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The collapse of the subprime mortgage market has led to calls for greater regulation to protect homeowners from unwittingly trapping themselves in high-cost loans that lead to foreclosure, bankruptcy, or other financial problems. Weighed against the losses of the widespread foreclosure crisis are the benefits of financial modernization that have accrued to many American families who have been able to become homeowners who otherwise would not have access to mortgage credit. The bust of the subprime mortgage market has resulted in high levels of foreclosures and unparalleled problems on Wall Street. However, the boom generated unprecedented levels of homeownership, especially among young, low-income, and minority borrowers, putting them on a road to economic comfort and stability. Sensible regulation of subprime lending should seek to curb abusive practices while preserving these benefits.

This Article reviews the theories and evidence regarding the causes of the turmoil in the subprime market. It then turns to the question of the rising number of foreclosures in the subprime market in order to understand the causes of rising foreclosures. In particular, it examines the competing models of home foreclosures that have been developed in the economics literature—the "distress" model and the "option" model. Establishing a correct model of the causes of foreclosure in the subprime market is necessary for sensible and effective policy responses to the problem. The focus in this Article is on the consumer protection side of the equation. As this Article goes to press, the federal government has authorized a massive "bailout" of the banking industry, raising issues which largely lie outside the scope of this Article. New

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regulations and other interventions into the consumer side of the market have been modest.

INTRODUCTION

The collapse of the subprime mortgage market has generated calls for greater regulation to protect homeowners from unwittingly trapping themselves in high-cost loans that lead to foreclosure, bankruptcy, or other financial problems.[1] Weighed against the losses of the widespread foreclosure crisis are the benefits of financial modernization that have accrued to many American families that have been able to become homeowners who otherwise would not have access to mortgage credit. The bust of the subprime mortgage market has resulted in high levels of foreclosures, a major banking crisis with international dimensions, and unprecedented governmental intervention to try to stabilize the American economy. This Article focuses on the consumer side of the equation, and many of the issues related to the government's "bailout" are outside the scope of this Article. In focusing on consumers, it is important to keep in mind the benefits of homeownership and the expansion of credit to new borrowers, which generated unprecedented levels of homeownership,[2] especially among young, low-income, and minority borrowers, putting them on a road to economic comfort and stability.[3] Sensible regulation of subprime lending should seek to curb abusive practices while preserving these benefits.

There is plenty of blame to go around in fixing responsibility for the subprime bust among lenders, borrowers, governmental regulators, and Wall Street. Undoubtedly, some lenders preyed on borrowers with unreasonably high-cost loans meant to induce repeated refinancing and the collection of high

1. *See, e.g.*, CTR. FOR RESPONSIBLE LENDING, CRL ISSUE PAPER No. 14, SUBPRIME LENDING: A NET DRAIN ON HOMEOWNERSHIP (2007), http://www.responsiblelending.org/pdfs/Net-Drain-in-Home-Ownership.pdf.

2. HOUS. & HOUSEHOLD ECON. STATISTICS DIV., U.S. CENSUS BUREAU, HOUSING VACANCY SURVEY, THIRD QUARTER 2007, HOMEOWNERSHIP RATES FOR THE U.S. tbl. 5 (2007), http://www.census.gov/hhes/www/housing/hvs/qtr307/q307tab5.html [hereinafter HOUSING VACANCY SURVEY].

3. THOMAS P. BOEHM & ALAN SCHLOTTMANN, U.S. DEP'T OF HOUS. & URBAN DEV., WEALTH ACCUMULATION AND HOMEOWNERSHIP: EVIDENCE FOR LOW-INCOME HOUSEHOLDS 30–31 (2004), http://www.huduser.org/Publications/pdf/WealthAccumulationAndHomeownership.pdf.

fees and interest payments.[4] Likewise, some borrowers defrauded lenders with schemes designed to inflate the value of a house and engage in speculative real estate investments. In some cases, borrowers and lenders were simply responding rationally to governmental regulations.[5] The sharp losses and numerous bankruptcies of subprime lenders also indicate that many financial institutions simply misjudged the market and did not accurately assess the risk of certain subprime borrowers and market conditions at the time of loan origination. At the same time, one must keep the impact of the subprime market meltdown in perspective. As of 2005, about 34% of Americans owned their homes free and clear of any mortgages.[6] Of those with mortgages, about three-quarters have traditional fixed-rate mortgages, and about one-quarter of borrowers have adjustable rate mortgages (about 16% of total homeowners).[7] Most subprime loans were adjustable rate mortgages, thus subprime loans comprise some subset of this 16% of all homeowners.[8] Moreover, even under a relatively dire scenario, it has been estimated that American homeowners might lose about $110 billion in home equity over several years as a result of foreclosures—or about 1% of total accumulated home equity in the country.[9]

Without an accurate understanding of the causes of the subprime bust, regulatory measures may be counterproductive, providing bailouts for reckless lenders and speculative borrowers while resulting in higher interest rates and less credit available for legitimate borrowers. Heightened protections for borrowers that increase the cost or risk of lending will raise the cost of lending and result in either higher interest rates for

4. Income or asset misrepresentation makes up 38% of fraud cases, and false property valuation accounts for 17% of fraud. FANNIE MAE, FANNIE MAE MORTGAGE FRAUD UPDATE 1 (May 2007), http://www.dallasfed.org/news/ca/2007/07home_brewser2.pdf [hereinafter FRAUD UPDATE].

5. *See* discussion *infra* at notes 158–162 and accompanying text.

6. *Preserving the American Dream: Predatory Lending and Home Foreclosures: Hearing Before the S. Comm. on Banking, Housing and Urban Affairs*, 110th Cong. 5 (2007) (written statement of Douglas G. Duncan, Chief Economist, Mortgage Bankers Association), http://banking.senate.gov/public/_files/duncan.pdf.

7. *Id.* at 4.

8. *Id*. at 13.

9. CHRISTOPHER L. CAGAN, MORTGAGE PAYMENT RESET: THE RUMOR AND THE REALITY 6 fig.1 (First Am. Real Estate Solutions, 2006), http://www.loanperformance.com/infocenter/whitepaper/FARES_resets_whitepaper_021406.pdf. This estimate was made in February 2006, so it could be that it was unduly pessimistic. We have located no more recent estimates of the total loss.

borrowers or reduced access to credit.[10] Because of the benefits that the subprime market creates for millions of marginal homeowners, lawmakers should carefully consider ways to maintain the legitimate subprime market while restricting the ability of predatory lenders to originate high-cost loans that impose a net harm on borrowers. Striking an appropriate balance is difficult and must be grounded in sound data and sensible policies, not sensational headlines.

More fundamentally, there is a basic question to consider—what is the appropriate number of foreclosures in the subprime market? Despite its recent turmoil and rising foreclosures, the subprime market overall has produced a net increase in home ownership in America.[11] In turn, homeownership historically has been a transformative financial and personal experience that transcends the mere opportunity to buy a home.[12] The expansion of the subprime market thus brings about a set of novel challenges and policy questions. For example, knowing that many subprime loans will eventually result in foreclosure, what is the ratio of successful to unsuccessful loans that is appropriate in this market?[13]

This Article begins the process of analyzing the collapse of the subprime mortgage lending market and possible regulatory responses to it. Part I examines the rise of the subprime mortgage market and the social benefits it generated. Part II turns to the possible explanations for the overheating of the subprime market and its subsequent collapse. Numerous theories have been promulgated for the rise and fall of the subprime market, most of which contain some validity, yet none of them appear fully exhaustive. Getting a correct understanding of the rise and fall of the subprime market is necessary to provide a foundation for sensible regulation that retains the benefits of

10. *See* Karen M. Pence, *Foreclosing on Opportunity: State Laws and Mortgage Credit*, 88 REV. ECON. & STAT. 177 (2006).

11. *See* James R. Barth et al., *Despite Foreclosures, Subprime Lending Increases Homeownership*, SUBPRIME MORTGAGE DATA SERIES (Milken Inst.), Dec. 2007.

12. *See infra* note 102 and accompanying text.

13. As former Treasury Secretary Lawrence Summers recently stated the question, "We need to ask ourselves the question, and I don't think the question has been put in a direct way and people have developed an answer; what is the optimal rate of foreclosures? How much are we prepared to accept?" Lawrence Summers, Remarks at the Panel Recent Financial Market Disruptions: Implications for the Economy and American Families 15 (Sept. 26, 2007) (transcript *available at* http://www.brookings.edu/~/media/Files/events/2007/0926financial/20070926.pdf).

the subprime market while eliminating or ameliorating the problems that manifested themselves in the recent economic collapse. Part III considers possible regulatory responses to the subprime market. It considers two questions: first, to what extent are the problems in the subprime market responsive to general regulatory solutions versus market-based and case-by-case responses; and second, if regulatory approaches are appropriate, what form should those regulatory responses take? Recent proposals by the Federal Reserve to address concerns about fraud and improper lending practices in the subprime market are considered. Part IV concludes.

The primary focus in this Article is on the consumer side of the market, seeking to understand the nature of the subprime lending boom and the causes of subsequent foreclosures. There are numerous issues that have arisen on the bank side of the equation related to issues involving complex securities and government interventions such as the massive interventions by the federal government into the banking system that commenced in October 2008, including the effective nationalization of Fannie Mae and Freddie Mac, the rescue of AIG, and the subsequent injection of public money into the commercial banking system. As this Article goes to press it is still unclear whether those interventions will work to stabilize the market and the banking industry. More generally, most of those issues are beyond the scope of this particular Article, except to the extent that they hold implications for understanding the consumer side of the market and potential regulatory interventions.

I. THE RISE OF THE SUBPRIME MORTGAGE MARKET

The subprime mortgage market became a significant growth segment of the mortgage market in the 1990s.[14] Prior to the expansion of the subprime market, borrowers unable to acquire prime-rated financing were often unable to acquire any mortgage financing. Two federal laws allowed lenders to adopt risk-based pricing standards in their mortgages and, by leading to deregulation of interest rates, laid the foundation for the eventual development of the subprime mortgage market. One was the Depository Institutions Deregulation and Monetary

14. Souphala Chomsisengphet & Anthony Pennington-Cross, *The Evolution of the Subprime Mortgage Market*, 88 FED. RES. BANK OF ST. LOUIS REV. 31, 36 (2006).

Control Act of 1980, which preempted state interest caps and allowed lenders to charge higher interest rates.[15] The second was the Alternative Mortgage Transaction Parity Act of 1982, which allowed lenders to offer adjustable-rate mortgages and balloon payments.[16]

Shortly thereafter, the Tax Reform Act of 1986 made interest payments on mortgages and home equity loans, but not on consumer loans, deductible.[17] This change to the tax code made mortgage debt more attractive than other forms of consumer debt, thereby increasing demand for homeownership and refinancing mortgages, as well as amplifying incentives for homeowners to borrow against the wealth in their homes through home equity loans or refinancing. In 1997, Congress changed the taxation of capital gains to permit homeowners to take up to $500,000 of gain from the sale of a primary residence tax free, which further encouraged overinvestment in residential real estate and price inflation.[18]

The deregulation of lending terms and more accurate risk-based pricing by lenders enabled the development of a more efficient lending market. Prior to the expansion of subprime mortgages, the mortgage market looked little different from the system established during the New Deal—most mortgage lending was conducted by local banks and savings and loans paying low rates of interest on deposit accounts and lending out on thirty-year fixed-rate mortgages at a slightly higher rate.[19] With lenders restricted from charging higher interest rates, borrowers had to have a good credit history to be approved for a loan. This led to credit rationing and tended to squeeze riskier borrowers out of the market. Moreover, information asymmetries between borrowers and lenders further undermined market efficiency. Some of the safest borrowers would be too risk-averse to borrow at the market interest rate, while some risky borrowers will appear less risky and be approved for loans with relatively low interest rates. As interest rates climb, borrowers who are still willing to pay the higher interest rates are likely

15. *See generally* Pub. L. No. 96-221, 94 Stat. 132 (codified in scattered sections of 12 U.S.C.).

16. *See generally* 12 U.S.C. §§ 3801–3806 (2000).

17. *See* Chomsisengphet & Pennington-Cross, *supra* note 14, at 38.

18. *See* Vernon L. Smith, *The Clinton Housing Bubble*, WALL ST. J., Dec. 18, 2007, at A20.

19. Kristopher Gerardi, Harvey S. Rosen & Paul Willen, *Do Households Benefit from Financial Deregulation and Innovation? The Case of the Mortgage Market* 1 (Fed. Reserve Bank of Boston, Pub. Pol'y Discussion Papers No. 06-6, 2006).

to be riskier, resulting in lower returns to the lender despite the higher rates. At lower interest rates, the lender's return is too low. The lender is therefore likely to offer fewer loans and only to the safest borrowers.[20]

Subprime lending emerged as a result of interest rate deregulation and improved underwriting procedures that reduced some of those information asymmetries, including increased use of credit scoring as an indicator of willingness and ability to repay a loan.[21] The use of credit scores as objective tests of borrower risk allowed lenders to create a schedule of interest rates and other loan terms that currently make up the mortgage market, leaving traditional one-size-fits-all lending products as relics of the past. Prime borrowers as a group generally receive the same terms from most lenders, while subprime borrowers are sorted into a number of different risk classes.[22] The exact terminology used to score subprime borrowers depends on the source, but in general they are graded like high school English papers. For example, "A-minus" borrowers are one step below prime "A" borrowers, likely to have missed only one mortgage payment or up to two other debt payments in the past two years. Borrowers are sequentially riskier at the "B," "C," and "D" levels—the last of which are typically emerging from bankruptcy. Borrowers who have prime credit scores but cannot provide full income documentation, or otherwise pose a higher risk, are considered "Alt-A" borrowers.[23]

The growth of mortgage securitization was also a major factor in the growth of the subprime market. Securitization is the "aggregation and pooling of assets with similar characteristics in such a way that investors may purchase interests or securities backed by those assets."[24] Securitization of mortgages began in the 1970s, and subprime securities became available

20. Joseph E. Stiglitz & Andrew Weiss, *Credit Rationing in Markets with Imperfect Information*, 71 AM. ECON. REV. 393, 393 (1981).

21. Gerardi, Rosen & Willen, *supra* note 19, at 8.

22. Amy Crews Cutts & Robert A. Van Order, *On the Economics of Subprime Lending*, 30 J. REAL EST. FIN. & ECON. 167, 171 tbl.1 (2005).

23. Michael Collins, Eric Belsky & Karl E. Case, *Exploring the Welfare Effects of Risk-Based Pricing in the Subprime Mortgage Market* 3 (Harvard Univ. Joint Ctr. for Hous. Studies, Working Paper BABC 04-8, 2004).

24. David Reiss, *Subprime Standardization: How Rating Agencies Allow Predatory Lending to Flourish in the Secondary Mortgage Market*, 33 FLA. ST. U. L. REV. 985, 1001 n.95 (2006) (quoting SECURITIZATION: ASSET-BACKED AND MORTGAGE-BACKED SECURITIES § 1.01, at 1–3 (Ronald S. Borod ed., 2003)).

in the 1990s.[25] Wall Street pooled $508 billion worth of subprime mortgages in 2005, up from $56 billion in 2000.[26] The percentage of subprime loans that were securitized (as a percentage of the dollar value of subprime loans) rose from 50.4% in 2001 to 81.2% in 2005 (and 80.5% in 2006).[27]

Pools of mortgages are split into a number of different tranches, whose characteristics are compared with historical data to predict the credit risk of the tranche.[28] Each tranche has a different grade, listed in order from senior to mezzanine to junior. The senior tranche is paid off first and has the highest investment grade, whereas the most junior tranche is most likely to be impacted by default. The most junior tranche is usually held by the originator, exposing them to the most risk, while mortgage-backed securities held by investors are normally highly-rated bonds.[29]

The securities are graded on the risk posed by the entire pool, not on the risk of the individual loans. Investors have little ability to judge the true risk of the pool of loans within a tranche, and they have a limited incentive to do so because of the relative safety provided by the seniority status of the securities. In addition, many securities have clauses that require lenders to take back loans in the event of borrower default or if the loan contains certain prohibited terms.[30] Unfortunately, this remedy has proven chimerical in practice because lenders went belly-up when presented with demands for repayment. Despite the safeguards for investors in securities markets, defaults on subprime (and increasingly on prime) mortgages ravaged Wall Street, leading to massive failures of major investment and commercial banks, a stock market crash, and unprecedented government intervention. Highly-leveraged

25. Kathleen C. Engel & Patricia A. McCoy, *Turning a Blind Eye: Wall Street Finance of Predatory Lending*, 75 FORDHAM L. REV. 2039, 2045 (2007).

26. Michael Hudson, *Debt Bomb—Lending a Hand: How Wall Street Stoked the Mortgage Meltdown*, WALL ST. J., June 27, 2007, at A1.

27. Gary B. Gorton, *The Subprime Panic* 6 tbl.4 (Nat'l Bureau of Econ Research, Working Paper 14398 Oct. 2008), *available at* http://www.nber.org/papers/w14398.

28. *See* Christopher L. Peterson, *Predatory Structured Finance*, 28 CARDOZO L. REV. 2185, 2200–06 (2007); *see also* Richard K. Green & Susan M. Wachter, *The American Mortgage in Historical and International Context*, 19 J. ECON. PERSP., Fall 2005, at 93, 107–08 (2005) (describing securitization options for splitting subprime loans into tranches).

29. Peterson, *supra* note 28, at 2205 n.116.

30. *Id.* at 2206 n.124.

funds that invested in subprime mortgages lost most of their value and prompted a sharp drop in the entire stock market.[31]

A. Characteristics of the Subprime Market

Prior to the development of the subprime market, many subprime borrowers had been excluded from the mortgage market. Credit rationing occurred when lenders could not charge higher rates on mortgages to riskier customers due to legally-mandated interest rate caps, so they did not offer any mortgages to these customers.[32] The expansion of the subprime market is a direct result of lenders' increased use of risk-based pricing, which was itself a response to deregulated lending markets, technological changes in underwriting, and financial innovations in securities markets.[33] To compensate for the increased risk of lending to subprime borrowers, lenders use a number of instruments, including higher interest rates, higher origination fees, prepayment penalties, and down payment requirements.[34]

Lenders classify customers into risk categories and then offer them terms based on a schedule.[35] Generally, lenders charge higher interest rates to borrowers with lower credit scores. Lenders may also charge higher interest rates where mortgages have peculiar characteristics, such as loans with high loan-to-value ratio, loans without prepayment penalties, or loans to some self-employed borrowers with less-predictable income.[36] Many subprime loans also shift interest rate risk to borrowers through adjustable rates. Fixed-rate mortgages promise regular payments and thus offer insurance against interest rate fluctuations as a result of changes in inflation rates. Because borrowers have to pay a premium for this insurance against interest-rate increases, new adjustable-rate mortgages ("ARMs") usually offer lower interest rates than fixed-rate

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31. *Abandon Ship,* THE ECONOMIST, Aug. 4, 2007.
32. Collins, Belsky & Case, *supra* note 23, at 6.
33. Chomsisengphet & Pennington-Cross, *supra* note 14, at 32.
34. *Id*.
35. Mortgage terms may depend on the length of the mortgage, whether the mortgage is fixed- or adjustable-rate, credit score, loan-to-value ratio, and the presence of a prepayment penalty. *See*, *e.g.*, ACT MORTGAGE CAPITAL: SUBPRIME RATE SHEET REVISED (April 18, 2007). Note that some of the rate sheets of subprime lenders are no longer easily available as a result of the bankruptcy liquidation of the lender but were available at the time this Article was researched.
36. *See, e.g.*, FIRST GUARANTY MORTGAGE CORPORATION, SUBPRIME PRICING & RATE MATRIX (June 8, 2007).

mortgages ("FRMs").[37] Between 2004 and 2006, about 45% of subprime loan originations were adjustable-rate, compared with 25% for FRMs.[38] The remaining loans were negative-amortization or interest-only loans.[39]

The higher fees and rates that lenders receive from subprime loans are offset by higher delinquency and default rates. As of the first quarter of 2008, 18.79% of subprime loans were delinquent, compared with 3.71% of prime, 12.72% of Federal Housing Administration ("FHA"), and 7.22% of Veteran's Administration ("VA") loans.[40] As of the end of 2007, 8.65% of subprime loans were in the foreclosure process, compared with just 0.96% of prime loans, 2.34% of FHA loans, and 1.12% of VA loans.[41]

High foreclosure rates are a particularly problematic element of the residential real estate market because of the externalities generated by foreclosure. Homes in foreclosure can fall into disrepair and drag down the surrounding neighborhood environment. As a result, foreclosures may have a negative externality effect of depressing prices of other homes in a neighborhood. The size and duration of this negative effect is unclear. Immergluck and Smith estimate that "each conventional foreclosure within an eighth of a mile of a single-family home results in a 0.9 percent decline in the value of that home."[42] Moreover, they conclude that the effect is linear and additive—each home in foreclosure in a given neighborhood further reduces the value of all other homes in the neighborhood.[43] Lin, Rosenblatt, and Yao estimate that foreclosures

37. *Id.*

38. Yuliya Demyanyk & Yadav Gopalan, *Subprime ARMs: Popular Loans, Poor Performance*, BRIDGES (Fed. Reserve Bank of St. Louis), Spring 2007, at 4–5.

39. *Id.*

40. DEP'T OF HOUS. & URBAN DEV., U.S. HOUSING MARKET CONDITIONS, 2D QTR. 2008 at 81 tbl.18 (2008), *available at* http://www.huduser.org/periodicals/ushmc/summer08/hist_data.pdf.

41. Press Release, Mortgage Bankers Ass'n, Delinquencies and Foreclosures Increase in Latest MBA National Delinquency Survey (March 6, 2008), *available at* http://www.mortgagebankers.org/NewsandMedia/PressCenter/60619.htm.

42. *See* Dan Immergluck & Geoff Smith, *The External Costs of Foreclosure: The Impact of Single-Family Mortgage Foreclosures on Property Values*, 17 HOUSING POL'Y DEBATE 57, 58 (2006).

43. Immergluck and Smith find a constant effect within a one-eighth mile radius. *See id*. Other scholars find a diminishing marginal impact of additional foreclosures as foreclosures increase. *See* Charles W. Calomiris, Stanley D. Longhofer & William Miles, The Foreclosure-House Price Nexus: Lessons from the 2007-2008 Housing Turmoil 6 (July 4, 2008) (working paper, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1160062) (citing W. Rogers

reduce the value of neighboring homes and that the effect declines with time and distance. For instance, a foreclosure on a given home reduces the value of homes within half a kilometer of that home by 11.4% for the first two years, slowly tapering off as one moves away from the foreclosed property and largely disappearing after five years.[44] The negative price externality effect is twice as large during periods of price downturns as during price booms,[45] primarily because of the general increase in supply on the market. Calomiris, Longhofer, and Miles, by contrast, conclude that there is minimal externality effect of foreclosures on neighboring home prices.[46] Other researchers have concluded that there is some externality effect from foreclosures, but that there is a threshold effect—no neighborhood effect is evident until more than two foreclosures occur, with a declining marginal impact from further foreclosures.[47] In addition, foreclosures may depress prices more in lower-priced than higher-priced neighborhoods.[48] Declining property values in turn reduce community wealth and the local property tax base, leaving less money to support governmental services such as schools, police and fire protection, and road upkeep.[49]

B. Subprime Lending vs. Predatory Lending

The rising number of defaults and foreclosures over the past few years has prompted the heavy criticism of subprime mortgages. There has been a much greater increase in defaults and delinquencies among subprime loans than among prime loans. Not only do subprime loans fail more often than prime loans, but subprime loans are much more common in areas

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and W. Winter, The Impact of Foreclosures on Neighborhood Housing Sales (2008) (unpublished manuscript)).

