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THE LAW & ECONOMICS OF SUBPRIME LENDING

TODD J. ZYWICKI* & JOSEPH D. ADAMSON**

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_browser2.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

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. DEPT 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

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, Longhofer & 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 homeownership, 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. Borrowers, 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 Tchisty, *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 countries⁸⁶ 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 people⁹²—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. DEPT 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-

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.

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.

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”

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

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, Jeffrey 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

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 delinquency¹⁴⁰ 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. DEPT 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 than \$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,

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 advocates¹⁷⁷ and regulators¹⁷⁸ 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-SubprimeMortgageLending.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, Brevoort & 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.

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 short-sighted 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 Lacour-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 borrowers²³⁶ 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

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

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

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

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

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-improving³²⁸ 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 efficient³³⁵ 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.

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.

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.

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 $\frac{1}{4}$ % 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 mortgage³⁵⁹ 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-*

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

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.

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WORKING PAPER

THE HOUSING MARKET CRASH

By Todd J. Zywicki and Gabriel Okloski

MERCATUS CENTER

GEORGE MASON UNIVERSITY

The ideas presented in this research are the authors' and do not represent official positions
of the Mercatus Center at George Mason University.

Mercatus Working Paper – The Housing Market Crash

By Todd J. Zywicki and Gabe Okloski

Introduction

Beginning in 2007 and continuing into 2008 and 2009, the residential real-estate market was roiled by tumult unprecedented in recent American history. Widespread foreclosures and a collapse in home prices in many areas of the country spawned an ongoing global financial crisis. Although home prices have fallen precipitously in many areas of the country and foreclosures have risen to all-time highs, the end of the crisis still may not be in sight. The United States government has engineered a series of unprecedented market interventions designed to stabilize the housing market and the financial markets dependent on mortgage-backed securities.

Consumer borrowing secured by residential real estate grew substantially over the past several years, due to a number of factors that tend to increase the value of housing by increasing the willingness of purchasers to pay higher prices for the houses. Standard economics thus provides a compelling explanation for much of the increase in household mortgage obligations—low interest rates, high effective tax rates, and the increased capital value of residential real estate. Other factors, moreover, are more difficult to explain by fundamentals, such as the prevalence of a large number of speculative investors in some of the major boom and bust markets.

This working paper focuses on underlying questions related to consumer behavior and looks at the impact of these developments in the housing market on household financial condition. Specifically, this paper looks at the factors that drove consumer demand during the “bubble” market that later popped with such widespread effects. It

particularly investigates foreclosure as a rational decision on the part of consumers who responded to various incentives put in place before the eventual fall of housing prices and crash in the housing market.

The Rise and Fall of the Mortgage Market

In contrast to this relative stability in the overall housing and residential mortgage market between 1980 and 2000, recent years have seen an unprecedented rise and implosion of the residential mortgage market, especially the rapid development of the subprime mortgage market. These events have given rise to major woes in the American real-estate market and overall economy and have major implications for thinking about consumer lending markets generally.

The mortgage market collapse can be studied from many different perspectives. Many commentators have focused on the impact of mortgage lending crisis on the financial side of the issue, such as the collapse of leading investment banks and governmental efforts to stabilize the financial economy. The discussion in this working paper, by contrast, will focus on the consumer side of the market, examining the real-estate and mortgage market to determine what it can tell us about consumer behavior more generally.

Homeownership and Economic Welfare

Homeownership can be a transformative life experience, both economically and psychologically. Homeownership historically has been an important source of wealth for American households and the primary method of wealth accumulation for low and

moderate-income people.¹ According to the 2004 Survey of Consumer Finances, a family that owns a home on average has \$624,900 in average wealth (median of \$184,400) and the average renter family has \$54,100 (\$4,000 median). The impact of homeownership on increasing the wealth of lower-income families is especially important, as low-income families generally do not own financial assets. In 2001, for example, the average low-income homeowner (annual income is less than \$20,000) had nearly \$73,000 in net wealth, compared with a similar renter with only \$900 of net wealth.² In fact, homeownership has been such a potent vehicle for wealth accumulation that the polarization of wealth between homeowners and renters has risen dramatically, even as the wealth polarization among different income classes has decreased.³ Low-income and even middle-class homeowners rely on homeownership for the majority of their net worth—almost 80 percent of the wealth of low-income households is in residential real estate.⁴ 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.⁵

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

¹ 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>.

² 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).

³ 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.

⁴ Di, *supra* note 2.

⁵ *Id.*

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.⁶ The household financial obligations ratio (“FOR”) is substantially higher for those households that rent compared to those that own their homes.⁷ Data indicates that homeowners also save more than do non-homeowners.⁸ 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.⁹ Recent research, however, questions the long-believed causal link between homeownership and these other benefits, arguing instead that there is a selection mechanism at work, i.e., that people with certain attributes tend to self-select into homeownership, or that other factors (such as reduced mobility caused by homeownership) explain the relationship between homeownership and observed positive

⁶ See FED. RES. BOARD, HOUSEHOLD DEBT SERVICE AND FINANCIAL OBLIGATIONS RATIOS (June 10, 2008), *available at* <http://www.federalreserve.gov/Releases/housedebt/>.

⁷ 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.”

⁸ Ed Gramlich, *Subprime Mortgages: America’s Latest Boom and Bust* 75–77 (2007).

⁹ See *id.* at 58–60; 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).

outcomes.¹⁰ Thus, while there is a correlation between homeownership and many personal and social benefits, that correlation may not be causal in nature. There are costs to homeownership as well, notably increased sprawl and a less mobile labor force.¹¹ Nonetheless, policymakers have long (and somewhat reasonably, based on prevailing data) 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.¹²

The Growth in Homeownership

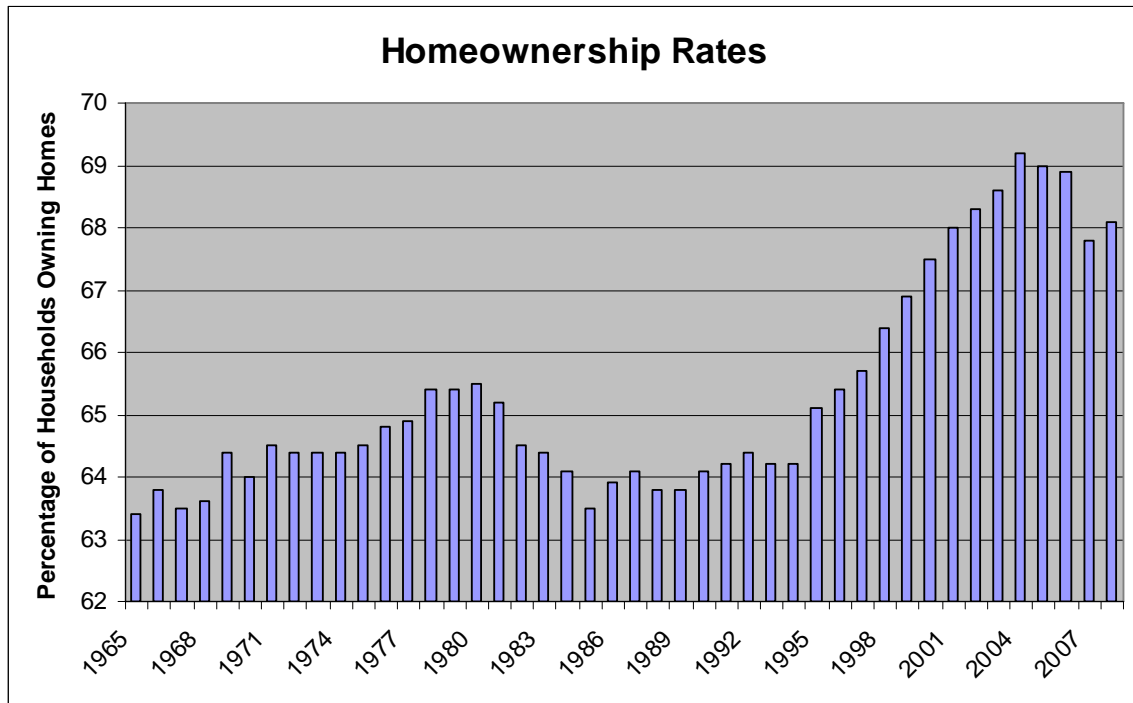
Homeownership grew rapidly beginning in the mid-1990s and continued to rise until it reached its peak in 2004, as seen in figure 1, below:

¹⁰ See discussion in Kristopher S. Gerardi & Paul S. Willen, *Subprime Mortgages, Foreclosures, and Urban Neighborhoods*, FED. RES. BANK OF BOSTON No. 08-6 (Dec. 22, 2008).

¹¹ 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>; Robert D. Dietz & Donald R. Haurin, *The Social and Private Micro-Level Consequences of Homeownership*, 54 J. URB. ECON. 401, 405 (2003).

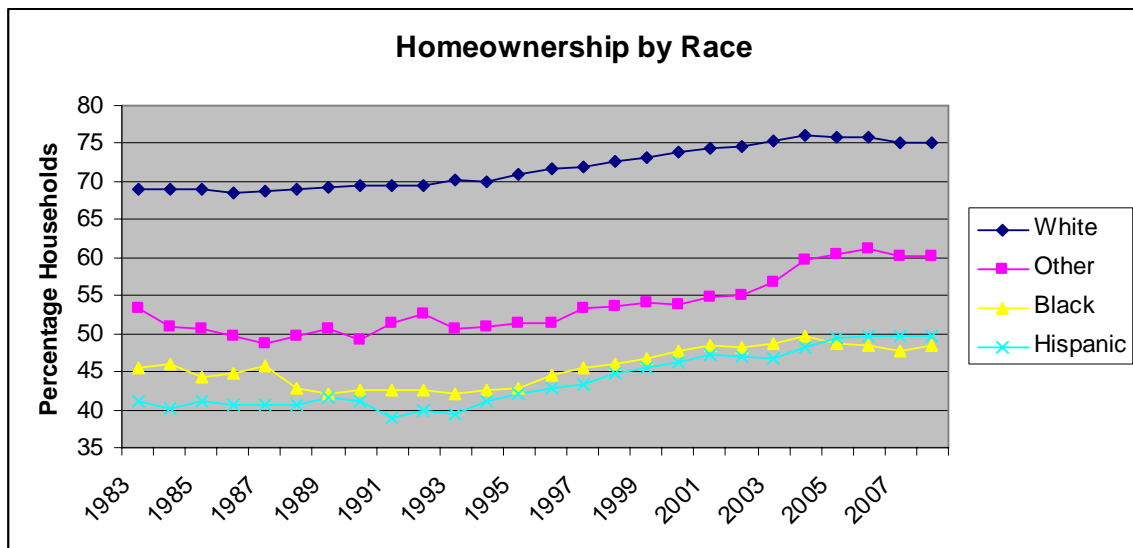
¹² See Melissa B. Jacoby, *Homeownership Risk Beyond a Subprime Crisis: The Role of Delinquency Management*, 76 FORDHAM L. REV. 2261 (2008).

Figure 1



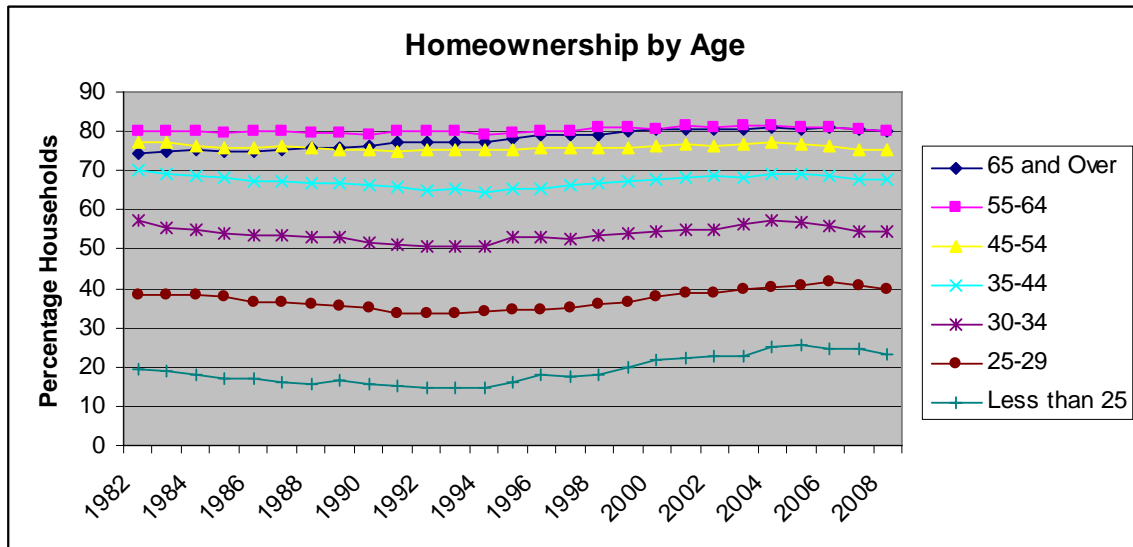
Ownership by minority groups grew during the period of expanding homeownership:

Figure 2



And the young:

Figure 3



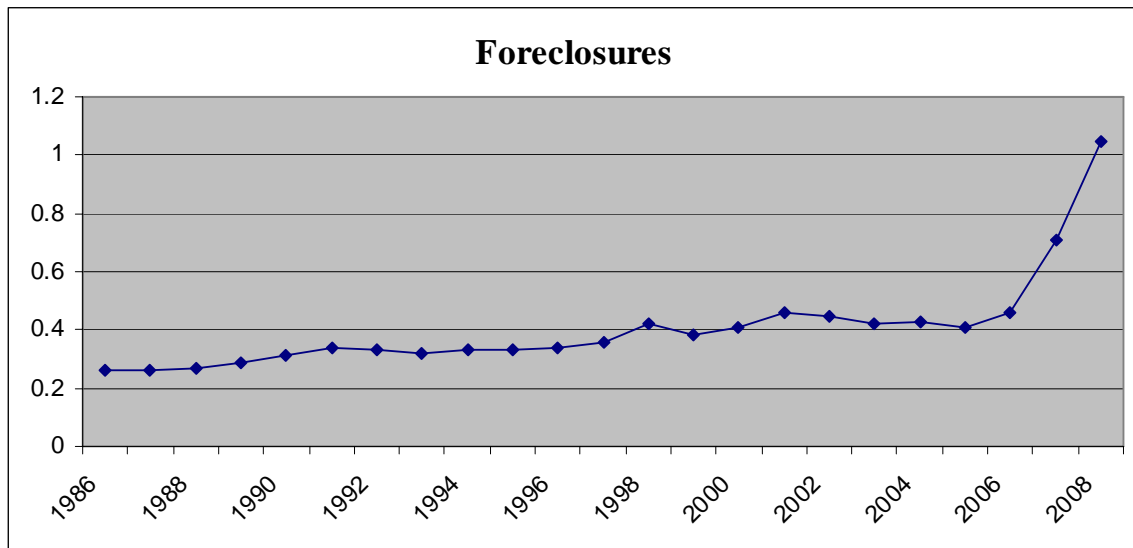
The Rise and Fall of the Mortgage Market

Beginning in late 2006 and continuing into 2007 and 2008, the United States residential real-estate market collapsed into widespread turmoil. Foreclosures rose steeply, resulting in chaos in the banking industry as well as complex securities backed by these mortgages collapsed in value. One Web site tracking the subprime bust has estimated that as of September 2009, 360 lenders have “imploded” since late 2006—i.e., gone bankrupt, halted major lending operations, or been sold at a “fire sale” price.¹³

In fact, the American economy has suffered an unprecedented rise in foreclosures. Figure 4 illustrates foreclosure start rates by yearly average over the past several decades.

¹³ The Mortgage Lender Implode-O-Meter Homepage, <http://ml-implode.com/> (last visited September 27, 2008).

Figure 4



The surge in foreclosures is often attributed to the growth of the subprime segment of the market during the 1990s and 2000s and the extension of mortgages to high-risk consumers who historically were locked out of the mortgage market. Congress, the Department of Housing and Urban Development, and Fannie Mae and Freddie Mac all encouraged more lending to higher-risk borrowers.¹⁴ Others have argued that this growth in high-risk lending was spawned by the rise of securitization of mortgages by Wall Street, which created an “originate to distribute” model of reckless lending.¹⁵ Whatever the inspiration for increased lending to higher-risk borrowers, to make these loans possible mortgage originators developed a variety of novel lending products, such as no or low downpayments, interest-only loans, reverse amortization, no- or low-documentation loans, and loans with high loan-to-value (LTV) ratios. In turn, many of

¹⁴ Russell Roberts, *House Government Stoked the Mania*, WALL ST. J., Oct. 3, 2008; Peter J. Wallison & Charles W. Calomiris, *The Last Trillion-Dollar Commitment: The Destruction of Fannie Mae and Freddie Mac*, AM. ENTER. INST. FOR PUB. POLICY RESEARCH, Sept. 30, 2008, available at http://www.aei.org/docLib/20080930_Binder1.pdf.

¹⁵ On the other hand, those involved at every step in the loan process from origination to securitization to default insurance have suffered massive losses from the collapse of the subprime market thus it doubtful that this “originate to distribute” model explains much of the rise and fall of the subprime market. See Todd J. Zywicki and Joseph A. Adamson, *The Law and Economics of Subprime Lending*, 80 U. COLO. L. REV. 1 (2009).

them were securitized and sold throughout the United States and the world leading to global economic problems. Additionally, there was a severe deterioration in underwriting standards during the subprime boom and growth in more risky loan products.

While foreclosures (like bankruptcy) often result from forces outside the household's control (such as unemployment), many consumers act rationally and respond to incentives in deciding whether to permit default and foreclosure. Changing the incentives to default will have an effect on the propensity of borrowers to default and permit foreclosure, which results from three basic factors: adverse "trigger" events, mortgage payment shock, and negative home equity. Each of these three factors has dovetailed to contribute to the extraordinary foreclosure rates that developed.

Adverse Trigger Events.

