $84,000, meaning there is an average 57\% loss at the sales, not counting expenses of the sale, which are paid before the foreclosing lender. Part of the reason for this is that there are often few bidders at foreclosure sales. In at least 45\% of the sales in Monmouth County, there were no bids beyond the foreclosing plaintiff’s opening $100 bid.\textsuperscript{99}

Likewise, sheriff’s sale data from sixteen Indiana counties\textsuperscript{100} shows a similar pattern. From January 2006 to August 2008, there were 2,554 completed foreclosure sales in these

\begin{footnotesize}
\begin{enumerate}
\item Monmouth County New Jersey Sheriff, Sheriff’s Sale Listings, at http://www.co.monmouth.nj.us/sheriff/sale/index.asp.\textsuperscript{97}
\item We selected Monmouth County because of the high level of detail and easy accessibility of its sheriff’s sale data via the Internet. Monmouth County data ceased to be available on-line except in cached form at some point in the spring of 2008, so we ceased our data collection as of March 2008.\textsuperscript{98}
\item New Jersey’s requirement that the foreclosing creditor begin the auction with a $100 bid might inflate the overall loss number, as there is no reason for the foreclosing creditor to place a credit bid for the full amount of its claim unless another party shows up at the auction and starts placing bids. Otherwise, the sensible move for a foreclosing creditor is to bid in the required $100 and maximize the size of the deficiency judgment. Unfortunately, the number of third-party auction winners in Monmouth County is so small as to frustrate more detailed analysis.\textsuperscript{99}
\item Indiana data comes from SRI, Inc., which administers the sheriff’s sales for Blackford, Boone, Crawford, Fayette, Kosciusko, Marshall, Monroe, Orange, Parke, Scott, Steuben, Tipton, Union, Vigo, Warrick, and Washington counties in Indiana. See SRI Inc., Sheriff’s Sale System, at http://sri-sheriffsale.com/Default.aspx.\textsuperscript{100}
\end{enumerate}
\end{footnotesize}
counties, 266 of which were to third-party purchasers. When third-party purchasers purchased the foreclosed property in Indiana, the foreclosing lender recovered less than 67% of its claim from the sale.101 There are a few factors involved in the thin bidding at foreclosure sales. First, they are not well advertised compared with private sales. Second, the defaulted homeowner is still in possession of the property and inspection of the property is not possible. A foreclosure sale purchaser buys “as is” without an inspection or even knowing what the interior floor plan is. Third, defaulted properties are often not well maintained, which further pushes down foreclosure sale prices. Fourth, any bidder at a foreclosure sale will likely have to bid over the outstanding mortgage amount in order to win because the foreclosing lender will place a credit bid for the outstanding amount of the mortgage. And fifth, the homeowner can, in some states, redeem the property after the foreclosure sale by simply paying the foreclosure sale price. This means that sale results are not always final. As a result, the foreclosing plaintiff (i.e., the lender) was the purchaser at the foreclosure sale over half the time in Monmouth County, and no less than 88% of the time in the sixteen Indiana counties surveyed.

When the foreclosing plaintiff ends up owning a foreclosed property, it will usually be resold in a private sale, but the lender is likely to get a depressed price because it is trying to sell an unoccupied house. The resale will mitigate the lender’s loss, so a 57% loss rate might be too high for lenders’ net average losses, but it also does not account for lost time-value, maintenance and improvement costs, sale costs, like advertising and brokers’ fees, and, for lenders with capital requirements, like banks and insurance companies, reduced lending capacity. These additional

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101 The mean and median sale prices were 32.99% and 34.36% of the claim, respectively, but the lender’s recovery must be reduced for the costs of the sale. This contrasts with 7.10% mean and 7.27% median pre-sale expense losses when the foreclosing creditor won the foreclosure sale.

Although Indiana does not require a minimum bid and permits a deficiency judgment, credit bidding is still probably the safest route for a foreclosing creditor given the frequent difficulties in collecting default judgments. Frequent credit bidding would explain the low level of losses when the foreclosing lender purchases the property.
costs can be significant; in 2002, one analyst estimated the direct costs of foreclosure (excluding resale loss) at $58,759.\(^{102}\) All in all, Fitch Ratings is predicting loss severities of 58% for subprime loans originated in 2006 and 64% for those originated in 2007.\(^{103}\) While 2006 and 2007 subprime loans are not the entirety of the current foreclosure crisis, they are an important piece of it, and loss severities of 58-64% speak to the particular problems in the current foreclosure sale market, as a glut of properties depresses sale prices.

B. Projecting Lender Losses in Bankruptcy

It is possible to predict lender losses from bankruptcy modification by examining actual bankruptcy filings to see what lender losses would be like if strip-down, the most drastic form of modification, were allowed. Strip-down losses can be projected from two proprietary databases. First, there is the 2001 Consumer Bankruptcy Project Database. The 2001 CBP database is an extensive multi-district database collected during the 2001 mini-recession.\(^{104}\) Among the data included in the 2001 CBP database is information about property values and mortgage claims on debtors’ principal residences. Second, to account for the current severely depressed market conditions, we created an original dataset from Chapter 13 bankruptcy filings in two of the counties in the with the highest foreclosure rates in the nation, Riverside and San Bernardino counties, California, during the final four months of 2007.


\(^{104}\) The 2001 CBP has data from the Central District of California, the Eastern District of Pennsylvania, the Middle District of Tennessee, the Northern District of Illinois, and the Northern District of Texas. For a detailed description of the 2001 CBP and its methodology, see ELIZABETH WARREN & AMELIA WARREN-TYAGI, THE TWO-INCOME TRAP 181 (Appendix) (2003).
1. 2001 Consumer Bankruptcy Project Database

An analysis of the mortgage debts in the 2001 Consumer Bankruptcy Project database provides a sense of both how mortgage lenders would fare if modification were permitted and the likelihood that a mortgage would be modified in bankruptcy. Using the 2001 CBP data, we can estimate of the impact on lenders of allowing bankruptcy strip-down on all mortgages. Strip-down is only one type of possible modification, but it is most significant type because it affects the treatment of the principal of the mortgage claim, as well as the interest. The Bankruptcy Code provides very different protections for secured and unsecured claims in Chapter 13. Secured claims are entitled to receive at least the value of their claims under a plan, unless the debtor surrenders the property or the lender consents to alternative treatment. Unsecured Chapter 13 claims are entitled only to receive only as much as they would have received in a Chapter 7 liquidation, which is usually nothing.

Strip-down bifurcates a mortgage lender’s bankruptcy claim into a secured claim for the value of the collateral and an unsecured claim for the deficiency. Because the unsecured claim is frequently of negligible value, strip-down typically has a larger effect on a mortgage lender than other types of modification, such as extending the term of the loan, changing its amortization schedule, or changing its interest rates. Indeed, the requirement that plan pay at least the present value of a secured claim lender severely limits non-strip-down modifications, and the Supreme Court has set a floor for modified interest rates of secured creditors in Chapter 13 of the prime rate, subject to various adjustments.

107 Till v. SCS Credit Corp., 541 U.S. 465, 479 (2004). There is reason to believe that the prime rate would not be the relevant interest rate benchmark for mortgages. Till dealt with a subprime auto loan with a 21% contract rates of interest. As the prime rate has frequently been above the rate of 30-year fixed mortgages, using the prime rate as a floor could result in an inequitable windfall for creditors. See Federal Reserve Statistical Release H.15. Arguably for a mortgage loan, the appropriate base line would be either the average 30-year fixed rate mortgage rate or the 10-year Treasury bond rate.
This means that by examining historical data on potential strip-downs we are examining the worst-case scenario for lenders.

Only a small percentage of mortgages ever end up in bankruptcy. There is no data on the exact percentage, but if we use foreclosure rates as a guideline, it seems safe to estimate that less than 1% of all first-lien mortgages end up in bankruptcy. Since at least 1993, foreclosure rates have averaged 1.18% of all outstanding mortgages, with a low of .86% and a high of 2.47%.\textsuperscript{108} Many mortgage delinquent homeowners never file for bankruptcy, although some do file before foreclosure proceedings commence. Thus, we believe it reasonable to assume that at least currently a smaller percentage of mortgages end up in bankruptcy than end up in foreclosure. Using Monmouth County as our guide, 24% of homeowners whose houses were scheduled for sale filed for bankruptcy, whereas 32% of the scheduled sales were completed. The remainder of the cases involved settlements between the servicer/lender and the homeowner, including reinstatement of the mortgage or sales cancelled without indication why.\textsuperscript{109}

Of the mortgages that end up in bankruptcy, many do not end up in Chapter 13. Extrapolating from the 2001 CBP database, 75% of the relatively small number of mortgages that end up in bankruptcy will end up in Chapter 13. In contrast, in the 2007 Consumer Bankruptcy Project, a more extensive multi-district survey, 47% of debtors with mortgages filed for Chapter 13.\textsuperscript{110} We are cautious about extrapolating from these figures, however, because of the significant variation between them and the significant variation by district in the percentage of non-business bankruptcy filings that are Chapter 13.\textsuperscript{111}

\textsuperscript{108} Mortgage Bankers Association, \textit{National Delinquency Survey}.