44. Zhenguo Lin, Eric Rosenblatt & Vincent W. Yao, *Spillover Effects of Foreclosures on Neighborhood Property Values*, 38 J. REAL EST. FIN. & ECON. (forthcoming May 2009) (manuscript at 10–11, *available at* http://ssrn.com/abstract=1033437).

45. *Id*. at 16.

46. Calomiris, Lonhofer & Miles, *supra* note 43, at 16.

47. Jenny Schyuetz, Vicki Been & Ingrid Gould Ellen, *Neighborhood Effects of Concentrated Mortgage Foreclosures* 2 (N.Y. Univ. Ctr. for Law and Econ., Law & Econ. Research Paper Series, Working Paper No. 08-41, 2008), *available at* http://ssrn.com/abstract=1270121.

48. *See id*.

49. *See* William C. Apgar, Mark Duda & Rochelle Nawrocki Gorey, *The Municipal Cost of Foreclosures: A Chicago Case Study* 11 (Homeownership Pres. Found., Hous. Fin. Policy Research Paper No. 2005-1, 2005), *available at* http://www.995hope.org/content/pdf/Apgar_Duda_Study_Full_Version.pdf.

with large minority or low-and-moderate-income populations.[50] Thus, some fear that subprime loans are virtually per se predatory because of the presumed higher-risk of the borrower. But subprime lending has placed many people on the road to home-ownership, and only a minority of subprime loans could be considered "predatory."

For instance, although foreclosure rates on subprime mortgages are much higher than on prime mortgages, still some 80% of subprime loans are performing and many, many other subprime loans provided a gateway for borrowers who later refinanced into prime mortgages as their credit score rose.[51] In addition, foreclosure rates on certain subprime mortgages—notably FRMs—have actually remained tolerably low, suggesting that subprime loans are not per se predatory, even if some types or terms are. Thus, regulations designed to control subprime lending must be carefully constructed so as not to unduly disrupt the market for legitimate subprime loans.[52]

In general, a "predatory" loan is one where there is no reasonable anticipated financial benefit to the borrower as a result of the loan. More specifically, the Federal Reserve defines predatory lending as a loan that includes one or more of the following attributes:

- Making unaffordable loans based on the assets of the borrower rather than on the borrower's ability to repay an obligation. Such a loan may be thought predatory because the lender's intent is not to make money from successful performance of the loan, but rather through an inevitable anticipated default and foreclosure on the home.
- Inducing a borrower to refinance a loan repeatedly in order to charge high points and fees each time the loan is refinanced ("loan flipping"). Such a loan is predatory if the effect is to "strip" the borrower's equity in the home through the repeated imposition of excessive fees, leaving the borrower no better off

50. *See* Chomsisengphet & Pennington-Cross, *supra* note 14, at 32.

51. As of first quarter 2008, the delinquency rate on all subprime mortgages was about 19%, meaning that approximately 81% of subprime mortgages were *not* delinquent. *See* DEP'T OF HOUS. & URBAN DEV., *supra* note 40, at 81 tbl.18.

52. Kathleen C. Engel & Patricia A. McCoy, *A Tale of Three Markets: The Law and Economics of Predatory Lending*, 80 TEX. L. REV. 1255, 1260 (2002) (separating mortgage markets into prime, legitimate subprime, and predatory segments).

in terms of loan terms, but unequivocally worse off as a result of having dissipated her equity for no economic benefit.

- Engaging in fraud or deception to conceal the true nature of the loan obligation, or ancillary products, from an unsuspecting or unsophisticated borrower.[53]

But each of these criteria has been criticized as somewhat vague and overinclusive, and what is appropriate may vary among borrowers. Thus it is difficult to determine how many loans fit the category of "predatory" loans. For instance, multiple refinancing may be predatory but also may be legitimate. During the great real estate boom of recent years, many consumers used home equity loans or mortgage refinancing not only to gain a lower interest rate, but also to fund home improvements, to consolidate other debts (such as student loans, automobile loans, or consumer debt), to diversify their wealth portfolios by reinvesting home equity in financial assets (such as stocks), or to fund consumption.[54] Given the variety of reasons for which consumers might legitimately refinance a mortgage, it is quite conceivable that a borrower might refinance a loan more than once for completely legitimate purposes.

Because there is no clear definition of predatory lending, the extent of predatory practices is mostly unknown. Opportunities for improper practices are probably much more prevalent in the subprime market than in the prime market because the subprime market offers a wider variety of loans and strategies for lenders to mitigate risks and, thus, more pricing options that may combine to make a loan confusing or potentially predatory. Moreover, the complexity and heterogeneity of terms in subprime loans likely makes it more difficult for sub-

53. OFFICE OF THE COMPTROLLER OF THE CURRENCY, BD. OF GOVERNORS OF THE FED. RES. SYS., FED. DEPOSIT INS. CORP. & OFFICE OF THRIFT SUPERVISION, SUPERVISION AND REGULATION LETTER 01-4, EXPANDED INTERAGENCY GUIDANCE FOR SUBPRIME LENDING PROGRAMS (2001), *available at* http://www.federalreserve.gov/boarddocs/srletters/2001/sr0104a1.pdf [hereinafter GUIDANCE].

54. *See* Alan Greenspan & James Kennedy, *Sources and Uses of Equity Extracted from Homes* (Div. of Research & Statistics & Monetary Affairs, Fed. Reserve Bd., Fin. & Econ. Discussion Series, Working Paper No. 2007-20, 2007); Margaret M. McConnell, Richard W. Peach & Alex Al-Haschimi, *After the Refinancing Boom: Will Consumers Scale Back Their Spending?*, 9 CURRENT ISSUES IN ECON. & FIN. 1 (2003).

prime borrowers to understand the terms of their loans. Borrows, therefore, are more likely to be misled or defrauded.[55]

Distinguishing a "predatory" loan from a legitimate subprime loan is often difficult. For instance, many features that are decried in subprime loans, such as adjustable rates and balloon payments, are also found in prime loans, suggesting that they are not per se predatory.[56] Other terms unique to subprime loans also may not be predatory. Empirical research indicates that although some loan terms may increase foreclosures in some contexts, in other contexts those same terms may reduce foreclosures, and in still other contexts their individual impact is contingent on their interaction with other loan terms.[57] For instance, while a three-year prepayment penalty is associated with a higher probability of foreclosure for purchase-money fixed-rate mortgages and refinance adjustable-rate mortgages, that same provision has no impact on increased foreclosures for refinance fixed-rate mortgages.[58] This potential for prepayment penalties to be associated with a relatively lower risk of foreclosure for fixed-rate refinance mortgages may enable those "who recognize that their future abilities to make loan payments are better or more stable than their loan applications and financial histories" to signal this fact to lenders in exchange for a reduced interest rate.[59] Low- or no-documentation refinance loans are "associated with significantly greater probabilities of foreclosure. In contrast, low- or no-documentation is associated with lesser probabilities of foreclosure for purchase FRMs, and has no significant effects for purchase ARMs."[60] Low documentation loans also increase the probability of delinquency and the intensity of delinquency, but they decrease the probability of default and prepayment.[61] Po-

55. *See* JAMES M. LACKO & JANIS K. PAPPALARDO, FED. TRADE COMM'N, IMPROVING CONSUMER MORTGAGE DISCLOSURES: AN EMPIRICAL ASSESSMENT OF CURRENT AND PROTOTYPE DISCLOSURE FORMS (2007), http://www.ftc.gov/os/2007/06/P025505MortgageDisclosureReport.pdf.

56. James R. Barth et al., *Surprise: Sub-Prime Mortgage Products Are Not the Problem!*, SUBPRIME MORTGAGE DATA SERIES (Milken Inst.), Dec. 2007.

57. Morgan J. Rose, *Predatory Lending Practices and Subprime Foreclosures: Distinguishing Impacts by Loan Category*, 60 J. ECON. & BUS. 13 (2008).

58. *Id.* at 24. Prepayment penalties require the payment of some type of liquidated damages for paying off the loan within the specified period of time, usually two or three years.

59. *Id.* at 28.

60. *Id.*

61. Michelle A. Danis & Anthony Pennington-Cross, *A Dynamic Look at Subprime Loan Performance* 12 (Fed. Res. Bank of St. Louis, Working Paper 2005-029A, May 2005), *available at* http://research.stlouisfed.org/wp/2005/2005-029.pdf.

tentially predatory terms applied in combination exhibit an even more complex interaction:

> In most instances, a given combination of loan features is associated with a greater increase in the predicted probability of foreclosure than the sum of the relevant individual loan feature impacts. For purchase FRMs with reduced documentation combined with either a long prepayment penalty period or a balloon payment (but not both), the reverse holds—those combinations are associated with substantial falls in the predicted probability of foreclosure beyond the sum of the relevant individual loan feature impacts.[62]

Rose concludes:

> With regard to the implications of these results for potential federal predatory lending regulation, the overall pattern of results is of greater import than the individual estimates. That pattern illustrates that the magnitude, and even the direction, of the impact of a long prepayment penalty period, a balloon payment, or low- or no-documentation on the probability of foreclosure depends significantly on (a) the category of the loan under consideration, and (b) the presence or absence of the other two loan features. This suggests that relationships among predatory loan features and foreclosures are much more complex than previous analyses portray, casting doubt on regulators' and legislators' current ability to confidently discern abusive versus non-abusive lending. In particular, broad federal prohibitions or restrictions of these loan features that do not distinguish among loan categories, especially between refinances and purchases, and that do not recognize that loans with multiple loan features may require different treatment than loans with only one, are likely to be quite prone to causing unintended and undesired consequences.[63]

Consumer advocates also have criticized the widespread use of prepayment penalties in subprime loans as predatory and not justified by borrowers' true risk.[64] But this blanket condemnation is too sweeping. To determine whether prepay-

62. Rose, *supra* note 57, at 26.

63. *Id.* at 27–28.

64. KEITH S. ERNST, CTR. FOR RESPONSIBLE LENDING, BORROWERS GAIN NO INTEREST RATE BENEFITS FROM PREPAYMENT PENALTIES ON SUBPRIME MORTGAGES 5 (2005).

ment penalties are abusive, it is necessary to understand the nature of prepayment risk in the subprime market.

In general, prepayment risk is difficult to anticipate, and there appears to be no reliable model for anticipating it.[65] Prepayment risk arises because when prepayment occurs the lender must reinvest the capital at the prevailing market rates and returns, so the lender bears the risk that the new investment will provide a lower interest return than the existing investment. Prepayment typically will occur when market interest rates fall, so the alternative investment usually will be at a much lower rate than the initial loan. In a study of 4.2 million FHA loans, for instance, Calomiris and Mason estimated that prepayment losses resulting from the reduction in interest rates following a prepayment amount to about $576 million whereas losses due to default are only about $12 million.[66]

Prepayment risk in the subprime market is difficult to anticipate because it is based on the borrower's private information. Prepayment on home mortgages can result from two different reasons, which are also distinct to the prime and subprime markets. In the prime market, prepayment risk arises from changes in market interest rates. When market interest rates fall, some prime borrowers can be predicted to refinance their existing mortgages; thus, this risk is a general, predictable market risk. Although changes in market interest rates are relevant for subprime borrowers as well, prepayment risk in the subprime market is often more idiosyncratic and borrower-specific than in the prime market. Unlike prepayment in the prime market, which can be actuarially predicted, prepayment in the subprime market depends on the borrower's private information about the likelihood that he will improve his credit score and refinance into another loan. This problem of private information makes it impossible to distinguish between those who are prepayment risks versus those who are not, thereby creating an adverse selection problem. Absent a prepayment penalty clause, therefore, lenders would ex ante have to charge a risk premium for all borrowers, thereby gen-

65. Joseph R. Mason & Joshua Rosner, Where Did the Risk Go? How Misapplied Bond Ratings Cause Mortgage Backed Securities and Collateralized Debt Obligations Market Disruptions 54 (May 2007), http://www.hudson.org/files/publications/Hudson_Mortgage_Paper5_3_07.pdf.

66. Mason & Rosner, *supra* note 65, at 54 (citing Charles Calomiris & Joseph Mason, Endogenous and Exogenous Mortgage Prepayments in an Optimal Stopping Framework (2007) (working paper)).

erating market inefficiencies.[67] On average, mortgages with prepayment penalties had interest rates that were fifty-one to sixty-eight basis points lower than mortgages without prepayment penalties, and borrowers with lower FICO scores had larger rate reductions.[68] The purpose of a prepayment penalty clause may be to overcome this adverse selection problem by allowing a borrower to credibly signal a commitment not to prepay the loan prematurely, which enables him to obtain a lower interest rate. Other mechanisms for guarding against prepayment risk, such as requiring payment of points or upfront fees at the time of closing, can result in rationing of credit to higher-risk borrowers.[69]

Because credit score is a major component of the determination that lenders make of a borrower's interest rate—and the primary component for subprime loans—an increase in credit score can qualify a borrower for a much lower interest rate and lower monthly payments, or even qualify a borrower for a prime-rated loan. Borrowers who make their monthly payments for even a short time on higher-priced loans can raise their credit scores appreciably, thereby providing an opportunity to prepay and refinance to less expensive mortgages. A study by Fair Isaac and Company found that more than 30% of individuals with FICO scores below 600 improved their scores by at least twenty points within three months.[70] Courchane, Surette, and Zorn found in their review of public real estate records that 40% of borrowers whose mortgages were previously from a subprime mortgage lender had prime mortgages at the time of the study, suggesting that subprime mortgages are a gateway for many borrowers who subsequently refinance into prime mortgages.[71] Prepayment by improved credit risks also

67. Chris Mayer, Tomasz Piskorski & Alexei Tchistyi, The Inefficiency of Refinancing: Why Prepayment Penalties Are Good for Risky Borrowers (Apr. 28, 2008) (working paper, *available at* http://www1.gsb.columbia.edu/mygsb/faculty/research/pubfiles/3065/Inefficiency%20of%20Refinancing.pdf).

68. FICO scores are the standardized risk-assessment scores available from Fair Isaac. Borrowers with credit scores above 620 are considered prime and those below are considered subprime. FICO score also is taken into consideration in grading subprime borrowers into various grades of subprime in the same way. It is not clear why there is such a bright-line break at 620, but falling on one side or the other of that line is highly significant.

69. *See* Gregory Elliehausen, Economic Effects of Prepayment Penalties 3 (Sept. 2008) (working paper, on file with author) (citing multiple studies).

70. *See* Cutts & Van Order, *supra* note 22, at 174.

71. Marsha J. Courchane, Brian J. Surette & Peter M. Zorn, *Subprime Borrowers: Mortgage Transitions and Outcomes*, 29 J. REAL EST. FIN. & ECON. 365 (2004).

means that those who remain in the preexisting pool of borrowers will be higher-risk borrowers.

Subprime loans also may be more expensive to service and underwrite in light of the heterogeneity of subprime borrowers and their collateral and the increased time this requires of lenders. A report by the Office of the Comptroller of the Currency estimates that servicers charge about fifty basis points to service a subprime loan portfolio, about twice as much as to service a prime portfolio.[72] The rejection rate for subprime loans is also higher; thus, the underwriting cost per endorsed mortgage is higher.[73] Subprime borrowers often have more unstable employment and income, less documentation, unusual collateral, or other individual-specific risk that requires greater assessment and investigation by lenders, which increases origination costs. Liquidity-strapped borrowers often finance closing costs in the loan; thus, quick prepayment can result in loss for the lender by preventing the lender from recouping its upfront costs. This higher underwriting cost and tendency to finance the closing costs suggests that a prepayment penalty may be appropriate in the subprime market to ensure that the lender's up-front costs are recouped.[74] And obviously, to the extent that a borrower is given a below-market introductory "teaser" rate, prepayment penalties are a necessary corollary to enable the lender to recoup its initial losses.

Empirical evidence generally indicates that prepayment penalties in subprime loans are efficient and reflect risk-based pricing.[75] Thus, accepting a prepayment penalty typically gives a subprime borrower a lower interest rate on the loan.[76] A significantly higher proportion of subprime borrowers prepay their mortgages when compared to prime borrowers.[77] De-

72. *See* Office of the Comptroller of Currency, Economic Issues in Predatory Lending 12 (July 30, 2003) (working paper, *available at* http://www.occ.treas.gov/workingpaper.pdf).

73. *Subprime Lending: Defining the Market and its Customers: Hearing Before the Subcomm. On Fin. Institutions and Consumer Credit and the Subcomm. On Housing and Community Opportunity of the H. Comm. On Fin. Services,* 108th Cong. 3 (Mar. 30, 2004) (written statement of Anthony M. Yezer, Professor of Economics, George Washington University).

74. *See* Cutts & Van Order, *supra* note 22, at 175.

75. *See* Gregory Elliehausen, Michael E. Staten & Jevgenijs Steinbuks, *The Effect of Prepayment Penalties on the Pricing of Subprime Mortgages*, 60 J. ECON. & BUS. 33, 34 (2008) (reviewing studies).

76. Cutts & Van Order, *supra* note 22, at 175.

77. FRED PHILLIPS-PATRICK ET AL., DEP'T OF THE TREASURY, OFFICE OF THRIFT SUPERVISION, MORTGAGE MARKET TRENDS VOL. 4:1, WHAT ABOUT SUBPRIME MORTGAGES? 7 (2000).

Mong and Burroughs estimated that first lien mortgage loans with prepayment penalties carried APRs that were thirty-eight basis points lower than loans without prepayment penalties.[78] The difference was sixty basis points for fixed-rate mortgages and twenty-nine basis points for adjustable rate mortgages. Similarly, Michael LaCour-Little found that those loans with a three-year prepayment penalty period obtain a fifty-eight basis point reduction in their rate and those with a two-year prepayment penalty period had a forty-three basis point reduction in rates.[79] Elliehausen, Staten, and Steinbuks found that prepayment penalties reduce the risk premium charged in subprime loans, estimating that the "presence of a prepayment penalty reduces risk premiums by 38 basis points for fixed-rate loans, 13 basis points for variable-rate loans, and 19 basis points for hybrid loans."[80] A review of term sheets posted by wholesale issuers of mortgage credit indicated that they typically charge a premium of twenty to fifty basis points for loans in states with statutory prohibitions on prepayment penalties depending on the strictness of the prohibition. These quoted market adjustments are similar to those found in the academic studies.[81] Subprime mortgages with a prepayment penalty also sell for higher prices on the secondary market than those without a penalty.[82] Most prime fixed-rate mortgages permit prepayment, but consumers pay an implicit premium for a fixed-rate mortgage to have this right.[83]

Requiring the payment of points is a more efficient means for lenders to guard against prepayment risk than raising the

78. Richard F. DeMong & James E. Burroughs, *Prepayment Fees Lead to Lower Interest Rates*, EQUITY, Nov.–Dec. 2005, at 19, *available at* http://www.commerce.virginia.edu/faculty_research/faculty_homepages/DeMong/PrepaymentsandInterestRates.pdf. One "basis point" is 0.01% or 1/100 of a percent, so for instance, thirty-eight basis points is the equivalent of increasing the interest rate on a loan in the amount of 0.38%.

79. Michael LaCour-Little, Call Protection in Mortgage Contracts 26–27 (Nov. 22, 2005) (working paper, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=881618).

80. Elliehausen, Staten & Steinbuks, *supra* note 75, at 43.

81. *See*, *e.g.*, OPTION ONE MORTGAGE CORPORATION, STATE PREPAY PENALTY MATRIX (June 8, 2007).

82. *See* Elliehausen, Staten & Steinbuks, *supra* note 75, at 34 (citing Michael LaCour-Little, Prepayment Penalties in Residential Mortgage Contracts: A Cost-Benefit Analysis 27 (working paper)).

83. Alan Greenspan, Chairman, Fed. Reserve Bd., Remarks at the Credit Union National Association Governmental Affairs Conference: Understanding Household Debt Obligations (Feb. 23, 2004), *available at* http://www.federalreserve.gov/boardDocs/speeches/2004/20040223/default.htm.

interest rate.[84] But paying points is not ideal either—paying points compensates the lender for prepayment risk, but it does not allow borrowers to signal their private information about their likelihood of prepayment.[85] Thus, borrowers benefit from the option of being able to sort themselves between these two options and thereby allow those with a lower likelihood of prepayment to accept a lower interest rate. In addition, prepayment penalties, although generally not found in prime mortgages in the United States, are common in residential mortgages in other countries[86] and in commercial loans in the United States,[87] further suggesting that they are an appropriate risk-pricing term in a loan contract and not per se evidence of predatory lending.

C. Benefits of the Growth of the Subprime Market

The growth of subprime lending has had a dramatic effect on the United States housing market. It brought into the market many new homeowners who previously were excluded and allowed others to access accumulated home equity to consolidate high-interest consumer debt, start small businesses, pay for educational expenses, and invest in home improvements. Originations in the subprime market grew from $65 billion in 1995 to $332 billion in 2003.[88] This increase mirrors a dramatic increase in the United States homeownership rate. From 1965 until 1995, the homeownership rate varied between 63% and 66%. Beginning in 1995, there was a steady increase, peaking at 69.4% in the fourth quarter of 2004, before recently slipping back to 68.1% in the second quarter of 2008, still substantially higher than in the past.[89] From 1994 to 2003, the number of homeowners rose by nine million households, a development attributable largely to innovations in the mortgage

84. Stephen F. LeRoy, *Mortgage Valuation Under Optimal Prepayment*, 9 REV. FIN. STUD. 817 (1996).

85. Elliehausen, *supra* note 69, at 3 (citing Jevgenijs Steinbuks, Essays on Regulation and Imperfections in Financial Markets (2008) (unpublished Ph.D. dissertation, George Washington University)).

86. Green & Wachter, *supra* note 28, at 100–01.

87. Elliehausen, *supra* note 69, at 3 n.5 (citing Lacour-Little, *supra* note 82).

88. Elliehausen, Staten & Steibuks, *supra* note 7579, at 37.

89. HOUSING VACANCY SURVEY, *supra* note 2, at 2d Qtr. 2008 tbl.5, http://www.census.gov/hhes/www/housing/hvs/qtr208/q208tab5.html.

finance industry, including the development of the subprime market.[90]

The effect of homeownership on household wealth has been greatest among young, low-income, and minority households, which often have very few non-home assets. Although homeownership has risen across all demographic groups, the percentage increase was largest for minority households.[91] In addition to the obvious psychological and neighborhood benefits of widespread homeownership, homeownership is the primary method of wealth accumulation for low and moderate-income people[92]—a group that is disproportionately represented in the subprime mortgage market. The positive impact of homeownership is profound. Homes are the primary source of wealth for most American households. The average low-income homeowner (annual income is less than $20,000) has nearly $73,000 in net wealth, compared with a similar renter with only $900 of net wealth.[93] Seventy-seven percent of the wealth of families with incomes under $20,000 is in their homes and 54% of the wealth of minority families is in their homes.[94] According to the 2001 Survey of Consumer Finances, white households are approximately two-and-a-half times wealthier than black households; black home-owning households are approximately *thirty-six times wealthier* than black households that rent their homes.[95] In fact, homeownership has been such a potent vehi-

90. Mark Doms & Meryl Motika, *The Rise in Homeownership*, FRBSF ECON. LETTER, 2006-30 (Nov. 3, 2006) *available at* http://www.frbsf.org/publications/economics/letter/2006/el2006-30.html.