Foreclosure can be caused by adverse life "trigger" events, such as job loss, divorce, illness, or some other factor that causes an unexpected dramatic drop in household income or increase in expenses. Although many of these factors are chronic and universal aspects of the human condition, others can cause foreclosure spikes in particular places at particular times. Macroeconomic trends play a substantial role in increased mortgage default and delinquency.

Delinquencies and foreclosures began to rise in Michigan, Ohio, and Indiana,¹⁶ before the rest of the country as a result of troubles in the American automotive industry and resultant layoffs and plant closures.¹⁷ Major natural disasters may also trigger

¹⁶ *Where Subprime Delinquencies are Getting Worse*, WALL ST. J. ONLINE, Mar. 29, 2007, at Map 2, available at <http://online.wsj.com/public/resources/documents/info-subprimemap07-sort2.html> (click "Map 2" header) (data provided by First American Loan Performance).

¹⁷ Chris Mayer, Karen Pence & Shane M. Sherlund, *The Rise in Mortgage Defaults*, 23 JOURNAL OF ECONOMIC PERSPECTIVES 27-50 (2009), at 45.

geographical surges in foreclosure, as resulted in the areas of Louisiana and Mississippi affected by hurricane Katrina in 2005 following the expiration of a temporary moratorium period.¹⁸ 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. Thus, the adverse trigger events theory of foreclosures explains some element of regional and temporal variations in foreclosures over time.

Yet foreclosures rates in states such as California and Florida are much higher than in these economically hard-hit states.¹⁹ Adverse trigger events plainly cannot explain the record levels of foreclosures of recent years. Indeed, during the time that foreclosures skyrocketed, the economy remained relatively robust, with low unemployment and modest but positive economic growth. Indeed, whereas the adverse trigger events theory posits that rising foreclosures result from recession and a slowing economy, during the recent foreclosure crisis that basic causal relationship has been reversed—the dramatic rise in foreclosures has *caused* the subsequent financial crisis and recession.

Moreover, foreclosure and delinquency do not necessarily indicate the presence of unaffordable loans, predatory loans, rising interest rates, or borrowers under duress, especially with respect to subprime loans. Borrowers face a number of options with their loans—timely repayment, prepayment, delinquency, or default followed by foreclosure. Although the latter two options typically are assumed to be evidence of financial distress, the reality is more complicated. There is some evidence that subprime borrowers use their mortgages as a type of line of credit and choose to miss an occasional payment and

¹⁸ *Id.*

¹⁹ See National Association of Realtors Field Guide to Foreclosures, updated February 2009, available at <http://www.realtor.org/library/library/fg329>.

remain delinquent in order to smooth temporary financial problems.²⁰ In fact, loans that are delinquent over a long period of time typically terminate in prepayment rather than eventual default.²¹ 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 and to simply take advantage of the opportunity to delay and develop a solution to the problem.²²

Mortgage Payment Shock.

Foreclosure can also result from an unexpected increase in a household’s monthly payment obligations. In recent years, this resulted from the proliferation of adjustable-rate and “hybrid” ARM loans that had an initial period of a fixed “teaser” rate followed by adjustable rates for the duration of the loan. The easy-money policies followed by the Federal Reserve in the wake of the September 11, 2001 terrorist attacks opened up a substantial gap in market interest rates between short-term and long-term mortgages. Subsequent tightening of Fed monetary policy closed this gap, triggering resets on mortgage payments at higher rates. Borrowers who took ARMs initially were able to qualify for much larger principle amounts than was possible at long-term interest rates. Many of the states with the greatest percentage of ARMs (especially California and Florida) also saw the fastest run-ups in housing prices—and now the highest foreclosure rates.

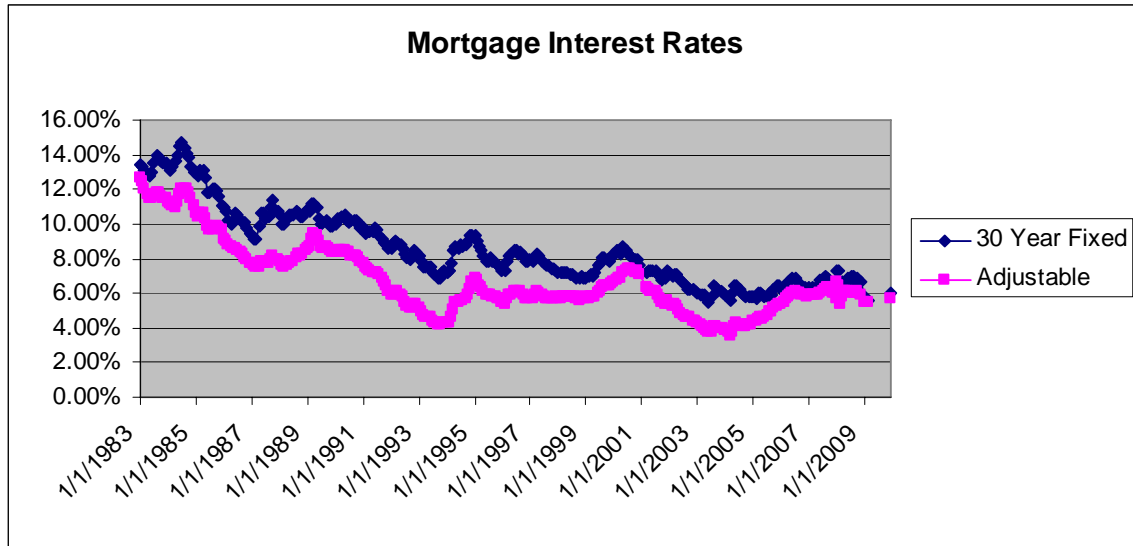
²⁰ Cutts & Van-Order, *On the economics of subprime lending* at 172. Even with penalties, the cost of credit through a delinquent mortgage is often lower than the alternatives a subprime borrower faces.

²¹ Michelle A. Danis & Anthony Pennington-Cross, *A Dynamic Look at Subprime Loan Performance* 13 (Fed. Res. Bank of St. Louis, Working Paper 2005-029A, May 2005), available at <http://research.stlouisfed.org/wp/2005/2005-029.pdf>.

²² *Id.*

Interest rates have generally fallen over the past twenty-five years following the exceedingly high mortgage interest rates of the early 1980s, as shown in figure 5.

Figure 5



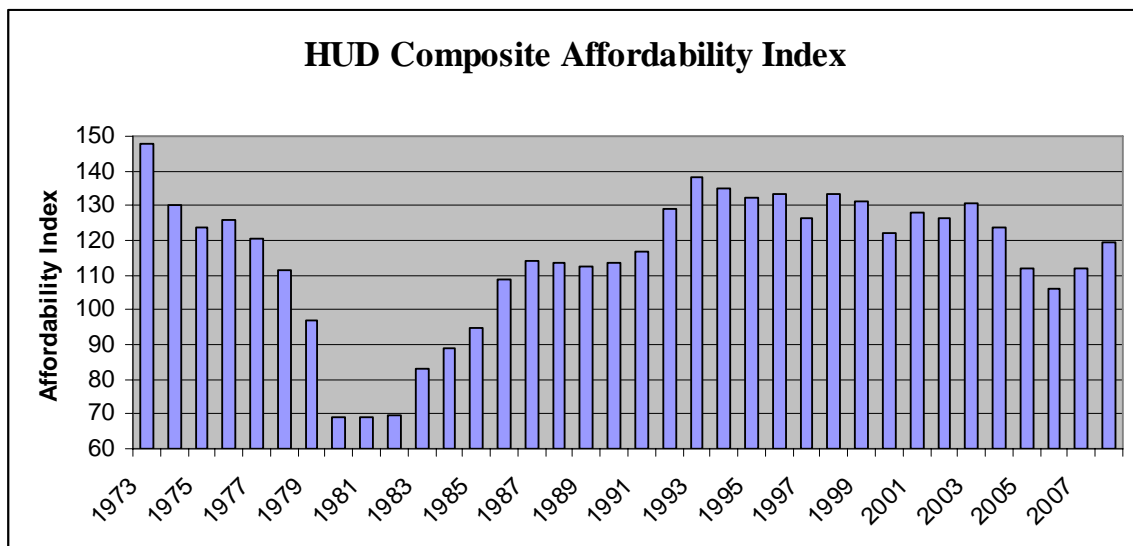
Falling interest rates probably reflect a general consensus in the western world about the value of low-inflation policies and steady economic growth in many countries that kept economic growth ahead of any inflation. Whatever the cause of this downward trend in interest rates over the past two decades, they were low during the period of the house price boom and short-term interest rates even dipped into what was likely a negative interest rate in light of actual inflation.

More important, however, was the pattern of interest rates during the crucial period of 2001–2007. Interest rates on 30-year fixed-rate mortgages remained relatively steady during that period. Interest rates on adjustable rate mortgages, by contrast, dipped to extraordinarily low interest rates, reflecting the Federal Reserve’s “easy money” policy during this period. These low ARM interest rates allowed many borrowers—both prime and subprime borrowers—to qualify for much larger mortgages than would otherwise be

the case. As can also be seen, however, beginning in 2004 the Federal Reserve began raising interest rates, causing a dramatic rise in the ARM rate, until by 2006 the interest rate on ARM and FRM mortgages had essentially converged.

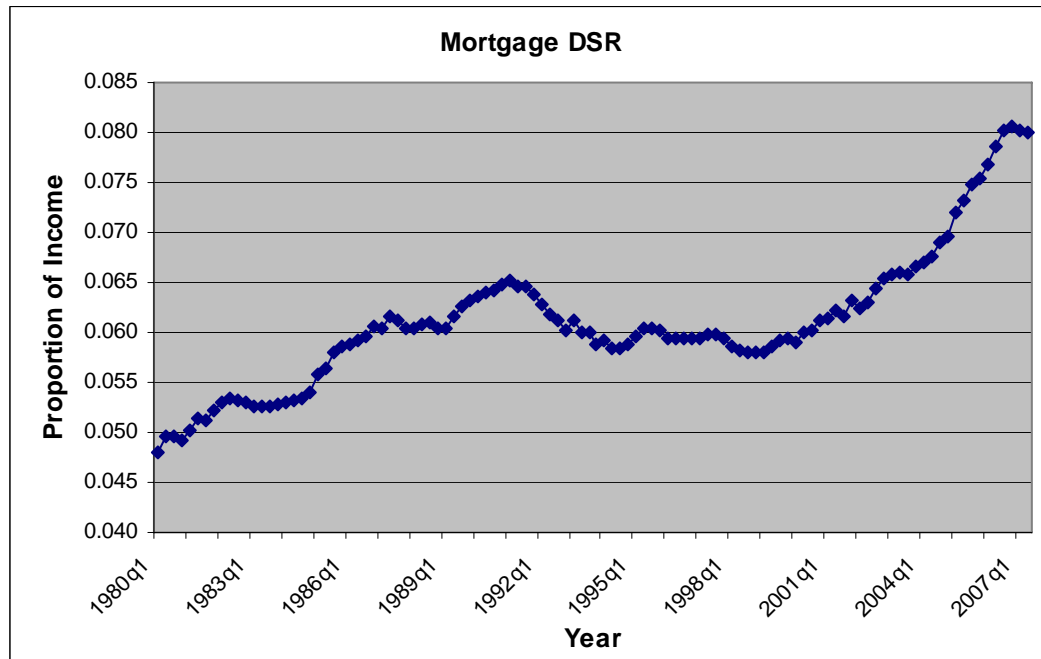
The Federal Reserve's monetary policy generated an incentive to consumers to utilize ARMs to finance their homes. These recent low-interest rates also seems to have had a measurable effect on consumers' abilities to afford a home, despite the general rise in prices. Figure 6 presents the "Housing Affordability Index," as reported by the Department of Housing and Urban Development, which measures the ratio of median family income to the income necessary to qualify for a mortgage to purchase the median-priced house at prevailing interest rates. Thus, an index value of over 100 indicates that the typical (median) family has more than sufficient income to purchase the median-priced home. As seen in the data, home affordability appears to keep pace with the previous two decades over the past few years despite a jump in housing prices. Favorable interest rates likely facilitated the larger mortgages that kept affordability at a stable level during the past several years.

Figure 6



Despite relatively stable affordability during the recent rise in the housing market, however, a large number of highly leveraged buyers became homeowners during this time. Figure 7 shows data from the Federal Reserve on the mortgage debt service ratio—the percentage of monthly income dedicated to mortgage debt service since 1980.

Figure 7

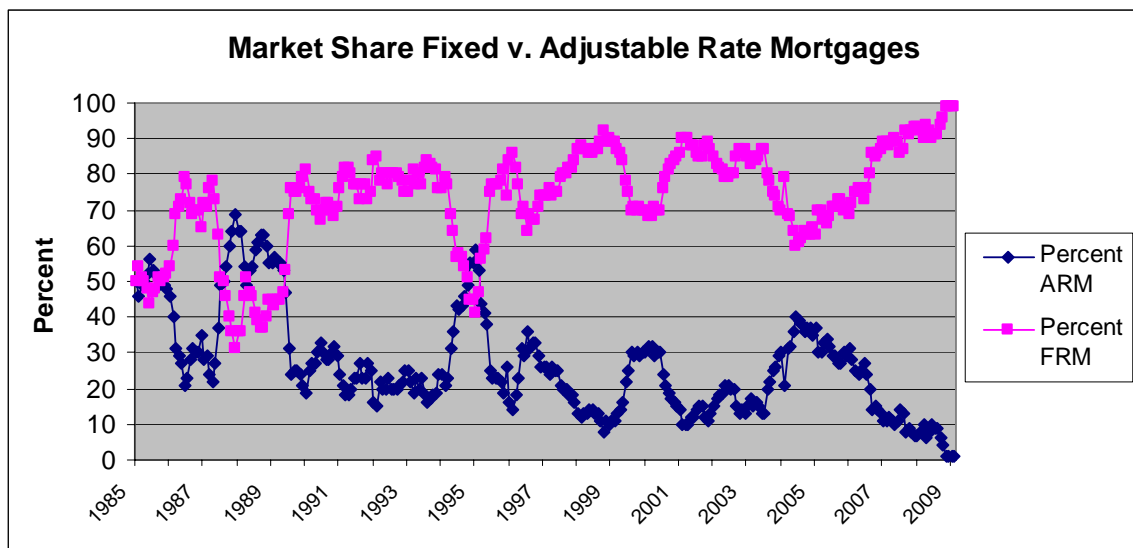


The portion of disposable income, that is post-tax income, going to pay off mortgage debt rises from 1980 to the early 1990s, after which it hovers around 6 percent until a rise beginning in 2000. While the recent increase may be described in part by a rising tax burden or the upward surge in the stock market, which left many homeowners feeling wealthier and led them to convert stocks into larger mortgages, there is another potential factor at play. Due to low-interest-rate loans and the increasing availability of adjustable-rate mortgages, more financially marginal homeowners were likely entering the market. Indeed, during the period that saw an increasing homeownership rate and

stable affordability, the proportion of income spent on mortgages sees its sharp rise. Presumably, lower-income homebuyers holding larger mortgages than they used to have greatly contributed to the increase seen in the figure above.

While there may be discussion on the extent to which riskier homeowners have contributed to the trend of increased income spent on mortgages, it is certain that more and more buyers took advantage of ARM mortgages to finance housing purchases. The large dip in ARM interest rates, relative to interest rates for FRM mortgages, led to a general growth in ARMs during the past several years, as shown in figure 8.

Figure 8

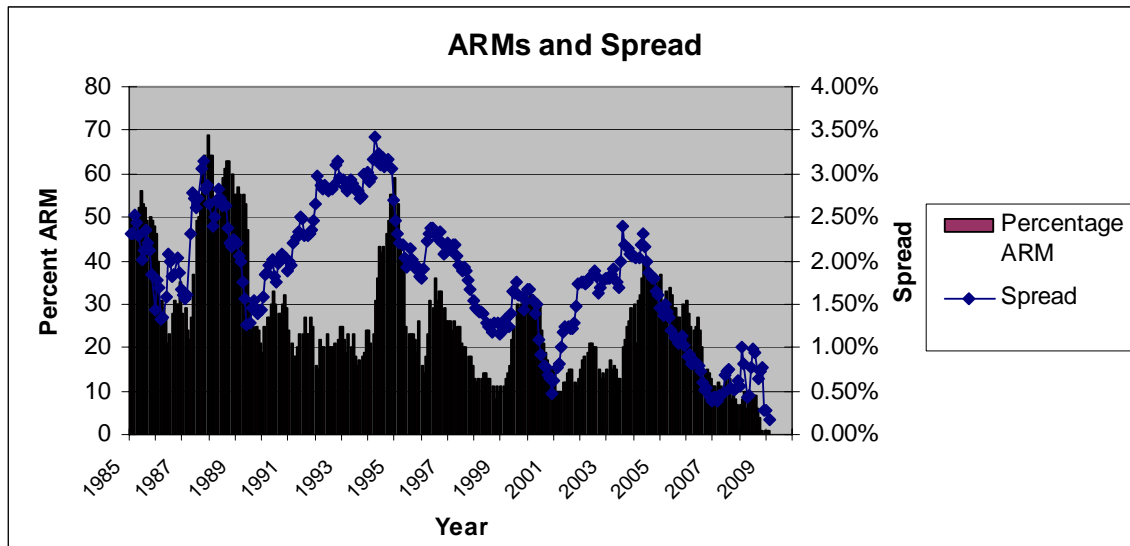


As can be seen, the ratio of ARMs to FRMs rose during the period of low ARM interest rates. But this high market share for ARMs is not unprecedented. ARMs are not uncommon in recent American history and, in fact, were much more common in the past than in recent years. In 1984, ARMs comprised 61 percent of the *conventional* mortgage market and in 1988 the figure was 58 percent. Moreover, ARMs (with average loan terms substantially shorter than the 30-year term in the United States) are standard fare in the

rest of the world and efforts to introduce the American 30-year fixed-rate mortgage have generally failed. This suggests that ARMs are not inherently dangerous products.