\textsuperscript{109} The Indiana data does not indicate the cause of cancelled foreclosure sales.

\textsuperscript{110} Elizabeth Warren \textit{et al.}, [untitled study], 82 AM. BANKR. L.J. (forthcoming 2008).

Within the limited universe of mortgages that end up in Chapter 13, the 2001 CBP is more instructive. The 2001 CBP database has information on 1096 mortgages scheduled by debtors on Schedule D in their bankruptcy petitions in Chapter 13 cases. As Table 2 shows, of these claims, 29% were undersecured, around 4% were fully secured, and approximately 69% were oversecured. Table 3 shows that the undersecured claims were undersecured by an average of $13,172.23, but the median undersecured Chapter 13 claim was undersecured by only $8,000. On average, undersecured claims were undersecured by 21% of the total claim amount. We term this percentage the “security ratio.” A claim that is undersecured by 21% has a security ratio of -21%. In contrast, the average oversecured claim was oversecured by an equity cushion of $27,603.39 and a security ratio of 37%.

Table 2. Mortgage Claim Amount to Property Value by Bankruptcy Chapter

<table>
<thead>
<tr>
<th></th>
<th>Chapter 7</th>
<th>Chapter 13</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undersecured</td>
<td>22%</td>
<td>29%</td>
<td>27%</td>
</tr>
<tr>
<td>Fully Secured</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Oversecured</td>
<td>74%</td>
<td>67%</td>
<td>69%</td>
</tr>
</tbody>
</table>

112 The amounts scheduled by debtors do not necessarily match up with those listed in creditors’ claims. See Katherine M. Porter, *Misbehavior and Mistake in Bankruptcy Mortgage Claims*, University of Iowa Legal Studies Research Paper Number 07-29, Nov. 2007, 33 at http://ssrn.com/abstract=1027961 (noting that “median proof of claim exceeded its corresponding debt as listed on Schedule D by $1366. The average proof of claim was $3533 greater than the debtor reported on Schedule D.”)

113 2001 Consumer Bankruptcy Project Database.
Table 3. Mortgages Claims in Chapter 13 (2001 CBP)\textsuperscript{114}

<table>
<thead>
<tr>
<th></th>
<th>Undersecured</th>
<th>Oversecured</th>
<th>Fully Secured</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUMBER</strong></td>
<td>316</td>
<td>730</td>
<td>50</td>
<td>1096</td>
</tr>
<tr>
<td><strong>MARKET VALUE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>$79,990.13</td>
<td>$112,681.40</td>
<td>$64,780.78</td>
<td>$102,818.86</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$3,459.30</td>
<td>$3,131.94</td>
<td>$4,267.22</td>
<td>$2,466.04</td>
</tr>
<tr>
<td>Median</td>
<td>$72,000.00</td>
<td>$91,750.00</td>
<td>$60,000.00</td>
<td>$87,000.00</td>
</tr>
<tr>
<td><strong>CLAIM AMOUNT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>$62,103.71</td>
<td>$74,262.98</td>
<td>$59,722.70</td>
<td>$70,093.87</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$2,974.66</td>
<td>$2,112.03</td>
<td>$4,418.32</td>
<td>$1,668.42</td>
</tr>
<tr>
<td>Median</td>
<td>$48,126.00</td>
<td>$65,000.00</td>
<td>$57,000.00</td>
<td>$61,403.50</td>
</tr>
<tr>
<td><strong>MARKET VALUE MINUS (CLAIM AMOUNT PLUS AMOUNT OF SENIOR LIENS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>-$13,172.23</td>
<td>$27,603.39</td>
<td>$0.00</td>
<td>$14,587.64</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$876.30</td>
<td>$1,606.16</td>
<td>$0.00</td>
<td>$1,233.87</td>
</tr>
<tr>
<td>Median</td>
<td>-$8,000.00</td>
<td>$15,000.00</td>
<td>$0.00</td>
<td>$6,209.50</td>
</tr>
<tr>
<td><strong>SECURITY RATIO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-21.21%</td>
<td>37.17%</td>
<td>0.00%</td>
<td>20.81%</td>
</tr>
</tbody>
</table>

Looking at all Chapter 13 mortgage claims, the average claim was oversecured by $14,587.64, which was around 21% of the average claim amount. Chart 3 shows the distribution of the amount by which mortgages in the 2001 CBP database were over- or undersecured. The impression from these figures is that most mortgages in bankruptcy are over- or undersecured by a relatively small amount, and that mortgages are far more frequently oversecured than undersecured.

\textsuperscript{114} 2001 Consumer Bankruptcy Project Database.
The 2001 CBP data indicates, then, that under an unlimited strip-down regime, in normal market conditions only a limited subset of the already highly limited universe of mortgages that end up in Chapter 13 bankruptcy would be subject to strip-down, and in those cases the average lender losses would be limited to $13,172.23, with a disproportionate share borne by second-lien mortgages. These are losses a lender would incur in a foreclosure in addition to the costs of the foreclosure process and the likely lower price the lender would get at a foreclosure sale. It is not surprising, then, that mortgage markets are indifferent to strip-down risk—the scope and magnitude of the potential loss is small and often less than that incurred in a foreclosure.

2. 2007 Riverside-San Bernardino Database

The 2001 CBP provides a guide for traditional mortgage market conditions, but we were concerned about its predictive value for the current market, even though it was collected during a recession. Accordingly, we created an original data set of Chapter

\[\text{Chart 3. Chapter 13 Mortgages Ranked by Amount Oversecured or Undersecured}^{115}\]

\[\begin{array}{c}
\text{\$400,000} \\
\text{\$350,000} \\
\text{\$300,000} \\
\text{\$250,000} \\
\text{\$200,000} \\
\text{\$150,000} \\
\text{\$100,000} \\
\text{\$50,000} \\
\text{\$0} \\
\text{-\$50,000} \\
\text{-\$100,000} \\
\end{array}\]

\[\begin{array}{c}
0 \\
200 \\
400 \\
600 \\
800 \\
1000 \\
1200 \\
\end{array}\]

\[\text{115 2001 Consumer Bankruptcy Project Database.}\]
13 filings that reflect current distressed real estate market conditions. We recorded the market values and the mortgage claim values for all real estate scheduled in Chapter 13 cases filed in the Riverside office of the Bankruptcy Court for the Southern District of California in the last four months of 2007.

We selected Riverside because it represents a worst-case scenario for lenders and because we are able to isolate it as a discrete community. Riverside-San Bernardino, located to the east-southeast of Los Angeles in the Inland Empire, had the third highest foreclosure rate of any metropolitan area in the country at the time, and had had so for at least a year prior to the bankruptcy filings in the dataset. This means housing prices should have already been severely depressed in Riverside-San Bernardino, so the property values in our sample are likely to be lower than they might otherwise be. As of the third quarter of 2007, one out of every forty-three homes in Riverside-San Bernardino was in foreclosure.

We were able to isolate Riverside-San Bernardino as a discrete community in bankruptcy filings because the bankruptcy court for the federal judicial district in which Riverside-San Bernardino is located has one of its five offices in Riverside. All of the cases filed in the Riverside office for this period were for debtors who listed their principal place of residence as in either Riverside or San Bernardino counties.

Between September 1, 2007 and December 31, 2007, 984 Chapter 13 petitions were filed in the Riverside office. Of these, 720 were unique cases for which mortgage debt was scheduled and for which there was information on both the property value and mortgage claim amount. We excluded timeshares, land-only mortgages, and liens for property taxes and homeowners’ association dues from our definition of mortgage debt. The 2007 Riverside data includes principal homes, vacation homes, and rental properties. These cases yielded a sample of 1094 mortgages.

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118 See supra, note 116.
almost the precise size as the 2001 CBP database. The 2007 Riverside database includes 720 first-lien mortgages, 347 second-lien mortgages, 25 third-lien mortgages, and 2 fourth-lien mortgages. As Table 4 shows, 48% of the properties in the dataset had more than one mortgage, and 3.5% had more than two mortgages.

Table 4. Mortgages in Chapter 13 (2007 Riverside)\textsuperscript{119}

<table>
<thead>
<tr>
<th>Cases Filed</th>
<th>984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases with Mortgage Debt Scheduled</td>
<td>720</td>
</tr>
<tr>
<td>Total Number of Mortgages Scheduled</td>
<td>1094</td>
</tr>
<tr>
<td>Number of 1\textsuperscript{st} Lien-Mortgages</td>
<td>720</td>
</tr>
<tr>
<td>Number of 2\textsuperscript{nd} Lien Mortgages</td>
<td>347</td>
</tr>
<tr>
<td>Number of 3\textsuperscript{rd} Lien Mortgages</td>
<td>25</td>
</tr>
<tr>
<td>% of 2\textsuperscript{nd} Lien Mortgages that are Piggybacks</td>
<td>54%</td>
</tr>
</tbody>
</table>

The 2007 Riverside data tracks the 2001 CBP data closely. In Riverside, 21% of all mortgages in Chapter 13 were undersecured. In the 2001 CBP Chapter 13 sample, it was higher—around 29%. This tells us that even in the hardest hit areas of the country, most mortgages that end up in bankruptcy are still not undersecured (at least according to debtors’ schedules). The likely explanation for the lower percentage of undersecured mortgages in Riverside is that even with the current problems in the Riverside real estate market, many of the loans are still benefiting from the appreciation of the mortgage bubble.