91. DEP'T OF HOUS. & URBAN DEV., *supra* note 40, at 92 tbl.29; Remarks by Governor Edward M. Gramlich, *Subprime Mortgage Lending: Benefits, Costs, and Challenges* at the Financial Services Roundtable Annual Housing Policy Meeting 2 & tbl.2 (May 21, 2004), *available at* http://www.federalreserve.gov/boarddocs/speeches/2004/20040521/default.htm.

92. THOMAS P. BOEHM & ALAN SCHLOTTMANN, DEP'T OF HOUS. & URBAN DEV., WEALTH ACCUMULATION AND HOMEOWNERSHIP: EVIDENCE FOR LOW-INCOME HOUSEHOLDS 11–14 (2004), *available at* http://www.huduser.org/Publications/pdf/WealthAccumulationAndHomeownership.pdf.

93. Zhu Xiao Di, *Housing Wealth and Household Net Wealth in the United States: A New Profile Based on the Recently Released 2001 SCF Data* 10 (Harvard U., Joint Ctr. for Hous. Studies Working Paper No. W03-8, 2003).

94. *Id.* at 7 fig.7.

95. *Id.* at 11. A caveat should be noted that all of the data quoted in this paragraph is independent of one another. For instance, wealth accumulation by income does not account for age, thus a family with an income of under $20,000 may include some retired families who have paid off their mortgages, thus they may have low income at the time of the survey but earned higher income for many years before retiring. Similarly, homeownership is also endogenous to wealth—high-wealth households are more likely to be able to afford to purchase a home,

cle for wealth accumulation that the polarization of wealth between homeowners and renters has risen dramatically in recent years, even as the wealth polarization among different income classes has decreased.[96] Low-income and even middle-class homeowners rely on homeownership for the majority of their net worth—almost 80% of the wealth of low-income households is in residential real estate.[97] The richest quintile by income is the only income group that holds stock wealth in equal value to their home equity. The bottom four quintiles typically have home equity equal to at least twice the value of their stocks.[98]

In addition to improving the asset side of the household balance sheet, homeownership also may be valuable to the liabilities side of the balance sheet. The Federal Reserve's financial obligations ratio calculates the percentage of household income dedicated to monthly payment obligations, including monthly rental payments on homes, apartments, and automobiles, real estate tax obligations, and the debt service burden, which includes monthly payments on mortgages, car payments, student loans, and credit cards.[99] The household financial obligations ratio ("FOR") is substantially higher for those households that rent compared to those that own their homes.[100] Data indicates that homeowners also save more than do non-

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which in turn causally increases wealth. Despite this caveat, the data is nonetheless suggestive of the positive impact that homeownership has on families.

96. *See* Conchita D'Ambrosio & Edward N. Wolff, *Is Wealth Becoming More Polarized in the United States?* 14–16 (Jerome Levy Economics Inst. of Bard College Working Paper No. 330, 2001), *available at* http://ssrn.com/abstract=276900. Wealth inequality appears to have increased over time, but wealth "polarization" is different from "inequality" in that polarization studies the clustering of homogeneous groups, such as homeowners, within a heterogeneous population. *See id.* at 2. Thus, it is a more useful tool for examining the effect on wealth of particular subsets, such as homeowners.

97. Di, *supra* note 93, at 7 fig.7.

98. *Id.* at 16 & fig.20.

99. *See* FED. RES. BOARD, HOUSEHOLD DEBT SERVICE AND FINANCIAL OBLIGATIONS RATIOS (June 10, 2008), *available at* http://www.federalreserve.gov/Releases/housedebt/.

100. The Federal Reserve defines these measures as follows:

> The household debt service ratio (DSR) is an estimate of the ratio of debt payments to disposable personal income. Debt payments consist of the estimated required payments on outstanding mortgage and consumer debt. The financial obligations ratio (FOR) adds automobile lease payments, rental payments on tenant-occupied property, homeowners' insurance, and property tax payments to the debt service ratio.

Id.

homeowners.[101] Although some of this difference surely is attributable to the fact that homeowners generally have higher incomes than renters, renters also are more likely to revolve credit card debt and to hold student loan debt, both of which generally carry higher interest rates than mortgage debt.

In addition to these direct benefits, homeownership apparently has a number of indirect benefits. For instance, homeownership is correlated with a substantial increase in one's propensity to vote, dramatic improvements in children's life outcomes, and improvements in labor market outcomes; homeownership also creates incentives to improve property, generally increases life satisfaction, and is correlated with a reduction in crime rates.[102] There are costs to homeownership as well, notably increased sprawl and a less mobile labor force.[103] Nonetheless, policy-makers have long (and somewhat reasonably) believed that the benefits of widespread homeownership outweigh the costs, and, therefore, expanding homeownership rates historically has been a linchpin of American financial and social policy.[104] An open question, on the other hand, is whether the newly-minted homeowners of recent years in fact behave similarly to earlier generations of homeowners. If, for instance, they are younger or less likely to be married with children than traditional homeowners, or if they are more likely to have purchased with a speculative intent, then they may not actually act the same as traditional homeowners and may not generate the same benefits as earlier homeowners. This is a question that requires further research.

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101. ED GRAMLICH, SUBPRIME MORTGAGES: AMERICA'S LATEST BOOM AND BUST 75–77 (2007).

102. *See id.* at 58–60; *see generally* CHRISTOPHER E. HERBERT & ERIC S. BELSKY, DEP'T OF HOUS. & URBAN DEV., THE HOMEOWNERSHIP EXPERIENCE OF LOW-INCOME AND MINORITY FAMILIES: A REVIEW AND SYNTHESIS OF THE LITERATURE (Feb. 2006); Robert D. Dietz & Donald R. Haurin, *The Social and Private Micro-Level Consequences of Homeownership*, 54 J. URB. ECON. 401 (2003).

103. Fernando Ferreira, Joseph Gyourko & Joseph Tracy, *Housing Busts and Household Mobility* (Nat'l Bureau of Econ. Research Working Paper No. 13410, 2008), *available at* http://www.nber.org/papers/w14310; Dietz & Haurin, *supra* note 102, at 404.

104. *See generally* Melissa B. Jacoby, *Homeownership Risk Beyond a Subprime Crisis: The Role of Delinquency Management*, 76 FORDHAM L. REV. 2261 (2008).

D. Housing Bust and Rising Foreclosures

In late 2006 and early 2007, mortgage delinquencies and foreclosures, especially in the subprime market, began to rise. One website tracking the subprime bust has estimated that as of October 2008, 293 lenders have "imploded" since late 2006—that is, gone bankrupt, halted major lending operations, or been sold at a "fire sale" price.[105] Delinquency, default, and foreclosure on subprime mortgages have risen. Dozens of subprime lenders either went bankrupt or were bought by larger companies. Other lending firms have severely cut back on their subprime portfolios or have stopped lending to subprime borrowers altogether.[106]

Although the turmoil in the subprime market has garnered much attention, macroeconomic trends still play a predominant role in increased mortgage default and delinquency. High concentrations of subprime delinquencies are found in states such as Michigan, Ohio, and Indiana,[107] each of which has been hard-hit by the troubles in the American automotive industry and resultant layoffs and plant closures. In addition, foreclosures are high in the areas of Louisiana and Mississippi affected by Hurricane Katrina in 2005,[108] as foreclosures have resumed in those areas after a moratorium period. These areas are also struggling with high unemployment and sluggish local economies, and they have been since before subprime delinquency rates increased sharply beginning in late 2006. Problems in local labor markets also exert downward pressures on local home prices, making refinancing more difficult and reducing incentives to retain a home in the face of financial pressures. Moreover, they often have relatively high percentages of subprime loans as cash-strapped homeowners refinanced or borrowed against their equity in order to deal with their economic dislocations.

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105. The Mortgage Lender Implode-O-Meter Homepage, http://ml-implode.com/ (last visited September 27, 2008).

106. Eric Petroff, *How Will the Subprime Mess Impact You?*, INVESTOPEDIA http://www.investopedia.com/articles/pf/07/subprime-impact.asp (last visited Nov. 11, 2008); *see also* Jack Guttentag, *A Chill Comes Over Credit*, WASH. POST, May 5, 2007, at F9.

107. *Where Subprime Delinquencies are Getting Worse*, WALL ST. J. ONLINE, Mar. 29, 2007, at Map 2, http://online.wsj.com/public/resources/documents/info-subprimemap07-sort2.html (click "Map 2" header) (data provided by First Am. Loan Performance).

108. *Id.*

But foreclosure and delinquency do not necessarily indicate the presence of unaffordable loans, predatory loans, rising interest rates, or borrowers under duress. A proper understanding of the dynamics of foreclosure is necessary to understand the appropriate policy responses. All borrowers face a number of options with their loans—timely repayment, prepayment, delinquency, or default followed by foreclosure.[109] Although the latter two options typically are assumed to be evidence of financial distress, the reality is more complicated.

Delinquency in the subprime market may not be a sign of financial distress and impending foreclosure. Due to the riskier credit history of subprime borrowers, some may find that the interest rates of subprime loans plus any late penalties are more attractive than the rates of other personal loans for which they might qualify, such as from payday lenders or personal finance companies. The evidence on delinquency rates supports this theory. In a study using 2002 data, the prime market share of mortgages that were delinquent declined between thirty-day delinquency (1.73%), sixty-day delinquency (0.31%), and ninety-day delinquency (0.28%).[110] In the subprime market, the rates were highest for thirty-day delinquency (7.35%), declined for sixty-day delinquency (2.02%), then rose again for ninety-day delinquency (4.04%).[111] Ninety-day delinquency rates can exceed sixty-day delinquency rates if borrowers fall three months behind in their loans, then begin to repay without catching up to the current month's payment.[112] This is evidence that some subprime borrowers, in effect, rationally choose to take out short-term loans worth one- or two-months rent.[113] In fact, loans that are delinquent over a long period of time typically terminate in prepayment rather than eventual default.[114] This counterintuitive finding suggests that these homeowners are likely using the opportunity to remain delinquent to take advantage of the "free rent" of the delinquency period, using the opportunity to miss payments in order to smooth their income and manage their finances (especially if they have a highly variable income stream or anticipated higher future income), and to simply take advantage of the op-

109. *See* Cutts & Van Order, *supra* note 22, at 169.
110. *Id.* at 172.
111. *Id.* at 173.
112. *Id.*
113. *Id.*
114. Danis & Pennington-Cross, *supra* note 61, at 13.

portunity to delay and develop a solution to the problem.[115] Thus, it is also interesting that low documentation subprime loans show a greater probability of delinquency and intensity of delinquency, but a slightly lower probability of default and prepayment.[116] Low documentation loans are often used by the self-employed and others with irregular income. The combination of high delinquency and lower default suggests that these borrowers are using the opportunity of delinquency strategically, to engage in income smoothing. By contrast, "trigger events," such as unemployment, do not tend to predict the likelihood of delinquent loans turning into defaults for subprime borrowers.[117]

Foreclosure also may not necessarily indicate financial distress. Foreclosure can be explained by two different, but conceptually related models. The first can be called the *distress* model of foreclosure, where a borrower desires to repay the loan, but is unable to do so.[118] This would be the case for a family homeowner who buys a home for the amenities of homeownership but then experiences an income or expense shock that makes him unable to repay his loan. This could result from a "triggering event" such as job loss or divorce that causes an income loss or an expense shock such as the reset of an adjustable-rate mortgage at a substantially higher than anticipated interest rate. In the distress model, foreclosure would be essentially involuntary—the borrower wants to retain the home but is unable to afford it.

A second model of foreclosure is an *option* model. In the option model, a change in the underlying value of the asset primarily drives foreclosure. A mortgage essentially gives the borrower an option—she can pay the mortgage as contracted and retain the property, or she can default on the mortgage and surrender the property to the lender (especially if the loan is non-recourse). If the underlying asset falls in value, this creates incentives for borrowers to exercise their option to default and surrender the collateral. Under the option theory,

115. *Id.*
116. *Id.* at 12.
117. *Id.*
118. This can also be referred to as the "ability to pay" model, which "views home ownership as a consumption good, and borrowers default when they can no longer make the payments." William P. Alexander, Scott D. Grimshaw, Grant R. McQueen & Barrett A. Slade, *Some Loans Are More Equal than Others: Third-Party Originations and Defaults in the Subprime Mortgage Industry*, 30 REAL ESTATE ECON. 667, 667 (2002).

therefore, foreclosure is essentially a voluntary and rational response to the incentives created by the change in value of the asset—the borrower *could* continue to service the loan but chooses not to. Default and foreclosure result because the borrower strategically chooses the option of foreclosure over the option of continued payment of the loan.

Disentangling the two hypotheses is difficult because housing prices are inversely correlated with interest rates: as interest rates rise, housing prices will tend to fall. Nonetheless, empirical studies traditionally have tended to support the option theory of foreclosure.[119] For instance, even though interest rates generally rise uniformly across the country, the foreclosure rate is lower for residential real estate where price appreciation has been higher.[120] This suggests that in deciding whether to default the primary consideration by homeowners is the amount of equity they have accrued in their property (which might be lost in the event of a foreclosure), rather than "payment shock" resulting from an unexpected rise in interest rates. Similarly, those who have drawn against accumulated home equity through home equity loans or junior liens exhibit a greater propensity to default than those who have retained their equity.[121]

Payment shock also causes some foreclosures, especially with loans that were initiated with below-market "teaser"

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119. *See* Kerry D. Vandell, *How Ruthless Is Mortgage Default? A Review and Synthesis of the Evidence*, 6 J. HOUSING RES. 245 (1995); James B. Kau & Donald C. Keenan, *An Overview of the Option-Theoretic Pricing of Mortgages*, 6 J. HOUSING RES. 217 (1995); Patric H. Hendershott & Robert Van Order, *Pricing Mortgages: An Interpretation of the Models and Results*, 1 J. FIN. SERVICES RES. 19 (1987).

120. Mark Doms, Frederick Furlong & John Krainer, *House Prices and Subprime Mortgaged Delinquencies* 1–2 (FRBSF ECON. LETTER NO. 2007-14, 2007); Brent W. Ambrose, Charles A. Capone, Jr. & Yongheng Deng, *Optimal Put Exercise: An Empirical Examination of Conditions for Mortgage Foreclosure*, 23 J. REAL EST. FIN. & ECON. 213, 218 (2001) (showing higher default rates where home prices appreciate more slowly); Kristopher Gerardi, Adam Hale Shapiro & Paul S. Willen, *Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosures* 2–3 (Fed. Res. Bank of Boston, Working Paper No. 07-15, 2008), *available at* http://www.bos.frb.org/economic/wp/wp2007/wp0715.pdf (concluding that dramatic rise in Massachusetts foreclosures in 2006 to 2007 resulted from decline in house prices beginning in summer 2005); Ellen Schloemer, Wei Li, Keith Ernst & Kathleen Keest, *Losing Ground: Foreclosures in the Subprime Market and Their Cost to Homeowners,* CRL RES. REPORTS (Ctr. for Responsible Lending, Durham, N.C.), Dec. 2006, at 1, 13.

121. *See* Michael LaCour-Little, *Equity Dilution: An Alternative Perspective on Mortgage Default*, 32 REAL ESTATE ECON. 359, 369 (2004).

rates.[122] One study predicts that 32% of loans with initial teaser rates eventually will default as a result of interest rate reset, but only 7% of market-rate adjustable loans will default due to reset.[123] But payment shock appears to explain only a small percentage of foreclosures. Of subprime loans facing foreclosure, 36% are for hybrid loans, fixed-rate loans account for 31%, and adjustable-rate loans for 26%.[124] Of those loans in foreclosure, the overwhelming majority entered foreclosure *before* there was an upward reset of the interest rate.[125] Economists Anthony Pennington-Cross and Giang Ho similarly find that the transition in a hybrid loan from an initial fixed period to the adjustable rate period results in heightened rates of prepayment, not default.[126] This suggests that not all consumers are caught unawares by the transition from fixed interest rates to adjustable rates. They also find that the termination rate for subprime hybrid loans (whether by prepayment or default) is comparable to that of prime hybrid loans. Even when a foreclosure proceeding is initiated, mortgages with positive equity tend to terminate in prepayment, whereas those with negative equity tend to terminate in foreclosure.[127] As one report concludes, "Without home price increases, hybrid loans will surely exacerbate the foreclosure problem if interest rates reset upward, but they are not the basic cause of it."[128] Finally, to the extent that hybrid or adjustable-rate loans are associated with higher levels of default and foreclosure, this correlation may be a result of a selection effect bias rather than a reflection of the products themselves. It may be that borrowers with the most fragile finances are those most likely to choose an ARM or a hybrid loan with a teaser rate; their pro-

122. CHRISTOPHER L. CAGAN, MORTGAGE PAYMENT RESET: THE ISSUE AND THE IMPACT 44 (2007).

123. *Id.* at 4.

124. James R. Barth et al., *Mortgage Market Turmoil: The Role of Interest-Rate Resets*, SUBPRIME MORTGAGE DATA SERIES (Milken Inst.), Dec. 2007.

125. *Id.* Of those subprime loans in foreclosure, 57% of 2/28 hybrids and 83% of 3/27 hybrids "had not yet undergone any upward reset of the interest rate." *Id.*

126. *See* Anthony Pennington-Cross & Giang Ho, *The Termination of Subprime Hybrid and Fixed Rate Mortgages* 18 (Fed. Reserve Bank of St. Louis, Working Paper No. 2006-042A, 2006).

127. Anthony Pennington-Cross, *The Duration of Foreclosures in the Subprime Mortgage Market: A Competing Risks Model with Mixing* 4–5 (Fed. Reserve Bank of St. Louis, Working Paper No. 2006-027A, 2006).

128. Barth et al., *supra* note 124, at 2.

pensity to default may reflect *the borrower's* underlying riskiness rather than the riskiness of the products they choose.[129]

Anecdotal reports in the current market also report a growing number of "mortgage walkers" who are exercising their "put" option to voluntarily surrender their home to the lender. This practice is known as "jingle mail," after the practice of the borrower mailing her keys to the lender and surrendering the house.[130] As house prices fall, mortgage walking has begun to spread beyond the subprime market. Kenneth Lewis of Bank of America recently observed that there has been a general change in social norms regarding mortgage default.[131] In the past, consumers would default on their mortgages only as a last resort after falling behind on car payments, credit cards, and other debts. Today, however, Bank of America reports a growing number of borrowers who are current on their credit cards but defaulting on their mortgages, suggesting that "[a]t least a few cash-strapped borrowers now believe bailing out on a house is one of the easier ways to get their finances back under control."[132] This temptation is especially strong for those homeowners who put little or nothing down or borrowed against their home equity. As the *Wall Street Journal* observed, these practices created

> a new class of homeowners in name only. Because these people never put up much of their own money, they don't act like owners, committed to their property for the long haul. They behave more like renters, ducking out of an onerous lease in the midst of a housing slump.[133]

The incentives to "walk" are especially strong in those states with antideficiency laws that limit creditor's remedies to foreclosure without the right to sue the borrower personally for the deficiency.[134] Although laws vary among states, about

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129. *See Ending Mortgage Abuse: Safeguarding Homebuyers: Hearing Before the Sen. Subcomm. on Hous., Transp. and Cmty. Dev. of the Sen. Comm. on Banking, Hous., and Urban Affairs*, 109th Cong. 5 (2007) (written statement Anthony M. Yezer, Professor of Econ., George Washington University).

130. Nicole Gelinas, *The Rise of the Mortgage "Walkers,"* WALL ST. J., Feb. 8, 2008, at A17.

131. George Anders, *Now, Even Borrowers With Good Credit Pose Risks*, WALL ST. J., Dec. 19, 2007, at A2.

132. *Id.*

133. *Id.*

134. *See* Michael T. Madison, Jeffry R. Dwyer & Steven W. Bender, 2 THE LAW OF REAL ESTATE FINANCING §12:69 (Dec. 2007), *available at* Westlaw REFINLAW § 12:69. It is difficult to estimate exactly how many states have antideficiency

eight states have some type of antideficiency law that limits creditors to seizure of the property in the event of default, with no right of recourse against the borrower personally. Some of the states with antideficiency laws, such as California and Arizona, are also among the states with the highest foreclosure rates.[135] Other high-foreclosure states, such as Nevada and Colorado, have laws that limit the amount that lenders can recover from borrowers but which do not bar deficiency judgments completely. Even where the laws do not mandate that mortgages are nonrecourse, lenders have exhibited willingness to voluntarily waive actions for deficiency.[136] In still other cases, even if a deficiency judgment is formally available, borrowers may be judgment-proof because of a general lack of other assets, especially if the borrower placed little or nothing down because of an absence of funds.

Empirical evidence indicates that foreclosure default and foreclosure rates are higher where law limits lender recourse through antideficiency laws. In a study of the neighboring provinces of Alberta and British Columbia in Canada, Lawrence Jones found that "in a period of sizable house-price declines, the prohibition of deficiency judgments can increase the incidence of default by two or three times over a period of several years."[137] Similarly situated borrowers with negative home equity (that is, where they owe more than the value of the house) "will be observed defaulting in antideficiency jurisdictions but not where deficiencies are truly collectible."[138] In fact, in Alberta, which had an antideficiency law, 74% of those who deliberately defaulted had negative equity; in British Columbia, which permitted deficiency suits, only one homeowner defaulted with negative book equity.[139] Other researchers

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laws as foreclosure rules vary a great deal from state to state, but an approximation may be about fifteen to twenty states, including many larger states. *See* United States Foreclosure Law, http://www.foreclosurelaw.com (last visited Sep. 17, 2008) (providing a full list of state laws). It is estimated that about eight states have full-blown antideficiency laws and others have more limited versions.

135. *See* Madison, Dwyer & Bender, *supra* note 134.

136. There is also evidence that subprime lenders tend to foreclose more slowly. *See* Dennis R. Capozza & Thomas A. Thomson, *Subprime Transitions: Lingering or Malingering in Default?*, 33 J. REAL ESTATE FIN. ECON. 241, 257 (2006).

137. Lawrence D. Jones, *Deficiency Judgments and the Exercise of the Default Option in Home Mortgage Loans*, 36 J. L. & ECON. 115, 135 (1993).

138. *Id.*

139. *Id.* at 128–29. Jones states that the one defaulter in British Columbia reportedly left the country. *Id.* at 129.

have also found that prohibitions on deficiency judgments tend to produce higher delinquency[140] and default rates.[141] Limits on collection of deficiency judgments in FHA and VA loans may also explain the higher default rates on those loans compared to private market loans.[142]

Because the presence of antideficiency laws increases the risk of lending, these laws also are associated with higher interest rates and other costs, such as higher required down payments, especially among those marginal borrowers who would be expected to be the most likely to default.[143] This increase in interest rates and other costs may also increase financial distress and thereby contribute to higher foreclosures at the margin. Moreover, if it is the case (as it appears to be) that the propensity for default and foreclosure is a function, in part, of state laws regarding the collection of deficiency judgments and judicial foreclosure actions, and that lenders have already priced that risk ex ante in the loan, then this raises questions about the propriety, as a matter of equity and efficiency, of governmental "bail outs" for distressed borrowers and lenders. Put alternatively, if California's high foreclosure rate is, in part, a function of California's extremely borrower-friendly laws, one can question whether taxpayers and homeowners from the rest of the country should be taxed (directly or

140. Brent W. Ambrose & Richard J. Buttimer, Jr., *Embedded Options in the Mortgage Contract*, 21 J. REAL ESTATE FIN. AND ECON. 95, 105 (2000).