The popularity of ARMs appears to be driven by one overriding factor—the spread between fixed and adjustable rates, i.e., as the spread between fixed and adjustable rates widens, consumers shift to adjustable rates. As seen in figure 9, over time there is a clear relationship between the spread between interest rates on ARM and FRM mortgages and the percentage of mortgages that are ARMs.

Figure 9



At the height of the housing boom in 2004, the spread between ARMs and FRMs was about two percentage points and about 40 percent of the mortgages that were written were ARMs. As can be readily seen, however, the percentage of ARMs was even higher at times in the past, yet this did not lead to a financial calamity. This strongly suggests that ARMs are not inherently dangerous.

Fixed-rate mortgages provide homeowners with insurance against fluctuations in interest rates. And as figure 9 illustrates, this insurance usually is far from free:

Borrowers pay about 100 basis points on average to avoid bearing this risk (and sometimes more than 200 basis points). The risk of ARMs is that one's mortgage interest rate will rise if interest rates rise. But the equally obvious benefit of an ARM is that one's interest rate will fall if interest rates fall. 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. For a fixed-rate borrower to benefit from falling interest rates, she had to incur the substantial cost and hassle of refinancing the mortgage as well as the uncertainty about whether interest rates would go still lower. Because ARMs offer lower interest rates, they may also be especially attractive to homeowners who plan to move within a few years and thus have little need to pay a premium to buy "insurance" to hedge against long-term fluctuations in interest rates.

Interest-rate resets connected to adjustable-rate mortgages helps to explain the rapid rise in foreclosure rates. Moreover, it helps to explain the spread of the foreclosure contagion beyond the subprime market into the prime market in many areas, as seen in figures 10 and 11.

Figure 10

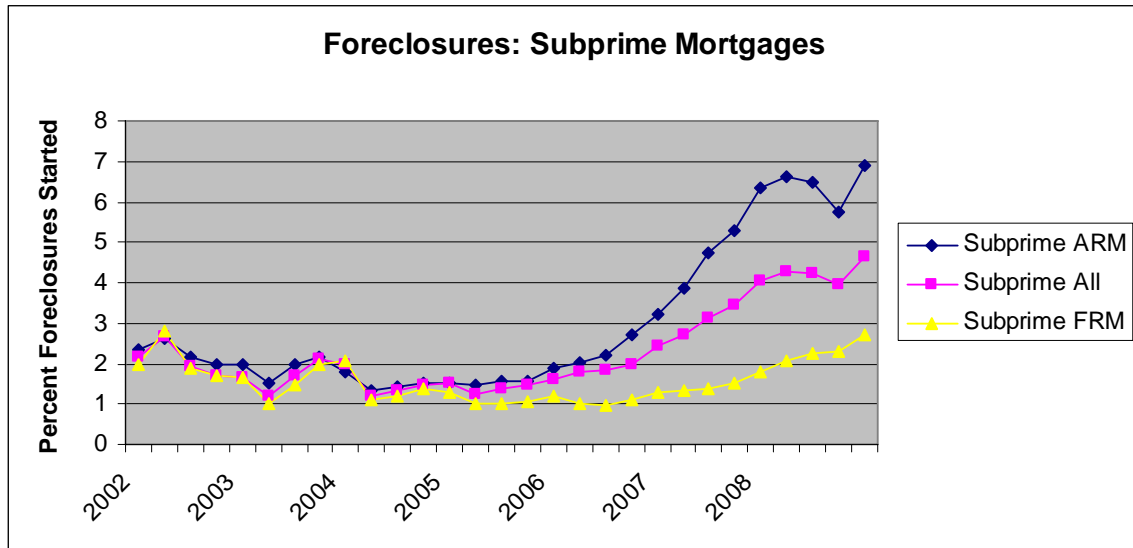
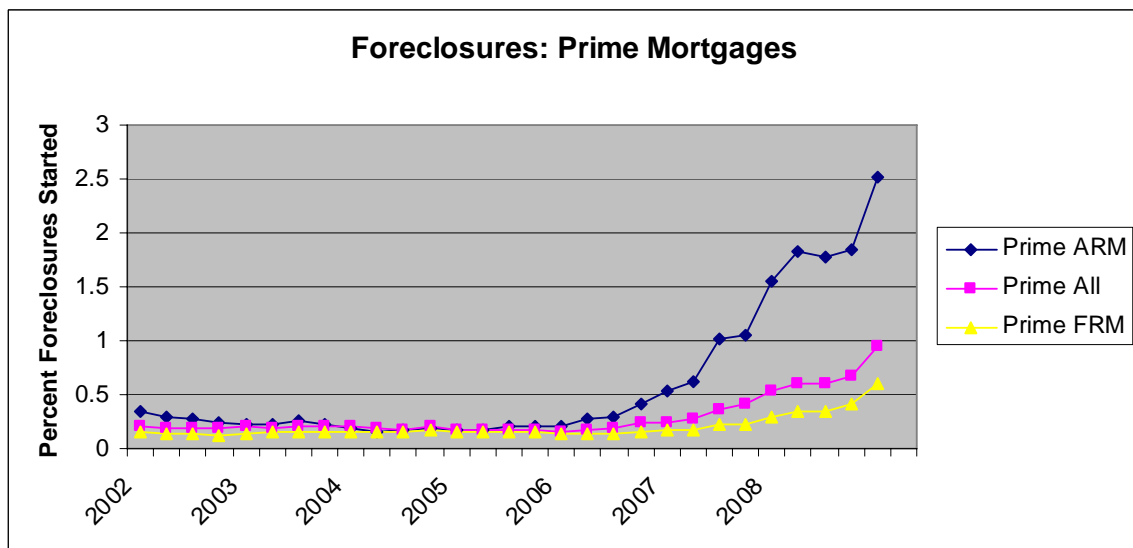


Figure 11



As can readily be seen, the initial surge in foreclosures for *both* prime and subprime mortgages were a manifestation of ARMs, not of subprime lending. A dramatic rise in the subprime ARM foreclosure rate begins in 2006, and although the foreclosure rate on subprime FRMs rises, it actually remains *lower* than at periods in the past. A similar pattern can be seen observed in the prime mortgage market—the growth in ARMs greatly

outpaces the growth in FRMs. In part this distinction in default rates reflects differential sorting by lenders among subprime borrowers for fixed- and adjustable-rate mortgages as subprime ARM borrowers have substantially lower FICO credit scores and higher combined LTV ratios than subprime FRM borrowers.²³ The difference, however, is not huge and it is difficult to imagine that the characteristics of the borrowers alone rather than the characteristics of the loans themselves explain the dramatically different performance of these loans.

In short, the “payment shock” theory may have some validity in the current climate although the mechanism of transmission is difficult to understand. The artificial lowering of interest rates from 2001–2004 pushed down short-term interest rates, allowing borrowers to qualify for larger mortgages than they otherwise could. But this was a phenomenon that was not limited to the subprime market. On the other hand, ARM-related payment shock does not provide a comprehensive explanation of all foreclosures. One estimate of subprime loans facing foreclosure in the early wave of foreclosures found that 36 percent were for hybrid loans (with an initial fixed period, followed by adjustable rates for the duration of the loan), fixed-rate loans account for 31 percent, and adjustable-rate loans for 26 percent.²⁴ Of those loans in foreclosure, the overwhelming majority entered foreclosure *before* there was an upward reset of the interest rate.²⁵ Most defaults on subprime loans occur within the first 12 months of the

²³ Mayer, Pence & Sherlund, *The Rise in Mortgage Defaults*, *supra* note 17 at 32.

²⁴ James R. Barth et al., *Mortgage Market Turmoil: The Role of Interest-Rate Resets*, in SUBPRIME MORTGAGE DATA SERIES (Milken Inst.) (2007); C.L. Foote, K. Gerardi, L. Goette & P.S. Willen, *Subprime Facts: What (We Think) We Know about the Subprime Crisis and What we Don't*, FED. RES. BANK BOSTON PUBLICLY POLICY DISCUSSION PAPER 08-02 (2007); Mayer, Pence & Sherlund, *The Rise in Mortgage Defaults*, *supra* note 17.

²⁵ Barth at 18, available at <http://www.ghb.co.th/en/Journal/Vol2/07.pdf>. Of those subprime loans in foreclosure, 57 percent of 2/28 hybrids and 83 percent of 3/27 hybrids “had not yet undergone any upward reset of the interest rate.”

loan, well before any interest adjustment.²⁶ Furthermore, after examining the evidence, several economists from the Boston Federal Reserve flatly state, “Interest-rate resets are not the main problem in the subprime market.”²⁷

Economists generally conclude that of more importance to foreclosures is falling house prices—the interest rate on a mortgage is largely irrelevant if the borrower can refinance or sell out of the mortgage. It is only when the borrower is unable to sell or refinance that the interest rate matters, thus adjustable rate or hybrid mortgages matter for foreclosures only in a falling real-estate market. Mortgages with positive equity tend to terminate in a prepayment of the mortgage (either as the result of a sale or refinance) whereas those with negative equity tend to terminate in foreclosure.²⁸

The relationship between ARMs and foreclosures appears to have been a manifestation of the unique circumstances of the past several years rather than an inherent problem of ARMs. The percentage of ARMs in the market have been much higher at times in the past, yet they did not previously result in the surge of foreclosures that have resulted in the most recent environment. In fact, adjustable-rate mortgages are the norm in most of Europe and the rest of the world without the catastrophic events that have transpired in the United States in recent years.²⁹ The primary difference, it appears,

²⁶ Mayer, Pence & Sherlund, *The Rise in Mortgage Defaults*, *supra* note 17 at 41; Shane Sherlund, *The Past, Present, and Future of Subprime Mortgages*, Federal Reserve Board (Sept. 2008); Kristopher Gerardi, Adam Hale Shapiro & Paul S. Willen, *Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosures*, Federal Reserve Bank of Boston Working Paper No. 07-15. Mayer, Pence, and Sherlund find a dramatic rise in “early payment defaults” well before any interest rate adjustment takes place.

²⁷ Christopher L. Foote, Kristopher Gerardi, Lorenz Goette, and Paul S. Willen, *Subprime Facts: What (We Think) We Know about the Subprime Crisis and What We Don’t*, FED. RES. BANK OF BOSTON PUBLIC POLICY DISCUSSION PAPERS 2 (May 30, 2008). Other studies have confirmed this conclusion about the limited role of interest-rate resets in driving increased foreclosures when compared to falling house prices and deteriorating underwriting standards. See Patrick Bajari, Chenchuan Sean Chu & Minjung Park, *An Empirical Model of Subprime Mortgage Default from 2000 to 2007*, NBER WORKING PAPER 14625 (Dec. 2008) (finding that interest rate resets play a positive, but relatively minor role, in defaults).

²⁸ 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).

²⁹ 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). Most other countries also have shorter mortgage maturity payments combined with a final balloon payment in contrast to the 30-year fixed-rate self-amortizing mortgage that is standard in the United States.

is that in recent cases, the interest rates on ARMs were pushed artificially and unsustainably low, thus the eventual interest-rate reset resulted in the interest rate on ARMs *rising* back to the level of FRMs, rather than FRMs falling to the level of ARMs (as was generally the case in the past). It appears that it is only when ARMs are combined with a monetary policy that pushed short-term interest rates to unsustainably low rates that ARMs became a problem.

Negative Home Equity

The decision to maintain homeownership or default and allow foreclosure can be modeled as a financial option. Where the option is “in the money” (i.e., the home is worth more than the amount owed) the homeowner can treat the house as a “call” option—if the homeowner is unable or unwilling to make her monthly payments (perhaps because she is moving) then she can either sell the home or refinance it and pay off the underlying mortgage. Thus, the option to allow foreclosure is of low value to the homeowner in a rising market because the homeowner can instead sell or refinance the house and pocket the equity. But where the house has negative equity (often referred to as “under water” or “upside down”), then the consumer has a put option—either she can continue to pay the mortgage and retain ownership or exercise the “option” to default and allow the lender to foreclose. If this option rises in value or becomes less expensive to exercise, homeowners will become more likely to exercise it.

Under the option theory of foreclosure, therefore, the decision to allow default 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. Empirical studies traditionally have tended to support the option theory of foreclosure.³⁰ 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.³¹ This suggests that in deciding whether to default the primary consideration by homeowners is the amount of equity that 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.³²

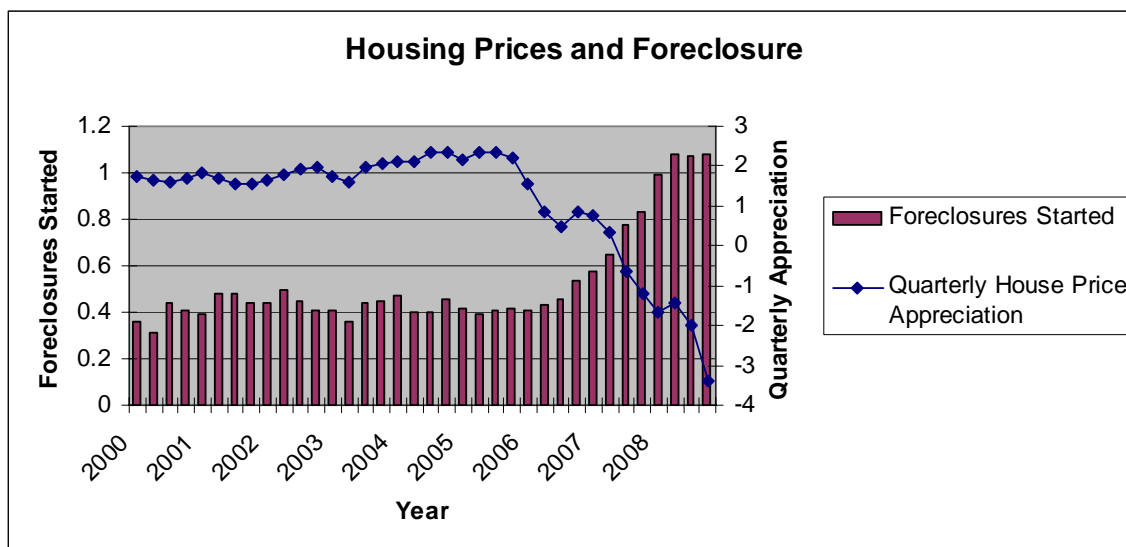
Falling real-estate prices helps to explain the rising foreclosure rate. There is a very close relationship between the timing of the nationwide drop in housing prices and the rise in the foreclosure rate. This striking relationship can be seen in figure 12 below and seems to lend support to this option theory:

Figure 12

³⁰ 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).

³¹ 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) (higher default rates where home price appreciation slower); 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 2006-07 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.

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



Source: OFHEO Home Price Index (Sales) and Mortgage Bankers Association

Another practice that increased the incentives for strategic default was the growth of lending products that reduced certain homeowners' equity investments in their loans, such as low or no-downpayment loans, as well as certain lending products like interest-only mortgages that meant that consumers accumulated no equity through their monthly payments.³³ Gerardi, et al., find that the most dramatic change in the subprime lending market over the course of the housing boom was the dramatic growth in the number of high loan-to-value (LTV) ratio loans in the latter stages of the boom.³⁴ While housing prices were rising, these loans performed exceedingly well, as borrowers could either sell or refinance if they were unable or unwilling to make payments. When housing prices turned down, however, high-LTV loans quickly went underwater, leaving homeowners with strong incentives to permit foreclosure.

³³ This latter factor may be of minimal importance, however, as 30 year conventional fixed mortgages provide for the payment of a much greater ratio of interest to principal at the beginning of the loan repayment term, thus equity accumulation is minimal for many years.

³⁴ Kristopher Gerardi, et al., *Making Sense of the Subprime Crisis*, BROOKINGS PAPERS ON ECONOMIC ACTIVITY (Douglas W. Elmendorf, N. Gregory Mankiw, and Lawrence Summers eds, Fall 2008) at 9-10.

The positive experience with unconventional products in the early stage of the boom, however, encouraged lenders to increasingly *combine* various unconventional terms, a practice known as risk layering. As housing prices started to decline, the combination of more than one unconventional term have proven particularly problematic and likely to trigger foreclosure, with the interaction between different risk-layering terms giving rise to a geometric increase in the propensity to default rather than being merely additive.

One technique that led to this result was the growing popularity of “piggyback loans.” With a piggyback loan, the borrower simultaneously takes out a first mortgage and a junior-lien (piggyback) loan. The piggyback loan finances the portion of the purchase price that is not being financed by the first mortgage.³⁵ Piggyback loans often were taken out so that the first-lien mortgage can meet the conforming loan size limits.³⁶ Virtually nonexistent in 2000, by 2006 about 22 percent of mortgage loans for owner-occupied houses also had piggyback second-lien mortgages attached.³⁷

As noted above, a primary factor driving foreclosure is the presence or absence of equity in the property. Thus, loans with 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.³⁸ Lower downpayments are correlated with

³⁵ *Id.*

³⁶ *Id.* at A85.

³⁷ Robert B. Avery, Kenneth P. Brevoort & Glenn B. Canner, *The 2006 HMDA Data*, 93 FED. RESERVE BULLETIN A 73, at A85; *see also* EDWARD VINCENT MURPHY, CONGRESSIONAL RESEARCH SERVICE, ALTERNATIVE MORTGAGES: CAUSES AND POLICY IMPLICATIONS OF TROUBLED MORTGAGE RESETS IN THE SUBPRIME AND ALT-A MARKETS (2008), 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).

³⁸ In fact, LaCour-Little, et al., 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* 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>).

higher rates of default³⁹ and lower LTV ratios are reflected in lower risk premiums in interest rates.⁴⁰ One study found that conventional mortgages with loan-to-value ratios at origination of 91–95 percent were twice as likely to default as loans with LTVs of 81–90 percent and five times more likely to default than those with LTVs of 71–80 percent.⁴¹

A related factor in the general reduction in homeowner equity cushion was the growing use of cash-out refinancing in recent years, especially in the later stages of the housing boom. The United States is almost unique in the world in adopting a general practice of permitting an almost unlimited right of mortgage prepayment and thus the ability to refinance at almost any time.⁴² Most commercial loans and subprime mortgages, by contrast, prohibit or penalize prepayment for certain periods of time at the outset of the mortgage.