As Table 5 shows, the average undersecured mortgage in Riverside was undersecured by $47,800.45, or 3.6 times the average undersecured mortgage in Chapter 13 in the 2001 CBP database. This discrepancy must be discounted for the overall higher home values and loan amounts in California. In Riverside, the average property value was over $425,000, over four times higher than the average Chapter 13 home value in the 2001 CBP of $105,266.05.\textsuperscript{120} Because of the influence on average property value on the amount over- or undersecured, the Security Ratio is a better metric for evaluating the impact on lenders.

\textsuperscript{119} PACER and Authors’ Calculations (piggybacks).
\textsuperscript{120} Our initial sampling from other districts indicates that there is a strong correlation between average home prices and average amount undersecured.
Table 5. Mortgages in Chapter 13 (2007 Riverside)\textsuperscript{121}

<table>
<thead>
<tr>
<th>Chapter 13—Riverside—All Mortgages</th>
<th>Undersecured</th>
<th>Oversecured</th>
<th>Fully Secured</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUMBER</strong></td>
<td>231</td>
<td>842</td>
<td>21</td>
<td>1094</td>
</tr>
<tr>
<td><strong>MARKET VALUE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>$388,289.00</td>
<td>$438,629.90</td>
<td>$344,806.70</td>
<td>$426,199.40</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$8,668.56</td>
<td>$6,079.97</td>
<td>$29,096.23</td>
<td>$5,102.01</td>
</tr>
<tr>
<td>Median</td>
<td>$380,000.00</td>
<td>$415,000.00</td>
<td>$304,000.00</td>
<td>$400,567.80</td>
</tr>
<tr>
<td><strong>CLAIM AMOUNT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>$206,365.00</td>
<td>$257,111.60</td>
<td>$264,735.20</td>
<td>$246,542.70</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$11,504.93</td>
<td>$5,730.17</td>
<td>$34,202.04</td>
<td>$5,112.08</td>
</tr>
<tr>
<td>Median</td>
<td>$114,200.00</td>
<td>$264,160.00</td>
<td>$280,000.00</td>
<td>$244,316.00</td>
</tr>
<tr>
<td><strong>MARKET VALUE MINUS (CLAIM AMOUNT PLUS AMOUNT OF SENIOR LIENS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>-$47,800.45</td>
<td>$88,012.37</td>
<td>$0.00</td>
<td>$57,645.81</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$3,031.18</td>
<td>$3,239.39</td>
<td>$0.00</td>
<td>$3,078.67</td>
</tr>
<tr>
<td>Median</td>
<td>-$39,316.42</td>
<td>$67,853.74</td>
<td>$0.00</td>
<td>$45,500.00</td>
</tr>
<tr>
<td><strong>SECURITY RATIO</strong></td>
<td>-23.16%</td>
<td>34.23%</td>
<td>0.00%</td>
<td>23.38%</td>
</tr>
</tbody>
</table>

Table 6 and Chart 4 present comparisons of the 2001 CBP data and the 2007 Riverside data. The data are very similar. The Security Ratio for all mortgages in the 2001 CBP was 21%, compared to 23% for Riverside 2007. For undersecured claims the Security Ratio was -21% for the 2001 CBP, compared to -23% for Riverside in 2007, while for the oversecured claims it was 37% for the 2001 CBP, compared to 34% for Riverside 2007. Thus even in the worse case market scenario for lenders, the loss as a percentage of claim amount from permitting strip-down is about the same as in the 2001 CBP.

\textsuperscript{121} PACER and Authors’ Calculations.
Table 6. Comparison of Security Ratios, 2001 CBP and 2007 Riverside\textsuperscript{122}

<table>
<thead>
<tr>
<th></th>
<th>2001 CBP Total</th>
<th>2001 CBP 1\textsuperscript{st} Lien</th>
<th>2001 CBP 2\textsuperscript{d} Lien</th>
<th>2007 Riverside Total</th>
<th>2007 Riverside 1\textsuperscript{st} Lien</th>
<th>2007 Riverside 2\textsuperscript{d} Lien</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undersecured Mortgages</td>
<td>-21%</td>
<td>-10%</td>
<td>-84%</td>
<td>-23%</td>
<td>-11%</td>
<td>-57%</td>
</tr>
<tr>
<td>Oversecured Mortgages</td>
<td>37%</td>
<td>34%</td>
<td>116%</td>
<td>34%</td>
<td>30%</td>
<td>80%</td>
</tr>
<tr>
<td>All Mortgages</td>
<td>21%</td>
<td>22%</td>
<td>11%</td>
<td>23%</td>
<td>23%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Chart 4. Chapter 13 Mortgages Ranked by Amount Oversecured or Undersecured (2001 CBP and 2007 Riverside)\textsuperscript{123}

\textsuperscript{122} 2001 Consumer Bankruptcy Project, PACER, and Authors’ Calculations.

\textsuperscript{123} 2001 Consumer Bankruptcy Project; PACER. Extreme outlier data points omitted for scaling purposes.
Riverside in 2007 represents a worst-case scenario for lenders. The large number of foreclosures in the community for at least a year prior to the bankruptcy filings in the data set pushed down already declining housing prices, and lenders had unusually large exposure on individual loans because the average loan size in California is larger than anywhere else in the country. Most real estate markets in the country are unlikely to ever be this bad. Accordingly, Riverside represents an outer limit of lender losses in an unlimited strip-down regime.

Yet, strikingly, the 2007 Riverside data shows little qualitative difference from the 2001 CBP data. Even in far worse market conditions, lenders’ Security Ratio is virtually unchanged, and a disproportionate amount of potential strip-down losses lies with the second-lien debt, much of which were piggyback mortgages, in which lenders choose to forgo PMI coverage. Piggyback lenders would thus fare better in bankruptcy under current law than in foreclosure.

Taken as a whole, the 2001 CBP data and the 2007 Riverside data indicate that only a very small subset of all mortgages—only undersecured mortgages in Chapter 13 cases—could potentially be stripped down if section 1322(b)(2) were amended to allow modification of all mortgages. Therefore, even if we make the overly conservative assumption that there would be no recoveries on the undersecured portion of the claim, lenders’ losses on undersecured mortgages if unlimited strip-down were allowed would be limited to around 20% of their claim. These are losses a lender would almost assuredly incur in a foreclosure situation and are far less than the 40%-50% of loan value lenders are estimated to typically lose in foreclosure.

Chart 5 illustrates the deadweight loss of foreclosure relative to bankruptcy. It superimposes the deficiencies from Monmouth County, New Jersey sheriff’s sales with the amount by which mortgages in the 2001 CBP or 2007 Riverside data are undersecured. While the sample sizes are not the same, the juxtaposition is striking—lenders would incur far greater losses on a much greater percentage of mortgages in foreclosure than in bankruptcy modification.
The 2007 Riverside data confirms what the 2001 CBP data indicated: that mortgage markets are indifferent to strip-down risk because it is small in magnitude and likelihood, and may represent lesser losses than lenders would incur in foreclosure. Even in an unlimited strip-down regime (the most drastic type of modification), in the worst possible real estate markets, mortgage lenders would not be exposed to substantial losses. Strip-down is a risk of very small probability and magnitude. Strip-down losses, relative to the size of the mortgage market, are just too inconsequential for lenders and are not specifically figured into pricing models.

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124 2001 Consumer Bankruptcy Project; PACER; Monmouth County Sheriff. Extreme outlier data points omitted for scaling purposes.
V. POLICY IMPLICATIONS

A. Voluntary Versus Involuntary Modification of Mortgages

As Section IV shows, lender losses from bankruptcy modification would be less than from foreclosure. Accordingly, there is no reason for mortgage markets to price or ration credit against bankruptcy modification risk. Of course, if modification were permitted, more people might file for bankruptcy and modify their mortgages. But lenders’ calculation of losses between foreclosure and bankruptcy modification does not depend on the number of mortgagors filing for bankruptcy. The calculation is on the individual loan, not on a pool; the general principle that foreclosure results in larger losses than modification does not depend on volume. Indeed, lenders should actually prefer more bankruptcy filings to more foreclosures.

The tradeoff for lenders, though, is not the binary bankruptcy versus foreclosure, but a tertiary one of bankruptcy modification versus consensual workout versus foreclosure. Modifications can be voluntary as well as involuntary. Bankruptcy is merely a forced workout, which limits lender control of the negotiation. It also imposes significant costs, such as attorneys’ fees. As such, one would expect lenders to prefer voluntary modification in loan workouts to involuntary ones in bankruptcy. Likewise, one would expect homeowners to prefer consensual workouts, as they incur costs in bankruptcy too. In a Chapter 13 bankruptcy, the homeowner must live on a strict, court-supervised budget for the next three or five years.\footnote{11 U.S.C. § 1325(b)(1)(B), (b)(4).} The homeowner will also incur a severely negative market on her credit report, which will increase her future costs of credit. She will incur a privacy cost, as her finances will become a matter of public record. And she will incur a variety of transaction costs, including filing fees, attorneys’ fees, paperwork, and court appearance time.