141. Ambrose, Capone & Deng, *supra* note 120, at 220.

142. Brett W. Ambrose, Richard J. Buttimer, Jr. & Charles A. Capone, *Pricing Mortgage Default and Foreclosure Delay*, 29 J. MONEY, CREDIT & BANKING 314, 322 (1997).

143. Ambrose, Buttimer, and Capone note that the higher risk of FHA and VA loans associated with limits on deficiency judgments contributed to a substantial increase in the insurance premiums charged by those lenders. *Id.*; *see also* Pence, *supra* note 10, at 177 (finding that average loan size is smaller in states with defaulter-friendly foreclosure laws); Jones, *supra* note 137 (higher downpayments in states with antideficiency laws); Mark Meador, *The Effects of Mortgage Laws on Home Mortgage Rates*, 34 J. ECON. & BUS. 143, 146 (1982) (estimating 13.87 basis point increase in interest rates as a result of antideficiency laws); Brent W. Ambrose & Anthony B. Sanders, *Legal Restrictions in Personal Loan Markets*, 30 J. REAL ESTATE FIN. & ECON. 133, 147–48 (2005) (higher interest rate spreads in states that prohibit deficiency judgments and require judicial foreclosure procedures); SUSAN E. WOODWARD, U.S. DEP'T OF HOUS. & URBAN DEV., A STUDY OF CLOSING COSTS FOR FHA MORTGAGES 50 (2008), *available at* http://www.huduser.org/Publications/pdf/FHA_closing_cost.pdf (finding that presence of antideficiency laws raises costs of loan). *But see* Michael H. Schill, *An Economic Analysis of Mortgagor Protection Laws*, 77 VA. L. REV. 489, 512 (1991) (finding mixed results for impact of antideficiency laws on foreclosure rates depending on specification of regression).

indirectly through higher interest rates and tighter credit) to essentially bribe California homeowners not to walk away from their mortgages.

Antideficiency laws also appear to affect homeowners' incentives to maintain their property—homeowners in states that have antideficiency laws may be less willing to invest in maintenance and improvements for their homes.[144] Moreover, although there are costs to "walking"—particularly the negative effect on one's credit report—in light of the widespread nature of defaults and foreclosures, future lenders may discount the impact of this adverse event in comparison to prior eras.[145] In addition, the pure number of homeowners who walk away from their mortgages may underestimate the number of truly voluntary foreclosures, because during the period that a home is in foreclosure, the owner ceases making mortgage payments, thus essentially living rent-free during the foreclosure period. Thus, even if the owner is willing to permit foreclosure, she may nonetheless not simply surrender the property immediately but instead take advantage of the opportunities presented by foreclosure. In fact, the combination of lengthy foreclosure processes and rent-free occupancy gives rise to the practice of "equity skimming" by those who "buy properties from defaulting borrowers and then rent out the property while manipulating the legal system to extend the process as much as possible."[146]

The value of the foreclosure option may also vary among borrowers and real estate submarkets. The motives for home purchase lie along a continuum, from those who purchase for the consumption amenities of homeownership and long-term stability to those who buy as a pure speculative investment with an intention to rapidly flip the home for a hoped-for wealth gain. Most homeowners lie somewhere in between, with a combination of consumption and wealth-building incen-

144. John Harding, Thomas J. Micelli & C.F. Sirmans, *Deficiency Judgments and Borrower Maintenance: Theory and Evidence*, 9 J. HOUSING ECON. 267, 271 (2000); *see also* John Harding, Thomas J. Micelli & C.F. Sirmans, *Do Owners Take Better Care of Their Housing Than Renters?*, 28 REAL ESTATE ECON. 663, 669–70 (2000) [hereinafter Harding, Micelli & Sirmans, *Owners Take Better Care*].

145. Harding, Micelli & Sirmans, *Owners Take Better Care*, *supra* note 144, at 271.

146. Karen M. Pence, Foreclosing on Opportunity: State Laws and Mortgage Credit 5 (May 13, 2003) (working paper, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=410768).

tives. To the extent that a particular homeowner is motivated by speculation, she will be more likely to cut her losses and walk away if the house falls in value. It is possible that the rise in default and foreclosure in the subprime market has been driven disproportionately by borrowers who lie along the speculative range of the continuum and thus have voluntarily self-selected into foreclosure. If so, then this presents a very different picture of the rise in foreclosures and appropriate policy responses than if the pool is more randomly distributed.

HMDA data indicates that since 2000 the percentage of subprime loans that are for *non*-owner-occupied home loans—to fund the purchase of rental or vacation homes, for example—has doubled from about 8% of all subprime loans to over 16%.[147] Similarly, a survey by the National Association of Realtors found that 28% of home buyers in 2005 purchased homes as investments, as did 22% in 2006.[148] This suggests that an increasing number of subprime loans in recent years may have been issued to investors and speculators, not to families. Because these properties were bought for the purpose of speculation, their owners might be especially likely to exercise the default option in response to declining residential real estate prices.[149] Investors also may be more likely to self-select for teaser-rate loans if they plan to flip the home before the rate readjusts or to permit foreclosure. Thus, it is possible that a substantial percentage of the subprime loans that actually result in foreclosure may reflect strategic decision-making by speculative homeowners to allow foreclosure rather than evidence of widespread hardship and distress by many families. On the other hand, there appears to be a minimal difference in the amount of equity retained in owner-occupied versus non-

147. It is not clear, however, if all of these recent HMDA loans were actually subprime loans. Because of peculiarities in the yield curve for short-term versus long-term interest rates, recent years of HMDA data have seen an unusually large increase in the number of loans that fall under the HMDA definition. *See* Robert B. Avery, Kenneth P. Brevoort & Glenn B. Canner, *The 2006 HMDA Data*, 93 FED. RESERVE BULLETIN A73, A81–A85 (2007), *available at* http://www.federalreserve.gov/pubs/bulletin/2007/pdf/hmda06final.pdf. Nonetheless, because we are comparing a change in the percentage of non-owner-occupied houses, this concern should not systematically bias the percentage of HMDA loans that are for non-owner-occupied properties.

148. Press Release, Nat'l Ass'n of Realtors, Vacation-Home Sales Rise to Record, Investment Sales Plummet in 2006 (April 30, 2007), *available at* http://www.realtor.org/press_room/news_releases/2007/phsi_apr07_vacation_home_sales_rise.

149. *See* Anders, *supra* note 131.

owner-occupied housing, suggesting that owners of non-owner-occupied housing are not behaving in a dramatically more risky fashion than owner-occupants, at least in this respect.[150]

Still other subprime borrowers may be occupying their properties, where the borrower invested for the mixed purposes of speculation and enjoying residential amenities, such as a young, single individual who bought a property with a subprime loan as an alternative to renting and who might be expected to be attracted to the default option. This especially may be the case for many close alternatives to apartment renting, such as condominiums.[151] Anecdotal reports suggest that although there has been a general price decline or leveling off in real estate prices, price declines have been largest among those properties most likely to be held for rental or speculative purposes, such as condominiums.[152] If so, then this suggests that the aggregate data on foreclosures may be painting an inaccurate picture of the subprime crisis by lumping together loans entered into for speculative purposes with those made to family homeowners. It is not obvious that widespread foreclosure on speculative investments raises the same policy concerns as foreclosure on family homes.

A better understanding of the causes of default and foreclosure is essential to crafting a sensible policy response to the foreclosure crisis. Commentators and members of Congress have proposed responses such as interest-rate freezes on ARMs for up to five years or various forms of foreclosure relief. Although well-intentioned, it should be evident that these reforms rest heavily on assumptions about the operation of the subprime market and the causes of default and foreclosure. As noted, at the current time it is difficult to know how many of those in default are speculators who purchased the property as a speculative investment with full knowledge of the risk that the property might decline in value. To the extent that a "foreclosure relief" package relieves these speculators of the consequences of their investments, it is not clear that this promotes any coherent federal policy. Similarly, for those "walkers" who abandon their homes when property values fall, foreclosure re-

150. *See* CAGAN, *supra* note 9, at 5, 32.

151. *See* Gerardi, Shapiro & Willen, *supra* note 120, at 28 (noting that owners of condominiums and multi-family houses have substantially higher default probabilities than owners of single-family houses, holding other risk factors constant).

152. *See* Les Christie, *Condo Prices Reveal Housing Trends*, CNN MONEY.COM, Jan. 18, 2007, http://money.cnn.com/2007/01/18/real_estate/condo_prices_reveal_trends/index.htm.

lief is unlikely to make a demonstrable difference in their decisions and may result in higher costs for all borrowers.

II. POSSIBLE EXPLANATIONS FOR THE SUBPRIME MELTDOWN

To the extent that recent problems in the subprime market reflect more than just regional economic struggles, three possible explanations have been offered: first, that the structure of subprime loans was unreasonably risky; second, that the market simply mispriced the risk of these loans; and third, that subprime borrowers were unreasonably risky. In turn, these factors have spawned calls for new regulations. All of these explanations likely have some truth to them, although it is difficult to ascertain how much truth each explanation provides. Nonetheless, understanding the causes of the subprime meltdown is necessary to try to determine what regulatory responses might be appropriate.

A. Are Subprime Loans Unreasonably Risky?

Years of rapid house price appreciation—at times, annual appreciation rates topped 10%[153]—made homeownership a very good investment for millions of families in the early 2000s. Interest rates on thirty-year fixed-rate mortgages fell from 8.05% in 2000 to 5.8% in 2003 to 2005 before rising to 6.4% in 2006.[154] In 2000, the average price of existing homes nationwide was $143,600, and by 2005 the average price was $219,600; in some regions of the country prices almost doubled during that period.[155]

Lenders expanded their business during this time, both in the prime market and in the subprime market. From 1995 to 2003, subprime originations grew from $65 billion to $332 billion, while total mortgage originations grew from $639.4 billion to $3.76 trillion over the same period.[156] Over this time, the subprime share of the total market dropped from a high of

153. Press Release, Office of Fed. Hous. Enterprise Oversight, U.S. House Price Appreciation Rate Remains Slow, but Positive 2 (May 31, 2007) (on file with author).

154. DEP'T OF HOUS. & URBAN DEV., U.S. HOUSING MARKET CONDITIONS, 4TH QTR. 2006 at 78 tbl.14 (2007), *available at* http://www.huduser.org/periodicals/ushmc/winter06/Q406_historical.pdf.

155. *Id.* at 73 tbl.9 (Existing Home Prices). Points fell as well during this period. *Id.* at 79 tbl.15.

156. Chomsisengphet & Pennington-Cross, *supra* note 14, at 37.

14.5% in 1997 to 8.8% in 2003.[157] Much of the rise in subprime lending was due to an increase in loans to the safest subprime borrowers. The early stages of the growth in subprime lending, from the mid-1990s through 1999, was due to an increase in loans to relatively risky borrowers rated B and lower. Beginning in 2000, the market grew much more around A-minus graded borrowers, and lenders allowed larger loans or higher loan-to-value ratios ("LTV") to relatively safe borrowers and reduced loan amounts to riskier borrowers.[158]

Some of this growth in subprime lending and subsequent foreclosures was a predictable byproduct of specific regulatory policies intended to increase homeownership among traditionally excluded groups, such as through the Community Reinvestment Act ("CRA").[159] Regulators pressured banks to loosen their underwriting standards in order to expand access to home loans to riskier borrowers, many of whom now face default and foreclosure.[160] According to the transcript of a Bank of America quarterly earnings call for analysts in October 2008, CRA lending comprised only 7% of its lending volume but 29% of its losses on mortgage products.[161] As Federal Reserve Chairman Ben Bernanke recently observed, "[R]ecent problems in mortgage markets illustrate that an underlying assumption of the CRA—that *more* lending equals *better* outcomes for local communities may not always hold."[162] As Bernanke observes, differentiating "good" from "bad" lending in the CRA context "is an issue that is likely to challenge us for some time."[163]

It has now become evident that the regulatory pressures imposed by the government to "push" lenders to extend more credit to higher-risk borrowers was simultaneously being met

157. *Id.*

158. *Id.* at 55. The loan-to-value ratio of a mortgage is the ratio between the principle amount of the loan to the value of the property. For example, a mortgage with a traditional downpayment of 20% of the purchase price would have an LTV of 80%, as the loan amount is 80% of the value of the property.

159. *See* Martin S. Feldstein, *Housing, Credit Markets and the Business Cycle* (Nat'l Bureau of Econ. Research, Working Paper No. 13471, 2007).

160. Stan Liebowitz, Op-Ed., *The Real Scandal*, N.Y. POST, Feb. 5, 2008, http://www.nypost.com/seven/02052008/postopinion/opedcolumnists/the_real_scandal_243911.htm.

161. Transcript of Bank of America Earnings Call (Oct. 6, 2008) (on file with authors).

162. Ben S. Bernanke, Chairman, Board of Governors of the Fed. Reserve Sys., Remarks at the Community Affairs Research Conference: The Community Reinvestment Act: Its Evolution and New Challenge 6 (Mar. 30, 2007), *available at* http://www.federalreserve.gov/newsevents/speech/Bernanke20070330a.htm.

163. *Id.*

by Fannie Mae and Freddie Mac efforts to "pull" lenders to issue more mortgages to high-risk borrowers. Although officials of Fannie and Freddie had represented that they were not involved in the subprime and Alt-A markets, between 2005 and 2007 they guaranteed more that $1 trillion of those mortgages.[164] Beginning in 1992, Fannie and Freddie received increasing pressure by Congress and the Department of Housing and Urban Development ("HUD") to increase their "affordable lending" operations. For 1996, HUD instructed Fannie and Freddie that 42% of their mortgage financing had to go to borrowers with income below the median in their area, a target that increased to 50% in 2000 and 52% in 2005.[165] HUD also increased Fannie and Freddie's obligations with respect to "special affordable" loans, those borrowers with income less than 60% of their area's median income. In 1996, Fannie and Freddie were expected to make 12% of their loans as "special affordable," a figure that rose to 20% in 2000, 22% in 2005, and a goal of 28% by 2008. To meet these ambitious targets, Fannie and Freddie encouraged lenders to dip further into the risk pool of borrowers and to take on loans with increasingly risky terms, such as ARMs, interest-only, and high-LTV loans. It appears that this aggressive expansion of Fannie Mae and Freddie Mac into subprime lending was a political strategy adopted by their leaders in response to heightened congressional scrutiny and criticism in the wake of the accounting scandals at the agencies that emerged during 2003 to 2004 and which threatened to lead to a revocation of their favored status as government-sponsored enterprises.[166] Fannie and Freddie aggressively restyled their lending operations as the promotion of affordable housing and actively encouraged retail lenders to generate mortgages with those characteristics.[167] As a result,

164. H.R. COMM. ON OVERSIGHT AND GOV'T REFORM, 110TH CONG., EXAMINING THE CAUSES OF THE CREDIT CRISIS OF 2008, MINORITY STAFF ANALYSIS 9 (2008), *available at* http://republicans.oversight.house.gov/media/pdfs/20081006FinancialCrisisReport.pdf.

165. Russell Roberts, *How Government Stoked the Mania*, WALL ST. J., Oct. 3, 2008, at A21.

166. Peter J. Wallison & Charles W. Calomiris, *The Last Trillion-Dollar Commitment: The Destruction of Fannie Mae and Freddie Mac*, FIN. SERVICES OUTLOOK (Am. Enter. Inst. for Pub. Policy Research), Sept. 30, 2008, *available at* http://www.aei.org/docLib/20080930_Binder1.pdf.

167. Charles W. Calomiris & Peter J. Wallison, *Blame Fannie Mae and Congress for the Credit Mess*, WALL ST. J., Sept. 23, 2008, at A29 ("If Fannie and Freddie wanted subprime or Alt-A loans, the mortgage markets would produce

not only did the number of subprime loans explode in the 2005 to 2007 period, but a disproportionate number of these loans were made to the riskiest borrowers or had extremely high risk characteristics, such as negative amortization, interest-only, high-LTV, or very low FICO scores.[168] Fannie and Freddie also supported the growth in CRA lending by encouraging the securitization of CRA loans by guaranteeing those securities.[169]

In retrospect it seems obvious that many new loans during the housing boom were irresponsibly created by lenders, borrowers, or both. In some instances, introductory below-market "teaser" rates that were offered may have caused some consumers to be confused about the full price of their loan. Teaser rates may be appropriate for investment purchasers who intend to resell the house in a short amount of time, perhaps after making improvements. But they seem inappropriate for a typical homeowner who is seeking to purchase a residence.

On the other hand, one should be careful to acknowledge the difference between below-market teaser rates (or negative amortization loans) on one hand and hybrid mortgages that look superficially similar on the other, but for which the initial interest rate was seemingly "low" but nonetheless market based.[170] Adjustable rate loans with introductory fixed-rate periods of one, three, or five years were quite common in prime as well as subprime lending markets during the early-2000s period.[171] The popularity of these loans came about because of the "yield curve," an economic concept that describes the relationship at any given time between short-term and long-term interest rates. During a typical period, the spread between short-term and long-term interest rates is modest, with long-term interest rates being a bit higher because of some residual concerns regarding inflation.[172] During some periods of time,

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them. By late 2004, Fannie and Freddie very much wanted subprime and Alt-A loans.").

168. Wallison & Calomiris, *supra* note 166, at 7.

169. Roberts, *supra* note 165.

170. We would like to thank Edward Vincent Murphy of the Congressional Research Service for very helpful conversations related to the relevance of the yield-curve to foreclosures. *See generally* EDWARD VINCENT MURPHY, CONGRESSIONAL RESEARCH SERVICE, ALTERNATIVE MORTGAGES: CAUSES AND POLICY IMPLICATIONS OF TROUBLED MORTGAGE RESETS IN THE SUBPRIME AND ALT-A MARKETS (2008).

171. *Id.* at 4.

172. *Id.* It is theoretically possible for the yield curve to be "inverted," such that short-term interest rates are higher than long-term, but this anomaly is relatively rare and usually precedes a recession.

however, the spread between short-term and long-term interest rates may be larger. This would be the case if, for instance, the market feared inflation and thus was willing to pay a premium to hold short-term investments relative to long-term investments. Such a period prevailed from 2001 to 2005, as the spread between short-term and long-term interest rates grew from less than one percentage point to over two percentage points.[173] By 2005, however, this difference had disappeared, and for 2006, short-term and long-term interest rates were virtually identical.[174]

The effect of this divergence in the yield-curve for short and long-term investments during the growth of the subprime lending boom meant that market interest rates for short-term mortgage loans were substantially lower than for long-term mortgage loans. Thus, the market interest rate for the initial fixed period for a 2/28 loan was substantially lower than would be the case for a traditional thirty-year fixed mortgage. In turn, when the mortgage interest rate readjusted at the end of the initial period, the interest rate would reset at a higher market rate. In addition, the disappearance of the spread between short and long-term rates during the intervening period meant that in refinancing, the new market rate for a loan similar to the initial loan was much higher than for the initial loan. None of this dynamic requires any assumption of chicanery on the part of borrowers or lenders—it is simply a response to the different market conditions prevailing between the two periods in time and a conscious monetary policy decision to push down short-term interest rates for an extended period of time. Thus, even though interest rates were set at market rates during both periods, the effective interest rate on the same loan rose because of the convergence of the yield curve during the two periods. Stated differently, the market rate for a traditional thirty-year fixed mortgage hardly changed during this period, but the market rate for short-term loans, including the two or three year fixed-rate period at the commencement of a hybrid mortgage, fell dramatically before rising. Thus, the *effective* rate for those who had taken out loans with initial fixed periods was higher in 2006 than in 2001, regardless of whether the borrower refinanced into another loan or simply saw his loan reset to the prevailing higher market rate. Equally significant

173. *Id.*
174. *Id.*

is that the lower prevailing market interest rates on the short-term loans enabled borrowers to become qualified for larger loan amounts than they would have been qualified for at the higher effective interest rates that prevailed a few years later. Again, this was based on the prevailing market conditions of the time. Thus, it is significant that the rise in defaults and foreclosures has not been limited to the subprime market but instead has affected adjustable-rate mortgages in the prime market as well. Although the foreclosure rate on fixed-rate prime mortgages has remained modest, the foreclosure rate on adjustable-rate prime mortgages has risen—in fact, although the foreclosure rate on subprime ARMs has risen 50%, the foreclosure rate on prime ARMs has risen 300%.[175] One possible explanation for this finding is the change in market interest rates and elimination of the premium for short-term interest rates during this period, which effectively resulted in higher interest rates for borrowers.

This dip in short-term relative to long-term interest rates may have further exacerbated the short-term bubble in the real estate market by providing incentives for speculators to make short-term investments in the residential real estate market.[176] Low short-term interest rates meant lower returns on money market instruments and similar short-term investments. But the real estate market seemed to offer a higher return at a low cost, thus drawing "home flippers" and other speculators into the market. This is also consistent with the dramatic rise in the percentage of loans for non-owner-occupied housing during this period. But, as noted, the inability to flip these homes for a short-term gain helped drive the foreclosure crisis.

One type of loan that has drawn criticism from consumer advocates[177] and regulators[178] is the stated-income loan, on

175. *See* Edward Vincent Murphy, *Foreclosure Rate Index of ARMs* (on file with authors); *see also* INT'L MONETARY FUND, STAFF REPORT FOR THE 2008 ARTICLE IV CONSULTATION 6 fig.2 (July 2, 2008), *available at* http://www.imf.org/external/pubs/ft/scr/2008/cr08255.pdf. Obviously these numbers are based on different base rates, but they are reflective of the relevance of the "ARM" nature of these loans.

176. Michael LaCour-Little, Eric Rosenblatt & Vincent Yao, Do Borrowers Facing Foreclosure Have Negative Equity? 20 (July 11, 2008) (working paper, *available at* http://ssrn.com/abstract=1162398).