From 2003 to 2006, the percentage of refinances that involved cash-out doubled from under 40 percent to over 80 percent,⁴³ and among subprime refinanced loans in the 2006–2007 period around 90 percent involved some cash out.⁴⁴ The result of this cash-out activity was similar to that of piggyback home-equity loans, namely to strip out borrower’s equity cushions, thereby making it more likely that a subsequent fall in the value of the home would bring the mortgage into negative equity and bring about circumstances for a default and foreclosure.

Anecdotal reports in the current market also report a growing number of “mortgage walkers” who are exercising their “put” option to voluntarily surrender their

³⁹ See *id.*

⁴⁰ 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)

⁴¹ 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).

⁴² Green & Wachter, at 100-01.

⁴³ Luci Ellis, *The Housing Meltdown: Why did it happen in the United States?* Bank for International Settlements Working Paper No. 259 (2008), at 22 and Fig. 9.

⁴⁴ C J Mayer & Karen Pence, *Subprime Mortgages: What, Where, and To Whom*, NBER Working Paper no. 14083.

home to the lender, a practice known as “jingle mail” after the practice of the borrower mailing her keys to the lender and surrendering the house.⁴⁵ As house prices fall, mortgage walking has begun to spread beyond the subprime market. Kenneth Lewis of Bank of America recently observed that while in the past, consumers would default only after falling behind on car payments, credit cards, and other debts, there has been a general change in social norms regarding mortgage default.⁴⁶ Today, 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 in one of the easier ways to get their finances back under control.”⁴⁷ This temptation is especially strong for those homeowners who put little or nothing down or borrowed against their home equity.

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. 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.”⁴⁸ In fact, in Alberta (which had an antideficiency law) 74 percent of those who deliberately defaulted had negative equity; in British Columbia (which permitted deficiency suits) only one homeowner defaulted with negative book equity.⁴⁹ 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

⁴⁵ Nicole Gelinas, *The Rise of the Mortgage “Walkers,”* WALL ST. J., Feb. 8, 2008, at A17.

⁴⁶ George Anders, *Now, Even Borrowers With Good Credit Pose Risks,* WALL ST. J., Dec. 19, 2007, at A2.

⁴⁷ *Id.*

⁴⁸ Lawrence D. Jones, *Deficiency Judgments and the Exercise of the Default Option in Home Mortgage Loans*, 36 J. L. & ECON. 115, 135 (1993).

⁴⁹ *Id.* at 128–29. Jones states that the one defaulter in British Columbia reportedly left the country. *Id.* at 129.

collection of deficiency judgments and judicial foreclosure actions and that lenders have already priced that risk *ex ante* in the loan, this raises questions about the propriety as a matter of equity and efficiency of governmental “bail outs” for distressed borrowers and lenders.

Even where the laws do not mandate that mortgages are nonrecourse, lenders have exhibited willingness to voluntarily waive an action for deficiency.⁵⁰ Although laws vary among states, over a dozen states have some type of antideficiency laws that limit creditors to seizure of the property in the event of default, with no right of recourse against the borrower personally. Many of the states with antideficiency laws, such as California and Arizona,⁵¹ are also among the states with the highest foreclosure rates. Other high-foreclosure states, such as Nevada and Colorado, have laws that limit the amount that lenders can recover from borrowers but do not bar deficiency judgments completely. 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 improving their homes.⁵²

What Happened?

The underlying cause of the housing boom and bust, and the subsequent rise in foreclosures, thus seems to be largely explained by two fundamental factors. First, artificially low short-term interest rates, relative to long-term interest rates that provided

⁵⁰ There is also evidence that subprime lenders tend to foreclose much 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).

⁵¹ See Michael T. Madison, Jeffrey R. Dwyer & Steven W. Bender, 2 THE LAW OF REAL ESTATE FINANCING §12:69 (Dec. 2007), available in Westlaw REFINLAW § 12:69.

⁵² 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).

incentives for consumers to switch from fixed-rate to adjustable-rate mortgages, allowed borrowers to qualify for larger mortgages than would otherwise be the case, and resulted in trouble for some borrowers who were unable to make their payments when short-term interest rates rose. This household financial distress was exacerbated as the economy dipped into recession, piling traditional causes of foreclosures (such as job loss), on top of this distress caused by interest-rate adjustments. Second, a rapid, severe, and sustained fall in house prices provided many consumers with an incentive to exercise their default option and to allow foreclosure to go forward on their homes. This was exacerbated by a variety of factors, including new mortgage lending practices that led to little or no equity for many homeowners and certain states' laws that provide great protection for borrowers in the event of a foreclosure, such as antideficiency or non-recourse laws.

Basic economic theory, therefore, seems to explain most of the underlying dynamics of rising foreclosure rates and bankruptcy filing rates by explaining the basic decision-making of homeowners. On the other hand, this analysis does not address the more fundamental questions, which are: Why did the housing price bubble develop as it did, why did foreclosures rise so dramatically as house prices fell, and why did Wall Street and the banking industry so badly misjudge the financial problems?

Conventional wisdom about the mortgage crisis provides several hypotheses, such as the rise of securitization of mortgage debt or the role of government policies that provided incentives for overinvestment in housing and reckless credit expansion to poor risks. Although the causal mechanisms differ, these hypotheses share a common similarity that they both interpret the fundamental cause of the mortgage crisis as increased reckless lending to risky borrowers or loan terms that were excessively risky.

On closer examination, however, while these factors may have exacerbated the underlying mortgage crisis, it is doubtful that they can explain the fundamental nature of the housing boom and bust.

The Two Phases of the Mortgage Crisis

Before looking in some detail about the causes of the housing boom and bust, it is important to consider an often-overlooked element of the crisis; namely, that there are really two phases of the housing boom and mortgage crisis, one lasting from about 2001–2004 and a second running from about 2005–2007. While loan performance during the later phase (2005–2007) has been disastrous, loan performance during the earlier phase was largely non-problematic, even those loans that contained particular terms that have subsequently drawn criticism, such as hybrid mortgages, low-documentation loans, and low-downpayment loans. Indeed, as will be developed more below, it is likely that the disastrous collapse of the housing and mortgage markets came about precisely *because* the strong performance of non-traditional loans in the first phase of the credit expansion encouraged more aggressive loans in the second phase of the boom.

Empirical data provide a picture of the differences between these two periods of the housing boom. A few key differences between the two phases of the housing boom emerge when examining the data. The most important factor—to put the matter quite simply—is that house prices were rising in many parts of the country in the early stages of the mortgage boom. Second, the structure of the loans in the later phase of the housing boom were substantially different from the first phase. In particular, in the first phase many subprime borrowers were at least as risky as borrowers in the second phase;

moreover, many of the loans issued in the first phase included many of the features that were later criticized, such as low-documentation, low-downpayment, or interest-only loans. The difference in the second phase, however, was that loans increasingly *combined* these various features, a practice known as “risk layering.” Of particular concern was the increasing use of no-downpayment loans, often combined with interest-only or negative amortization features.

House Prices and the Foreclosure Crisis

First, as suggested above, a primary distinction between the first period of the housing boom (2001–2004) and the second (2005–2007) was that house prices were appreciating rapidly in many areas during the initial period but falling during the second period. This meant that homeowners during the first period were accumulating equity in their homes, enabling them to either sell or refinance if necessary. Moreover, this appreciation in house prices meant that a steeper drop in house prices was necessary before they were in a negative equity position and thereby tempted to default, an equity buffer that was reinforced by the higher likelihood of having made a downpayment and lower likelihood that they would have engaged in a cash-out refinance that would have further depleted their equity cushion.

Refinances in the earlier stages of the housing boom also were more likely to have been triggered by falling interest rates and thus cash-out refinances were less common then at later times.⁵³ But refinancings continued even as interest rates began to rise beginning in 2005. But the nature of these refinancings changed from the earlier wave—refinancing in the 2005–2007 period were much more likely to be cash-out refinancing,

⁵³ Ellis, *supra* note 43.

suggesting that these homeowners were refinancing for different purposes but also that they were depleting equity at a greater rate than earlier borrowers, leaving them with a much higher combined loan-to-value ratio than earlier refinancers.

But this raises a question—did the causal relationship in the early stage of the boom run from house prices to expansive lending practices or from expansive lending to higher house prices? This is actually quite a complex question and available data suggests that both elements are present. In general, however, it appears that in the earlier stages of the boom, house-price appreciation was caused primarily by underlying economic factors; in turn, this strong house-price appreciation led to an extraordinarily strong performance record for all mortgages made during this time, including novel subprime mortgages. But, in turn, this early record of success resulting from rising house prices in the earlier stages of the boom fueled more aggressive and risky lending in the later stages of the boom.

As suggested above, the early phase of the boom seems to have been fueled by a variety of macroeconomic factors that led to a run-up in home prices in many markets. Most importantly, extremely low short-term interest rates allowed many borrowers to “stretch” to pay more for homes than otherwise would have been the case otherwise. Thus, consumers could afford “more” home than they might otherwise. As noted above, the HUD housing affordability index was at record highs during this period—thus, even as housing prices were rising, they were more than offset by record-low interest rates.

In addition, a variety of other factors raised the return to home ownership and led to increased house prices. Most notably, in 1997 the tax code was amended to permit homeowners to pay no tax on any capital gains of up to \$500,000 upon the sale of their

home. This led to a strong tax code preference for investments in housing relative to other forms of investment and saving leading to household overinvestment in real estate.⁵⁴ By contrast, ordinary saving is “double-taxed” as income when first earned as well as when interest is paid. And financial investments do not have this preferential capital gains tax treatment. Moreover, the bursting of the dot-com bubble and the struggles of the stock market in the immediate aftermath may have persuaded many consumers that homeownership was a more reliable form of wealth accumulation than financial assets.

To understand the difference between the earlier and later phases of the housing boom and the different performance of the mortgages issued during those two vintages, it is necessary to understand the nature of housing markets in the United States. There are effectively three different types of housing markets and differences among these markets help to explain the different performance patterns of mortgages from these two different eras.⁵⁵ Fundamentally, these housing markets are differentiated by underlying supply and demand dynamics.

The first type of housing market is those markets with traditionally cyclical markets that experience high but essentially predictable volatility, such as New York, Washington, DC, and Boston. Because of zoning and other constraints on construction of new homes, these markets have a highly inelastic supply of housing supply. Thus, when housing demand rises or falls for exogenous reasons, prices fluctuate widely in these markets. As explained above, extremely low interest rates and other governmental policies dramatically increased demand for home ownership. Therefore, prices rose

⁵⁴ Vernon Smith, *The Clinton Housing Bubble*, WALL ST. J., Dec. 18, 2007, at A20.

⁵⁵ See Christopher Mayer & R. Glenn Hubbard, *House Prices, Interest Rates and the Mortgage Market Meltdown* (working paper, Columbia Business School).

dramatically in these markets, a price appreciation that fundamentally reflected supply and demand dynamics, although exaggerated by various other factors and the artificial nature of the demand boost. As a result, although prices have fallen in these markets, foreclosures have not risen as much, as the initial “bubble” was not as much a bubble as an exaggerated response to fundamental supply and demand dynamics and as homeowners expect for prices to rebound in the near future.

A second type of market is the “steady” markets that underwent a steady appreciation in home prices over the past decade, with prices driven largely by underlying supply and demand dynamics.⁵⁶ Steady markets that have relatively modest regulations and restraints on expansion of housing supply to meet demand growth and thus have a relatively elastic housing supply. These markets, therefore, tend to respond to increases in demand by a relatively rapid increase in supply. Thus, these markets did not experience the same sort of house price bubble as many other markets—nor are they experiencing the subsequent house-price collapse and the resulting foreclosure crisis. These markets include cities such as Atlanta, Charlotte, Chicago, Denver, and Detroit.

But during the most recent housing boom a third type of market materialized—cities with modest restrictions on building new supply, and in fact experienced a dramatic growth in supply, but which nonetheless saw dramatic increases in home prices. These markets can be characterized as “late-boom” markets and include cities such as Las Vegas, Miami, Phoenix, and Tampa.⁵⁷ These markets began the housing boom resembling the second type of cities—demand growth manifested itself in rapid increase

⁵⁶ *Id.*

⁵⁷ Presumably this list would also include areas like the distant suburbs of Northern Virginia and California that saw rapid construction of new bedroom communities outside the traditional metropolitan areas and which experienced a very rapid boom and bust price cycle culminating in widespread foreclosures. In particular, many of these markets sprung up outside traditional cyclical markets, thereby adding a late-boom element to a traditional cyclical market (and perhaps exacerbating the price swings in both).

in supply, rather than a rapid increase in prices. But toward the end of the boom, these markets also saw a dramatic run-up in prices as well. Unlike the traditionally volatile markets, the price appreciation in these markets occurred toward the end of the boom, rather than the beginning, even though this was the period when interest rates were rising rather than falling. Moreover, this rapid price appreciation appears to lack plausible grounding in underlying economic logic—prices were rising, even as both supply and interest rates were rising as well.

The results have been catastrophic—the artificially high prices have collapsed, as prices have come to reflect the supply and demand dynamics of the massive expansion of new housing that was constructed during the boom. Prices have fallen toward their equilibrium levels, and given the huge expansion of housing supply in those markets in recent years, there is little expectation of a major price recovery in the near future. Moreover, slowing of the economy has also slowed population immigration into these markets (both legal and illegal). Thus, these markets have experienced dramatic drops in home prices with little expectation of price recovery in the near future. Foreclosures skyrocketed in these markets as home prices plunged.

The rapid house price appreciation in the “late-boom” cities closely matches the timing of the second stage of the mortgage crisis. In fact, some commentators have suggested that rather than the spread of subprime lending fueling the house-price boom in many markets, the house-price boom fueled a rise in subprime lending as buyers rushed in to gain a piece of the action.⁵⁸ Such speculative motivation would be consistent with the high penetration of adjustable-rate mortgages in the subprime market, which would

⁵⁸ Mayer & Pence, for instance, find that areas with high house price appreciation saw a rise in the following year in subprime mortgage originations. See Christopher J. Mayer & Karen M. Pence, *Subprime Mortgages: What, Where, and to Whom?* NBER Working Paper W14083 (2008) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1149330.

generally be preferred by less risk-averse borrowers and speculators with a short-term time horizon.⁵⁹ Finally, the possible presence of substantial speculation in these markets is consistent with overheated activity in the real estate market in these cities being in properties such as new condominiums and new suburban homes, that are standardized products (in terms of style, quality, and neighborhood quality) that are amenable to rapid flipping.

Although the story is oversimplified, a general picture begins to emerge. The first phase of the housing price boom was driven principally by traditionally volatile markets responding to the various incentives created by low interest rates and other policies that promoted homeownership and home investment. During this phase of the boom, much mortgage activity was to refinance for lower interest rates and many home equity loans were to fund home improvements (often because consumers wanted to move to larger homes but price appreciation precluded them from doing so, so they responded to the provided incentives by increasing the value of their own home).⁶⁰ Price appreciation in these traditionally volatile markets roughly reflected some degree of underlying supply and demand dynamics. Increased demand in other markets was channeled into new home construction. Families in those markets responding to the same dynamics still had a tendency to increase their investments in residential real estate and the subprime market was born. Price appreciation relieved homeowners of the incentives to exercise their option for foreclosure. Those who were overextended or suffered economic distress could sell or refinance their home in a rising market, rather than exercising foreclosure.

⁵⁹ Stan Liebowitz, Op-Ed, *The Real Scandal*, N.Y. POST, Feb. 5, 2008.

⁶⁰ 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).

The timing of the excesses of the second half of the mortgage boom also coincides with the artificial price bubble of the late-boom housing markets. Lenders erroneously extrapolated the performance of higher-risk mortgage from the first phase of the bubble to the dissimilar markets and borrowers of the second stage of the bubble. Lenders underestimated the impact of risk layering—and especially the dangers of low-downpayment, interest-only, and other mortgages that led to heightened borrower incentives to default if home prices fell. And fell they did—as was inevitable in light of the underlying supply and demand dynamics that underlay these markets.

Risk Layering

A second feature that distinguishes the late boom from the early boom is the increased presence of risk layering in the later phases of the boom. Risk layering is the practice of combining more than one risky term together in a given mortgage.

Many of the terms in loans that have drawn the most criticism, such as hybrid mortgages or low-documentation loans, do not appear to be excessively risky—when they appear in isolation. During the early part of the boom, there was little evidence to suggest that hybrid, low-documentation, low-downpayment, and other exotic mortgage terms were excessively risky, in large part due to the rising housing market, but also because certain of these terms, in isolation, may simply not be that risky.

Consider, for instance, much-maligned “low documentation” loans, sometimes referred to as “liar’s loans.” Low-documentation loans forego many of the formalities associated with a typical loan, such as an appraisal, detailed income and assets review, and a detailed loan application, in favor of a much simpler process based on a credit score

and simplified review process. Although low-documentation loans seem inherently risky, they may be completely appropriate for refinance loans based on an established track record of successfully making mortgage payments, a regular job, accumulated home equity, and a house that has had home-price appreciation. They seem less sensible for riskier purchase-money borrowers with riskier property and no equity. Even then, low-documentation loans may be sound if the borrower has sufficient equity in the property at the outset, such as an especially low loan-to-value ratio. In fact, during the first phase of the housing boom, low-documentation subprime loans performed just as well as full-documentation loans.⁶¹

In fact, it appears that non-traditional mortgages in the early phase of the boom also tended to have offsetting features that lowered the risk, such as a lower loan-to-value ratio than normal. The fact that apparently risky terms were generally confined to appropriate contexts or were offset by alternative risk-reducing features of the loan, along with the strong appreciation in house prices during this period, may account for the surprisingly strong performance of loans with these terms in the early stage of the boom.