Given that both lenders and borrowers would seem to prefer voluntary workouts, why have there not been more consensual modifications of distressed and defaulted mortgages? If workouts are a better option for lenders and borrowers, and
voluntary workouts are less expensive than bankruptcy, why isn’t this what the market has moved to?

To be sure, under strong Treasury Department jawboning, the HOPE Now Alliance, an organization of various mortgage industry actors, including major mortgage servicers, has been ramping up efforts to modify distressed mortgages. But a great many mortgages are still not being modified and many of the modifications to date have been repayment plans that do not lower monthly mortgage payments, but only give the homeowner time (often as little as 90 days) to bring the loan current.126

A repayment plan is only a good solution to a defaulted mortgage when the default was caused by an isolated reduction in income or unexpected expense for the homeowner. In those cases, the homeowner just needs some time to readjust his or her finances. But if the problem is that the loan is generally unaffordable for the homeowner, such as because of an interest rate reset, then a repayment plan in affirmatively unsuitable, and is likely only to delay the inevitable foreclosure. Not surprisingly, nearly 30% of foreclosure sales in the third quarter of 2007 involved failed repayment plans.127

Thus, although Chart 6, below, shows a robust, if declining quarterly ratio of total workouts (modifications and repayment plans) to foreclosure sales completed, and a nearly a one-to-one ratio of workouts to foreclosure sales started, Chart 7, below, shows that repayment plans have predominated, and foreclosure starts still outstrip modifications by more than two-to-one. If one were to compare modifications or even all workouts with the total universe of distressed mortgages (many defaulted mortgages do not go into foreclosure for a while, especially given the backlog of foreclosure cases in the current market), the ratio would be far more discouraging.

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126 See Chart 7, infra.
Chart 6. Total Workouts to Foreclosures


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There is a multicausal explanation for the paucity of voluntary workouts,\(^\text{130}\) including the psychology of financial distress that makes it hard for borrowers and servicers to get in contact,\(^\text{131}\) limited staffing and organization problems at servicers,\(^\text{132}\) contractual restraints on servicers’ ability to modify the terms of loans,\(^\text{133}\) servicers’ fear of lawsuits initiated by out-of-


\(^{130}\) See, generally, Eggert, supra note 25.

\(^{131}\) When people get deeply in debt, they frequently stop answering phone calls and opening mail because they do not want to face dunning calls and collection letters.

\(^{132}\) See Gretchen Morgenson, Cruel Jokes, supra note 8.

the-money MBS holders in response to modifications (“tranche warfare”),\textsuperscript{134} and perhaps most importantly, incentive misalignment that creates a principal-agent conflict between mortgage-backed securities holders and servicers.\textsuperscript{135} Foreclosure is often much more profitable for servicers than modification, so servicers have a strong financial incentive to foreclose on defaulted mortgages, even if a workout would be better for the MBS holders.\textsuperscript{136}

In particularly, we believe that the servicer-MBS holder dynamic appears responsible for the political economy of bankruptcy modification legislation. Servicers have been the political voice of the mortgage industry, but servicers’ interests often diverge from those of MBS holders. Thus, voluntary mortgage modification is often hindered by contractual and agency impediments.

restrictions on modification in 14 out of 31 securitization deals surveyed). Sometimes servicers are forbidden from engaging in any sort of modification, other times they are limited to modifying only a small percentage of loans in a pool, other times they are forbidden from writing down principal, and other times, they are required to purchase any modified loans at par.

\textsuperscript{134} See Eggert, supra note 25, at 290.

\textsuperscript{135} Until the 2007 tax year, the federal income tax system created a strong disincentive for homeowners to engage in voluntary workouts, as any debt voluntarily forgiven by the lender would be imputed to the homeowner as taxable income. 26 U.S.C. §§ 61(a)(12) (including income from discharge of indebtedness in gross income, except as otherwise provided); 108(a)(1)(A) (excluding discharge of debt in a bankruptcy case from the definition of gross income). See also United States v. Kirby Lumber, 284 U.S. 1 (1931); Stephen B. Cohen, Mortgage Double Whammy: First You Default; Second, You’re Taxed, TAX NOTES 169 (Oct. 8, 2007) (arguing that tax caselaw doctrine might have provided a solution to the voluntary workout disincentive). The Mortgage Forgiveness Debt Relief Act of 2007, Pub. L. 110-142, 121 Stat. 1803-04 (Dec. 20, 2007), has removed this disincentive for homeowners with less than $2 million in principal residence mortgage debt, but only for debt discharge that occurs before 2010, after which the Internal Revenue Code will again create a disincentive for all voluntary workouts.

\textsuperscript{136} Adam J. Levitin & Tara Twomey, Not Everyone Loses in Foreclosure, working paper, August 21, 2008. It is not clear why securitization trustees could not themselves engage in (or subcontract) modifications; the contractual limitations on modification apply only to servicers, and trustees have a fiduciary duty to protect the assets of the trust.
Notably, when agency and contractual impediments to modification cease to exist, as with loans assumed by the FDIC as receiver for failed insured banks, voluntary modifications do take place. Thus, when the FDIC took over the failed IndyMac Federal Bank, it promptly proposed a plan to modify tens of thousands of portfolio and securitized mortgages in order to boost the value of the failed thrift.\textsuperscript{137} Loan modifications rather than foreclosures increase the value of loan assets and when a single portfolio lender holds the assets unimpeded by agency or contractual obligations, it is likely to engage in the modifications.

Permitting modification of mortgages in Chapter 13 would provide a parallel solution to contractual and agency problems to Chapter 11’s solution to the contractual and statutory impediments to workouts of bond debt. The Trust Indenture Act of 1939 provides that the terms of bond indenture—the legal document that sets the terms of a bond issuance—relating to defaults may not changed absent consent of a majority of bondholders, and that no bondholder may be forced to accept a modification of its financial rights under the indenture.\textsuperscript{138} Moreover, bond indentures typically prohibit modification of any of the bonds’ terms absent consent of all or a supermajority of the bondholders. Because of such high consent thresholds, voluntary consensual modification of the bonds is near impossible.\textsuperscript{139} Instead, if a company wishes to restructure

\textsuperscript{137} Joe Adler, \textit{FDIC Offers an IndyMac Loan Mod Plan,} AM. BANKER, Aug., 21, 2008.

\textsuperscript{138} 15 U.S.C. § 77ppp(a)(1)(B) (providing that unless specified in the indenture, at least holders of a simple majority of the principal amount of a bond issue must consent to waivers of past defaults); 77ppp(b) (providing individual bondholders with a right to refuse to modification of the payment of principal and interest on their bond as due).

\textsuperscript{139} See Mark J. Roe, \textit{The Voting Prohibition in Bond Workouts,} 97 YALE L.J. 232 (1987). Bond workouts typically involve an exchange offer, in which the old bonds are exchanged for new bonds with a lower interest rate (or principal amount), but because of 15 U.S.C. § 77ppp(b), individual bondholders may refuse to participate in the exchange offer. This creates a potential holdout problem, as the bondholders who do not participate in the exchange free ride off of the debtor’s increased ability to service their bonds because of the decreased debt service demands from those bondholders who participated in the exchange. This situation creates an incentive for bondholders to try to be the holdout and free ride off of those who will participate in the exchange, and the collective action problem the hold out engenders can frustrate voluntary workouts.
its public debt, it must use the involuntary modification procedures of Chapter 11. But for Chapter 11, companies with public debt would not be able to reorganize if they were not able to meet their bond coupon obligations. Voluntary bond workouts thus present parallel problems to voluntary home mortgage workouts. Accordingly, a Chapter 13 mortgage modification parallel to Chapter 11’s provisions permitting bond indenture modification is necessary.

The existence of a bankruptcy modification option would shift the dynamics of voluntary workouts. To the extent that borrowers have a bankruptcy option, it puts pressure on servicers and lenders to make a deal outside of bankruptcy. Permitting bankruptcy modification of mortgages would make voluntary modification of mortgages more likely, and would also make it more likely that Chapter 13 plans would succeed, as debtors who wished to retain their homes would have lower payment burdens to meet.

B. Bankruptcy Modification Compared with Other Policy Responses

Bankruptcy modification is not the only possible response to the foreclosure crisis. There are a number of other possible solutions, which can be divided into six categories: (1) letting the market correct itself; (2) voluntary industry efforts to modify mortgages; (3) requiring certain procedural steps to encourage voluntary workouts; (4) foreclosure and/or rate increase deferrals

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140 Companies without public debt or mass tort liabilities or complicated collective bargaining and pension/benefit liabilities are often able to restructure their debts voluntarily outside of Chapter 11. When Chapter 11 is used, it is typically to take advantage of bankruptcy court blessing of asset sales or to engage in a liquidation absent a trustee (and with favorable provisions for the debtor’s attorneys’ fees).