177. Martin Eakes, Statement Before the Fed. Reserve Bd. on Home Ownership & Equity Prot. Act (June 14, 2007) *transcript available at* http://www.responsiblelending.org/pdfs/Fed-6-14-07-ME-Statement.pdf.

which borrowers do not provide full documentation of their income. In some cases, this type of loan is necessary for borrowers who are self-employed or work a second job. Stated-income loans are colloquially known as "liar's loans," because of the opportunity to lie about one's income on the application, and income misrepresentation is the most common form of mortgage fraud.[179] However, lenders claim that stated-income loans perform at least as well as full-documentation loans.[180]

Another practice that fueled the growth in the subprime market and has since exacerbated the subprime meltdown is the presence of "piggyback loans." Many first-time homebuyers have relatively limited assets and thus are unable to scrape together a substantial down payment for a mortgage, qualifying them only for a mortgage with a high LTV ratio (if they qualify at all). "Lenders and secondary-market purchasers often require loans with high LTV ratios to be protected with private mortgage insurance (PMI), carried at the expense of the borrower, to indemnify [the lender] . . . against the elevated risk of default" on the loan.[181]

> In recent years, so-called piggyback loans have emerged as an alternative to PMI. In piggyback lending, borrowers simultaneously receive a first mortgage and a junior-lien (piggyback) loan. The piggyback loan finances the portion of the purchase price not being financed by the first mortgage and sometimes any cash payment that might have been made; the junior loan may amount to as much as 20 percent of the purchase price.[182]

Piggyback loans often are taken out so that the first-lien mortgage can meet the conforming loan size limits.[183] Although housing prices rose dramatically in recent years, the dividing line set by Fannie Mae between conforming and jumbo mort-

178. The financial regulatory agencies provided in their final guidance that stated income loans should only be used when there are specific mitigating circumstances. *See* OFFICE OF THE COMPTROLLER OF THE CURRENCY, BD. OF GOVERNORS OF THE FED. RESERVE SYS., FED. DEPOSIT INS. CORP., OFFICE OF THRIFT SUPERVISION & NAT'L CREDIT UNION ADMIN., STATEMENT ON SUBPRIME LENDING 4 (2007), *available at* http://www.ncua.gov/letters/2007/CU/St-Subprime MortgageLending.pdf.

179. FRAUD UPDATE, *supra* note 4.

180. Lingling Wei, '*Stated Income' Home Mortgages Raise Red Flags*, WALL ST. J., Aug. 22, 2006, at D2.

181. Avery, Brevoort & Canner, *supra* note 147, at A84.

182. *Id.*

183. *Id*. at A85.

gages remained constant at $417,000, suggesting that a growing number of borrowers were taking out piggyback loans simply to avoid paying the jumbo penalty.[184] This meant that an increasing number of loans would have been forced into the jumbo classification, requiring the payment of an interest rate premium, even if they were really not much riskier than conforming loans. In addition, until recently, payments on PMI could not be itemized for federal income tax purposes, whereas the interest paid on piggyback loans could be.[185] In other situations, the underwriting standards applied by PMI companies may have been more conservative than those used by the lender providing the piggyback loan. Virtually nonexistent in 2000, by 2006 about 22% of mortgage loans for owner-occupied houses also had piggyback second-lien mortgages attached.[186] The number and dollar volume of piggyback loans rose dramatically between 2001 and 2004.[187] By contrast, the number of home purchases backed by PMI declined about 6% from 2005 to 2006 alone.[188] On the other hand, the average loan-to-value ratio for all mortgages was lower than at certain times in the past, as was the overall percentage of loans that were high-LTV loans, although it is not clear whether this is the case for subprime loans as well.[189]

As noted above, a primary factor driving foreclosure is the presence or absence of equity in the property. Thus, loans with

184. *See* Sara Murray & Jonathan Karp, *New Definition of Jumbo Loans May Help Few*, WALL ST. J., Feb. 7, 2008, at D1 (suggesting that federal legislation pending at the time this article is being written would temporarily boost the level for conforming loans to up to $729,750 in areas of the country with higher than average home prices).

185. Avery, Brevoort & Canner, *supra* note 147, at A84.

186. *Id.* at A85; *see also* MURPHY, *supra* note 170, at 5. The apparent absence of piggyback loans before 2000, however, may overstate the distinction. Although the purchase-money lender did not traditionally provide a piggyback home equity loan, for many decades consumers who could not come up with a full 20% downpayment might borrow the needed amount from a consumer finance company (presumably on an unsecured basis). *See* PAUL MUOLO & MATHEW PADILLA, CHAIN OF BLAME: HOW WALL STREET CAUSED THE MORTGAGE AND CREDIT CRISIS 37 (2008). It is also likely that many consumers borrowed at least some of their downpayment from family members. Thus, although piggyback loans were new, the concept of borrowing to meet the 20% downpayment presumably was not.

187. Joseph R. Mason & Joshua Rosner, *How Resilient Are Mortgage Backed Securities to Collateralized Debt Obligation Market Disruptions?* 8 (Hudson Institute, 2007), *available at* http://www.hudson.org/files/publications/Mason_RosnerFeb15Event.pdf.

188. Avery, Breevort & Canner, *supra* note 147, at A85.

189. *See* Fed. Hous. Fin. Bd., Historical Summary Tables at tbl.9, http://www.fhfb.gov/default.aspx?page=53.

little or no down payments (such as those with high LTV or mortgages combined with piggyback loans) offer an unusually powerful incentive to default if property values fall.[190] Lower down payments are correlated with higher rates of default,[191] and lower LTV ratios are reflected in lower risk premiums in interest rates.[192] One study found that conventional mortgages with loan-to-value ratios at origination of 91% to 95% were twice as likely to default as loans with LTVs of 81% to 90% and five times more likely to default than those with LTVs of 71% to 80%.[193] In some instances this relationship may reflect the fact that those who are unable to scrape together a substantial down payment are riskier borrowers and so are more likely to default. This would be expected if consumers treat default and foreclosure as an option—if the borrower makes a 20% down payment, then the owner will be reluctant to default unless the value of the property depreciates by more than 20%. If, however, the borrower puts little or nothing down then there is little disincentive against default and foreclosure. Moreover, piggyback loans generally are adjustable-rate mortgages with no fixed-rate period, thus they will be especially responsive to changes in underlying interest rates and thus may disproportionately lead to eventual default. "[F]irst-lien mortgages connected with piggyback loans are 43 percent more likely to go into default than stand-alone first mortgages of comparable size," and the default rate is even higher for piggyback loans extended to riskier borrowers.[194]

Subprime loans also may be inherently riskier for reasons unrelated to borrower characteristics or risky practices. Subprime loans face a correlation of two related risk factors that can make risk both higher and less predictable than conventional loans—rising mortgage interest rates and declining property values. Although these factors are present in the prime market, they may be reinforced in the subprime market.

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190. In fact, LaCour-Little, Rosenblatt, and Yao conclude that negative equity for homes in foreclosure are more often the result of post-purchase cash-out refinancing or home equity loans are more responsible for the presence of negative equity than housing price declines. *See* LaCour-Little, Rosenblatt & Yao, *supra* note 176, at 20.

191. *See id.*

192. *See* Elliehausen, Staten & Steinbuks, *supra* note 75, at 43–44.

193. Robert B. Avery, Raphael W. Bostic, Paul S. Calem & Glenn B. Canner, *Credit Risk, Credit Scoring, and the Performance of Home Mortgages*, 82 FED. RES. BULL. 621, 624 (1996).

194. Mason & Rosner, *supra* note 187, at 8.

Most outstanding mortgages today remain traditional thirty-year fixed-rate mortgages. Interest rate fluctuations for these mortgages present a risk for new purchasers of homes, but not for those with established mortgages. Similarly, unless a given homeowner intends to sell her home, short-term changes in property values are fundamentally irrelevant to these borrowers. Those who hold traditional mortgages are more likely to have purchased homes as owner-occupied housing to gain the amenities of home ownership—a home to raise a family in, an established school district, and a welcoming neighborhood. Homeowners also gain insurance against the risk of fluctuations in rent prices as renters must bear the risk of year-to-year fluctuations in rent.[195] In fact, homeownership rates and home prices are higher in areas where rent volatility is higher, and the positive effect on homeownership is higher in areas where rent comprises a larger percentage of household income.[196] Homeownership, on the other hand, bears the risk of fluctuations in housing asset values; thus, homeownership rates are higher in areas with longer average time horizons, as longer expected residence serves as a hedge against short-term fluctuations in real estate values. These homeowners also are more likely to have a longer time horizon for ownership and thus to be less concerned about short-term fluctuations in property values. Moreover, although high-cost loans have caused many low-income families to dedicate a dangerously high percentage of their income to servicing their mortgages, substantially more low-income renters face serious cost burdens.[197]

These conditions are reversed in the subprime market. First, many subprime loans are adjustable rate mortgages or "hybrids" that have an initial period with a fixed interest rate followed by an adjustable rate. From 1999 to 2007, 44% of subprime loans were fixed rate, 16% were adjustable rate, and 32% were hybrids, as compared to the prime market where the

195. Todd Sinai & Nicholas S. Souleles, *Owner-Occupied Housing as a Hedge Against Rent Risk*, 120 Q. J. ECON. 763, 764 (2005). Although Sinai and Souleles do not formally model homeowners with adjustable-rate mortgages, presumably the risk of fluctuations in interest rates offsets some (if not all) of this advantage. On the other hand, even adjustable-rate loans often have a period of fixed interest rates at the outset of the loan, thus during that period this is still of value.

196. *Id.*

197. *See* GRAMLICH, *supra* note 101, at 62 (noting that "57 percent of low-income renters face serious cost burdens against 45 percent of low-income owners").

percentages were 84%, 10%, and 5%, respectively.[198] As a result, an increase in market interest rates will lead to an increase in rates not only for new borrowers but existing borrowers as well, as their interest rates reset under their ARM contracts. This "payment shock" effect will have the effect of increasing foreclosure rates under a distress theory of foreclosures.

Second, in areas where there are higher percentages of subprime loans, this increase in interest rates will have a more dramatic impact on pushing down house prices—just as the availability of "cheap money" had an effect of pushing up market prices more dramatically in recent years in areas with higher percentages of subprime lending. In turn, this will create stronger incentives to default and permit foreclosure. Higher interest rates and declining property values thus combine to exacerbate one another, thereby driving up default and foreclosure rates. In turn, the rising number of foreclosure properties further exerts downward pressure on property values, furthering the vicious cycle of declining property values and foreclosure.

Third, as suggested above, many subprime borrowers are holding a property for speculative or investment purposes, rather than as "traditional" homeowners who purchase the property for the long-term amenities (such as quality schools, a welcoming neighborhood, and the psychological benefits of home ownership). This speculative or investment motivation is explicit where a subprime mortgage was taken to purchase residential real estate for rental purposes (that is, non-owner-occupied property). There may also be others for whom the motivation is implicit—such as young, single individuals who use the opportunity of low interest rates to purchase a home (or perhaps more accurately a condominium or townhouse) as an alternative to leasing an apartment.[199] Although these owners gains some amenity value from homeownership, those amenities are modest compared to those for a traditional family, and these owners may expect their ownership to be short-term.

198. Barth et al., *supra* note 124, at 2.

199. For instance, in 2006, "[s]ingle men purchased . . . 17 percent of [residential real estate] investment property; all other household categories are in the single digits." Press Release, Nat'l Ass'n of Realtors, *Vacation-Home Sales Rise to Record, Investment Sales Plummet in 2006* (Apr. 30, 2007) (on file with author), *available at* http://www.realtor.org/press_room/news_releases/2007/phsi_apr07_vacation_home_sales_rise.

The bottom line is: the presence of a larger number of speculators in a given market will exacerbate a downward cycle of falling home values as they are more likely to exercise their default option. If foreclosure becomes sufficiently widespread in a community, it can negatively impact the amenity value of home ownership by destabilizing neighborhoods, the local tax base, and the quality of schools and other government services, which will create further incentives for other homeowners to default. When combined with local economic recessions, as such situations often are, this dynamic can be devastating for established communities.

Although adjustable rate mortgages appear unreasonably risky when interest rates rise, it must be recognized that they are also equally beneficial when interest rates fall. In periods of declining interest rates ARMs allow homeowners to decrease their interest rates without the expense and trouble of refinancing. As then Federal Reserve Chair Alan Greenspan observed in 2004 (prior to recent increases in interest rates):

> One way homeowners attempt to manage their payment risk is to use fixed-rate mortgages, which typically allow homeowners to prepay their debt when interest rates fall but do not involve an increase in payments when interest rates rise. Homeowners pay a lot of money for the right to refinance and for the insurance against increasing mortgage payments. Calculations by market analysts of the "option adjusted spread" on mortgages suggest that the cost of these benefits conferred by fixed-rate mortgages can range from 0.5 percent to 1.2 percent, raising homeowners' annual after-tax mortgage payments by several thousand dollars. Indeed, recent research within the Federal Reserve suggests that many homeowners might have saved tens of thousands of dollars had they held adjustable-rate mortgages rather than fixed-rate mortgages during the past decade, though this would not have been the case, of course, had interest rates trended sharply upward.[200]

200. Greenspan, *supra* note 83; *see also* Daniel J. McDonald & Daniel L. Thornton, *A Primer on the Mortgage Market and Mortgage Finance*, FED. RES. BANK OF ST. LOUIS REV. 31, 34 & tbl.1 (2008), *available at* http://research.stlouisfed.org/publications/review/08/01/McDonald.pdf ("The differences [between Fixed-rate and ARMs] vary from year to year, but range from about 50 to about 100 basis points. Because ARMs have lower initial interest rate, they are particularly good for individuals who plan either to sell their house or pay off the loan after a short period of time.").

The benefit to consumers from ARMs is well-illustrated with the American experience during the high-interest rate era of the 1980s. "Adjustable rate mortgages were very common in the 1980s when interest rates were high and many people expected mortgage rates to [eventually] fall."[201] In fact, 61% of the conventional mortgages originated in 1984 were ARMs and in 1988, 58% of all mortgages were ARMs.[202] Mortgage interest rates steadily declined during the next decade. With this decline in interest rates came a decline in the use of ARMs, such that by 2001 only 12% of mortgages were ARMs.[203] Between 2001 and 2004, the share of ARMs among all mortgages rose from 12% to 34%, presumably as a result of the spread between market rates on short- and long-term interest mortgage rates during that period, even though interest rates were generally low during this period.[204] Moreover, initial fees and charges have plummeted as a percentage of the loan, making short-term investments and loan-flipping more feasible than perhaps in the past. Ex post, this focus on the spread between short- and long-term interest rates turned out to be shortsighted for many borrowers, as short-term interest rates rose in coming years until they converged on long-term rates. Edward Murphy argues that this access to low interest rates may have been the cause of the rapid home appreciation in some markets in the country, as it enabled consumers to "stretch" to higher home values based on lower interest rates, only to see their monthly payments rise when short-term interest rates converged on long-term rates.[205] Although this is clear in retrospect, it is not obvious that consumers were mistaken ex ante when they assumed this risk.[206] Households with lower levels of risk aversion (and thus an unwillingness to pay the premium

201. MURPHY, *supra* note 170, at 12; *see also* Fed. Hous. Fin. Bd., *supra* note 189, at tbl.9. Needless to say, "experts" at the time predicted major financial catastrophe would result from innovations such as adjustable-rate mortgages and balloon payments. *See* Austan Goolsbee, *"Irresponsible" Mortgages Have Opened Doors to Many of the Excluded*, N.Y. TIMES, Mar. 29, 2007, at C3.

202. MURPHY, *supra* note 170, at 21.

203. This evidence of rational consumer use of adjustable-rate mortgages, along with the evidence of consumer responsiveness to differences in the yield-curve between short and long-term interest rates also raises questions about those who theorize that adjustable-rate mortgages are initiated to take advantage of consumer irrationality.

204. *See* discussion *supra* at notes 170–175 and accompanying text.

205. MURPHY, *supra* note 170, at 22.

206. Murphy suggests that it may have been more rational for consumers to assume the risk of ARMs when interest rates generally were higher in the 1980s but not when interest rates were generally lower in the 2000s. *Id.*

for a fixed-rate mortgage) choose ARMs, as do those in markets with greater expected house price appreciation.[207] Industry experts also observe that investor "home flippers" are more likely to use ARMs than regular home buyers.[208]

ARMs are much more common in other countries than in the United States with no apparent problems for consumers. Moreover, efforts to introduce American-style thirty-year fixed-rate mortgages have been largely unsuccessful. This European experience suggests that adjustable rate mortgages per se are not unreasonably risky.[209] International comparisons indicate that the United States is almost unique in offering fixed-rate mortgages with long maturities (beyond twenty years).[210] The United States mortgage market is also anomalous in generally allowing borrowers to prepay their mortgages without a penalty. The "traditional" thirty-year fixed-rate mortgage was a government-motivated innovation that arose in the United States during the Great Depression to reduce foreclosures by stretching out payment terms for a longer period to reduce monthly payments. Until that time, mortgages were of relatively short term (five or ten years) with a balloon payment at the end. Typically borrowers would refinance the loan at the time the balloon payment was due, but as a result of the crash in real estate values during the Great Depression, refinancing became difficult. Stretching out the loan term enabled borrowers to borrow more than otherwise would be the case.[211] Countries without the peculiar experience of the Great Depression and the market interventions that accompanied it did not adopt this unique mortgage finance system. Indeed, efforts to introduce American-style mortgages to Europe have been a failure.[212] The high-interest rate period of the 1980s demon-

207. Lacour-Little, Rosenblatt & Yao, *supra* note 176, at 6 (citing Michael La-Cour-Little & Jing Yang, Alternative Mortgage Products and Housing Consumption (2007) (working paper)).

208. MUOLO & PADILLA, *supra* note 186, at 215 (citing David Berson, chief economist at Fannie Mae).

209. As just noted, ARMs were extremely common in the United States at periods in the past. *See supra* note 201–203 and accompanying text.

210. Green & Wachter, *supra* note 28, at 100. Green and Wachter found that of the countries they examined, Japan and Denmark, in addition to the United States, offer fixed-rate mortgages at long maturities. Many countries offer no fixed-rate mortgages and of those that do, many do so only for shorter maturity ranges. *Id.* at 101.

211. *See* David C. Wheelock, *The Federal Response to Home Mortgage Distress: Lessons from the Great Depression*, 90 FED. RES. BANK OF ST. LOUIS REV. 133 (2008).

212. *See* Green & Wachter, *supra* note 28.

strated the peril of this system, as the imbalance between low interest rates on outstanding mortgages and a dramatic rise in the cost of funds created an imbalance in the balance sheet of savings and loans that specialized in home mortgage lending.

Finally, the likelihood of borrowers taking out an ARM versus a fixed loan is explained in large part by the riskiness of long-term investments generally, especially the risk of expected inflation over the life of the mortgage. Thus, where the risk premium on longer-term bonds is higher, fixed interest rates tend to be higher relative to adjustable rates, causing the percentage of adjustable rate mortgages relative to fixed-rate mortgages to rise.[213] Hence, adjustable rate mortgages do not appear to be unreasonably risky when compared to market benchmarks.

B. Did the Market Misprice the Risk?

Another explanation of the subprime crisis relates not the risk associated with individual loans, but rather a general systematic mispricing of risk in the market generally over the past several years, and specifically, a belief that many systematic market risks were no longer worrisome to investors. As a result, there may have simply been an excess flow of capital to all types of riskier investments, of which investments in subprime loans were merely one type. Martin Feldstein notes that there was a perception that over the past several years risk was underpriced in the market in the sense that the "differences in interest rates between U.S. Treasury bonds and riskier assets (i.e., the credit spreads) were very much smaller than they had been historically."[214] Feldstein describes the factors that led to this development:

> Some market participants rationalized these low credit spreads by saying that financial markets had become less risky. Better monetary policies around the world have reduced inflation and contributed to smaller real volatility. Securitization and the use of credit derivatives were thought to disperse risk in ways that reduced overall risk levels. Most emerging market governments now avoid overvalued exchange rates and protect themselves with

213. Ralph S.U. Koijen, Otto Van Hemert & Stijm Van Nieuwerburgh, *Mortgage Timing* (Nat'l Bureau of Econ Research, Working Paper No. 13361, 2007).

214. Martin S. Feldstein, *Housing, Credit Markets and the Business Cycle* 3 (Nat'l Bureau of Econ Research, Working Paper No. 13471, 2007).

> large foreign exchange reserves. There was also the hope based on experience that the Federal Reserve would respond to any financial market problems by an easing of monetary policy.[215]

Feldstein argues that this widespread belief in the effective "disappearance" of risk from the market was incorrect and that there was a radical mispricing of risk in the market that resulted from overuse of credit derivatives and similar novel financial products.

Under-pricing systematic risk in the secondary market could have contributed to the subprime bubble by artificially reducing the wholesale cost of funds to be used for consumer lending. If the current deflating of the subprime bubble has been caused in part by the impact of these systematic risks that were thought to be unnecessary to hedge against, then this could help account for the general subprime boom and bust independent of any mispricing of any risks specifically associated with subprime lending products.

Lenders may have also been lending under a model of lending risk that was unsuited to the current market context. Traditional lending models have been based on credit scores and were developed during a period where most lending was in the prime market and during an era of largely uninterrupted appreciation in housing prices.[216] But although these models presumably predicted default under those conditions accurately, they may not be equally valid when applied to subprime borrowers or in a declining real estate market. Nor did historic data reflect the unique features of the loans provided during the subprime boom, such as higher LTVs, low or no down payments, teaser rates, and low-documentation mortgages, all of which dramatically affect the propensity for default. If default and foreclosure are the results of changes in home property values and the accumulated equity in a home, or if subprime borrowers are more willing to exercise their default option when real estate prices decline, then credit scores do not provide an accurate measure of a borrower's propensity to de-

215. *Id.* at 3–4.

216. Muolo and Padilla hint at this possibility, noting that the creator of mortgage-backed securitization for conventional mortgages, Lewie Ranieri, distinguished those products from subprime securities. Ranieri observed that unlike these new loans, there was "40, 50 years' worth of historical data on those types [i.e., conventional] mortgages. . . . You had a pretty good idea how they would behave." MUOLO & PADILLA, *supra* note 186, at 216.

fault.[217] Consistent with this hypothesis, the "trigger event" or distress model of foreclosure appears to be more accurate for predicting default for conventional prime borrowers than for subprime borrowers whose behavior is much more consistent with the option model.[218] In addition, unlike credit scores, this risk will be idiosyncratic to a particular borrower and thus will be difficult to predict and price. As Jones observes, "[i]solating the role of household attributes [for foreclosure] requires controlling for deficiency enforceability, loan contract terms, interest rate and house price movements, and the wealth positions of mortgagors subsequent to the granting of the loan."[219] The multiplicity of these variables and their complex interaction for any given household make it difficult to determine which borrowers will be likely to default.[220] Different borrowers will have different strike points for the amount of negative equity that will trigger an exercise of a default option. Purchase money lenders who may have positive equity will also have little ability to prevent a borrower from subsequently obtaining a home equity loan from another lender that will result in the borrower being put into an overall negative equity position if housing values fall.[221] Moreover, it will be difficult for a lender to estimate in advance the probability and extent to which homes will fall in value in a given region, thereby affecting the value of the option to borrowers.

Some have argued that the structure of securitization itself provided the foundation for the boom and bust in the subprime market.[222] As these commentators note, securitization creates the potential for substantial agency costs that could lead to a deterioration in credit quality that might generate a boom and bust cycle. In particular, analysts point to several potential agency-cost relationships. The mortgage brokers who retail the loans do not hold the loans and thus do not bear the risk of default; thus, they have an incentive to maximize loan volume

217. *See* Anders, *supra* note 131.

218. *See* LaCour-Little, Rosenblatt & Yao, *supra* note 176, at 8.

219. *Id.*

220. *See* Donald F. Cunningham & Charles A. Capone, Jr., *The Relative Termination Experience of Adjustable to Fixed-Rate Mortgages*, 45 J. FIN. 1687, 1697 (1990).

221. *See* LaCour-Little, *supra* note 121, at 369. This problem of moral hazard may explain the apparent propensity for subprime borrowers to seek refinance loans rather than home equity loans.