In the later stages of the boom, however, some of this restraint was abandoned. Rather than offsetting riskier terms with other adjustments, lenders increasingly engage in risk layering of loan terms, perhaps bolstered by the early sound performance of loans with these terms present in isolation. Because low-documentation and low-downpayment mortgages in isolation were found to have modest and manageable risk associated with them, it might have been predicted that combining the two elements would increase risk, but only modestly so. Instead, it appears that combining two such terms increased the

⁶¹ Kristopher Gerardi, et al., *supra* note 34.

risk of the resulting product *dramatically*—a risk that became explosive when combined with plunging home prices.

Loans with high loan-to-value ratios combined with low documentation proved to be especially prone to default.⁶² This was exacerbated by a substantial increase in loan-to-value ratios in the later stages of the boom.⁶³ The median combined LTV for subprime purchase loans rose from 90 percent in 2003 to 100 percent in 2005, “implying that in the final years of the mortgage boom more than half of the borrowers with subprime mortgages put no money down when purchasing their homes.”⁶⁴ Piggyback loans also became more common during this time,⁶⁵ although many of these loans were “silent second” that were not disclosed to the originator of the first mortgage.⁶⁶ The presence of these silent seconds increased the risk of default and foreclosure to the senior lender, but without the senior lender’s knowledge (and so without adjusting the risk premium).⁶⁷

Loans with minimal downpayments, cash-out refinancing, and aggressive use of home equity loans, became especially prone to default as the housing bubble has burst. When home prices fall, these loans quickly turn into negative equity, providing borrowers with a strong incentive to default. Interest-only and negative amortization loans create similar incentives by minimizing equity accumulation, but loans with these features appear to have been relatively rare in the subprime market although quite common in the prime mortgage market.⁶⁸ Although, subprime refinance borrowers had on average lower

⁶² *Id.* at 5.

⁶³ *Id.* at 1.

⁶⁴ Mayer, Pence & Sherlund, *The Rise in Mortgage Defaults*, *supra* note 17, at 31.

⁶⁵ *Id.*; see also Gerardi et al. *supra* note 34 at 10 (noting dramatic rise in number of mortgages with second liens).

⁶⁶ Between 1999 and 2006 the percentage of subprime loans with silent seconds rose from 1 percent to over 25 percent and for Alt-A loans the rates rose from 1 percent to nearly 40 percent of securitized Alt-A mortgages.

⁶⁷ Empirical evidence has found that holding combined LTV constant, borrowers who reached that LTV through a home equity loan are more likely to default than an identically-leveraged borrower who reached that LTV through a purchase or refinance loan, see Gerardi et al., *supra* note 34.

⁶⁸ Mayer, Pence & Sherlund, *The Rise in Mortgage Defaults*, *supra* note 17. Mayer, et al., find that 40 percent of Alt-A mortgages

FICO scores than purchase-money borrowers (19–35 points lower), average credit scores were relatively constant over the duration of the housing boom.⁶⁹ This suggests that the risk of negative equity is more important than the risk profile of the borrower in predicting whether the mortgage eventually would default.

Thus, the fundamental problem on this score may not have been excess “greed” or recklessness of sophisticated lenders making inherently crazy loans. Instead, if there was a flaw, it was likely that lenders extrapolated too aggressively from too small of a sample of loans, especially in the subprime market. Had the initial ventures into the subprime market turned out to have been a failure rather than a success, it is likely that the market would have been nipped in the bud and would never have expanded. The pattern that thus emerges is a somewhat surprising one—the seeds of the mortgage crisis were not grounded in inherently risky lending to unusually risky borrowers.⁷⁰ Instead, it appears that lenders simply underestimated the likelihood of an extended and dramatic home price collapse like that which actually occurred.⁷¹

This over-optimism by lenders was mirrored by over-optimism on the part of many buyers that home prices would increase without interruption. Many otherwise-homeowners essentially became *de facto* real estate market speculators through interest-only and low-downpayment mortgages that resulted in borrowers with minimal equity positions that seemed predicated on the assumption that housing prices would rise.⁷² Lenders underestimated that likelihood that so many borrowers would end up in such

had interest-only features, compared to 10 percent of subprime; 30 percent of Alt-A mortgages permitted negative amortization, subprime loans did not have these features.

⁶⁹ Id., at 17.

⁷⁰ As Gerardi et al., *supra* note 34, put it, “These results are consistent with the view that a factor other than underwriting changes was primarily responsible for the increase in mortgage defaults.”

⁷¹ Gerardi et al., *supra* note 34, at 36.

⁷² See Monika Piazzesi & Martin Schneider, *Momentum Traders in the Housing Market: Survey Evidence and a Search Model*, NBER Working Paper 14669 (Jan. 2009) (noting rise of “momentum traders” in the housing market in the later stages of the boom).

severe negative equity positions that would provide such strong incentives for so many borrowers to allow foreclosure or simply walk away from their mortgages. This dramatic increase in the default rate may have been either because homeowners as a group became unusually responsive to home price declines or because home prices declined much more than expected and homeowners responded as would have been predicted in such an unlikely and catastrophic scenario—or both.

Securitization

Many commentators have charged that the rapid spread of securitization of mortgage debt, especially subprime mortgages, explains the underlying mortgage crisis. The basic story is that over time, securitization of mortgage debt, especially subprime mortgages, rose dramatically. This is certainly true.⁷³ From 2000–2005, for instance, the volume of subprime mortgages securitized by Wall Street rose almost tenfold, from about \$56 billion annually to \$508 billion and the percentage of subprime loans that were securitized rose from about 50 percent to over 80 percent during that same time frame, a time period that correlates with the expansion of the subprime market.

The link between securitization and risky mortgage underwriting, it is argued, is a chain of agency cost relationships generated by securitization.⁷⁴ In particular, securitization is said to have given rise to an “originate to distribute” model of mortgage lending, where the originating lender does not bear the risk that the loan will fail. Thus, mortgage brokers originate the loan, but resell it to the wholesale supplier of money,

⁷³ Kathleen C. Engel & Patricia A. McCoy, *Turning a Blind Eye: Wall Street Finance of Predatory Lending*, 75 FORDHAM L. REV. 2039, 2045 (2007). 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>.

⁷⁴ Engel & McCoy, Christopher L. Peterson, *Predatory Structured Finance*, 28 CARDOZO L. REV. 2185, 2200–06 (2007)

which then in turn bundles the loans, subdivides them into tranches, and resells those bundles to investors. It is argued that this creates a series of agency relationships, all of whom have incentives to maximize loan volume and ignore heightened risk and deteriorating underwriting standards so long as they can pass on these loans (and their risk) to subsequent holders.

Plainly, there seems to be a correlation between the rise of securitization and the subprime lending boom and housing price bubble. But it is doubtful that the growth of securitization can provide a convincing causal explanation. First, securitization has been a well-established model of lending for years in other consumer credit markets (such as credit cards, auto loans, and prime mortgages). Scholars also have noted that other countries have seen a dramatic rise in home prices and a deterioration of underwriting standards, most notably England, even though securitization remains nonexistent.⁷⁵ Second, many of those who either sold or bought these securities were highly-sophisticated investors such as Bear Stearns, Merrill Lynch, or Citibank, who were likely well aware of the risks and protected against them. Furthermore, the investment banks that supposedly orchestrated this Ponzi scheme are now either bankrupt or have been merged into other financial institutions as a result of investing in securities backed by subprime loans, a reality that is difficult to square with the purported incentives of the originate-to-distribute model.

Other considerations contribute to skepticism about the role of securitization in fueling the mortgage crisis. For instance, as noted above, the subprime mortgage boom appears to have two distinct phases; securitization, however, grew steadily throughout both periods. Thus, the incentives created by securitization were constant during this

⁷⁵ Ellis, *supra* note 43, at 6-7.

period, suggesting that some factor *other than securitization* intervened between the first and second periods to lead to the dramatically worse performance of the mortgages originated in the second period. Thus, although the role of securitization in creating agency costs is theoretically possible as a major cause of the subprime mess, it seems doubtful that the incentives created by securitization was an important contributor to the mortgage crisis—although, of course, simple errors and miscalculations are possible for reasons unrelated to the incentives created by securitization.⁷⁶

Conclusion

By observing consumer behaviors and homeowners' responses to various incentives during the mortgage crisis, observers can glean a picture of some of the primary causes of the meltdown. Specifically, low short-term interest rates encouraged consumers to switch from fixed-rate to adjustable-rate mortgages or hybrid mortgages and also motivated purchases of real estate as a speculative activity. Keeping in mind the structure of this borrowing and the little equity homeowners held in new properties, along with various the reasons for consumer foreclosure, one can observe that a rapid decline in housing prices presented a strong incentive for property owners to exercise their foreclosure options.

This analysis also points out that there was likely no sharp decline in individuals' abilities to afford their homes, nor is an inability of families to keep up with their mortgage payments the culprit behind the current mess. Instead, the rise in foreclosures that has had adverse affects throughout the credit markets and he economy has likely

⁷⁶ Gerardi, et al., *supra* note 34, also doubt the importance of securitization in explaining the subprime boom and bust suggesting that there is no inherent link between them.

resulted from consumers' rational responses to certain incentives that arose during the two phases of the crisis. Certainly, the full implications of the events unfolding have yet to be realized, however this general understanding of the mortgage meltdown can help pinpoint some of the fundamental causes and shed more light on the future of the crisis.

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America's Debt Paranoia

by Todd Zywicki • October 2009 • Vol. 59/Issue 8



^[1]The headlines are alarming. *The New York Times* panicked that Americans are “Running in Debt” and just a few years later warned that Americans were “Borrowing Trouble.” *Business Week* asked, “Is the Country Swamped with Debt?” and *U.S. News and World Report* worried that “Never Have So Many Owed So Much.” *Harper’s* even expressed fear that “Debt Threatens Democracy.”

A labor leader bemoaned the improvidence of America’s consumers: “Has not the middle class its poverty? Very few among them are saving money. Many of them are in debt; and all they can earn for years, is, in many cases, mortgaged to pay such debt.”

An academic report concluded that consumers’ promiscuous borrowing has “lured thousands to ruin” encouraging people to buy what they could not pay for and making debt „the curse of countless families.” And not merely the poor and improvident were lured into ruin, but upstanding middle-class families as well, as they engaged in a heated rivalry of conspicuous consumption with their neighbors.

An indictment of our times? Not exactly. The first headline from *The New York Times*, as well as the labor leader’s concerns, were both from 1873, and the latter *Times* headline from 1877. The academic report appeared in 1899 and criticized the availability of installment credit, or the practice of buying consumer goods “on time.” Thorstein Veblen voiced his concerns about “conspicuous consumption” and Americans’ willingness to go into hock to fund it in 1899. The *Business Week* and *U.S. News and World Report* headlines ran in 1959. And *Harper’s* fretted that “Debt Threatens Democracy” in 1940.

As these evergreen headlines suggest, three facts of American life appear constant: First, consumer credit is ubiquitous in America; second, at least some Americans have always gotten in over their heads with credit; and third, an omnipresent chorus wails that other people are using consumer credit excessively to buy things that they shouldn’t want or can’t afford. Finally, every era has complained that everybody was thriftier in “the old days,” a mindset that author Lendol Calder has referred to as the “myth of lost financial virtue.” The massive credit-induced bubble in the real estate market over the past decade and the subsequent crash have led to a reprise of these time-tested themes—and a predictable move toward more government regulation.

And, indeed, there was undoubtedly a credit-driven bubble in home prices that has popped with catastrophic effect. But exploding home prices and an expansion of risky real estate lending should be distinguished from trends in consumer credit. Even during the bubble years, over 80 percent of home mortgage debt was for home purchase, home improvements, or other residential real estate, with only about 7.7 percent going for the purchase of goods and services, according to a 2009 report in the Federal Reserve Bulletin. Conventional wisdom holds that this growth in mortgage lending was just part of a larger growth in promiscuous consumer borrowing in recent years. But the reality is more complex and interesting. In fact, nonmortgage consumer lending illustrates an evolutionary trend that reaches back decades, rather than a revolutionary change in recent years.

The story of consumer credit in America is one of relentless competition and innovation as the forces of creative destruction have swept away older forms of consumer credit and replaced them with newer types. Central to this story in the second half of the twentieth century is the rise of credit cards. Many commentators see credit cards as uniquely pernicious innovations that have led to disastrously high levels of consumer indebtedness. To understand why this is not the case, it is essential to look back at the use of consumer credit in America.

Consumer Credit in Early America

In pre-Civil War America most Americans were farmers living outside major population centers. Gold and silver coins were scarce. Personal credit, however, was not, and farmers relied on credit to smooth investment and consumption across the crop-harvesting season. Credit, as much as the Conestoga Wagon, conquered the West.

After the war, a tide of immigrants swept into America and built the great cities. Largely unskilled blue-collar workers with unpredictable employment and income, they relied on the consumer credit industry to cope with those uncertainties. In time the emerging American middle class became homeowners and home furnishers through mortgages and consumer installment credit. Overall, late-nineteenth-century households sought financial assistance from five major credit sources: pawnbrokers, illegal small-loan lenders, retailers, friends and family, and mortgage lenders. In post-Civil War New York City, for instance, two-thirds of the city's total consumer lending came from small-loan agencies, including loan sharks and "wage assignment" lenders, forerunners to today's payday lenders. Pawn shops proliferated—in some neighborhoods virtually the entire population had a pawn ticket at all times, and as many as 12 in the winter when factories typically closed down, Calder writes. These various lenders charged interest rates approaching 300 percent annually and resorted to embarrassing and aggressive collection practices to enforce repayment of these illegal debts. (Interest rates on these loans were comparable to modern payday lenders.) Counterproductive usury regulations made operations unprofitable for legitimate lenders, former Federal Reserve Chairman Alan Greenspan has pointed out, driving many urban consumers into the hands of illegal lenders. In 1911 an estimated 35 percent of New York City's employees owed money to illegal loan sharks, a situation Greenspan described as "virtual serfdom."

The most important source of short-term credit for lower-income Americans, however, has been friends and family. Even today, a recent survey of households in low- and moderate-income

areas of Los Angeles, Chicago, and Washington found that 53 percent of respondents said they would rely on friends or family to borrow \$500 for three months. A recent survey of low-income women in Boston found that 93 percent had actually borrowed money from friends and family in the past and many had lent money to friends and family as well. Ten percent of those surveyed have borrowed only from friends and family. But friends and family obviously are not a reliable source of credit.

Consumer credit expanded following World War I. Credit unions, small local savings banks, and a national network of licensed consumer finance companies, such as the Beneficial Industrial Loan Corporation and the Household Finance Corporation, provided consumer loans. These installment loans obliged the consumer to repay a fixed sum plus interest over a fixed period in equal installments.

Beginning with Singer sewing machines, installment credit soon spread to furniture, pianos, household appliances, and finally to automobiles. By the 1930s most sales of household furniture, appliances, radios, cameras, and jewelry were credit sales, as were a substantial percentage of rugs, hardware, sporting goods, and books (such as encyclopedia and other book sets). Financing these purchases through credit made it possible to acquire and use the goods immediately, rather than having to save for long periods of time to afford them. Between 1900 and 1939 total consumer nonmortgage installment debt quadrupled in real dollars, increasing 2 1/2 times during the 1920s alone.

Consumer debt exploded in the 1940s and 1950s during the postwar migration to the suburbs as consumers used credit to buy new cars and to fill their new homes with new furniture and appliances. The ratio of consumer credit to household assets rose from about 1 percent to over 3 percent from 1945 to 1960, where it has hovered ever since.

Today's concerns about credit cards echo similar paternalistic comments about the spread of installment credit. Installment selling allegedly induced overconsumption by American shoppers, Calder notes, especially by supposedly vulnerable groups such as "the poor, the immigrant, and the allegedly math-impaired female." By the same token, rapacious installment sellers supposedly led unworthy borrowers to purchase unnecessary products, generating overwhelming debts, by extending credit. Department stores were criticized for "actively goad[ing] people into contracting more debt." Critics called installment selling a "menace" that trapped Americans in "a morass of debt" and the "first step toward national bankruptcy."

Moreover, although most Americans believed that installment selling was a "good idea" in general and were confident in their own ability to use it responsibly, three out of four also thought that their neighbors used installment credit excessively—a judgment mirrored in modern surveys of consumers about credit card use.

Overall, most Americans use credit cards responsibly. Less than half of credit card owners carry a balance, and the median value of revolved balances is about \$3,000, with a mean of \$7,300. Thus, the typical credit card user carries no balance, and most of those who do carry only a modest balance, especially compared to their mortgages, auto loans, or student loans. The fact

that some people misuse credit cards—just as they misused installment credit in the past—does not justify reducing access and raising costs to millions of those who use their cards responsibly.

Early Credit Cards

The dawn of the age of credit cards was just an evolution of this trend. Although department stores, gas companies, and hotels began using crude versions of credit cards even before World War I, the modern age of credit cards began with the introduction of Diner's Club in 1949. Diner's Club, unlike its predecessors, was a third-party card honored by many merchants. Diner's Club bore the risk of nonpayment, not the merchant. In return for this assured payment and convenience, participating merchants paid a 7 percent fee for each use.

But universal third-party cards took off slowly. Retail store credit cards dominated the consumer credit market through the 1970s, primarily because usury laws restricted certain types of consumer lending. Usury regulations generally produce three types of unintended consequences. First, they encourage lenders to “re-price” other terms of their credit contracts to try to offset the inability to charge market rates of interest, such as requiring larger down payments, higher upfront fixed fees or annual fees, shorter grace periods, or myriad other terms. Second, usury regulations lead to product substitution, such as switching to less-preferred types of credit like pawn shops or payday lenders. Third, to the extent re-pricing and switching are not fully possible, some borrowers may be unable to get any legal credit on any terms. All three phenomena appear to have resulted from the usury regulations imposed in the 1970s.