141 Indeed, even the threat of bankruptcy modification legislation can shift the dynamics of voluntary workouts. The HOPE Now Alliance was formed in part to diffuse political pressure for changing bankruptcy law to permit modification on all property types.

and moratoria; (5) state or federal takings of mortgages followed by unilateral modification; and (6) federal refinancing or insurance of mortgages. Compared with bankruptcy modification, though, all of these proposed solutions have serious drawbacks.

1. Laissez-faire Market Self-Correction

A complete laissez-faire approach of letting the market correct itself fails to address core problems. First, the market may take significant time to correct itself and second, the correction, featuring high levels of foreclosures will have major externalities that will hurt the economy overall. In contrast, bankruptcy modification would be immediately effective as soon as a homeowner filed for bankruptcy, and by helping families keep their homes, it would mitigate the externalities of foreclosure.

2. Coordinated Voluntary Workout Efforts

Voluntary modification of mortgages would itself be a form of market correction. Indeed, voluntary modification of distressed mortgages would be the ideal solution that would occur in the perfectly efficient economy that functioned without transaction costs, contractual limitations, and agency problems. But in the modern mortgage industry these factors pose considerable obstacles to voluntary modification. Accordingly, industry efforts (with the support of the Treasury Department and Department of Housing and Urban Development) to encourage voluntary modification have been of limited effectiveness. Indeed, it is hard to see how coordination among lenders would add significantly to voluntary modifications. The failure of these coordinated efforts, however, argues for the need for an involuntary modification procedure.

3. Procedural Requirements to Encourage Consensual Workouts

Likewise, proposals to encourage voluntary modification via procedural requirements, such as requiring lenders to engage in good faith workout discussions with borrowers before proceeding with foreclosure, are likely to fall short.\footnote{Foreclosure Prevention and Sound Mortgage Servicing Act of 2008, H.R.5679, 110\textsuperscript{th} Cong. (2008) (as introduced in House by Rep. Maxine Waters (D-CA)).} Proposed legislation
that would require such discussions does not require any substantive offers from lenders—it is purely procedural. The main impact of such legislation would be to slow down the foreclosure process. This delay could be helpful to the extent it gives the market the necessary time to correct, or to the extent it facilitates meaningful workout discussions that would not have otherwise occurred. But delaying foreclosures could also delay the market’s correction because it will take longer for the foreclosed properties to come on the market. Additionally, such procedural requirements would increase the costs of foreclosure both through transaction costs and delay, and this, unlike the costs of bankruptcy, might well impact mortgage market credit availability and cost, although one would expect the impact to be de minimis, and possibly offset by any successful resulting workouts.

4. Foreclosure and Rate Increase Moratoria

A variety of foreclosure deferral and moratorium plans have been proposed. Such deferrals and moratoria were a common reaction to the last great foreclosure crisis, that of the Great Depression.\textsuperscript{144} The deferral plans proposed currently would defer foreclosure and or rate increases for a limited window, if the borrower undertook certain steps and continued making certain minimum payments.\textsuperscript{145} The Sheriff of Philadelphia County, Pennsylvania, has instituted his own foreclosure moratorium,

\textsuperscript{144} D. P. K., Comment, Constitutional Law—Mortgage Foreclosure Moratorium Statutes, 32 Mich. L. Rev., 71 (1933) (noting that 21 states had in 1933 enacted legislation that functioned as foreclosure moratoria). Depression-era foreclosure moratorium statutes seem to have either extended the period of redemption post-foreclosure, prohibited foreclosures unless the sale price was at some minimum percentage of property appraisal, or granted state courts the power to stay foreclosures. \textit{Id.}

refusing to conduct foreclosure auctions, but even though this action has the blessing of the Philadelphia City Council (to which the Sheriff does not answer), it appears to be a civil disobedience measure, rather than a legislative response.\textsuperscript{146} In any case, foreclosure deferrals or moratoria would delay foreclosures temporarily, which might facilitate workouts, but not solve the underlying problem. In this regard they would function like bankruptcy currently—the automatic stay stops foreclosure proceedings, but unless the homeowner can cure and reinstate the mortgage, the state will be lifted.

Likewise, rate freeze moratoria, such as the ones proposed by Senator Hilary Clinton,\textsuperscript{147} also only delay problems, not solve them, and they do not even delay foreclosures caused by negative equity or existing rate resets. Both types of moratoria impinge on lenders’ property rights, creating serious Constitutional issues of takings\textsuperscript{148} and state law impairment of existing contract obligations\textsuperscript{149} that do not exist when lenders’ property rights are curtailed under Congress’s bankruptcy power.\textsuperscript{150} Foreclosure and rate freeze moratoria are clumsy and overbroad market intervention.

5. Government Modification Following Eminent Domain Takings

Involuntary modification could occur through methods other than bankruptcy. Either the states or the federal government

\textsuperscript{146} See Jeff Blumenthal, Moratorium on Sheriff’s Foreclosure Sales Draws Debate, PHILA. BUS. J., Apr. 4, 2008.
\textsuperscript{148} U.S. CONST. amend. V (applied to the States via U.S. CONST. amend. XIV, § 1).
\textsuperscript{150} U.S. CONST. art I, § 8, cl. 4.
could seize and modify, refinance, or guarantee troubled mortgages. Potentially the states or the federal government could use their eminent domain powers to seize mortgages from lenders in exchange for fair compensation.\footnote{See \textit{Kelo} v. City of New London, 545 U.S. 469 (2005).} State or federal governments could then unilaterally modify the mortgages (likely contracting out this work).

Eminent domain seizures are not a quick process, and time is of the essence in dealing with foreclosures. Further, state or federal seizure of mortgages would be prohibitively costly, places the public fisc at risk, and would likely result in significant litigation over the valuation of mortgages. It would also create moral hazard problems by providing an unfair bailout for homeowners (and depending on the compensation paid, for lenders).

6. Federal Refinancing or Insurance of Mortgages

Federal refinancing or insurance of mortgages is also problematic. Any federal refinancing or insurance would put the public fisc at risk and potentially result in an unfair bailout of either lenders or borrowers, creating moral hazard.

a. HOPE for Homeowners Act

To date, the major federal attempt to stanch the foreclosure crisis has been the passage of the HOPE for Homeowners Act of 2008, which authorizing the Federal Housing Administration (FHA) to insure qualified refinanced 30-year fixed mortgages that are more manageable for homeowners than their current ones.\footnote{\textit{Id.} § 1402(e)(5) (30-year fixed rate requirement). An earlier program, the FHASecure program, which was designed to help homeowners with good credit refinancing into FHA insured loans “ended up helping only a few thousand borrowers because of stringent eligibility requirements.” \textit{Kate Berry, Refi-Program Previewers Raise Issues, AM. BANKER}, Aug. 19, 2008.} The FHA insurance program is entirely voluntary,\footnote{\textit{Id.} § 1402(e)(4)(C).} and only
certain qualified mortgages and homeowners are eligible.\footnote{154} Only FHA-approved lenders may undertake the refinancings.\footnote{155}

Unfortunately, there are several reasons to think that the FHA insurance program will be ineffective at preventing foreclosures. First, the law requires lenders to write down the principal on loans by as much as 15\%,\footnote{156} and waive prepayment fees\footnote{157} before their loans are eligible for FHA-guaranteed refinancing. This would be simple enough to accomplish for loans held by traditional portfolio lenders, but there are serious impediments to such write-downs for loans held by securitization trusts—the majority of residential mortgages. In some securitizations, the servicer is forbidden from writing down the principal, while in others they are significantly restricted in their ability to do so.\footnote{158}

Even when servicers can modify loans, they have no incentive to do so for the FHA program.\footnote{159} Servicers incur significant costs (up to $1,600) in modifying a loan. Moreover, servicers’ income is mainly based on the amount of principal outstanding in a securitization trust. When a loan leaves the pool because of a refinancing, the servicer ceases to receive revenue from it. Any equity appreciation in the property would be shared by the homeowner and the FHA, but not by the servicer or the old lender.\footnote{160} In short, servicers have nothing to gain and everything

\footnotesize

\begin{itemize}
    \item \footnote{154} \textit{Id.} § 1402(e) (listing eligibility requirements).
    \item \footnote{155} See 24 C.F.R. § 203.4.
    \item \footnote{156} The HOPE for Homeowners Act of 2008, Pub. L. 100-298 requires a maximum 90\% LTV ratio for FHA refinancing. \textit{Id.} § 1402(e)(2)(B). This means that if the lender is perfectly secured, the lender will have to write down the principal by 10\%. If the lender is undersecured, the lender will have to write down the principal by a greater amount. Additionally, all lenders are required to pay insurance premiums on the mortgage of 3\% of the principal initially and 1.5\% of the principal remaining on an annual basis. \textit{Id.} § 1402(i)(2).
    \item \footnote{157} \textit{Id.} § 1402(e)(3).
    \item \footnote{158} See supra notes 133.
    \item \footnote{160} HOPE for Homeowners Act of 2008, Pub. L. 110—298, § 1402(k).
\end{itemize}
to lose by engaging in the write-downs necessary for the FHA bill to work.