222. MUOLO & PADILLA, *supra* note 186; *see also* Engel & McCoy, *supra* note 25; Peterson, *supra* note 28.

without regard to subsequent performance. Then the wholesaler who provides the funds for the loan repackages and cuts up the mortgages into tranches that are converted into securities and resold to third parties. Thus, it is argued, those who create the securities do not hold the risk, referred to as an "originate-to-distribute" model.[223] Finally, there is thought to be someone left at the end holding the securities that ends up bearing the risk of default. It is suggested that this series of agency costs gives rise to perverse incentives that drive the underlying dynamics of the boom and bust cycle, a sort of "ponzi scheme" that was doomed to come to an end eventually.

Although theoretically possible, however, it is not obvious that this hypothesis holds up to scrutiny. After all, many of those who either sold or bought these securities were highly-sophisticated investors such as Bear Stearns, Merrill Lynch, or Citibank. If there were obvious agency-cost problems in the system, surely these sophisticated investment banks were aware of these agency-cost problems as well and would have taken precautions against them. Nonetheless, numerous Wall Street titans have taken multi-billion dollar write-downs as a result of investing in securities backed by subprime loans. For the incentives created by securitization to unlock this story it also would have been necessary to believe that financial investors were foresighted enough to anticipate that they had to try to pass off the paper to third-party investors, but not so foresighted as to recognize that the paper would eventually result in massive losses to themselves. In fact, significant losses have been suffered at virtually every level of the subprime chain, suggesting that originators and others did not in fact pass along the risk of these loans down the chain.[224] Moreover, originators usually were contractually obligated to repurchase the worst-performing loans, thereby seemingly relieving the incentive to try to pawn them off ex ante—although the subsequent bankruptcies of these originators when confronted with repurchase demands showed those promises to be chimerical ex post.[225] Similarly, although mortgage brokers have obvious incentives to engage in fraudulent lending or to extend credit to borrowers with weak credit, surely those buying those loans

223. *See* Gorton, *supra* note 27, at 27–28.

224. *Id.* at 28.

225. Michel G. Crouhy, Robert A. Jarrow & Stuart M. Turnbull, The Subprime Credit Crisis of 07, at 11, 52 n.39 (July 9, 2008) (working paper, *available at* http://ssrn.com/abstract=1112467).

were aware of this risk and the recognition that many of those loans would later fail to perform. Finally, many of the big subprime losers were captive lenders owned by the investment banks themselves, and thus the agency-cost problems would have been mitigated in these institutions.[226] Nonetheless, they have collapsed like the others. Although the role of securitization in creating agency costs is theoretically possible as a major cause of the subprime mess, it is not obviously so (of course, simple errors and miscalculations are possible).

Perhaps a more important source of market failure was the apparent breakdown of rating agencies, such as Moody's, Standard and Poor's, and Fitch's, which led buyers and sellers into a false sense of security regarding these bonds.[227] As described above, subprime loans were divided into payment maturity tranches. This "waterfall" payment structure meant that recipients of bonds backed by early payments were thought to be very low risk, both for default and for prepayment. As a result, securities backed by senior tranches were given AAA ratings, the highest possible ratings. In turn, these high ratings made it possible to sell these securities widely to American investors that are prohibited from investing in non-AAA rated bonds, such as money market funds, pension funds and municipalities, as well as investors in Europe and China that relied on this AAA rating. Because of the complexity, novelty, and opacity of these securities, these investors were largely unable to verify the underlying risk of these securities and relied very heavily on the ratings provided,[228] and in fact, it probably reduced the incentives for investors to perform their own due diligence about the collateral pool.[229]

In retrospect, however, it is evident that these securities were rated too highly—indeed, some later issuances were downgraded within months or weeks after having initially been graded AAA.[230] One possible explanation for how this came about is a form of reverse-engineering where those who issued the collateralized debt obligations worked together with rating agencies to design the securities so that they generally would receive a AAA rating at the end. As Crouhy and his co-authors

226. In 2007, five different investment banks owned seven different subprime or alt-A lenders, composing about 15% of the market. MUOLO & PADILLA, *supra* note 186, at 201.

227. *See* Crouhy, Jarrow & Turnbull, *supra* note 225, at 9.

228. *Id.*

229. *Id.* at 17.

230. *See* MUOLO & PADILLA, *supra* note 186, at 9.

describe it, "The rating process was a fixed target," and the liability structure was designed to reflect that fixed target.[231] According to a Report by the Republican members of the United States House of Representatives Committee on Oversight and Government Reform, issuers of mortgage-backed securities would "shop" the securities at each of the three major rating entities and have the securities rated by the one that was willing to give the best rating.[232] The initial valuation and rating itself may have been little more than guesswork based on historical conditions in the housing market that did not apply to the most recent era. Ratings for traditional corporate debt are "largely based on firm-specific risk," while the securities backed by tranches of subprime loans "represent claims on cash flows from a portfolio of correlated assets."[233] According to Crouhy,

> Thus, the rating of CDO [collateralized debt obligation] tranches relies heavily on quantitative models while corporate debt ratings rely essentially on the analyst judgment. While the rating of a CDO tranche should have the same expected loss as a corporate bond for a given rating, the volatility of loss, that is, the unexpected loss, is quite different and strongly depends on the correlation structure of the underlying assets in the pool of the CDO.[234]

If this is true, then it could have created a sort of herd mentality among investors, such that if the initial structure was off by a little bit, this initial small error could be replicated and magnified among subsequent securities that had exactly the same structure.

C. Are Subprime Borrowers Unreasonably Risky?

Subprime borrowers are, by definition, riskier and have more checkered credit histories when compared to prime borrowers. Subprime loan applicants are almost four times more likely to be rejected for loans than prime applicants.[235] But the

231. *Id.*

232. H.R. COMM. ON OVERSIGHT AND GOV'T REFORM, 110TH CONG., EXAMINING THE CAUSES OF THE CREDIT CRISIS OF 2008, MINORITY STAFF ANALYSIS 17.

233. Crouhy, Jarrow & Turnbull, *supra* note 225, at 28.

234. *Id.*

235. *See* Giang Ho & Anthony Pennington-Cross, *The Varying Effects of Predatory Lending Laws on High-Cost Mortgage Applications*, 89 FED. RES. BANK ST.

difference in risk between prime and subprime borrowers is often a matter of degree, not kind. The difference between a prime borrower and a subprime borrower is often marginal and dependent on loan-to-value ratio or other terms of the mortgage as well as the borrower's credit history. Historically, the majority of subprime loans are made to A-minus or Alt-A borrowers[236] who nearly qualify for prime mortgages and many of whom can refinance their mortgages into less expensive loans or prime loans within two years of timely repayment and a concomitant improvement in credit score.[237]

Some critics contend that some otherwise-qualified borrowers may not be sophisticated enough to take on high-cost subprime loans. However, repayment statistics show that, while subprime borrowers are significantly more risky than prime borrowers, the vast majority repay their loans and often repair their credit scores to qualify to refinance into prime loans.[238] Moreover, subprime borrowers show little difference from prime borrowers in their ability to understand their loans, although neither group really understands the terms of their loans very well. A study by the Federal Trade Commission ("FTC") found that borrowers who had recently originated a prime mortgage were able to understand, on average, 62% of questions related to a mortgage disclosure document correctly.[239] Subprime borrowers in the study were able to answer 59.6% of the questions correctly.[240] A study by economists at the Federal Reserve similarly finds that most homeowners are generally aware of their house values and mortgage terms.[241] However, many borrowers who have ARMs do not fully understand how much their interest rates could change under their mortgage.[242] Moreover, subprime borrowers in general "are disproportionately minority and lower in-

LOUIS REV. 39, 41 (2007) (noting rejection rate of 33% for applicants for subprime loans and 9% for prime loans).

236. One measurement was that 70% of subprime loans are to A-minus or Alt-A customers. *See* Cutts & Van Order, *supra* note 22, at 171 tbl.1. It is not clear whether the percentage of lower-rated borrowers increased in recent years.

237. *See id*. at 174.

238. *See supra* note 71 and accompanying text.

239. LACKO & PAPPALARDO, *supra* note 55, at 70 tbl.6.1.

240. *Id.*

241. Brian Bucks & Karen Pence, *Do Homeowners Know Their House Values and Mortgage Terms?* 2 (Fed. Res. Bd. of Governors, FEDS Working Paper No. 2006-03, 2006) *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=899152#.

242. *Id.*

come, older, less well educated, less financially sophisticated, and less likely to search for the best interest rate when applying for a mortgage."[243] They are also more likely to express dissatisfaction with the mortgages they receive.[244]

The difference in outcomes between the prime and the subprime market may be partly the result of different levels of sophistication or education among borrowers, but more important is that subprime loans are simply more complex than prime mortgages, both in the complexity of the individual terms (for example, adjustable versus fixed rates) and the total number of relatively complex terms. For instance, neither prime nor subprime borrowers generally can accurately discern whether their loan documents include a prepayment penalty or what that penalty might be, but these terms are more common in subprime mortgages.[245]

Prime borrowers tend to receive fixed-rate mortgages with an initial monthly payment that will stay constant through the life of the loan. Most subprime mortgages are adjustable-rate and may include a below-market initial "teaser" rate that will increase sharply after two or three years, depending on the loan. In 2005 and 2006, for instance, it is estimated that 15% of adjustable rate mortgages that were issued had initial interest rates below 2%.[246] The formula establishing the required monthly payment after the reset may not be fully understood by borrowers at the time they enter into the loan. And even if these complex terms are justified by risk-based pricing, which they probably are, they still make loans more complicated.

Fraud by borrowers also may be more prevalent in the subprime market than in the prime market. According to research by BasePoint Analytics, 30% to 70% of early payment defaults on mortgages were linked to significant misrepresentations by borrowers in the initial loan application, such as exaggerating income or the property appraisal.[247] Applications that contained misrepresentations were five times more likely

243. Howard Lax, Michael Manti, Paul Raca & Peter Zorn, *Subprime Lending: An Investigation of Economic Efficiency*, 15 HOUSING POLICY DEBATE 533, 534 (2004).

244. *Id.* at 566.

245. LACKO & PAPPALARDO, *supra* note 55, at 78.

246. CAGAN, *supra* note 122, at 18 tbl.7.

247. *See* FED. BUREAU OF INVESTIGATION, 2006 MORTGAGE FRAUD REPORT (2007), http://www.fbi.gov/publications/fraud/mortgage_fraud06.htm (citing BasePoint White Paper, *New Early Payment Default-Links to Fraud and Impact on Mortgage Lenders and Investment Banks*, 2 (2007)).

to go into default than others.[248] Reports indicate that in some situations, lenders presumably turned a blind eye toward borrower misbehavior, thereby enabling fraud to occur.[249] Some subprime borrowers also may have been pursuing a Ponzi-like scheme of planning to flip the home within a short period of time for an expected profit, thereby reselling the home and retiring the mortgage before the fraud caught up with them.

III. RESPONSES TO THE PROBLEMS IN THE SUBPRIME MARKET

As a result of the subprime meltdown, legislators, regulators, consumer interest groups, and the lending industry are weighing different measures to prevent a similar event in the future. But the concerns over the risk of subprime lending and its effect on borrowers must be measured against the positive effects of the expansion of subprime lending. Moreover, regulators must determine the extent to which the problems in the subprime market are temporary or chronic. The history of consumer credit in the United States suggests that the introduction of new credit products is met by an initial excess that leads to an initial boom and bust cycle that subsequently stabilizes. Often after the initial period of excess, many of the problems prove to be self-correcting, and the market stabilizes, leaving most families better off.[250] Certainly the massive losses suffered by Wall Street firms—and indeed, the disappearance of some of the most aggressive firms—that financed the growth of the subprime market have provided expensive lessons for those firms that will not soon be forgotten. To the extent that this debacle resulted from misaligned incentives and agency costs, there will be strong market pressures to correct these problems. As of this writing, the federal government has engaged in massive interventions into the American banking system. It is not clear whether the interventions will prove successful or what their long-term consequences will be. The highly-leveraged investment banks that securitized many subprime loans have all failed or been converted into commercial bank holding companies which will operate under stricter regulation

248. *See* Tyler Cowen, *So We Thought. But Then Again...*, N.Y. TIMES, Jan. 13, 2008, at BU6.

249. *See*, *e.g.*, RICHARD BITNER, CONFESSIONS OF A SUBPRIME LENDER: AN INSIDER'S TALE OF GREED, FRAUD, AND IGNORANCE (2008).

250. *See* David Leonhardt, *Once Again, Debt Is Miscast As the Villain*, N.Y. TIMES, Mar. 21, 2007, at C1; *see also* JOSEPH NOCERA, A PIECE OF THE ACTION 20–33 (1994) (describing introduction of credit cards).

and lower leverage. Although the federal government's "bail-out" plan creates a potential for future moral hazard by lenders, these lenders nonetheless seem likely to avoid such excesses in the future. Thus, the subprime mortgage market may prove similar to earlier innovations in financial services.

A. Current Regulatory Framework

There are a number of possible remedies for the subprime market being discussed which are possible under current laws and regulations. These remedies assume that most of the ills in the subprime market are due to fraudulent lenders and borrowers or faulty lending models. Initially, the federal financial regulatory agencies which together oversee consumer lending released a guidance statement on subprime lending.[251] The guidelines were not binding. In January 2008, however, the Federal Reserve issued a Proposed Rule to Amend the Home Mortgage Provisions of Regulation Z, which implements the Truth in Lending Act ("TILA") and the Home Ownership and Equity Protection Act ("HOEPA"), that would impose new rules.[252]

1. Prosecution of Fraud

Mortgage fraud can be committed at the expense of either the borrower or the lender. Examples of lenders or brokers defrauding borrowers can include fraudulent disclosures, omitted disclosures, "bait-and-switch" tactics where the broker presents substantially more expensive terms to the borrower at closing, misrepresentation, or other tactics.[253] Borrowers or brokers can also defraud sources of capital by inflating income or assets, falsifying the appraisal value of the home, or changing the borrower's records in order to secure financing and making the loan suitable for the secondary market.[254]

Regulators have actively pursued prosecution of fraud claims.[255] But a more general question is the extent to which

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251. GUIDANCE, *supra* note 53.

252. FDIC Truth in Lending, 73 Fed. Reg. 1672 (proposed Jan. 9, 2008) (to be codified at 12 C.F.R. § 226).

253. Engel & McCoy, *supra* note 52, at 1267.

254. *Id.* at 1268.

255. *See Efforts to Combat Unfair and Deceptive Subprime Lending*: *Hearing Before the S. Spec. Comm. on Aging*, 108th Cong. 1 (2004) (written statement of

the problems in the subprime market are the result of simple, "garden variety" fraud that is most amenable to being addressed through case-by-case prosecution of bad actors rather than categorical regulatory restrictions.[256]

Some fraud claims can be addressed by anti-fraud laws, and others may fall under disclosure laws, as discussed below.

2. Enforcement of Anti-Predatory-Lending Laws and Disclosure Laws

a. Disclosure Laws

Required and standardized disclosures can be one mechanism for mitigating the problem of defrauding vulnerable borrowers. It is not clear, however, that the system of mandatory disclosures currently in place is structured to effectively address the problem of fraud against borrowers. Borrowers do not get firm numbers as to loan costs until after they begin the loan application process. Currently, lenders are required to provide a Good Faith Estimate ("GFE") within three days of application.[257] GFEs are required to bear a reasonable relationship to the final charges, but lenders are not liable for inaccurate GFEs or for failing to provide one.[258] Estimates can be inaccurate because of willful misrepresentation by the lender or because of unforeseen charges that arise by the final settlement.

Borrowers also see a number of other disclosures during the application process. In addition to federally required disclosures under TILA and RESPA, borrowers can see up to fifty total disclosures, including those required by lenders and state laws.[259] Federal agencies have recommended improving the current disclosure requirements to make disclosures clearer and more timely, allowing borrowers to shop between lenders

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Howard Beales, Director, Bureau of Consumer Protection, Fed. Trade Comm'n) (summarizing enforcement actions).

256. As noted below there are other alternatives to prosecution of fraud, such as greater involvement in the market by more established and highly-reputable lenders. *See* discussion *infra* notes 336–351 and accompanying text.

257. TASK FORCE ON PREDATORY LENDING, DEP'T OF THE TREASURY & DEP'T OF HOUS. & URBAN DEV., CURBING PREDATORY HOME MORTGAGE LENDING 65 (2000), *available at* http://www.huduser.org/Publications/pdf/treasrpt.pdf [hereinafter CURBING].

258. *Id.* at 63.

259. *Id.*

more easily.[260] Borrowers whose GFEs are misleading and who see much higher costs at closing may feel committed to the lender and unable to shop for better terms.[261]

Since many borrowers do not understand the more complicated terms of their mortgage from the disclosure forms, many rely on mortgage originators to explain the terms of their contracts.[262] For what is likely the most complicated transaction these borrowers will ever make, mortgage brokers and loan officers often provide indispensable expertise. But it also has been asserted that brokers have incentives to sell higher priced loans to consumers because a broker's compensation is based on the "yield-spread" between the broker's cost of funds and the price paid by the consumer.[263] On the other hand, brokers may have an incentive to compete more vigorously for business and may have lower costs and greater economies of scale in offering loans. In addition, traditional bank lenders also have an obvious incentive to increase their profitability by inducing borrowers to borrow at the highest possible rate. They simply generate the wholesale availability of funds internally, and the lending officers retail them to the public. In fact, available empirical evidence suggests that broker-initiated loans have lower interest rates than traditional lenders' loans, indicating that the competition effect works.[264]

Some lenders have been accused of bait-and-switch tactics, where the terms of the loan change considerably between the

260. *Id.*; *see also* LACKO & PAPPALARDO, *supra* note 55, at 124–125.

261. *See* CURBING, *supra* note 257, at 65.

262. LACKO & PAPPALARDO, *supra* note 55, at 121.

263. Howell E. Jackson & Laurie Burlingame, *Kickbacks or Compensation: The Case of Yield Spread Premiums,* 12 STAN. J. L. BUS. & FIN. 289, 289–91 (2007). One study of yield-spread premia and discount points among different channels of loan-origination concludes that although a yield-spread premium exists regardless of whether the issuer is a broker or a depository institution, large mortgage banks on average pass through more of the yield-spread premium to borrowers than do mortgage brokers. WOODWARD, *supra* note 143, at x (May 2008).

264. Broker-initiated subprime loans appear to be no more expensive than integrated lenders and in fact generally result in lower prices for consumers than bank lenders. *See* Amany El Anshasy, Gregory Elliehausen & Yoshiaki Shimazaki, The Pricing of Subprime Mortgages by Mortgage Brokers and Lenders (July 2005) (working paper, *available at* http://www.chicagofed.org/cedric/files/2005_conf_paper_session1_elliehausen.pdf); *see also* Gregory Elliehausen, The Pricing of Subprime Mortgages at Mortgage Brokers and Lenders (Feb. 2008) (working paper) (updated results confirming the initial findings). *But see* WOODWARD, *supra* note 143, at ix (concluding that loans made by mortgage brokers have higher costs of $300 to $425).

GFE and the final loan documents.[265] Even when borrowers catch the switch and realize the higher cost of their loans, they have often invested too much time and money in the process to search for another loan, or they must close on the loan in order to complete the purchase of the house and have little alternative.[266]

There are also a number of laws that require certain disclosures to the borrower during the mortgage origination process, including the Truth in Lending Act, the Home Ownership and Equity Protection Act, and the Real Estate Settlement Procedures Act ("RESPA").[267] HOEPA is the most distinctly aimed at regulating high-cost mortgage loans.[268] Under the act, lenders originating HOEPA-protected loans must provide further disclosures of the costs involved in the loan, including the annual percentage rate, the monthly payment amount, and the amount of any balloon payments.[269] HOEPA also places substantive restrictions on high-cost loans, such as a prohibition on negative amortization, a ban on increases in the interest rate upon default, and limitations on refinancing the loan within a year unless the new loan provides an interest rate or fees below the HOEPA thresholds.[270] But HOEPA has relatively high triggers—currently a loan is considered high-cost for purposes of HOEPA if the loan's APR exceeds the rate for Treasury securities or comparable maturity by eight percentage points or more on first mortgages and by ten percentage points or more for second mortgages.[271] A loan is also considered high cost if points and fees, including prepaid fees for optional insurance programs, exceed the greater of either 8% of the loan amount or $528.[272] However, HOEPA only applies to refinanced mortgages and closed-end second mortgages but not to purchase-money mortgages or home equity lines of credit.[273]

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265. Frederick L. Miller, *Bait and Switch in the Mortgage Market*, 85 MICH. B. J. 21, 21–23 (2006).

266. *Id.*

267. *See* Peterson, *supra* note 28, at 2225–30 (summarizing the multiple federal laws and regulations governing mortgage markets, mostly disclosure rules).

268. *See* 15 U.S.C. §§ 1601, 1602(aa), 1639(a)–(b) (2000). HOEPA is a subsection of TILA.

269. *See* Peterson, *supra* note 28, at 2227.

270. *See id.* at 2227–28.

271. Engel & McCoy, *supra* note 52, at 1307.

272. *Id.*

273. *Id.*

Most lenders, even predatory lenders, can tailor their loans so that they do not fall under HOEPA rules.[274]

Both TILA and RESPA apply to all mortgage loans. TILA requires lenders to provide total finance charges and the APR.[275] RESPA requires lenders to provide a GFE of the closing costs within three days of application.[276] However, lenders face no liability for errors in their GFEs, so the estimates may differ greatly from the final loan offered to the homeowner at closing.[277]

To the extent that lenders can engage in term repricing in order to avoid HOEPA's triggers, this not only frustrates regulatory efforts, but it also illustrates the unintended consequences that can result from efforts to regulate certain consumer lending terms. Lending contracts are multi-term contracts. HOEPA rules—and liability—are triggered when the price of certain terms exceeds a certain threshold. Loans covered by HOEPA cannot "provide short-term balloon notes, impose prepayment penalties greater than five years, . . . refinance loans into another HOEPA loan in the first 12 months, or impose higher interest rate[s] upon default."[278] Creditors must also account for borrowers' ability to repay when originating a loan.[279] This gives lenders an incentive to reprice terms of the lending contract that are not subject to the regulatory triggers, including such practices as marketing ancillary "add-on" terms and products such as credit insurance or completely separate goods and services.[280] In turn, this makes loan pricing both more heterogeneous and less transparent, making it more difficult for borrowers to compare and shop among competing loan offers. Moreover, this heterogeneity will increase the complexity of subprime loans and thereby may make it easier for dishonest and unscrupulous lenders to defraud consumers by inserting concealed terms into the contract.