A rapid rise in underlying interest rates in the 1970s combined with usury caps made credit card operations for banks unprofitable. Thus bank-type credit card operations remained modest. Banks avoided some of the restrictions by altering other terms of the cardholder agreement or bundling lending with other services. Banks in states with strict usury regulations restricted their hours of operation, reduced customer service, tied their lending operations to other products and services not restricted in price (such as requiring checking or savings accounts), or imposed higher service charges on demand deposit accounts or checking account overdrafts. Most important, to evade usury regulations credit card issuers imposed annual fees, usually ranging from \$30 to \$50. (Because this fee was assessed on revolvers and transactors alike, it effectively resulted in transactors subsidizing lower interest rates for revolvers.)

Issuers adjusted other terms of the credit contract to compensate for the inability to charge a market rate of interest, including adjusting grace periods and using alternate methods for calculating interest charges. Credit card issuers also rationed credit card privileges to only the most creditworthy consumers, forcing others to turn to less-attractive types of credit.

Credit-issuing department stores had an even more effective way of evading usury restrictions: They could simply bury the credit losses in the price of the goods they offered and sell the bundled product. For instance, prices on major appliances, typically sold on credit, were significantly higher in states with the strictest usury caps. Retailers in these states also reduced their services to consumers. Usury laws also provided large retailers with a substantial comparative advantage over smaller competitors who could not afford to establish and maintain their own credit operations.

Credit Cards Today

In 1978 the Supreme Court effectively deregulated interest rates on credit cards by holding that the applicable rates for nationally chartered banks would be those of the issuing bank's home state, rather than of the consumer (*Marquette National Bank v. First of Omaha Corp.*). The results have been dramatic. In 1970 only 16 percent of American households had a general-purpose bank-type card; today 71 percent do.

By effectively eliminating usury regulations, Marquette eliminated the incentives to engage in term re-pricing. Beginning in the early 1990s credit cards eliminated annual fees on standard cards, making pricing more efficient and more consumer-friendly, and enabling consumers to hold multiple cards simultaneously. This spurred heated competition that has led to lower interest rates, the general elimination of annual fees, and a proliferation of card benefits.

Credit cards have grown at the expense of layaway and installment-purchase plans important to the sales volume at many retail stores in earlier decades. The same applies to all unsecured credit products.

While pawn shops, layaway plans, payday lenders, check cashers, personal finance companies, retail store credit, rent-to-own, loan sharks, and friends and family have all served as important sources of consumer credit in American history, those who use these high-priced and inconvenient lending products today do so because they are unable to get credit cards at all or have reached their credit limits.

Beware Well-Intentioned Regulations

As this brief history suggests, falling prices and growing consumer choice over time have defined the dynamic of consumer credit. Consumers today are no longer captives of local banks or pawnbrokers. Instead, they can choose from over 6,000 issuers of credit cards operating in a national market. Instead of being forced to buy their new stereo or television from the local department store just because that is the place that happens also to offer credit, consumers can buy appliances at small boutiques, through a catalogue, or online, and use their general bank card to pay for them.

As a consequence of the general tightening of credit markets over the past year, however, consumers and small businesses have lost some access to the lower costs and more flexible terms of credit cards. According to news reports, the response has been a migration toward greater use of alternative types of credit—like pawnshops, layaway plans, and payday lenders—by middle-class borrowers and small businesses. Drying up access to credit card credit will roll back the clock to these old forms of credit that had been thought long abandoned.

Historically, though, the greatest threat to modernization of consumer credit has been the heavy hand of government regulation. Like usury laws, the so-called Credit Cardholders' Bill of Rights, passed earlier this year, can be expected to have many unintended consequences, too. For example, it prohibits issuers from raising rates "retroactively" on outstanding credit card

balances. This proposal, however, ignores that fact that unlike traditional installment credit, a credit card loan amounts to a new loan every month—hence the name “revolving.” Similarly, consumers can pay off balances with no prepayment penalty by switching to a new, lower-interest card. Under the new regulation consumers can always reduce their interest rate by switching cards, but the credit card issuers are prohibited from raising rates when economic conditions change. As a result issuers will be reluctant to offer lower rates on the front end. This will mean less flexibility and higher rates for all consumers.

Once again we’ll see that the Law of Unintended Consequences can’t be repealed.

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The Market for Information and Credit Card Regulation

By Todd J. Zywicki

In December 2008 the Federal Reserve announced several new regulations for credit card practices and billing. The rules, which will become effective on July 1, 2010, impose new regulations governing the minimum period that cardholders have to make payments, the manner in which payments will be allocated among balances with different APRs, regulations on increasing interest rates on preexisting balances, and various regulations to the Truth-in-Lending Act. It is also possible that Congress may impose still further regulations on credit card marketing and operations, such as the Credit Card Holders Bill of Rights. These new regulations and those being considered by Congress follow the pattern for many regulations of financial products in the past—additional disclosures of certain practices and new substantive restrictions on certain credit card practices, such as raising rates on existing balances, prohibition of cross-default clauses, and new rules for allocating payments among higher- and lower-interest rate balances.

These regulations, as with those that have come in the past, suffer from a fundamental flaw that continues to undermine efforts to coherently regulate credit cards (and consumer credit generally): Regulation is enacted without always clearly specifying the market failure to be addressed. Most credit card regulation today is disclosure-based rather than substantive. A substantive regulation is something like a usury regulation that places a legal cap on the interest rate that can be charged. There is a general consensus today that substantive regulation (such as usury regulation) is

generally counterproductive in consumer lending markets, as the negative unintended consequences tend to exceed the benefits of the regulation. There are several unintended consequences. First, they include term re-pricing, such as offsetting caps on interest rates by the imposition of an annual fee or other costs. Second is product substitution. For instance, if higher-risk borrowers are unable to obtain credit cards then they will turn to other forms of borrowing, such as pawn shops or payday lenders. Third is credit rationing. If despite these efforts at term re-pricing and product substitutions it is still too difficult to lend to certain borrowers, then those borrowers will be unable to get credit at all or will have to turn to illegal sources of credit. Thus, although the regulation may accomplish its narrow direct regulation (limiting the interest rate charged) it may do so only at a substantial social cost that leaves consumers worse off in the end.

Disclosure-Based Regulation

As a result of these unintended consequences of substantive regulation, in recent decades there has been a general movement toward disclosure-based regulation, such as the Truth-in-Lending Act. Under disclosure-based regulation, rather than prohibiting certain terms, regulators try to improve the operation of the marketplace and strengthen consumer choice and information. The logic behind disclosure-based regulation is that, by creating standardized disclosure of terms thought important, then it eases consumer shopping.

That is true as far as it goes, but the disclosure and standardization rationale doesn't work well when consumers have heterogeneous preferences and shop on many margins. So, for instance, credit card solicitations include the Schumer Box, which requires certain important terms to be disclosed prominently in a tabular format. Those terms include things that are obviously important to many borrowers, such as the APR and annual fee. But the Schumer Box also includes several terms that may have been important 20 years ago but which are far less important today. For instance, perhaps

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there was a time when the mandatory disclosure of the minimum finance charge made some sense. Today, however, the minimum finance charge is a trivial term and varies little among cards; it is 50 cents for almost every card.

Moreover, some card issuers now disclose in the Schumer Box things that are relevant to a very small number of borrowers, including (increasingly) the foreign transaction and currency conversion fees. This is a term that is surely important to some small number of consumers who travel abroad frequently. But it is largely irrelevant to the bulk of cardholders who rarely leave the country and the even smaller number of consumers who choose their credit card based on this term. Nonetheless, this esoteric term is now routinely disclosed in the Schumer Box along with bread-and-butter issues of interest to many consumers.

Even this gives too much credit to the logic of standardized disclosures. The disclosures required by the Schumer Box are premised on the idea that consumers shop for credit cards based on the price of revolving credit on the card. Yet about half of consumers are transactional users who usually pay their balances in full each month and rarely or never revolve a balance. For those consumers, even the seemingly most useful disclosures (such as the interest rate) are largely irrelevant to their card decision. Those who do not revolve will tend to shop for cards based on features such as the benefits it offers (such as rental car insurance) or co-branding or other benefits, such as cash back or frequent flyer miles. I confess that I have no idea what the interest rate is on any of the credit cards that I own, much less the foreign currency conversion fee. I am well aware, however, of which cards give me cash back and the rate at which I accrue bonus certificates at L.L. Bean.

The effect of the modern disclosure-based regime of consumer credit regulation, therefore, is to require prominent disclosure of many terms that many people do care about but also require prominent disclosure of terms that people *don't* care about. Moreover, government being what it is, once certain disclosures are set by law or regulation, they are frozen in amber and become very difficult to change. Thus, credit card issuers still are required to prominently disclose terms that seemed significant 20 years ago, yet are trivial today.

Why is this a problem? Is there any downside to simply requiring more disclosure so that consumers have more information? The problem with this is that, by requiring certain terms to be prominently disclosed, it becomes more difficult for consumers to locate the terms that they do care about. Consumers have limited time, energy, and attention to locate and understand all of the terms of a credit card contract. Consumers can be quickly overloaded with information, and the more information that they are forced to process, the more difficult it is for them. So forcing consumers to wade through many irrelevant disclosures to locate those that they consider more relevant makes it more difficult for them to make knowledgeable decisions on the terms that are actually of interest to them. Compelling more disclosures also can give rise to the problem of fine print and densely worded disclosures, as requiring the disclosure of certain terms in a more prominent fashion leaves less room and attention for disclosing other terms.

The Market for Information

The current model of credit card regulation largely misunderstands the logic of the market for information. If a term is important to consumers (such as the interest rate or annual fee), it seems likely that credit card issuers would disclose it or consumers would demand that information before acquiring the card. I am not aware of any other market where consumers would routinely buy or use products when they don't know the price, and it is not clear why they would not insist on knowing the price of a credit card before using it.

With respect to information that most consumers do not care about, such as the minimum finance charge or the foreign transaction fee, most consumers are unlikely to shop on that margin. Thus, it is unlikely to be relevant for most consumers. As a result, in a smoothly functioning competitive market this information would not be expected to be routinely and prominently disclosed to all consumers. Instead, this sort of information would be expected to be disclosed on a need-to-know basis, in the sense that idiosyncratic consumers would get that information when and if they needed it.

To the extent that regulation is appropriate, therefore, the first question should be to ask whether there is a market failure in the market for information and what kind of regulation will best address it. It may be that there are market failures in the information market

that require intervention. But current regulation doesn't even really seem to be asking the question this way. Rather than asking what exactly the market failure is that needs to be addressed, regulators seem to take the same basic model and replicate it in applying it to new situations as they arise.

Normative Disclosure

This regulatory approach exacerbates the problem of what I call "back-door substantive regulation" or "normative regulation." This is the problem that arises when regulators use disclosure regulation not to improve consumer choice and to help consumers shop for and get what they actually want but rather to try to influence their choices and try to get them to focus on what the regulator wants them to focus on or to try to shape consumer choices.

So, for instance, a regulator might say, "I'm worried that consumers are borrowing too much on credit cards. One option to try to restrict credit card borrowing would be to impose usury regulations. But I now know that the unintended consequences of usury regulation often exceed the benefits. So, instead, I will hit consumers over the head with information about how much credit costs them, which might frighten them into borrowing less." Thus, certain terms end up getting disclosed more prominently than they would be disclosed if the primary goal was simply to make it easier for consumer to compare terms on the margins that they care most about. These terms are disclosed because of their interest to the regulator, rather than because of their interest to the consumers.

With back-door substantive regulation, the regulator is trying to achieve substantive regulatory outcomes through the indirect method of disclosure regulation. But if substantive regulation or affecting the substance of consumer choices is the regulator's goal, fiddling with disclosure-based regulation seems like a poor way to do this.

A good example of back-door substantive regulation is the requirement included in the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, which requires that consumers be told how long it will take to pay their balances if they make only the minimum payment each month on their balances. According to former Federal Reserve Economist Thomas Durkin, this provision actually affects only about 4 percent of

cardholders.¹ Despite the small number of consumers who actually care about this information, Congress has mandated the disclosure of this information on card holders' monthly statements resulting in costs to card issuers and to those consumers who will have yet another irrelevant disclosure to navigate. In the end, normative disclosure ends up being a poor way of helping consumers to shop better (the purpose of disclosure-based regulation) and a poor way of doing substantive regulation. It is a schizophrenic regulatory scheme that accomplishes neither purpose effectively.

Disclosure-Based Regulation and Heterogeneous Consumers

The problems associated with disclosure-based regulation are exacerbated with heterogeneous consumers. As noted, about half of consumers use their credit cards for convenience or transactional purposes and do not revolve balances, a category that includes myself. I have no idea what my interest rates are on my credit cards. Nor do I know my minimum finance charge, my interest rate on cash advances, etc. And I don't shop for credit cards on those margins. I shop on the basis of my annual fee and benefits, such as cash back or frequent flyer miles.

Yet if I shop for a new credit card, the credit card solicitation is filled with a lot of information that I don't care about. So it becomes more difficult for me to find the information I *do* care about. Again, absent the compulsory disclosures, it seems like credit card issuers would have an incentive to provide me with the information that I need and want to shop and choose their card. Moreover, research shows that consumers who do revolve balances are very aware of their interest rates and related terms, read credit card solicitations more carefully, and choose their cards based on those terms. Disclosure may help those consumers to make more educated choices, but given their interests, it seems likely that they would insist on disclosure of the relevant terms regardless. By contrast, for transactional users of credit cards, these disclosures are largely irrelevant and come at the expense of locating more relevant disclosures.

Technology and Competition in the Market for Information

The key challenge in the credit card market today is to better match heterogeneous consumer needs with

the increasing complexity and heterogeneity of credit card issuers seeking to provide products increasingly well tailored to consumer demand. Some consumers want cards that provide frequent flyer miles, some want cards with a low interest rate, and still others want cards that are available to those with impaired credit. Today, there are cards that will satisfy almost every conceivable consumer preference and consumers that have almost every consumer preference. What is necessary is to better match these heterogeneous consumers to this wide variety in cards. Traditional disclosure regulation fails to appreciate the innovations in consumer credit markets of the last decade. In so doing, it also fails to match the developments in the market for information that have arisen during this same time. Rather than reflecting the increasing complexity and variety of credit cards and credit card users, traditional disclosure regulation can stifle innovation and sacrifice efficiency.

Technology and market innovation may provide an opportunity for overcoming this traditional approach to the market for information. Consider, for instance, the new Web site *Cardhub.com*. This Web site matches credit card issuers with credit card customers by enabling consumers to sort and compare competing credit card offers by the terms that they care most about.

Consumers can search for cards among one or several terms, including not just the typical terms (annual fee, interest rate) but also more obscure fees such as balance transfer fees, default APR, etc. Not only can consumers search for benefits, but for particular types of benefits, such as cash back, frequent flyer miles, etc.

In short, *Cardhub.com* allows consumers and card issuers to end run the horse-and-buggy regulatory apparatus that currently exists. The disclosure-based regulatory regime that was issued in by the Truth-in-Lending Act has functioned tolerably well for several decades. It is a vast improvement over the traditional substantive-regulation regime that historically applied to consumer credit. But technology offers the potential improved consumer choice and more robust competition.

Note

1. Thomas A. Durkin, "Requirements and Prospects for a New Time to Payoff Disclosure for Open End Credit Under Truth in Lending," Finance and Economics Discussion Series, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board (Washington, DC), Paper 2006-34 (July 2006). Durkin reaches this estimation by determining the percentage of cardholders who revolve a balance, express an intention to payoff the existing balance by making only the mandatory minimum payment, and would be willing to stop using the card to accrue new charges while doing so.

Auto title lending has an important role in the financial services marketplace.

Money to Go

By TODD J. ZYWICKI

George Mason University Law School

Recent years have seen growth in the use of certain types of nontraditional lending products such as payday lending and auto title lending, and a relative decline of others such as personal finance companies and pawnbrokers. Despite the fact that much of the growth in the use of the former group of products is simply a substitution from some types of high-cost lending to others, the onset of the recent financial crisis has spurred renewed scrutiny of nontraditional lending products, even though there is no suggestion — much less evidence — that these products contributed to the crisis. Indeed, these products may be playing a positive role in mitigating the fallout from the crisis.

Title loans are extensively regulated at the state level. According to a 2005 survey by the Consumer Federation of America, just four states place no interest-rate caps on title loans made by licensed lenders, and 13 states have either enacted title loan laws or issued court decisions that authorize high-cost title loans under long-standing pawnbroker exceptions from state usury laws. Other states have special regulations that allow title loans but at a low and uneconomic rate cap, and 31 states have small-loan rate caps or usury limits that technically restrain car title loan rates, although title loans are often structured to avoid the limits. This regulation may soon intensify; Congress and state legislatures around the country are considering new legislation that would hamper or even eliminate several of the most popular forms of nontraditional lending, including payday lending and auto title lending.

Title lending is an important source of credit for many Americans and is beneficial for the economy overall. If deprived access to title loans, many consumers would have to sell their cars, substitute less-preferred sources of credit, or risk losing access to legal credit altogether. Many small, independent businesses use title lending as a source of short-term operating capital. Moreover, although the price of title loans appears

high, there is no evidence that title lenders are earning super-normal economic profits once the high cost and risk of making the loans are taken into account. The title loan market, like other markets for nontraditional loans, appears to be highly competitive and barriers to entry appear to be low. Pricing is highly transparent and simple, allowing easy comparison shopping by consumers. Absent an identifiable market failure, the case for heavy-handed paternalistic intervention is weak.