Second, although there are many servicers that also originate loans, many servicers do not, and even those that do, sometimes lack FHA licenses. These servicers lacking the ability to originate FHA loans will have to rely on FHA-approved lenders to solicit the homeowners for refinancing.

Third, many homeowners have second mortgages, held by different entities than the first mortgages, and many of these second mortgages are completely undersecured. In order for the refinanced mortgage to be insured by FHA, the second mortgage holder will have to be bought out. Not only does this pose a holdout problem, as underwater second mortgagees have nothing to lose, but even as a practical level, it means that homeowners will need to coordinate between the old first mortgagee, the old second mortgagee, the refinancing mortgagee, the FHA, and an appraiser.

And fourth, the limitations on FHA financing will shrink the pool of potential refincancings. The FHA is only authorized to insure refinance mortgages smaller than 132% of the GSE conforming loan limit in 2007, which would be $550,440 for a single-family residence.161 Likewise, to be eligible, a borrower must have mortgage debt that is at least 31 times her income.162 Thus, for larger mortgages or for homeowners with significant unavoidable non-mortgage expenses (such as medical expenses), the FHA program offers no relief.

These factors make it likely that there will be far fewer loans refinanced by the FHA than the 400,000 the Congressional Budget Office has estimated.163 But even with significantly smaller volume, the FHA is not staffed to handle hundreds of thousands of refinancings, and neither are mortgage servicers (if they were willing to cooperate) and the FHA will also have to enact regulations to implement the program, a process that should require time-consuming notice-and-comment rulemaking. The

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162 Id. § 1402(e)(1)(B).
163 Berry, supra note 152.

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FHA program will take several months to hit full speed, while foreclosures continue apace. The FHA program is likely to be too little too late.

The FHA insurance program also suffers from an adverse selection problem that creates exposure for the public fisc. To the extent that lenders are willing and able to do the write-down necessary for the FHA refinancing, they will only do so for loans that they think are worth less than 85 cents on the dollar. Lenders will retain loans with a higher expected recovery rate. This means there is an adverse selection problem for the FHA refinancing. Lenders will only sell the FHA their worst lemons, so the FHA will be overpaying for bum loans.

Lenders’ contributions to an FHA loss reserve fund, and a special tax on Fannie Mae and Freddie Mac, are supposed to protect against FHA losses, but this depends on untested assumptions about the number of loans that will be refinanced and the potential losses on those loans. While the legislation specifically directs the FHA to adopt regulations to prevent adverse selection, it is not at all clear how this could be accomplished. Indeed, if there were an obvious solution, it would likely be in the legislation itself.

Finally, there are moral hazard problems from a program that bails out homeowners and lenders. These problems are mitigated somewhat by the requirement of a lender write-down and of sharing of appreciation in the property’s value, but any

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165 Berry, *supra* note 152 (quoting Dan Cutaia, president of Fairway Independent Mortgage Corp., “If a bank owns the loan outright, it’s fine because they’re basically swapping a semi-nonperforming asset for one that is now insured by the government.”) (quoting Ronald Faris, president of Ocwen Financial Corp., a leading mortgage servicer, as “A Wall Street firm may say that a loan is worth only 80 cents on the dollar if they try to sell it, but if FHA can refinance it at 90 cents, this is a viable way to do it.”).

166 HOPE for Homeowners Act of 2008, Pub. L. 110-289, § 1402(h) (“Standards To Protect Against Adverse Selection”–(1) IN GENERAL- The Board shall, by rule or order, establish standards and policies to require the underwriter of the insured loan to provide such representations and warranties as the Board considers necessary or appropriate to enforce compliance with all underwriting and appraisal standards of the HOPE for Homeowners Program”).
government program that puts lenders or borrowers in a better position than they would be without government intervention raises a moral hazard flag.

Ultimately, government insurance of refi nedned mortgages is unlikely to help more than a minority of distressed homeowners, and poses potential moral hazard problems and very serious adverse selection problems.

b. FDIC Home Ownership Preservation Loans

The most promising potential method for resolving the foreclosure crisis is the FDIC’s proposal for direct federal refi nancing of distressed mortgages (“Home Ownership Preservation Loans”). The FDIC plan calls for Congress to authorize the Treasury Department to refi nance up to 20 percent of the outstanding principal on eligible unaffordable mortgages, in exchange for the lenders agreeing to restructure the mortgages into fully-amortized fi xed-rated loans for the balance of the original loan term, with interest rates capped at the Freddie Mac 30-year fi xed rate, and a superpriority lien on the property for the Treasury Department, meaning that the Treasury would get paid off fi rst in any refi nancing or foreclosure sale, before any existing mortgagees. Homeowners would be required to pay off the restructured mortgage, including the Treasury-refi nanced component, but the payments on the Treasury-refi nanced component would be delayed for fi ve years and then amortized over the rest of the mortgage’s tenor. Lenders would have to pay the fi rst fi ve years of interest (the government’s “cost of

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167 The FDIC notes that “The program could be limited to mortgages for owner-occupied residences that are unaffordable -- defined by front-end DTIs exceeding 40 percent at origination. In addition the loan could be required to be below the FHA conforming loan limit. Finally, the loans eligible for the program could be limited to those originated between January 1, 2003 and June 30, 2007.” FDIC Home Ownership Preservation Loans: Questions and Answers at http://www.fdic.gov/consumers/loans/hop/qa.html.


carry”) on the Treasury-refinanced component upon closing. \(^{170}\)

There are many good qualities to the FDIC plan, which is far superior to the FHA refinancing insurance program. It avoids the FHA program’s second mortgagee hold-up problem by simply providing for the second mortgagee’s continued subordination; indeed, second mortgages are not a concern for the FDIC plan because it does not aim to address negative equity problems. The FDIC plan would also avoid the FHA program’s lemons problem, and, assuming that properties maintain at least 25% or so of their value,\(^ {171}\) which seems reasonable even in the worst case housing market, and that the government’s superpriority lien is properly perfected, it ensures that the government will eventually be paid back in full. It would be administratively much simpler and available much quicker than the FHA program.

But the FDIC plan suffers from some of the same critical flaws of the FHA program. It would still leave an unresolved moral hazard issuer for borrowers, who would find themselves bailed out by government and lenders, as they would be placed in a more favorable mortgage at no cost.

And more crucially, the FDIC plan also fails to address the contractual and agency problems that exist because of securitization. The FDIC plan would place the onus on lenders—that is servicers—for applying for Treasury refinancing and undertaking the restructuring. These servicers would receive no benefit from the refinancing and would potentially incur both the large cost of fronting the five years of interest payments and the costs of restructuring the mortgage. Moreover, the FDIC plan could create additional problems for securitized mortgages because it would alter the securitization trusts’ cashflows, without buying out the mortgages in whole. Securitization trusts have timely payment obligations to investors, which require a certain schedule of cash inflows that the FDIC plan would interrupt.

Critically, as proposed, the FDIC program would only help


\(^{171}\) The Treasury loan would be 20% of the outstanding principal. As there is no mention of a LTV requirement for refinancing, the Treasury loan could be for a 20% of 110% or 125% or the property’s current value. That is, the Treasury loan to value ratio could be closer to 22%-25% in extreme cases.
those borrowers who received loans that were unaffordable when made. It would not help homeowners whose income declined since taking out the mortgage, since it would look to affordability at time of origination. Nor would it address the sizeable problem created by rapid market depreciation and negative equity. Because of the falling real estate market, many homeowners have found themselves with negative equity in their homes. Over 10% of homeowners currently have negative equity in their homes, and if market declines continue the number could climb to 15%. Generally, these homeowners had little equity to begin with because they had high loan-to-value ratio mortgages.

Homeowners with negative equity have reduced incentives to take care of their properties and many are choosing to abandon their homes rather than pay an often non-recourse mortgage that is for more than the house is worth. For a homeowner with negative equity, it might take several years, if not a decade, to regain positive equity in the property. In the meantime, these homeowners are functionally renting the house, in that they are paying money for occupancy rights, but not building up positive equity. If these homeowners can find a better rental deal elsewhere, walking away from the home (“jingle mail”) can be a sensible solution. The FDIC’s proposed government refinancing program would undoubtedly help many homeowners, but it would fail to resolve many distressed mortgage situations.

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173 Even if the mortgage is recourse, lenders frequently do not pursue deficiency judgments after foreclosure.

174 See, e.g., David Streitfield, In the Ruins of the Housing Bust, the Price of an Illusion, N.Y. TIMES, Aug. 23, 2008 (describing family that abandoned house and $3,400/month mortgage payment to foreclosure and began renting a brand-new house two miles away for $1,200/month).
7. The Advantages of Bankruptcy Modification

Compared with all of these options, amending the Bankruptcy Code to permit modification of all mortgages in Chapter 13 would provide a far superior solution. Permitting mortgage modification in Chapter 13 would provide an immediate solution to much of the current home foreclosure crisis that would neither affect the public fisc nor create moral hazard nor impose costs on future borrowers.