There is evidence that the current disclosures from lenders are ineffective and that borrowers poorly understand this in-

274. *Id.*
275. 15 U.S.C. § 1602(u) (2000).
276. 12 U.S.C. § 2604(c)–(d) (2000).
277. Engel & McCoy, *supra* note 52, at 1269.
278. Giang Ho & Anthony Pennington-Cross, *The Impact of Local Predatory Lending Laws on the Flow of Subprime Credit*, 60 J. URB. ECON. 210, 214 (2006).
279. *Id.*
280. *See* Todd J. Zywicki, *The Economics of Credit Cards*, 3 CHAPMAN L. REV. 79, 146–64 (2000) (discussing repricing techniques).

formation.[281] However, lenders are unlikely to unilaterally adopt new disclosure forms rather than use the standard format. A new standard disclosure designed to maximize borrower comprehension may be the best solution, as discussed below.[282]

The statement issued by federal financial regulatory agencies guides lenders to clearly explain the possible effects of payment shock, prepayment penalties, balloon payments, pricing premiums attached to certain subprime products, and responsibility for taxes and insurance. The statement also clarifies the characteristics of predatory loans which may violate Federal Trade Commission rules: making loans based on the foreclosure value rather than the borrower's ability to repay, inducing repeated loan "flipping" in order to collect high fees, and engaging in fraud or deceptive practices.[283]

b. State Anti-Predatory Lending Laws

The federal rules only apply to federally-chartered banks and lenders, which make up less than half of the subprime lending market. A number of state and local governments have passed anti-predatory-lending legislation which can require more extensive disclosures or restrictions on the types of terms and products that lenders can offer. Most of these laws are tailored after HOEPA but frequently adopt stricter restrictions.[284]

Empirical studies generally have found that city-wide or state-wide attempts to regulate predatory lending result in rationing of credit. A number of cities and states have passed legislation intended to curb predatory and abusive lending, beginning with North Carolina in 1999.[285] The laws have various degrees of strictness and use various means to protect citizens against predatory lending. Some laws expand the coverage of HOEPA to a wider range of loans. Other laws impose substantive restrictions or requirements that go beyond HOEPA or impose new penalties. Many laws combine these two paradigms.[286]

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281. *See* LACKO & PAPPALARDO, supra note 55, at 121.
282. *Id.* at 124.
283. GUIDANCE, *supra* note 53, at 10–11.
284. Under the Supreme Court's decision in *Watters v. Wachovia National Bank*, these laws are generally preempted in application to nationally-chartered banks. 127 S. Ct. 1559, 1566–74 (2007).
285. Ho & Pennington-Cross, *supra* note 278, at 214.
286. *Id.*

These mini-HOEPA laws can substantially increase the costs associated with subprime lending. Professor Marcus Cole describes the impact of the "Illinois Fairness in Lending Act," which was enacted in 2005.[287] The law provides that for any mortgage applications within a nine zip-code area in Cook County, Illinois, the Department of Financial and Professional Services has the option to examine the terms of the loan and mandate credit counseling if it believes it appropriate.[288] The zip codes covered are associated with poor to modest income neighborhoods on the south and southwest sides of the city of Chicago.[289] If the counseling requirement is triggered, the lender is responsible for the cost of counseling, which may be as much as $500 to $700 and could result in a delay of up to twenty-seven days in the loan approval process.[290] Professor Cole notes that the many mortgage lenders quickly moved to cease lending on homes purchased in the covered zip codes; those who continued to lend increased the interest rates on their loans.[291] This dampening of lending activity also dampened home sales and prices within the covered zip codes, stripping home owners of much of their home equity.[292] The fact that increased lending costs and restrictions on creditor remedies lead to higher costs and interest rates for consumers is well established.[293] Although some consumers thus simply end up paying more for loans, others are unable to borrow at the higher interest rate, inevitably leading to reduced lending volume.[294]

Studies have found mixed results from these "mini-HOEPA" laws but generally conclude that they produce an overall reduction of subprime lending activity.[295] Whether this reduction in loans is normatively good or bad depends on

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287. *See* G. Marcus Cole, *Protecting Consumers from Consumer Protection:* Watters v. Wachovia Bank, CATO SUP. CT. REV. 251, 265–66 (2007).

288. *See id.* at 265.

289. *Id.*

290. *Id.* at 265–66.

291. *Id.* at 266.

292. *Id.*

293. *See*, *e.g.*, Mark Meador, *The Effects of Mortgage Laws on Home Mortgage Rates*, 34 J. ECON. & BUS. 143 (1982).

294. *See* Cole, *supra* note 287, at 272 n.98 (citing studies).

295. *See* GREGORY ELLIEHAUSEN, MICHAEL STATEN & JEVGENIJS STEINBUKS, THE EFFECTS OF STATE PREDATORY LENDING LAWS ON THE AVAILABILITY OF SUBPRIME MORTGAGE CREDIT, GEORGETOWN UNIV. CREDIT RESEARCH CTR., MONOGRAPH NO. 38, at 18–19 (2006) (summarizing empirical studies of such laws). We are not aware of any studies that have tried to determine whether these particular laws have increased the costs of lending as well.

whether those loans that are deterred are legitimate subprime loans or "predatory" loans. In North Carolina, the 1999 law expanded the number of loans defined as high cost by lowering the fee triggers created by HOEPA.[296] The law also imposed tighter restrictions on high-cost loans.[297] Elliehausen and Staten found that the number of subprime mortgage originations dropped by 14%.[298] The decline in originations was almost entirely among lower-income borrowers in North Carolina.[299] A subsequent study concluded that less-restrictive laws do not appear to dampen the availability of high-cost loans, but that states with more-restrictive laws experienced significant declines in the origination of subprime loans.[300] The cumulative decline ranged from a low of 26% in North Carolina to 94% in New Mexico.[301] Harvey and Nigro also found that subprime applications and originations dropped significantly, though most of the drop was due to fewer applications and not a significant change in rejection rates.[302] Another study comparing mortgage originations in North Carolina with those in neighboring states, both before and after the law, found that originations declined in North Carolina relative to its neighbors after the law, again due to a decline in applications.[303]

Ho and Pennington-Cross conclude that the various state and local laws that they studied did not significantly impact the rate of originations.[304] Stronger laws, however, appear to reduce the application rate, and applicants are more likely to be accepted.[305] The authors speculate that these changes may be due to lenders marketing less aggressively for subprime products because of strengthened predatory lending legislation; the change in rejection may also be due to increased pre-

296. *Id.* at 4.
297. *Id.*
298. *Id.* at 6.
299. *Id.*; Gregory Elliehausen & Michael Staten, *Regulation of Subprime Mortgage Products: An Analysis of North Carolina's Predatory Lending Law* 15 (Credit Res. Ctr., Working Paper No. 66, 2002).
300. ELLIEHAUSEN, STATEN & STEINBUKS, *supra* note 295, at 18.
301. *Id.*
302. Keith D. Harvey & Peter J. Nigro, *Do Predatory Lending Laws Influence Mortgage Lending? An Analysis of the North Carolina Predatory Lending Law*, 29 J. REAL EST. FIN. & ECON. 435, 453 (2004).
303. KIMBERLY BURNETT, MERYL FINKEL & BULBUL KAUL, ABT ASSOCS. INC., MORTGAGE LENDING IN NORTH CAROLINA AFTER THE ANTI-PREDATORY LENDING LAW: FINAL REPORT 35–36 (2004).
304. Ho & Pennington-Cross, *supra* note 278, at 226.
305. *Id.* at 223.

screening by lenders, increased borrower self-selection, or a shift to lenders and loan products unregulated by the new law.[306] Harvey and Nigro reach a similar conclusion to explain the reduction in mortgage originations in North Carolina after the passage of the predatory lending law,[307] but they do not mention the possibilities of increased pre-screening by lenders or borrowers. Overall, the economic studies show that restrictions on lenders tend to tighten the subprime market and reduce the number of applicants for subprime loans, and, depending on the strength of the law,[308] reduce the number of loan originations.

While reducing overall loan volume, there is no evidence as to whether anti-predatory lending laws actually reduce the incidence of predatory lending.[309] For instance, milder regulations appear to have a minimal disruptive impact on the market. However, milder laws may provide minimal additional protection for borrowers as well. The finding of no credit-rationing effect from milder lending regulations may reflect the ability of borrowers and lenders to reprice unregulated terms of credit contracts in order to avoid a reduction in the supply and demand of credit. By contrast, it may be more difficult to reprice terms in the face of more onerous credit regulations, thus resulting in some rationing of credit and substituting other forms of credit, such as payday lending and pawnbrokers. In fact, some claim that mild but more broadly applicable regulations may actually *increase* the overall volume of subprime lending.[310]

Anecdotal reports also suggest that anti-predatory lending regulations may have the unintended consequence of interfering with the flow of legitimate subprime credit. One local

306. *Id.* at 226.

307. Harvey & Nigro, *supra* note 302, at 453 (suggesting that less aggressive marketing by lenders is a rationale for fewer subprime originations and applications in North Carolina).

308. North Carolina's law was one of the most restrictive in the Ho and Pennington-Cross study, which found that stricter laws have a stronger effect on the market, reducing both applications and originations. *See* Ho & Pennington-Cross, *supra* note 278, at 224.

309. Although the laws may lead to a reduction in foreclosures, it may simply reflect a reduction in home purchases rather than a reduction in predatory lending. *See, e.g.*, Cole, *supra* note 287, at 266–67.

310. *See, e.g.*, Ho & Pennington-Cross, *supra* note 235, at 53–54; Raphael W. Bostic et al., State and Local Anti-Predatory Lending Laws: The Effect of Legal Enforcement Mechanisms 15–16 (Aug. 7, 2007) (working paper, *available at* http://ssrn.com/abstract=1005423).

newspaper in Ohio discovered that residents of a Cleveland suburb, Fairview Park, were being rejected for mortgage loans because their zip code was registered in lenders' computers as placing them within Cleveland city limits.[311] As the newspaper discovered, "Since Cleveland's anti-predatory lending law caps interest charges, some lenders don't give second mortgages or home-equity loans to Cleveland residents having potential credit risks."[312] One rejected borrower observed, "When we were applying for loans, the companies would key in our zip code, and Cleveland would come up."[313] Finally, one borrower contacted the mayor of Fairview Park, who wrote a letter on his behalf confirming that he was a resident of the suburb, leading one of the lenders who had previously rejected him to change its mind.[314] The mayor reported that she had received similar requests from six other residents of Fairview Park in the same situation.[315]

The overall evidence that stricter laws have a greater effect on the subprime market suggests that there is a balance between eliminating predatory lending and restricting high-cost, but legitimate, subprime lending. The federal financial regulatory agencies treated the most controversial subprime lending practices carefully in their statement in order to avoid a credit-rationing response.[316] The strongest explicit guidelines that they issued required lenders to greatly limit their use of reduced-documentation loans to only a few exceptional cases and to allow borrowers to prepay their loans within sixty days of the initial reset period without incurring a prepayment penalty.

Expansive liability provisions may also reduce the supply of legitimate subprime credit by making it more difficult or impossible to securitize or otherwise sell mortgages on the secondary market. For instance, in some situations Standard & Poor's "has refused to rate high-cost loans in states that enacted assignee liability laws with indeterminate damages provisions."[317] Georgia passed an aggressive "anti-predatory lending" statute in 2002, which included a strict assignee liability

311. Ken Prendergast, *Predatory Lending Laws Can Cause Headaches*, PARMA SUN POST (Ohio), July 10, 2003.
312. *Id.*
313. *Id.*
314. *Id.*
315. *Id.*
316. *See* GUIDANCE, *supra* note 53.
317. Engel & McCoy, *supra* note 25, at 2099.

law.[318] Standard & Poor's ("S&P") announced that "it would refuse to rate all Georgia home loans subject to the law, after which the Georgia legislature amended the law to cap damages on high-cost loans."[319] In response to the amendment, S&P agreed to "review transactions that propose to include [Georgia] high-cost loans on a case-by-case basis."[320] Engel and McCoy note that "[c]urrently[,] S&P refuses to rate loan pools containing high-cost loans governed by assignee liability laws in Indiana, Massachusetts, and New Jersey on grounds that those laws create indeterminate damages exposure and thus do not permit S&P to calculate the maximum exposure per loan for securitized trusts."[321] The inability to resell loans on the secondary market will reduce the availability of capital to the market in those states.

Anti-predatory lending laws generally result in a decline in subprime originations, due in part to fewer applications and, if the law is strict, more denials. However, it is difficult to assess whether this is a result of reduced predatory lending activity or reduced legitimate subprime lending activity. Without detailed study of the terms of individual loans, it may be impossible to separate these two markets for statistical purposes.[322]

3. Market Correction

Since foreclosure rates sharply increased, dozens of lenders have failed and many consumers have faced default and subsequent foreclosure.[323] Most lenders also have raised their lending standards by cutting down on loans with little documentation and loans to the riskiest borrowers.[324] Tighter lending standards and falling home prices have added to the subprime woes by making it more difficult for some borrowers to refinance their mortgages as their ARMs reset to higher interest rates, causing some additional foreclosures, which may further reduce home values.[325] Homeownership rates and home values

318. *Id.*
319. *Id.*
320. *Id.* at 2099 n.287 (quoting Press Release, Standard & Poor's, Standard & Poor's Will Admit Georgia Mortgage Loans into Rated Structured Finance Transactions (Mar. 11, 2003)).
321. *Id.* at 2099.
322. BURNETT, FINKEL & KAUL, *supra* note 303, at 4.
323. *See* The Mortgage Lender Implode-O-Meter Home Page, *supra* note 105.
324. Guttentag, *supra* note 106.
325. Gorton, *supra* note 27, at 5–6.

could continue to decline through the end of 2008, as the bulk of adjustable-rate mortgages continue to reset to higher rates and foreclosures continue.[326] Consumers have responded with greater wariness in purchasing homes, causing a slowdown in the housing market and falling prices in many areas of the country.[327] In short, there is a clear market correction at work for some of the most reckless practices.

B. Improving the Operation of the Subprime Market

If the remedies under current laws and regulations cannot correct the subprime market, new regulations or legislation may be necessary. The possible remedies include: improved disclosure rules, substantive regulations on the types of loans that can be allowed, or requirements that lenders consider the "suitability" of a loan for a particular borrower.

1. Improved Market Competition

The most productive approach to better regulation of the subprime market would be to try to improve the operation of the subprime market by enhancing the conditions of competition and consumer choice in the market. Most subprime loans, like other voluntary market transactions, are welfare-improving[328] for both borrowers and lenders (assuming there is no fraud). Nonetheless, there is a general impression that consumer fraud, borrower confusion, and abuse are more prevalent in the subprime market than in the prime market. As noted above, research by the FTC indicates that subprime borrowers and prime borrowers appear to be equally capable in terms of

326. Numerous industry experts have predicted that housing prices will remain low until 2008 or later. *See, e.g.*, *The Looming Foreclosure Crisis: How to Help Families Save Their Homes: Hearing Before the Senate Comm. on the Judiciary*, 110th Cong. (Dec. 5, 2007) (written statement of Mark Zandi, Chief Economist, Moody's Economy.com), *available at* http://judiciary.senate.gov/hearings/testimony.cfm?id=3046&wit_id=6807; James R. Hagerty & Ruth Simon, *The State of the Slump*, WALL ST. J., July 26, 2007, at D1.

327. *See, e.g.*, *Metropolitan Area Existing-Home Prices and State Existing-Home Sales* (National Association of Realtors), 2d qtr. 2008, http://www.realtor.org/research/research/metroprice.

328. A loan which is welfare-improving for both the borrower and the lender simply means a loan which allows both the borrower and the lender to increase their utility. In the context of a subprime loan, this would mean that the borrower is able to access credit, thus allowing her to purchase a home or other goods, while the lender is able to earn money by lending to a borrower who will repay the loan with interest.

natural ability to understand their loans, thus this distinction in outcomes does not appear to be the result primarily of differences in the intelligence or education of subprime borrowers.[329] Moreover, as further noted above, most lending regulations such as RESPA and TILA apply equally to prime and subprime loans, thus the difference in outcomes is unlikely to result from differences in the regulatory regime. In fact, the subprime market is more heavily regulated than the prime market due to additional regulations such as HOEPA that are layered on top of other regulations.

A primary difference between the prime and subprime markets is the structure of market competition between the two markets. In the prime market, competition works well to produce a high degree of transparency in key price terms (such as the interest rate) and a high degree of standardization in other non-price terms (such as the general absence of prepayment penalties and relatively fewer loans with adjustable interest rates).[330] This transparency and standardization generates a process of beneficial competition in the market. Through this interaction of unfettered consumer choice and robust competition, the incidence of fraud in the market is quite small.

Today, mortgages in the prime market are essentially fungible commodities—the terms of every prime mortgage are essentially identical except for a few easily-identifiable price terms. Virtually every prime mortgage is securitized or resold on the secondary market to a mortgage-servicing company or a third-party mortgage holder such as Fannie Mae. In order to encourage the "commoditization" of mortgages and reduce the costs associated with buying and selling mortgages, third-party mortgage holders demand standardization on most of the terms contained in a mortgage. Although this standardization is designed primarily to encourage the resale of mortgages from the initial underwriters into the secondary market, it also has the beneficial—if unintended—consequence of making it easier for consumers to compare mortgage offers and to shop for the best deal. Because of this imposed standardization of the terms of a prime market mortgage, a consumer generally can have confidence that there are no buried or surprise terms in their mort-

329. *See* LACKO & PAPPALARDO, *supra* note 55, at 126.

330. *See* Sumit Agarwal & Calvin T. Ho, FED. RESERVE BANK OF CHICAGO, CHICAGO FED LETTER NO. 241, *Comparing the Prime and Subprime Mortgage Markets*, Aug. 2007, at 1–2, *available at* http://www.chicagofed.org/publications/fedletter/cflaugust2007_241.pdf.

gages. As a result, consumers can focus on just those few terms that differ among mortgages, confident that there are no unusual terms in the remainder of the mortgage. Thus, as the FTC found, few prime mortgage customers actually read or understand the terms of their mortgages in any detail and certainly did not read with any greater diligence or understanding than subprime borrowers.[331] Nonetheless, borrowers in the prime market are rarely victimized and need not fear victimization as a result of their ignorance—the imposed standardization of mortgage terms by third-party purchasers of prime mortgages serves to protect prime mortgage borrowers.

Subprime loans, by contrast, tend to lack this homogeneity in contract terms and this commodity-like nature. Instead, subprime loans are highly heterogeneous. As suggested above, much of the heterogeneity of subprime loan terms can be readily explained by the heterogeneity of subprime borrowers—whereas every prime borrower is essentially similar, subprime borrowers often present idiosyncratic, borrower-specific risks, whether because of a high LTV, impaired credit, unpredictable income, or asymmetry in the ability to predict the likelihood of prepayment.[332] At the same time, this heterogeneity increases the complexity of subprime loans and makes it more difficult for borrowers to easily shop and compare terms. This complexity increases borrower confusion and increases the risk that a borrower will be defrauded or unaware of important terms in the contract.[333] All borrowers have trouble understanding complicated and unusual loan terms. But subprime loans simply have a greater number of complicated and unusual terms, and those terms are more complicated than other terms.[334]

In part, this greater heterogeneity reflects term repricing by lenders seeking to avoid the onerous rules and expansive liability exposure under HOEPA and other regulations. Most regulations tend to target the most obvious, transparent, and important terms, such as interest rates, points, and costs. This has the unintended consequence of causing substitution to less-obvious and less-transparent terms, such as prepayment penalties and loan-to-value ratio. In turn, this makes it more difficult for borrowers to recognize and understand all of the terms of their loans and to efficiently compare terms.

331. *See* LACKO & PAPPALARDO, *supra* note 55, at 126.
332. *See* Office of the Comptroller of Currency, *supra* note 72, at 8–9.
333. *See* LACKO & PAPPALARDO, *supra* note 52, at 126.
334. *Id.*

The current regulatory regime thus may have matters exactly backward. By regulating the most obvious and important terms of loans, such as the interest rate and points, the current structure creates incentives for substitution toward greater use of less-transparent and expected terms. Regulation could better market operations by imposing tighter restrictions or prohibitions on unusual terms while permitting largely unregulated pricing on material and transparent loan terms.

Whereas the prime mortgage market tends to produce transparency and standardized terms that permit easy comparison on key price terms with little concern of surprise or fraud on other terms, the subprime market tends to produce more complex, highly-tailored, and borrower-specific terms. Although this difference probably is efficient[335] in terms of the differences between the borrowers in the two markets as an initial matter, in the prime market it tends to produce positive externalities in terms of robust and healthy competition among credible lenders, whereas in the subprime market it may present a heightened potential for fraud and abuse.

2. More Established Lenders

A second distinction between the prime and subprime markets is the historic absence from the subprime market of highly-reputable lenders with established reputation. Whereas the prime market is dominated by highly-reputable lenders with well-established reputations, the subprime market traditionally has been left to less-established lenders. Mortgages, whether in the prime or subprime market, are inherently complex products about which a consumer knows and can know little.[336] First-time homebuyers are generally overwhelmed by the complexity and amount of loan documentation that accompanies a home purchase and the lack of an opportunity to fully read and ask questions about mortgage terms.[337] Having gone through the experience once, second-time homebuyers rarely closely examine their loan documents. Nor is it likely, even if they did take the time to examine their documents, as we have seen, that average borrowers would be able to comprehend most of their terms.[338] In short, due to the complexity and

335. Elliehausen, Staten & Steinbuks, *supra* note 75, at 18.
336. *See* Engel & McCoy, *supra* note 52, at 1280–81.
337. *See* LACKO & PAPPALARDO, *supra* note 55, at 26–29.
338. *See id.* at 126.

sheer volume of documentation associated with a home mortgage, there is a large information asymmetry between borrowers and lenders that makes borrowers highly vulnerable to fraud and oppression by lenders. But despite this massive information asymmetry, there is no evidence of widespread abusive behavior in the prime mortgage market.

The mortgage market is not unique as a market characterized by information asymmetry between sellers and buyers.[339] Many products—such as computers, automobiles, medical services, bridges, buildings, etcetera—contain important attributes that consumers cannot easily verify or cannot verify at reasonable cost. Where these information asymmetries exist, consumers must depend on other institutions to protect them from the risk of exploitation. Without these protective measures, consumers might be reluctant to make any purchase at all in these markets. Two important solutions to this problem are direct government regulation and common law regulation, for example through products liability laws or warranties that arise under contract law.

The market itself also produces important protections for consumers. One important market response is investing in name brands, which create reputation bonds that can serve as a promise that a seller will not exploit asymmetric information advantages.[340] In many situations, the financial value of a firm's name brands will greatly exceed the expected impacts of governmental regulators or civil liability.[341] We are aware of no compelling empirical evidence of the effect of name brands in the consumer credit industry to mitigate the possible abuses from information asymmetries; nonetheless, name brands appear to be marketed quite extensively and the growing consolidation of the retail banking industry suggests that such name brands are quite valuable.

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339. *See generally* George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970).

340. *See generally* Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981).

341. *See, e.g.*, Gregg Jarrell & Sam Peltzman, *The Impact of Product Recalls on the Wealth of Sellers*, 93 J. POL. ECON. 512 (1985); Mark L. Mitchell, *The Impact of External Parties on Brand-Name Capital: The 1982 Tylenol Poisonings and Subsequent Cases*, 27 ECON. INQUIRY 601 (1989). Indeed, the negative reputational effects may substantially exceed even punitive damage awards. *See* W. Kip Viscusi, *The Social Costs of Punitive Damages Against Corporations in Environmental and Safety Torts*, 87 GEO. L.J. 285 (1998).