TITLE PLEDGE LENDING

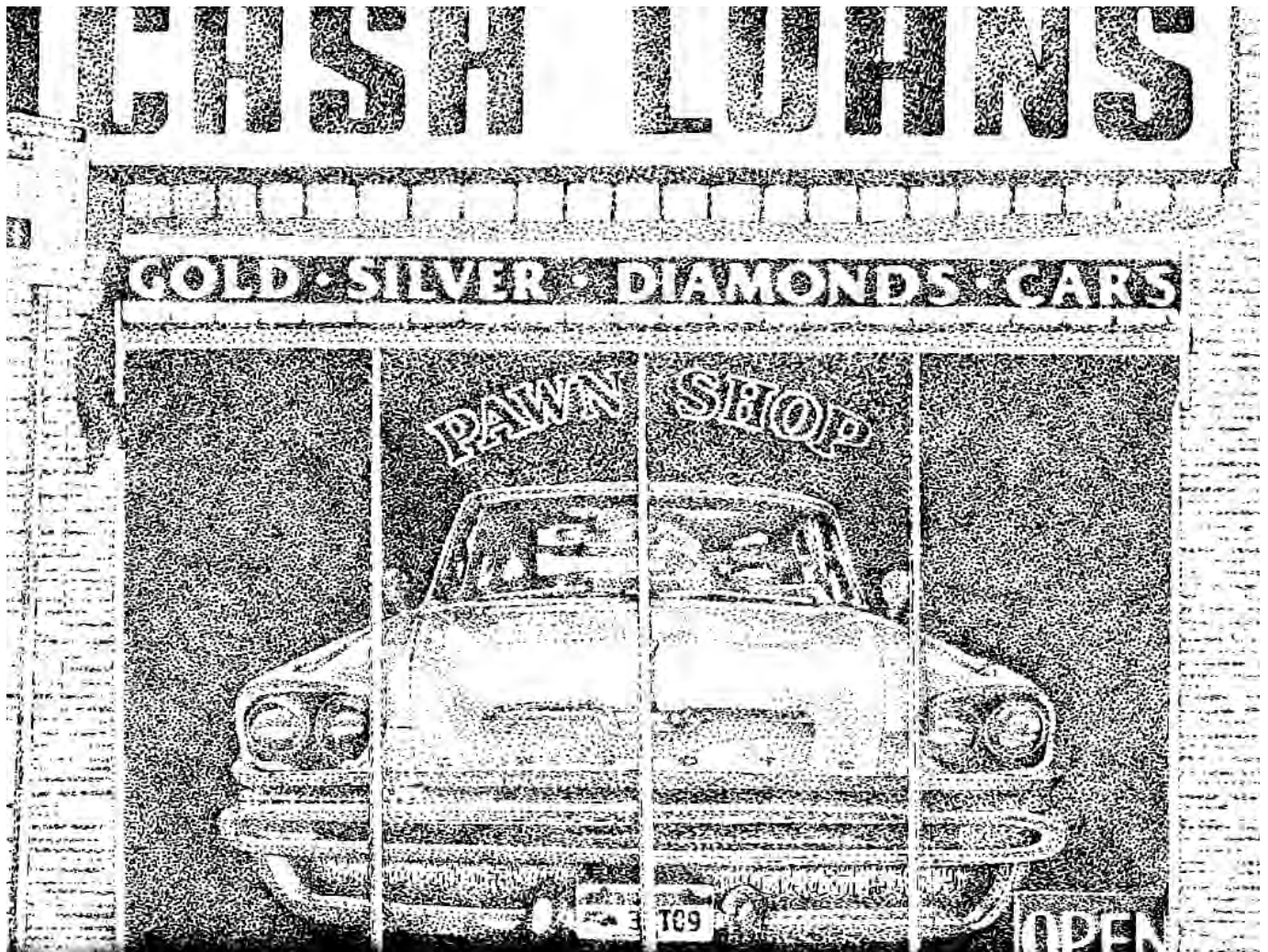
Title pledge lending grew out of traditional pawnbroker operations, mainly to enable making larger loans than traditional pawnshop loans that are backed by items such as consumer electronics, musical instruments, and jewelry. In a title pledge lending arrangement, the lender holds as collateral the title to the borrower's car and/or either a copy of the car's keys or a device that permits the title lender to disable the car's ignition. Lenders may verify employment, income, and perform a credit check, but such practice is not uniform. Most scrutiny focuses on the value of the vehicle rather than the borrower. The amount the lender will lend against the collateral varies: some studies have found that lenders typically will lend about 33 percent of the resale value of the automobile; others have found a typical loan value of 50–55 percent and even up to 100 percent of the value of the car. Moreover, the loan is typically for 30 days with a rollover option — most loans are rolled-over and paid off in about four to six months. Most of the loans are rather small, ranging from \$250 to \$1,000, although some loans are larger, depending on the value of the car and the needs of the borrower. The annual percentage rate on a title loan is typically 120–300 percent, depending on the amount borrowed.

The American Association of Responsible Auto Lenders (AARAL), an industry group that represents several large title lenders, states that the average loan size for its members is \$700. A study of the Illinois title lending industry found the median loan principal to be \$1,500. Many loans are small; a Tennessee state government study reported that 82 percent of new title loans in 2006 were for \$1,000 or less, and 50 percent were for \$500 or less. But some loans are larger; the same study found that over 7 percent of title loans ranged from \$1,750 to \$2,500.

If the borrower defaults, the lender can repossess the collateral. Beyond that, the loan usually is nonrecourse. If, for

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This article is adapted from "Consumer Use and Government Regulation of Title Pledge Lending," forthcoming in the *Loyola Consumer Law Journal*.



example, the car is not in operating condition because of a mechanical breakdown, or if it has been stolen or totaled, or if the lender resells it for less than expected, the lender is still limited to repossession and generally cannot or will not sue the borrower for any deficiency. Providers of title loans must include these types of costs and risks in the price of the loan.

Industry sources report that about 14–17 percent of title loans default, but only about half of those defaults (4–8 percent overall) result in vehicle repossession. Furthermore, about 20 percent of borrowers redeem repossessed cars before they are resold. The high percentage of defaults that do not lead to repossession reflects the reality that many of these cars have mechanical failures or other damage that makes it not worthwhile to expend the cost of repossession (as well as the borrower's decision not to pay). By way of comparison, pawnshop loans have a repossession rate of over 30 percent.

Some 70 percent of title loan customers own two or more cars, and others presumably have access to public transportation in the event of repossession. The cars used as collateral for the loans tend to be older vehicles and are owned outright. One study of court records involving auto title loans found that vehicles that were pledged as collateral were 11.4 years old and had 90,823 miles on average. At the time of default, many of the cars had major mechanical failures or other major damage, which explains both the borrower's

choice to default as well as the lender's decision not to absorb the cost of repossession. Bad debt and repossession expenses amount to about 20 percent of operating revenues.

For many consumers and independent small businesses, their vehicle is one of their most valuable economic assets. Prohibiting them from pledging their vehicle for a title loan could force many of them to sell their cars instead. Most title loans for operating vehicles are eventually redeemed, thus consumers seem obviously better off by being able to keep their car and borrow against it rather than selling it outright. Given that title loan customers could sell their cars if they preferred to, the fact that they do not indicates that they prefer a title loan over being forced to sell their car to get cash.

WHO USES TITLE LOANS AND WHY?

Auto title lending serves three very different demographic groups: moderate-income borrowers who prefer title lending to other available credit products; the unbanked who view it as a superior alternative to pawnbrokers; and small, independent businesses that use title lending as a source of operating capital. The multifarious ways in which borrowers use title lending indicate the inevitable problems of one-size-fits-all regulation such as interest rate caps or the efforts of a consumer financial protection regulator to determine whether a given lending product is "abusive" in nature.

Moderate-Income Borrowers First, auto title lending is used by a moderate-income segment of the population: consumers of sufficient wealth and income to own a car outright (often one of reasonably high value), but with impaired credit that reduces access to mainstream lenders. According to the AARAL, the typical title loan customer for its members is 44 years old and has a household income of more than \$50,000 per year, but is excluded from traditional lenders such as credit card companies, banks, credit unions, and small loan companies. Further, most borrowers are employed.

The most comprehensive profile of title loan borrowers to date, a study prepared for the New Mexico state legislature in 2000, found that 30 percent of title lending customers earned over \$50,000 per year, a higher percentage of higher-income customers than other nontraditional loan products. Another 41 percent of title loan customers earned between \$25,000 and \$50,000. One lender reports today that its largest group of customers has a household income of between \$50,000 and \$75,000 per year, and that over half of its customers earn more than \$40,000 per year. Almost 10 percent of its customers earn over \$100,000 per year. A study by the State of Illinois using data provided by the Illinois Title Loan Company found that 36 percent of title loan customers earn under \$30,000 per year, 55 percent earn over \$40,000 per year, and over 30 percent earn more than \$50,000 per year. Title loan customers also tend to be somewhat older on average than users of other nontraditional lending products, consistent with the intuition that more established people are more likely to own one or more cars.

Moderate-income consumers who use title loans almost always have impaired credit, notwithstanding their moderate incomes and employment status. These borrowers apparently view auto title lending as a superior alternative to payday loans, revolving credit cards (if available), or retail credit (if financing the purchase of a product).

Users of nontraditional credit products typically do not have credit cards, or the cards they have are maxed out. According to the Illinois report, 77 percent of title loan customers had no credit cards at all, and only 11 percent had a general-use bank card. Those who revolve credit card balances tend to be older, higher-income, and more likely to own a home than those who use nontraditional credit products such as payday loans. Studies of payday loan customers, for example, find that even if they have a credit card, they were at their credit limit or would incur over-the-limit fees if they used it. They also were more likely to have paid late fees on their credit cards than other consumers. Moreover, most payday loan customers have only one or two credit cards, usually with low credit limits; thus they are unable to add accounts sequentially in order to increase their available credit as those with multiple cards and higher credit limits can. This suggests that, for most title loan customers, credit cards are not a viable alternative source of credit.

Restricting access to alternative credit products such as title lending might force many of these consumers to use credit cards even if they might prefer not to. Both credit card delinquencies and delinquency-related revenues are higher in states

with interest-rate ceilings that squeeze auto title lending and payday lending out of the market. As credit card lenders have increasingly moved toward risk-based pricing through greater use of such fees, interest-rate restrictions have increased the frequency and amount of the fees, dramatically affecting borrowers who tend to trigger fees at a disproportionate rate, thus making them pay even higher costs for credit and run into greater financial difficulty. The analysts at the European research group Policis write, “Low APR products which depend on penalty-based pricing and which are intolerant of irregular payment patterns appear to expose low-income and vulnerable borrowers disproportionately to the risk of financial breakdown.” By contrast, those who use higher-cost products “appear more likely to be using credit vehicles which are a closer fit with the specific needs of those on tight budgets and are less exposed to the possibility of financial breakdown.” In particular, those who use short-term lending products often have irregular income and thus prefer short-term credit products with predictable prices rather than those that require long-term regular payments (such as installment loans) or permit long-term carrying of debt (such as revolving credit).

Some borrowers might also prefer title lending to payday loans, as they can borrow more on title loans — payday loan maximums are often capped by state law at \$300 or similar amounts. Interest rates for auto title loans are typically lower as well, because of the larger loan size and lower risk due to the fact that collateral is being provided.

Auto title loans may be especially valuable to consumers in an environment like the current one of high unemployment rates, recession, and tight credit markets. Payday loans (and credit cards) provide a mechanism for consumers to borrow against their future income to bridge short-term liquidity problems. Auto title loans, by contrast, enable borrowers to borrow against their current wealth to meet short-term financial obligations. Few title loan customers own homes, maintain large savings balances, or hold other sources of liquid wealth. The ability to access wealth to meet short-term obligations may be especially valuable to a borrower who is currently unemployed and may remain unemployed for an indefinite period of time, and thus would have difficulty servicing payday loans or revolving credit. By contrast, auto title loans permit the borrower to roll over the loan so long as equity remains in the car, which may provide flexibility for unemployed or underemployed consumers and small business owners.

Unbanked Customers A second group of title loan customers is the unbanked. According to interviews with industry figures, as much as half of title loan customers in some areas do not have bank accounts. Payday loans are not available to unbanked consumers because payday loans require a borrower to have a bank account against which a post-dated check can be drawn. Thus, for unbanked customers, pawnbrokers are the primary alternative for cash credit and rent-to-own or retail credit for purchasing goods. But pawn loans tend to be quite small (\$70 on average) and inconvenient because of the need to transport the goods and surrender possession.

Some 29 percent of auto title borrowers earn less than

\$25,000 per year — not an insignificant percentage, but one that is much smaller than for other types of nontraditional lending products. (By comparison, 65 percent of pawnbroker and 61 percent of rent-to-own customers earn under \$25,000 per year.) According to one study of credit use by low-income consumers, 7 percent of low-income borrowers overall had used an auto title loan in the past 12 months, with 12.6 percent among the subset of those in the study who actually owned cars. According to those authors, more consumers used auto title loans in the preceding 12 months than pawnshops (5 percent), payday lenders (4.2 percent), or rent-to-own firms (3.2 percent); a preference that was consistent across all income groups. A 1996 study conducted by John Caskey of 300 households in Atlanta, GA found that about 9 percent of respondents with annual incomes of \$25,000 or less had an auto title loan in the past year.

Unbanked borrowers have limited credit options in general, and title loans may be comparatively superior to their alternatives. States with liberal consumer credit regulatory regimes have a much higher volume of auto title lending than states with much stricter regimes, suggesting that title loans are popular with consumers when given the choice. States with strict regulatory regimes have a much lower level of auto title and payday lending than other states, and a higher level of pawnbroking (which often holds long-term exemptions from generally applicable regulations), retail debt, and revolving debt.

Small Independent Businesses A third group of title loan borrowers is comprised of small independent businesses that use title loans as a source of short-term working capital. Such businesses include small landscaping, plumbing, or handyman firms, and a vehicle title loan provides a useful source of operating capital for those independent businesses. For example, an independent landscaping company may need several hundred dollars to purchase sod and bushes for a job, or for temporary cash to meet payroll while finishing a job or awaiting payment. The proprietor may be forced to pledge his truck to obtain the necessary capital to buy the supplies to complete the job. When the job is finally complete (often only days later), payment is made and the owner can redeem the collateral. The likelihood of default and repossession is extremely low (assuming that the customer pays in a timely manner), and the likelihood of rolling over the loan is very low as well. Moreover, some of these businesses may be seasonal and volatile in nature, making short-term credit (even at relatively high cost) more useful and appropriate than long-term bank loans or other types of credit.

There are approximately 26 million businesses in the United States, most of which are small businesses or self-employed enterprises. Many such businesses do not have access to small business loans and rely on consumer credit, such as credit cards, home equity loans, auto title loans, and other sources of consumer lending to finance their business operations. Women and minority entrepreneurs, who have traditionally faced higher levels of exclusion from business credit markets, are especially dependent on consumer credit to finance their businesses.

Industry members estimate that small independent businesses constitute approximately 25–30 percent of the title loan

customer base. Since small businesses tend to need larger loans than individuals, and these businesses often borrow repeatedly for short periods of a few days at a time, small businesses may make up an even larger percentage of total dollars and number of loans. Title lending may be a useful source of credit for these independent businesses, especially since credit card, home equity, and other small business lending have become scarce as a result of the recent financial crisis. Title loans usually are closed on the spot within 30 minutes, providing the small business proprietor with immediate access to cash. Bank loans, by contrast, often require a lengthy underwriting process that delays access to needed cash and may ultimately require borrowing more money than is needed at the time. Moreover, title loans typically only charge interest and do not charge upfront fees or prepayment penalties. Thus, title loans are uniquely useful for those who need money quickly and who expect to repay the loan within a few days or weeks. Even if the original loan term is for 30 days, if the balance is paid within a few days, interest is charged only on the period the loan was outstanding. Independent businesses may at times use several title loans in sequence (perhaps even rolling over the loan), making it appear that they are in a “debt trap” of sorts. In reality, they are engaging in a series of independent transactions to gain working capital for a series of independent jobs.

The use and the risks borne by these small business borrowers are obviously distinct from either group of the previously mentioned consumer borrowers, yet regulatory regimes appear to make no distinction between them.

WHY CONSUMERS USE NONTRADITIONAL LENDING PRODUCTS

There are no comprehensive studies of the reasons that trigger use of title lending by consumers. Studies of similar products, especially payday lending, suggest that consumers generally use nontraditional lending products responsibly in order to address short-term needs for cash and to meet emergencies.

Consumers find nontraditional lending products useful for a variety of reasons. As previously noted, cash on a title loan can be obtained in 30 minutes or less, as opposed to banks, which typically require borrowers to wait several days before funds become available. Auto title loan defaults are rarely referred to credit agencies, and lawsuits to collect deficiencies are rare as well, unless a lender believes a borrower to be acting strategically. Pricing is transparent and easy to understand. Finally, many borrowers, especially lower-income or non-English speaking borrowers, have often had negative experiences with banks and other traditional lenders, and value the flexibility, informality, and customer service-oriented nature of nontraditional lenders. Nontraditional lending stores are also ubiquitous and maintain customer-friendly hours (even 24 hours in some places), unlike traditional banks that keep shorter hours. These flexible hours and locations are especially valuable for shift workers who may have trouble banking during traditional business hours.

Use of nontraditional lending products is most often precipitated by an unexpected expense that the borrower could

not postpone, such as a health emergency, necessary home repair, or utility bills, but not because of spendthrift behavior. In one survey of payday-loan borrowers, most reported that they “strongly” (70.8 percent) or “somewhat” (15.7 percent) agreed that their use of a payday lender was to cope with an unexpected expense. At the time of their most recent payday loan, over 80 percent of payday-loan customers reported that they lacked sufficient funds to deal with the expense. Jonathan Zinman similarly found that payday loan customers primarily use their funds for “bills, emergencies, food and groceries, and other debt service.” Some 31 percent of borrowers reported using the funds for emergency expenses, such as car repairs or medical expenses. Only 6 percent said that they used the funds for “shopping or entertainment.”

Comparisons of high-cost lending in Europe reveal that low-income borrowers in countries with strict consumer credit regulation, such as France and Germany, are much more likely to suffer utility cutoffs than consumers in countries with less intrusive regulation of consumer credit markets, such as the United Kingdom. French and German consumers also report having more difficulties purchasing food, clothing, and fuel than those in Britain, and they are more likely to have difficulty paying for rent and housing.