Bankruptcy modification would also provide a solution for both of the distinct mortgage crises—negative equity and payment shock—while not creating a windfall for speculators. While Federal Reserve Chairman Ben Bernanke has called for lenders to voluntarily write-down principal on negative equity mortgages, this type of voluntary modification has generally not occurred. Bankruptcy modification would help negative equity homeowners by eliminating their negative equity position in strip-down, which would reduce their incentive to abandon the property.

Other homeowners are unable to afford their mortgage because of a rate reset, due to the expiration of a teaser rate or to the resetting of an adjustable rate mortgage or to the reamortization of an option-ARM. Many of these homeowners have negative equity or at least an underwater second mortgage, both of which make refinancing impossible. For these homeowners, bankruptcy modification also offers a solution through the lowering of the monthly payment to an affordable level.

Notably, bankruptcy modification would not yield a windfall to housing speculators (“flippers”) or second home purchasers. A mortgage loan modification in bankruptcy can occur only as part of a plan. The automatic stay would likely be lifted on an investment property (or second home) before a plan could be confirmed. Accordingly, speculators and homeowners intent on keeping their second homes are unlikely to file for bankruptcy to

176 11 U.S.C. § 1322(b) (“A plan may…”) (emphasis added).
177 See supra text accompanying notes 55 - 58.
seek mortgage modification in the first place. Permitting bankruptcy modification of primary home mortgages thus steers a true course between extending the right sort of relief and not extending it too broadly.

Permitting modification of all mortgages in bankruptcy would not have prevented the economic situation leading to the foreclosure crisis. Nor is it a magic bullet solution, but it is a quick, fair, efficient, and administrable response that would be far more effective at stabilizing the housing market and preventing the deadweight social and economic losses of foreclosure than any other proposed solution.

VI. CONCLUSION

A wide range of empirical data show that permitting bankruptcy modification of all mortgages would have little or no impact on mortgage credit cost or availability. Because lenders face smaller losses from bankruptcy modification than from foreclosure, the market is unlikely to price against bankruptcy modification. This finding neuters the hitherto untested policy assumption underlying the special protection for mortgages in Chapter 13, namely that permitting modification would result in mortgage credit constrictions.

In light of this market neutrality, permitting modification of all home mortgages in bankruptcy stands out as the best of all possible solutions proposed to the mortgage crisis. Unlike any other proposed response, bankruptcy modification offers immediate relief, solves the market problems created by securitization, addresses both problems of payment reset shock and negative equity, screens out speculators, spreads burdens between borrowers and lenders, and avoids both the costs and moral hazard of a government bailout. As the foreclosure crisis deepens, bankruptcy modification presents the best and least invasive method of stabilizing the housing market.

Beyond the immediate policy questions of whether to allow modification of mortgages in bankruptcy and how best to resolve the foreclosure crisis, however, our findings also speak to the fundamental policy debate in consumer bankruptcy law—the balance between providing debtors with a fresh start and limiting losses to creditors. Bankruptcy policy is concerned with limiting
losses to creditors both because of the impact on the creditors themselves, and because of the systemic impact on the credit market. The basic economic (as opposed to moral) assumption of creditors’ rights has been that creditors compensate for bankruptcy losses by raising rates and restricting lending.

In a traditional world of relational, portfolio lending, this argument makes sense theoretically and accords with the available evidence. But the bulk of consumer finance no longer operates in this fashion. Consumer finance has become a highly financialized businesses; it is no longer a parallel to Main Street finance. And, as our Article shows, at least in the mortgage industry, limiting creditor losses in bankruptcy does not translate into lower credit costs or greater credit availability.

This Article is part of a growing body of research\footnote{Link, supra note 88; Adam J. Levitin, “Regulating Credit Cards,” working paper (August, 2008); Ronald J. Mann, Bankruptcy Reform and the “Sweatbox” of Credit Card Debt, 2007 U. ILL. L. REV. 375, 389 (2007); Simkovic, supra note 90; Kantrowitz, supra note 91.} that suggests the need for a new theory of consumer finance: because of diversification among millions of borrowers, risk-spreading through securitization and insurance, and fee-based profit models, the scope of the bankruptcy discharge has very little impact on the price or availability of credit except at the margins. If this theory is correct, then we must both update our thinking about the effect of bankruptcy law on consumer finance and rethink consumer bankruptcy policy from the ground up with an eye to expanding the scope of the discharge. As consumer finance becomes more complex, it is time to update the model of the effect of bankruptcy law on consumer finance. The theory and modeling of consumer finance can serve as a meaningful policy guide, but to do so, it must account for the actual structure of the evolving consumer finance industry.
### APPENDIX A. MORTGAGE ORIGINATION RATE QUOTES (SELECTED)

Table A1  IndyMac Rate Quotes on Jan. 27, 2008 (20% Down, Conforming)

<table>
<thead>
<tr>
<th>State of Property</th>
<th>Single Family Primary Residence</th>
<th>2-Family Primary Residence</th>
<th>3-Family Primary Residence</th>
<th>4-Family Primary Residence</th>
<th>Vacation Home or Second Home</th>
<th>Investor or Rental Property</th>
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</thead>
<tbody>
<tr>
<td>Lender</td>
<td>IndyMac</td>
<td>IndyMac</td>
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<td>Investor or Rental Property</td>
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<td>C</td>
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<tr>
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<td>30-Fixed</td>
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<td>30-Fixed</td>
</tr>
<tr>
<td>Interest Rate</td>
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<td>5.375%</td>
<td>7.500%</td>
<td>7.500%</td>
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<tr>
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</table>
APPENDIX B. PIGGYBACK MORTGAGES IN RIVERSIDE

Many of the second-lien mortgages in Riverside-San Bernardino that we examined appear to be “piggyback” mortgages. Most mortgage lenders require homebuyers who pay less than 20% down to purchase private mortgage insurance because without the PMI coverage, the secondary market for the loan will be severely limited. The amount of home that a buyer can afford in terms of monthly payments is reduced to the extent of the PMI premium. Therefore, lenders sometimes structure loans to help buyers avoid having to purchase PMI. This is done through “piggyback” mortgages, in which the lender (or another cooperating lender) takes a second mortgage on the property at the time of the purchase or refinance for some amount up to 20% of the property value. Often these transactions are structured as 80-10-10s or 80-15-5s, in which the first-lien mortgage loan is for 80% of the property value, the second-lien mortgage loan is for 10% or 15% of the property value, and the buyer makes a down payment of 10% or 5%. Lenders who enter into piggyback mortgage deals willingly forego the protection of PMI coverage in order to make larger loans. Thus, outside of bankruptcy, lenders doing piggybacks are not protected against losses in foreclosure.

We counted second mortgage loans other than home equity lines of credit, secured by the same property as certain piggybacks if they were made on the same day as the first-lien mortgage. Because bankruptcy filings do not always indicate the precise date on which a debt was incurred, nor do they indicate the original amount of the debt, only the amount outstanding, we also counted a second category of possible piggybacks. We counted second mortgages as possible piggybacks if the loan was either (1) made by the same lender in the same year, (2) made by the first mortgage lender, or (3) made within the same year (without further information available). Whereas our counting of certain piggybacks is likely underinclusive, our counting of possible piggybacks is likely overinclusive. In particular, our counting methodology likely includes some non-piggyback second mortgages.

179 See supra note 63.
mortgages, such as cash out refinancings, made shortly after the home sale transaction, but the nature of the data does not permit more precise delineation of piggybacks. Nonetheless, our methodology yields a range in which we can be fairly confident the actual number of piggybacks exists.

Of the second-lien mortgages, we identified 77 certain piggybacks and 116 possible piggybacks. This means that between 11% and 27% of the cases in our dataset had piggyback second mortgages, and that between 22% and 56% of second mortgages were piggybacks.

While piggybacks performed comparably to second-lien mortgage debt in general, the high incidence of piggybacks suggests that many lenders were willing to assume foreclosure loss risk themselves. It is a strange result, then, that these lenders receive greater protection in bankruptcy than they do outside of bankruptcy. If the loan is undersecured, a piggyback lender would bear the losses in a foreclosure sale. But if the piggyback lender is undersecured, but not wholly unsecured, and the debtor chooses to (and is capable of) paying the loan off in a Chapter 13 repayment plan, then the piggyback lender will come out better in bankruptcy than in foreclosure.