Competition also may produce innovations that reduce complexity and confusion among consumers. Economist Susan Woodward finds, for instance, that borrowers get lower-priced loans when they take "no-cost" loans, that is, those where the fees and costs of loan origination are rolled into the interest rate on the loan rather than paid up-front.[342] This is probably because rolling the costs into the interest rate simplifies the process of loan shopping by enabling the buyer to compare just one simple price for the loan rather than having to compare loan cost on a several margins simultaneously. Moreover, whereas lower-educated and minority borrowers often pay higher prices for mortgages, "no-cost" loans exhibit no differences in the terms between those groups and higher-educated or non-minority borrowers.[343]

There is a longstanding ambivalence and distrust by many Americans toward banks and financial institutions. This feeling of distrust may be especially pronounced among lower-income Americans and recent immigrants.[344] Many of these consumers are also likely to be borrowers in the subprime market. Distrust may explain in part why many subprime borrowers tend to rely very heavily on personal relationships established with particular brokers rather than shopping around more aggressively for credit.[345] Some scholars have argued that expanding the scope of anti-predatory lending regulations to cover more loans (rather than merely increasing their severity) can enable consumers to more readily sort between fraudulent and credible lenders and thereby increase consumer trust and reduce fraudulent practices.[346] If consumers generally distrust financial institutions, they may be more reliant on personal relationships with those they trust in order to overcome information asymmetry problems. At the same time, this greater reliance on personal relationships may expose borrowers to a greater risk of exploitation by unscrupulous lenders who are presented with this greater opportunity to abuse that trust.

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342. WOODWARD, *supra* note 143, at xi.

343. *Id.*

344. *See* Jack Loechner, *Fourteen Million Unbanked Americans Represent New Frontier for Banks*, RESEARCH BRIEF (Ctr. for Media Research/MediaPost, New York, N.Y.), Apr. 27, 2005, *available at* http://blogs.mediapost.com/research_brief/?p=921.

345. *See* LACKO & PAPPALARDO, *supra* note 55, at 26.

346. *See* Bostic et al., *supra* note 310, at 20; Ho & Pennington-Cross, *supra* note 235, at 39.

Until recent years, traditional mortgage lenders generally eschewed the subprime market. In recent years, however, leading mortgage lenders such as Countrywide Mortgage aggressively entered the subprime lending market, only to quickly lose their shirts as they were swept up in the general collapse of the subprime lending market.[347] Countrywide and many others that aggressively entered the subprime market have now exited it. Although this decision to scale back operations is difficult to question in light of the financial catastrophes suffered by Countrywide, Capital One Financial, and others, the decision is unfortunate in that the retreat of credible lenders with established name-brands will leave a void in the market that may be filled by less reputable lenders. For instance, Harvey and Nigro found that after Chicago passed one of the earliest municipal "anti-predatory lending" laws, the primary effect was to drive banks out of the city and largely replace that lost volume with nonbank lenders who were not covered by the law.[348] The overall volume of subprime lending was mostly unaffected by the law.[349] In Philadelphia, where a similar law was applied to all lenders, loan originations declined significantly after the law was enacted with minority and low-income market segments experiencing the largest reduction.[350] This suggests that regulators should be aware of the benefits associated with drawing more established lenders into this market and should be wary of imposing new regulations that may further encourage more reliable lenders to exit the market—a result that might be expected from expanding possible liability for lenders or increasing liability for secondary purchasers of subprime loans.

Competition in the subprime market appears to be fundamentally beneficial in the sense that increased competition tends to reduce the prevalence of predatory lending rather than maximize the exploitation of vulnerable borrowers.[351] Thus, to

347. *See* James R. Hagerty, Valerie Bauerlein & Lingling Wei, *Bank of America Invests $2 Billion in Countrywide*, WALL ST. J., Aug. 23, 2007, at A1 (noting that Bank of America, which provided $2 billion to bail out Countrywide, exited the subprime mortgage business in 2001).

348. Keith D. Harvey & Peter J. Nigro, *How Do Predatory Lending Laws Influence Mortgage Lending in Urban Areas? A Tale of Two Cities*, 25 J. REAL EST. RES. 479, 504 (2003).

349. *See id.*

350. *Id.*

351. *See* Philip Bond, David K. Musto & Bilge Yilmaz, *Predatory Lending in a Rational World* (Fed. Res. Bank of Phila., Working Paper No. 06-2, 2006),

the extent that competition and consumer choice in the subprime market can be enhanced, this should increase consumer welfare in this market and reduce the prevalence of predatory practices in the subprime market.

C. New Regulations

Although the mortgage market generally, and the subprime mortgage market especially, is heavily regulated, still there were obvious problems in recent years. These problems have led to calls to consider imposing new regulations or improving older regulations. The following section details some of the suggestions that have been presented to address the problems in the subprime mortgage market.

1. Improved Disclosure Regulations

Government regulation can also enhance the value of the natural competitive processes of the market by mandating disclosures to consumers.[352] Government regulation can enhance market competition by mandating disclosure of important terms that sellers might otherwise be unwilling or reluctant to disclose. Alternatively, government regulation can mandate a more standardized format for disclosures, thereby enhancing the ability of consumers to more easily compare competing offers and choose optimally.

Incomplete or misleading disclosure likely contributes to the problem of predatory lending. Predatory loans can include mortgages where the terms are fraudulently or deceptively described or where key terms are not disclosed or are falsely disclosed. Increased disclosure requirements can clarify to lenders exactly what information should be conveyed to the borrowers and can inform borrowers of the minimum amount of information that they should expect from lenders. Alternatively, disclosure rules can require increased documentation from borrowers, and can preclude lenders from making the most irresponsible no-documentation loans.

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available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=875621. Increased competition in the payday lending industry also tends to lead to reduced prices and better credit terms for consumers. *See* Donald P. Morgan, *Defining and Detecting Predatory Lending* 1 (Fed. Bank of N.Y. Staff Rep. No. 273, 2007).

352. Thomas A. Durkin & Gregory Elliehausen, *Disclosure as a Consumer Protection, in* THE IMPACT OF PUBLIC POLICY ON CONSUMER CREDIT 109, 110 (Thomas A. Durkin & Michael E. Staten eds., 2001).

This approach allows lenders and borrowers to continue judging their own risk, but with more information on both sides to accurately assess the risk that the lenders face and the responsibilities that borrowers assume when applying for mortgages. Disclosure requirements can also standardize the information that borrowers receive from numerous lenders, allowing them to compare many offers more efficiently.[353]

But creating disclosure rules can be difficult since there are potentially dozens of terms that can be disclosed and not all terms are relevant to all borrowers or lenders. Requiring too many disclosures can overload borrowers or lenders with too much information and cause the relevant information to be lost. Crafting disclosure rules thus requires a balance if the rules are to achieve their intended results.

The FTC's study on the knowledge of consumers about mortgage loan terms details the difficulties that current mortgage borrowers have in understanding existing disclosure forms. This lack of understanding is shared by both prime and subprime customers. More than half could not find the overall loan amount on the disclosure form, more than two-thirds could not detect the presence of a prepayment penalty in two years, and 95% could not find the amount of the prepayment penalty.[354]

In the same report, the FTC found that a simpler, prototype disclosure form improved the performance of the mortgage customers on nearly every question. The improvement in comprehension was especially large for subprime borrowers presumably because of the relative complexity of subprime loan forms and a greater number of complex terms when compared to prime loans. The report also indicates that borrowers rely on lending agents for much of the information on the written disclosure form.[355]

2. New Substantive Regulations

Substantive regulation of credit markets is difficult because the unintended consequences of regulation often are greater than the benefits created by the intended effects. The intended consequence of substantive regulation is a reduction or elimination of the targeted practices. The precise unin-

353. *See id*. at 125.
354. LACKO & PAPPALARDO, *supra* note 55, at 81 fig.6.1.
355. *Id*. at 31.

tended consequences are more difficult to forecast but will likely fall into a number of categories, including term substitution or repricing, product substitution, and rationing.

Term substitution might occur if lenders are held to an interest rate ceiling or other terms that restrict them from certain risk-based pricing practices. Lenders can then use other, less-precise terms to mitigate their risks. This could include increased origination or application fees, greater down-payment requirements, stricter default and foreclosure rules, prepayment penalties, or other similar terms.

Product substitution—replacing one source of credit with another, such as using credit cards instead of personal finance loans—may be less likely in the mortgage market than in other types of credit markets since there are fewer sources willing or able to lend the thousands of dollars required for purchasing a home. The more likely result of stricter mortgage origination rules is a return to rationing, which could result in a reduction in overall homeownership since some of the recent increase in homeownership was due to the ability of subprime borrowers to access credit.[356]

3. Requiring Lenders to Consider Borrower Suitability

Proponents of suitability standards want lenders to consider the ability of a borrower to repay his mortgage. While the increased use of credit scoring has allowed lenders to better judge borrowers' credit risk, suitability places too much responsibility on a lender—and too little on a borrower—to know a borrower's ability and intent to repay, especially given the informational asymmetries of the mortgage market. The case for a suitability obligation rests on the idea that the lender may be in a better position than the borrower to assess whether a loan with certain terms is appropriate for that borrower. The concept originates in securities law, where it places substantive limits on the ability of a stockbroker to sell to a client a security that is "unsuitable" for the consumer. For example, it would be unsuitable for a stock broker to sell a high-risk stock to an elderly person of modest means who is seeking a secure and steady financial return. But the suitability requirement cannot be simply transplanted from the securities context to

356. Doms & Motika, *supra* note 90, at 3.

the home mortgage context. As the noted Wharton mortgage economist Jack Guttentag observes:

> For there to be a net benefit, . . . the borrower must have the mortgage long enough for the monthly cost reductions to exceed the upfront costs . . . . Only the borrower has any idea of how long the mortgage may last. . . . I recently reviewed a cash-out refinance in which the borrower paid about $12,000 in refinance costs and a ¼ % rise in rate on a loan of $150,000, in order to raise $4500 in cash. Was there a net benefit? There is no objective way for the loan provider to answer the question. While the price is very high, maybe the borrower needs the cash to pay for life-saving medicine for his children.[357]

There are countless scenarios where a loan might appear unaffordable or ill-advised to an outside observer, but is the best option for a borrower. One example is a borrower who expects future income to grow—such as a doctor nearing the end of his residency—who takes a mortgage with a reset rate that he cannot afford at his current income. However, in two years, when the interest rate jumps, the borrower's income will also jump and he will be able to afford the higher payments at his new salary. Incomes for most people tend to rise over time, and many borrowers might not qualify for loans based on their current incomes which they expect to be able to afford as their incomes rise. Or a given borrower may currently be unemployed or underemployed, but with some likelihood of gaining more or higher-paying work in the near future. Would it be "unsuitable" to allow that borrower to refinance his loan to push off some of his obligations to a future date? Professor Guttentag also describes another scenario he has encountered—that of a low-income widow who wanted to remain in her home for five more years and had a lot of equity but could not afford the taxes.[358] Guttentag worked with the borrower to devise a reverse mortgage[359] that allowed her to remain in the home, but

357. Jack Guttentag, Mortgage Suitability (Mar. 9, 2007), http://www.mtgprofessor.com/A%20-%20Public%20Policy%20Issues/mortgage_suitability.htm.

358. Jack Guttentag, *Suitability Standards Could Carry Unintended Consequences*, WASH. POST, Mar. 31, 2007, at F20.

359. See, e.g., Dep't of Hous. & Urban Dev., Top Ten Things to Know if You're Interested in a Reverse Mortgage (Aug. 10, 2006), http://www.hud.gov/offices/hsg/sfc/hecm/rmtopten.cfm, which notes:

> A reverse mortgage is a special type of home loan that lets a homeowner convert a portion of the equity in his or her home into cash. The equity

as Guttentag notes, "[t]he mortgage that allowed her to stay in the house would not meet any affordability test."[360]

In addition to these problems of devising coherent standards, suitability raises some basic theoretical problems. The underlying assumption that justifies the application of a suitability requirement is the idea that with respect to certain types of loans, lenders supposedly have more accurate information than borrowers about what types of loans and risks are "suitable" for a given borrower. This is a reversal of the common assumption that underlies models of consumer credit. Joseph E. Stiglitz and Andrew Weiss describe the now-standard economic model of consumer credit, arguing that an information asymmetry will exist between lenders and borrowers in that borrowers will have greater information than lenders about whether the borrower is currently a good risk and is likely to remain a good risk in the future.[361] In equilibrium, the effect of this information asymmetry will be to lead to a suboptimal level of credit supply (or credit rationing) in the market.[362]

Recent legal scholars such as Engel and McCoy have argued that the Stiglitz-Weiss model also explains the rise of predatory lending and justifies the imposition of a new suitability requirement on lenders.[363] Engel and McCoy argue that a variety of market innovations has over time reduced the traditional information asymmetry and has led to an increased extension of credit to high-risk borrowers.[364] This includes the securitization of subprime loans, innovative mortgage products, incentives to lend to low and middle-income borrowers, and the entry of lenders that specialize in subprime lending into the market.[365] Engel and McCoy argue that these innovations have ameliorated, and in many cases even reversed, the traditional information asymmetry to the point where today's *lend-*

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built up over years of home mortgage payments can be paid to you. But unlike a traditional home equity loan or second mortgage, no repayment is required until the borrower(s) no longer use the home as their principal residence.

360. Guttentag, *supra* note 358.

361. Stiglitz & Weiss, *supra* note 20, at 409.

362. *Id.*

363. Engel & McCoy, *supra* note 52; *see also* Daniel S. Ehrenberg, *If the Loan Doesn't Fit, Don't Take It: Applying the Suitability Doctrine to the Mortgage Industry to Eliminate Predatory Lending*, 10 J. AFFORDABLE HOUSING & COMMUNITY DEV. L. 117, 125–27 (2001).

364. *See* Engel & McCoy, *supra* note 52, at 1277–79.

365. *Id.* at 1273–77.

ers have more information than borrowers about the borrower's ability to repay loans or the suitability of certain terms for certain borrowers.[366]

There are a number of issues with this theoretical justification for imposing a suitability requirement. First, the Stiglitz-Weiss model, which focuses primarily on unsecured personal loans, is not entirely relevant to explaining the home mortgage market. A primary purpose of the provision of collateral through a mortgage is to overcome the information asymmetry by allowing the lender to reach the collateral in the event of default.[367] This reduces the need to rely on the borrower's promises as well as enables the borrower to overcome the information asymmetry through signaling.

As noted earlier, the propensity to default in the current market is explained to a substantial extent by the subjective willingness of a borrower to pay her mortgage even where there has been a fall in the value of her home, rather than by traditional underwriting criteria such as the borrower's credit score.[368] This subjective willingness to default is precisely the type of unobservable private information that gives rise to information asymmetries in the consumer credit market. As discussed above, it may be that the market failed to adequately recognize and price this risk; nonetheless, this suggests the opposite inference from that of Engel and McCoy—the problem was *not* a reduction in the information asymmetry in this market, but rather a failure to identify a *new* information asymmetry and respond appropriately. The proper response, it would seem, would be for the market to accurately price the risk associated with this information asymmetry rather than to assume its disappearance.

Moreover, although Engel and McCoy identify numerous innovations in consumer lending markets that have permitted the expansion of mortgage credit to new classes of borrowers, the forces that they identify seem to have little to do with eliminating the underlying information asymmetries that characterize consumer lending relationships. The expansion of the subprime market does not appear to have resulted from a reduction of information asymmetries; rather, this expansion has come about through a reduction in the transaction costs of

366. *Id.* at 1280–81.

367. *See* Dwight M. Jaffee & Franco Modigliani, *A Theory and Test of Credit Rationing: Reply*, 66 AM. ECON. REV. 918, 919 (1976).

368. *See supra* pp. 24–26.

consumer lending as well as the elimination of regulatory policies (such as usury restrictions) that had artificially resulted in credit rationing to low-income borrowers. Securitization and new mortgage products, for example, have reduced the transaction costs of delivering home mortgages and home equity loans to borrowers and have thereby increased the supply of mortgage lending to low-income borrowers. But these innovations have not altered the information asymmetries between borrowers and lenders.

Nor is it clear why these innovations should have increased predatory lending as opposed to subprime lending generally. All of these innovations have made possible a large expansion of lending to subprime borrowers. Yet they seem unrelated to predatory practices such as asset-based lending, loan flipping, and equity stripping, none of which has anything at all to do with information asymmetries. Rather, each of these are simply fraudulent—bad practices having no logical connection to the mortgage market innovations that supposedly spawned them. Engel and McCoy provide no evidence, for instance, that predatory loans are more likely to be securitized than legitimate subprime loans.

Many of the ills sought to be remedied by a suitability requirement might be addressed by more specifically-tailored regulations that would not disrupt the lending markets to the same extent. For example, if one problem is the door-to-door "hard sell" of home improvement loans, a more direct approach than requiring consideration of a borrower's suitability would be to prohibit this form of sale or to require a "cooling-off" period—as is already required by law. Engel and McCoy reject the value of a cooling-off period, arguing that behavioral economics research shows that people are more likely to rationalize their decisions rather than change their minds in such situations.[369] The underlying research itself is open to question. But more fundamentally, Engel and McCoy provide no conclusion as to the *marginal* value of a cooling-off period, either in isolation or in combination with other protections or information.

Finally, there is an inherent paternalism in the imposition of a suitability requirement. One problem with paternalistic rules is that they may have a tendency to ignore the actual perspective of a given individual. As Professor Guttentag sug-

369. *See* Engel & McCoy, *supra* note 52, at 1277–79.

gests, it is difficult in the abstract to determine whether a given loan is "suitable" for a given person without actually standing in that person's shoes with the full array of information and constraints she faces.[370]

There are practical problems with the suitability requirement as well. First, the relationship between mortgage applicants and loan officers is not the same as that between investors and financial advisors.[371] The loan officers are merely employees who take mortgage applications; they do not assess the creditworthiness of the applicant. That task is performed by underwriters according to automated processes and a case-by-case examination of the applicant's file. Thus, the loan officer is not in a position to assess the suitability of a loan for a given borrower. Additionally, the loan officer and borrower are not in a fiduciary relationship; thus there is no reason for a borrower to reveal her situation beyond what is necessary for underwriting purposes. So, for instance, a borrower should not be encouraged (much less required) to reveal that her income is uncertain or that her expenses may rise, which could result in a rejection of the application or a higher interest rate, or her intent to prepay the loan, which would lead to the imposition of a prepayment penalty on the borrower. Second, to the extent that a suitability requirement might mandate that the lender recommend the loan that is "most suitable" for a particular buyer's circumstances, this would require a given loan officer to be familiar with the entire array of loan products that might be available to the borrower. As Professor Anthony Yezer observes, a major lender may have hundreds of loan products and it would be impossible for any single loan officer to be familiar with all of those products and to identify which product is optimal for a given applicant.[372]

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370. *See* THOMAS SOWELL, KNOWLEDGE AND DECISIONS 217–18 (1980).

> The real problem is that the knowledge needed is a knowledge of *subjective patterns of trade-off that are nowhere articulated*, not even to the individual himself. I might *think* that, if faced with the stark prospect of bankruptcy, I would rather sell my automobile than my furniture, or sacrifice the refrigerator rather than the stove, but unless and until such a moment comes, I will never *know* even my own trade-offs, much less anybody else's. There is no way for such information to be fed into a computer, when no one has such information in the first place.

Id.

371. Yezer, *supra* note 129.

372. *Id.*

The five federal agencies that oversee consumer lending released a guidance statement on subprime lending following review of public comments. The statement updated previous guidance and clarified the best practices that lenders should follow. Governmental regulators expressed particular concern about the problem of "payment shock," a situation where a borrower enters into a loan and later confronts an adjustment in the interest rate, a balloon payment, or some other contract term that causes her payment obligation to rise dramatically.[373] The new subprime lending statement tells lenders to consider a borrower's ability to repay a mortgage at the higher possible reset rate rather than simply at the introductory rate. However, denying certain borrowers access to a mortgage because they are only able to repay at the introductory rate could reduce credit opportunities for a significant number of safe borrowers. Borrowers with marginal credit who plan to refinance into a prime loan, or borrowers who plan to sell their home and move within the introductory period, may rationally choose a loan that appears unaffordable and indeed would be at the higher rates.

D. New Federal Reserve Regulations

In December 2007, the Federal Reserve issued a proposed rule to amend the home mortgage provisions of Regulation Z, which implements TILA and HOEPA.[374] The proposed rules would establish a new category of "higher-priced loans," defined as those mortgages that have an APR exceeding the yield on Treasury securities of comparable maturity by at least three percentage points for first-lien loans or five percentage points for subordinate-lien loans. Several of the provisions formalize the earlier-issued five agencies' guidance letter into a new regulation. Whereas HOEPA applies to relatively few loans (less than 1% of all mortgages), the Federal Reserve's new Regulation Z is expected to cover most subprime loans, which were about 25% of all loans in 2006.[375] The regulations would address many of the major abuses described above, including the following:

373. GUIDANCE, *supra* note 53, at 1.

374. Truth in Lending, 73 Fed. Reg. 1672 (proposed Jan. 9, 2008) (to be codified at 12 C.F.R. pt. 226).

375. Edmund L. Andrews, *In Reversal, Fed Acts to Tighten Mortgage Rules*, N.Y. TIMES, Dec. 19, 2007, at A1.

- Prohibit a lender from engaging in a "pattern or practice" of lending without considering the borrowers' ability to repay loans from sources other than the home's value;
- Prohibit "liar's loans," by prohibiting a lender from making a loan by relying on income or assets that it does not verify;
- Limit prepayment penalties, including the condition that the penalty expire at least sixty days before any possible payment increase;
- Require that the lender establish an escrow account for the payment of property taxes and homeowners' insurance.[376]

The regulation also creates several new protections against a variety of "bad practices" in the subprime market with respect to marketing and appraisals and places new limitations on mortgage broker compensation. First, it prohibits lenders from paying mortgage brokers "yield spread premia" that exceed the amount the consumer had agreed in advance the broker would receive. Second, it prohibits certain unfair servicing practices and prohibits a creditor-broker from pressuring an appraiser to misrepresent the value of a home. Third, the regulation prohibits several misleading or deceptive advertising practices for closed-end loans, such as limitations on "teaser" rates and describing a loan as having a "fixed" rate. And finally, it requires truth-in-lending disclosures early enough for borrowers to use while shopping for a mortgage and prohibits lenders from charging fees until after the consumer receives the disclosures.

CONCLUSION

The subprime mortgage bust has had a severe impact on many lenders and homeowners, as well as on financial markets and the economy as a whole. While the general macroeconomic causes of the losses are known, the specific details of predatory lending, irresponsible underwriting, or simple bad luck are still muddy.

Attempts to solve the problems of the subprime market must be tempered with the reality that the subprime market has likely boosted homeownership levels, and that strict anti-

376. Truth in Lending, 73 Fed. Reg. at 1673.

predatory regulations can raise the costs of mortgage credit and reduce legitimate subprime lending. Homeownership can be a transformative experience for many Americans. Lending disclosures are not ideal, but some disclosure reform might go a long way towards allowing borrowers to make better-informed decisions about their ability to repay their mortgages, even with rising interest rates.

The subprime bust was not caused exclusively by unscrupulous lenders pushing borrowers to sign unaffordable, but legal, loans. Exuberant borrowers, lenders, and investors nationwide combined to inflate housing prices and members of each group made bad bets on future appreciation. Those bets failed when the housing bubble burst. Such initial boom-and-bust cycles are recurrent in American history when new consumer credit products are introduced into the market. Without detailed knowledge of why certain loans went bad, a drastic reshaping of the subprime mortgage market may hurt millions of homeowners who were given credit opportunities through the subprime market. Until more is known about how to balance the costs and benefits of the subprime lending, regulators should tread cautiously in this area.