Table B1 shows that as with the 2001 CBP data, when we break down the mortgages into first and second-liens, we see that in Riverside, second-lien mortgages are three times more likely to be undersecured than first-lien mortgages. Tables B2 and B3 provide the detailed breakdown. But as Table 6 in the Article proper shows, there is the over- or undersecured ratio for the first-lien mortgages in 2007 Riverside data is virtually identical to 2001 CBP data. The second-lien mortgages in 2007 Riverside data, however, have marked less extreme Security Ratios than the 2001 CBP data and an overall Security Ratio twice that of 2001, suggesting, counter intuitively, that second-lien debt in Riverside in 2007 was in better shape than second-lien debt on mortgages in 2001.
### Table B1. Percentage of Mortgages Over- and Undersecured in Chapter 13 (2007 Riverside)

<table>
<thead>
<tr>
<th></th>
<th>1st Lien Mortgages</th>
<th>2d Lien Mortgages</th>
<th>2d Lien “Piggyback” Mortgages</th>
<th>All Mortgages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undersecured</td>
<td>13%</td>
<td>38%</td>
<td>39%</td>
<td>21%</td>
</tr>
<tr>
<td>Fully Secured</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Oversecured</td>
<td>85%</td>
<td>60%</td>
<td>59%</td>
<td>77%</td>
</tr>
</tbody>
</table>

*Source: PACER and Authors’ Calculations (numbers may not total 100% because of rounding)*

### Table B2. First-lien Mortgages in Chapter 13 (2007 Riverside)

<table>
<thead>
<tr>
<th>Chapter 13—Riverside—1st Lien Mortgages</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDERSECURED</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>NUMBER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKET VALUE</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>$351,139.80</td>
<td>$422,307.70</td>
<td>$322,705.90</td>
<td>$411,198.40</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$13,556.94</td>
<td>$6,787.78</td>
<td>$32,605.64</td>
<td>$6,152.28</td>
</tr>
<tr>
<td>Median</td>
<td>$339,500.00</td>
<td>$400,000.00</td>
<td>$300,000.00</td>
<td>$395,063.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CLAIM AMOUNT</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>$396,700.00</td>
<td>$325,163.50</td>
<td>$322,705.90</td>
<td>$334,051.00</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$13,691.31</td>
<td>$5,669.12</td>
<td>$32,605.64</td>
<td>$5,247.87</td>
</tr>
<tr>
<td>Median</td>
<td>$383,769.00</td>
<td>$319,859.70</td>
<td>$300,000.00</td>
<td>$329,144.60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKET VALUE MINUS (CLAIM AMOUNT PLUS AMOUNT OF SENIOR LIENS)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>-$45,560.22</td>
<td>$97,144.20</td>
<td>$0.00</td>
<td>$77,147.39</td>
</tr>
<tr>
<td>Std. Error</td>
<td>$5,282.29</td>
<td>$3,913.24</td>
<td>$0.00</td>
<td>$3,852.46</td>
</tr>
<tr>
<td>Median</td>
<td>-$39,375.00</td>
<td>$76,768.00</td>
<td>$0.00</td>
<td>$64,953.18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECURITY RATIO</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>-11.48%</td>
<td>29.88%</td>
<td>0.00%</td>
<td>23.09%</td>
</tr>
</tbody>
</table>

*Source: PACER and Authors’ Calculations*
Table B3.  Second-lien Mortgages in Chapter 13 (2007 Riverside)

<table>
<thead>
<tr>
<th></th>
<th>UNDERSECURED</th>
<th>OVERSECURED</th>
<th>FULLY SECURED</th>
<th>ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUMBER</strong></td>
<td>132</td>
<td>210</td>
<td>5</td>
<td>347</td>
</tr>
<tr>
<td><strong>MARKET VALUE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>$412,516.90</td>
<td>$479,969.70</td>
<td>$415,529.20</td>
<td>$453,381.90</td>
</tr>
<tr>
<td>Std. <strong>Error</strong></td>
<td>$11,293.78</td>
<td>$13,370.76</td>
<td>$58,135.10</td>
<td>$9,349.84</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>$399,500.00</td>
<td>$449,753.50</td>
<td>$421,000.00</td>
<td>$429,000.00</td>
</tr>
<tr>
<td><strong>CLAIM AMOUNT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>$86,133.48</td>
<td>$77,215.85</td>
<td>$79,229.20</td>
<td>$80,637.16</td>
</tr>
<tr>
<td>Std. <strong>Error</strong></td>
<td>$3,105.29</td>
<td>$3,743.25</td>
<td>$22,720.85</td>
<td>$2,578.91</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>$84,378.47</td>
<td>$73,683.96</td>
<td>$84,000.00</td>
<td>$76,814.00</td>
</tr>
<tr>
<td><strong>MARKET VALUE MINUS (CLAIM AMOUNT PLUS AMOUNT OF SENIOR LIENS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>-$48,743.66</td>
<td>$60,535.05</td>
<td>$0.00</td>
<td>$18,092.79</td>
</tr>
<tr>
<td>Std. <strong>Error</strong></td>
<td>$3,773.21</td>
<td>$5,613.63</td>
<td>$0.00</td>
<td>$4,652.53</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>-$387,815.00</td>
<td>$36,202.50</td>
<td>$0.00</td>
<td>$7,767.00</td>
</tr>
<tr>
<td><strong>SECURITY RATIO</strong></td>
<td>-56.59%</td>
<td>78.40%</td>
<td>0.00%</td>
<td>22.44%</td>
</tr>
</tbody>
</table>

Source: PACER and Authors’ Calculations
APPENDIX C. EVALUATING THE MORTGAGE BANKERS ASSOCIATION’S MODIFICATION IMPACT CLAIM

The Mortgage Bankers Association (MBA) has claimed that permitting modification of mortgages in bankruptcy will result in an effective 200 basis point increase in interest rates on single-family owner-occupied properties (“principal residences”). The MBA figure is derived from a comparison of the current interest rate spread between mortgages on single-family principal residences and on investor properties. It includes not only the current additional interest rate premium for investor properties of 37.5 basis points, but also amortizes the higher down payments and points generally required on investor properties in order to achieve the 200 basis point figure. More recent MBA press releases have claimed only an increase of 150 basis points, without explaining the 50 basis point decline from the 200 basis point figure featured in Congressional testimony. The MBA figure is


Notably, in response to a request from U.S. Representative Brad Miller (D-N.C.), for clarification of its in later communications with members of Congress, the MBA changed its explanation of the 150 basis point increased cost of mortgages claim arguing (without providing any evidence or methodology for the derivation of its numbers) that 70-85 basis points would be due to higher default incidence rates, 20-25 basis points would be due to higher loss severity rates, 10 basis points would be due to the administrative costs imposed by bankruptcy, and 50-60 basis points would be due to market uncertainty and increased political risk. Stephen A. O’Connor, Senior Vice President of Government Affairs, Mortgage Bankers Association, Letter to Rep. Brad Miller, dated April 18, 2008 (on file with the Authors.)

Id.

Id.

based on an assumption that the entire spread between principal residence and investor property mortgage interest rates is due to lack of modification protection on investor properties.

Our research on current mortgage interest rate spreads among different property types disproves the MBA’s claim. The MBA’s calculation is based on looking selectively at the effective interest rate spread between investment properties and single-family principal residences. But mortgages on investor properties are not the only type of property that can currently be modified in bankruptcy. Mortgages on vacation homes and on multifamily residences in which the owner occupies one unit can also be modified currently. As noted above, conforming mortgages on vacation homes and multifamily properties are currently priced the same as single-family principal residences. Only investor property mortgages are priced higher. This pattern is confirmed by PMI rates and Fannie/Freddie delivery fees. This means higher interest rates on investor properties must be attributed to non-bankruptcy risk factors entailed in lending against an investor property.

The MBA figure is thus the result of a cherry-picked comparison. 

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184 At the January 29, 2007 Hearing on the Growing Mortgage Foreclosure Crisis: Identifying Solutions and Dispelling Myths, Before the Subcommittee on Commercial and Administrative Law, Committee on the Judiciary, United States House of Representative, David Kittle, the president-elect of the MBA claimed that prior to the enactment of the Bankruptcy Code there was no difference in interest rates for single-family owner-occupied principal residences and investor properties. The MBA has produced no data or other source to support this assertion, including in response to inquiries from major media outlets, and we know of no data source on interest rates that both goes back to 1978 and has rates broken down by property type. Indeed, the idea that investor properties and owner-occupied properties would ever be priced the same, even if there were no bankruptcy system whatsoever, ignores the significant default risk entailed in lending against investor properties caused by various tenancy risks.

185 See supra at 16 for a discussion of factors impacting investor property mortgage rates.

186 Additionally, the MBA’s amortization of the higher down payments typically required on investor properties is debatable. Lenders bear no risk on down payments, unlike on interest payments. Down payments receive different tax treatment than interest payments for borrowers. And down payments create
reasonable basis for extrapolating to the current market, and we believe it provides general parameters, then statistically there is a zero percent chance that the MBA’s 150 basis point claim is correct. All empirical and market observational data indicates that that MBA’s claim of an effective 150-200 basis point increase from allowing strip-down is groundless. The empirical evidence indicates that there is unlikely to be anything more than a *de minimis* effect on interest rates as a result of permitting bankruptcy modification.

equity in a house, unlike interest. By amortizing down payments—turning them into interest dollar for dollar adjusted for present value— the MBA is equating two very different types of payments that should not be treated as dollar for dollar equivalents.

Regardless, even if the MBA were correct is correct that higher down payments and/or points will be required and that it will be harder to make high LTV loans, this is not necessarily a bad thing, as it might compel more prudent lending practices and would inherently protect lenders from ending up with undersecured loans that could be stripped down by creating an instant equity cushion.