Access to flexible short-term credit is especially useful to lower-income consumers for two reasons. First, consumers with higher risk profiles in more heavily regulated markets have more difficulty getting access to credit generally. That difficulty, combined with their more volatile income patterns, tends to create difficulties dealing with recurrent obligations like rent, utility payments, and groceries. Their incomes tend to be more volatile than their expenses, creating liquidity problems. Where credit options are limited, borrowers are restricted in their ability to smooth income fluctuations. Thus, they can introduce “flex” into their budgets only by skipping payment of selected bills such as rent. Second, borrowers in markets with heavier regulation are aware of the dire consequences of missing debt payments — a blemished credit record that can disqualify them for future credit. In less heavily regulated countries, by contrast, blemished credit often results in a higher price of future credit, but not a complete disqualification from obtaining credit. In order to avoid delinquency and default, therefore, borrowers in heavily regulated markets are much more likely to prioritize payment of debt over payment of utilities and to divert funds saved for utilities and other necessities to debt payment in order to avoid delinquency.

Although details on title loan customers are not available, research on the use of other nontraditional loan products is instructive. A study conducted in 2007 found that 43 percent of payday-loan customers had overdrawn their checking account at least once in the previous 12 months (in 2001, 68 percent of respondents had done so). Almost 21 percent of payday-loan customers were 60 or more days past due on a consumer credit account during the previous 12 months. Some 55 percent of respondents stated that during the preceding five years they had had a credit request denied or limited, and almost 60 percent had considered applying for credit but did not because they expected to be denied. Over 16

percent of payday loan customers had filed for bankruptcy in the past five years — four times the rate of all consumers.

This research suggests that eliminating nontraditional lending products could force low-income consumers to make decisions that would be more harmful and expensive than those resulting from the use of nontraditional lending products. Research by Federal Reserve economists Donald Morgan and Michael Strain found that when Georgia and North Carolina outlawed payday lending, the incidence of bounced checks, consumer complaints about debt collectors, and Chapter 7 bankruptcy filings rose.

Although title loans are expensive, they are less expensive than these alternatives. Bounced checks can accrue penalty fees of as much as \$50 per bounced check, not to mention the threat of termination of a bank account and even criminal prosecution. Overdraft protection for bounced checks is often available, but is expensive as well. According to a study by the Federal Deposit Insurance Corporation, the median APR on a two-week checking account overdraft is 1,067 percent. Personal finance companies also offer small-dollar loans to be repaid in installments, but their rates approximate payday loans, offer less flexibility, and often provide pressures for borrowers to borrow more than they prefer in order to offset the costs of lending operations.

Finally, some low-income borrowers can also turn to the informal sector of friends and family. But friends and family may not be able, willing, or even ready to lend when needed, in the amounts needed, or for needed purposes. Most social networks are limited in scope; most of the friends and family of low-income individuals also have low incomes and thus have limited funds to lend. Many people, such as immigrants, orphans, or transients, do not have friends or family to whom they can turn for emergency funds. Perhaps more significantly, research finds that people consider borrowing from friends and family personally embarrassing and potentially damaging to personal relationships. Informal borrowing may also be less useful than standard credit in managing one’s finances because personal acquaintances may be willing to lend only for expenses considered particularly meritorious (such as medical emergencies), and not for other expenses or for business purposes. As a result, many borrowers are willing to borrow from their families only for an emergency (such as to meet urgent utility bills), but not for other purposes. Social borrowing also tends to be zero-sum in nature, as it does not introduce any new capital into the social circle, but simply redistributes existing funds within the circle.

Eliminating access to high-priced credit does not eliminate consumer need for credit. Historical experience indicates that where credit access is restricted, illegal loan-sharking often thrives. Deregulation of consumer lending markets in the United States has largely eliminated the market for illegal loan-sharking that dominated American cities in the early 20th century, a period in which illegal lending was organized crime’s second biggest revenue source, trailing only gambling. By contrast, international studies have found that illegal loan-sharking is still a concern today in countries where credit access is restricted by regulation. Studies by Policis have found that

countries with stricter regulation (such as France and Germany) have rates of illegal lending 2.5–3 times higher than in Britain, which is lightly regulated. News reports indicate that in Italy the turmoil in consumer credit markets during the past year led to an increase in lending by illegal loan sharks to consumers and small businesses. Japan, which severely tightened its rate ceilings in 2006, saw a two-thirds drop in acceptance of consumer loan applications and an accompanying rise in “Yamikin” lending by Japan’s organized crime syndicates. In heavily regulated countries where access to legal credit is restricted, loan sharks also service consumers and small businesses higher up the income ladder than where regulations are not so tight.

REGULATION AND COMPETITION

At first glance, title lending seems very expensive, leading to fears of market failure. However, there is no evidence of market failure or persistent economic profits in the title lending industry. Moreover, the observed prices can be explained by the economic realities of the industry, once the costs and risks of the business are accounted for.

Small loans are difficult to make economically because of the high fixed costs associated with making a loan, such as employee time, operation of the storefront, rent, etc. Nontraditional lenders often have higher costs than traditional lenders because of longer store hours, more intensive customer service, and high store density. This often leads to a reduced ability to capture economies of scale in operations. This may be especially so in the context of auto title lending. The quality of the collateral is highly variable. Moreover, because of the nonrecourse nature of the loan and the potential for deterioration or destruction of the collateral, auto title lending has a substantial idiosyncratic risk. Repossession on default is expensive relative to the value of collateral, and many title lenders contract out for repossession services. As a result, although prices are high, costs and risks are high too.

Barriers to entry are low, capital start-up requirements are modest, and competition is fierce. Pricing is also simple and transparent, promoting comparison shopping by consumers, although, as noted, there is substantial competition on nonprice margins as well.

Similar factors of cost, risk, and market conditions are present in the context of payday lending, and researchers have concluded that there is no evidence of persistent economic profits (or “rents”) in the payday loan industry once risk and costs are taken into account. Empirical studies of the payday loan industry find that where competition is stronger, payday lending prices are lower, just as standard economic theory would predict. It is unlikely that results are significantly different for title loans than for payday loans.

CONCLUSION

Auto title lending provides a valuable service in particular niches of the financial services marketplace, especially for those with impaired credit, the unbanked, and small, independent businesses. One-size-fits-all regulation of interest rates, rollovers, minimum maturities, or maximum loan size ignores this wide variety in the way in which different borrowers rely on title loans. Regulations that eliminated title lending from the marketplace could force many of those who use title lending to sell their cars (thereby losing their transportation) or switch to alternative, less-desirable types of credit such as payday lending and pawnshops. That consumers use title lending instead of these alternatives suggests the value of this product. That the overwhelming number of consumers who use nontraditional lending products do so responsibly confirms the value of making these choices available to consumers. Misguided paternalistic regulation of nontraditional lending will deprive consumers of this valuable option and inevitably hurt those who the laws are purportedly intended to help.

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Dodd-Frank and the Return of the Loan Shark

In the name of consumer protection, Congress has pushed more Americans outside the traditional banking system.

By [TODD ZYWICKI](#)

The least surprising event of 2010 was that, in the wake of new federal limits on how credit-card issuers can price risk and adjust interest rates, more Americans had to go to payday lenders, pawn shops and local loan sharks in order to get credit. It's simply the latest installment in the old story of regulators thinking they can wish away the unintended consequences of consumer credit regulation. Proponents of the 2009 Credit CARD (Card Accountability Responsibility and Disclosure) Act argued that it would protect Americans from exploitative credit-card companies by limiting penalty fees and interest-rate adjustments. For many Americans, though, the law meant higher interest rates, an increase in other fees, and reduced credit limits.

The impact was even worse for lower-income Americans, who have lost access to credit cards and were dumped in the laps of payday lenders that charge interest rates 10 times higher than credit-card companies. As the chief financial officer of a national payday-lending chain, Advance America, put it: "We believe that we're starting to see a benefit of a general reduction in consumer credit, particularly . . . subprime credit cards."

Regulators cannot wish away the need of low-income consumers for credit: If your car's transmission blows, you need \$2,000 for repairs to get to work, whether or not you have it saved in the bank (and most low-income Americans don't). If you can't get a credit card, you're going to have to get that money from a payday lender, pawn shop or loan shark.

In a competitive market, regulation of consumer credit has three predictable types of unintended consequences. First, regulation of some terms of the credit contract will result in the repricing of other terms. Thus restrictions on the ability to raise interest rates in response to a change in a borrower's risk profile lead card issuers to raise interest rates on all cardholders, good and bad risks alike.



Getty Images

Shark Infested

But even if card issuers reprice some terms, they may still be unable to price risk efficiently under the new rules. This gives rise to a second type of unintended consequence: product substitution. Card issuers can't price risk, so they issue fewer cards—pushing would-be customers to payday lenders and other nontraditional credit products.

Third, if issuers can't price risk effectively, they will ration lending. In order to make a loan, a lender must be able to price its risk efficiently or to reduce risk exposure by rationing credit. One way to do the latter is to lend less to existing borrowers, which is part of the reason why more than \$1 trillion in credit-card lines have been slashed since the onset of the credit crunch.

Banks can also drop riskier borrowers completely. In his letter to shareholders last spring, Jamie Dimon of J.P. Morgan Chase reported that, "In the future, we no longer will be offering credit cards to approximately 15% of the customers to whom we currently offer them. This is mostly because we deem them too risky in light of new regulations restricting our ability to make adjustments over time as the client's risk profile changes." Meet the new payday loan customers.

And how will the market respond to the so-called Durbin Amendment to the Dodd-Frank banking reform law, which places price controls on debit-card interchange fees (which retailers pay for accepting cards)?

Pursuant to the law, the Federal Reserve announced before Christmas that it plans to slash the interchange rate to between 7 cents and 12 cents, a 90% cut from the current rate. While this will provide a major windfall to big-box retailers and other merchants, the impact on consumers will be devastating—and again low-income consumers will be the hardest hit.

Even before the Fed's announcement of its low price ceilings, some banks covered by the Durbin Amendment (any institution with over \$10 billion in assets) had already announced that they would be cutting cardholder benefits and imposing new account maintenance fees. Customers who maintain large balances or use other bank services can avoid some such fees, but many low-income consumers cannot.

Many low-income Americans will be unable to qualify for free checking under the new fee regime, meaning they will have to pay higher fees or simply drop out of the banking system. Financial products that cater to unbanked consumers—check cashers, pawn shops, purveyors of nonbank prepaid cards—can expect to benefit from the Durbin Amendment, just as payday lenders have prospered as a result of credit-card regulations.

Nontraditional financial products serve an important role in the marketplace for the millions of consumers who count on them. Even pawn shops and loan sharks are more palatable and less expensive than the bounced checks and utility shut-offs that would result in their absence. Still, low-income consumers aren't better off when they have to rely on such lenders because paternalistic regulations have deprived them of a credit card. And just wait until the Consumer Financial

Protection Bureau comes on line, increasing costs and further restricting credit for low-income consumers.

Congress can pass all the laws it wants, but it can't repeal the law of supply and demand and the law of unintended consequences.

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The Dick Durbin Bank Fees

Bank branches close while banking becomes more expensive and less consumer-friendly.

By [TODD ZYWICKI](#)

This Saturday, government price controls on debit card interchange fees (which card issuers charge to merchants) go into effect. The controls are the result of the Durbin amendment to last year's Dodd-Frank financial reform legislation. They were enacted at the behest of big-box retailers such as Wal-Mart and Walgreen's, which stand to gain a multimillion-dollar windfall. But the controls are already transforming the retail banking landscape.

The Durbin amendment tasked the Federal Reserve with establishing the allowable maximum interchange fees. It originally intended to slash them by 70%-80%. In response to a firestorm of criticism, the Fed cut the fees about in half, to about 24 cents per transaction from an average of 44 cents per transaction, including a one-penny allowance for fraud prevention. The new fee limits apply to any bank with more than \$10 billion in assets.

Faced with a dramatic cut in revenues (estimated to be \$6.6 billion by Javelin Strategy & Research, a global financial services consultancy), banks have already imposed new monthly maintenance fees—usually from \$36 to \$60 per year—on standard checking and debit-card accounts, as well as new or higher fees on particular bank services. While wealthier consumers have avoided many of these new fees—for example, by maintaining a sufficiently high minimum balance—a Bankrate survey released this week reported that only 45% of traditional checking accounts are free, down from 75% in two years.

Some consumers who previously banked for free will be unable or unwilling to pay these fees merely for the privilege of a bank account. As many as one million individuals will drop out of the mainstream banking system and turn to check cashers, pawn shops and high-fee prepaid cards, according to an estimate earlier this year by economists David Evans, Robert Litan and Richard Schmalensee. (Their study was supported by banks.)

Consumers will also be encouraged to shift from debit cards to more profitable alternatives such as credit cards, which remain outside the Durbin amendment's price controls. According to news reports, Bank of America has made a concerted effort to shift customers from debit to credit cards, including plans to charge a \$5 monthly fee for debit-card purchases. Citibank has increased its direct mail efforts to recruit new credit card customers frustrated by the increased cost and decreased benefits of debit cards.

This substitution will offset the hemorrhaging of debit-card revenues for banks. But it is also likely to eat into the financial windfall expected by big box retailers and their lobbyists. They likely will return to Washington seeking to extend price controls to credit cards.

Prepaid cards, also exempt from the Durbin amendment's price controls, may also become a more attractive alternative to debit cards for many consumers. These cards were once the province of low-income consumers without bank accounts, but over the summer American Express rolled out a new prepaid card aimed at higher-income consumers looking for alternatives to debit cards.



Bloomberg

The Durbin amendment may cause more customers to use credit cards instead of debit cards.

Finally, retail banks will be looking for new ways to cut costs to offset the expected loss of revenues from the Durbin amendment. The past decade saw a dramatic increase in bank services and innovation, as banks have provided longer hours, more days of service and more branches, while rolling out products such as online banking, mobile banking and debit reward cards—and all for free.

This trend has been reversed in anticipation of the price controls. Banks have already eliminated rewards on debit cards. Future product innovation, including security, can be expected to decline or stop as banks avoid making investments they will be unable to recoup thanks to lost revenue from interchange fees.

The most noticeable change will likely be the closure of bank branches, reversing a decade-long growth. Branches today serve as customer-recruitment centers, as customers, once enrolled, do much of their banking electronically, by ATM or online. By making many new customers unprofitable, however, the Durbin amendment eliminates the incentive to compete by offering more branches.

Citing the negative impact of the Durbin amendment and other regulations on customer profitability, Texas-based IBC bank recently announced its decision to close 55 supermarket-based branches, eliminating 500 jobs, rather than increasing banking fees. Other banks will inevitably follow suit.

Conceived of as a narrow special-interest giveaway to large retailers, the Durbin amendment will have long-term consequences for the consumer banking system. Wealthier consumers will be able to avoid the pinch of higher banking fees by increasing their use of credit cards. Many low-income consumers will not. Banking will become less innovative and consumer-friendly.

Mr. Zywicki is professor of law at George Mason University and a senior scholar of the Mercatus Center.



COMMON LAW AND ECONOMIC EFFICIENCY

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Common Law and Economic Efficiency

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Abstract:

This is an entry for the forthcoming Second Edition of the *Encyclopedia of Law and Economics* (2d ed., Francesco Parisi and Richard Posner eds.).

This essay reviews the origins and development of the debate over the “efficiency of the common law hypothesis.” The essay begins with the earliest explanation for the observed tendency of the common law as proffered by Richard Posner. It then examines the Rubin-Priest and contemporary models of demand-side models of common law efficiency and critiques thereof. It then turns to a supply-side analysis of the efficiency of the common law hypothesis, focusing on the nature of the constraints imposed on common law judges and changes in those constraints over time. This essay also examines public choice analysis of the efficiency of the common law and the Austrian economics critique of the standard neoclassical model of analysis.

Keywords: Posner, efficiency of the common law, Hayek, Buchanan, public choice

JEL Codes: B20, B25, B53, K00, K40

Common Law and Economic Efficiency

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I. Introduction

From its inception, a foundational claim of law and economics is that the common law tends to the promotion of economic efficiency. (Posner 2007). Much of the traditional law and economics research agenda has been concerned with positive analysis testing the efficiency properties of rules across different common law doctrinal areas. The strength of this claim has been tempered over time, however, as some leading law and economics scholars have argued that the efficiency-enhancing attributes of the common law have weakened over time and that during the 20th century the common law has increasingly produced rules that promote wealth redistribution instead of efficiency. Nonetheless, the application of economics to determine the efficiency-promoting tendencies of various legal rules remains a defining research agenda for law and economics.

Since the articulation of the efficiency of the common law hypothesis, analysts have been concerned with a corollary question: if the common law does tend to efficiency, what is the mechanism or mechanisms that produce that result? The question is especially puzzling in light of the general absence from judicial opinions of any express stated concern with promoting efficiency or any obvious expertise or concern of

judges to further efficiency. Here we focus not on the postulated efficiency-enhancing properties of particular legal rules, but rather this corollary question of the common law process itself and whether that process tends to the promotion of efficiency enhancing rules. The analysis here is structural in nature: we observe the properties of the rule-generating system to determine whether the system's design tends to promote efficiency-enhancing rules. (Cooter 1996; Pritchard & Zywicki 1999; Zywicki 2006). Useful prior surveys of some of the literature discussed here can be found in Rubin (2005a), Parisi (2004), Aranson (1986), and Kornhauser (1980).

For purposes of explication, we can conceive of the production of common law rules as the interaction of supply and demand dynamics. Litigants demand judicial decisions by bringing cases for judges to decide. Judges supply legal rules according to their preferences (whatever those may be) as constrained by the set of incentives that they confront. This supply and demand heuristic can help to illuminate the rule-generating properties of the system to assess the mechanisms that produce efficient law. After reviewing the arguments about why the common law may or may not have incentives to be efficient, we conclude with a discussion about judges may be unable to identify, much less implement, economically efficient legal rules. This set of arguments questions whether efficiency as defined by Kaldor-Hicks efficiency or wealth maximization should be the goal of judges or a legal system.

I. Do Judges Seek Efficient Rules?

Posner's initial foray into a positive explanation for the tendency of the common law to promote efficient rules postulated that this tendency arose from the preferences of

common law judges for efficient rules. (Posner 1979). These preferences may arise either because judges affirmatively choose to prefer efficiency as a normative value over alternative values (such as wealth redistribution or some measure of social egalitarianism) or alternatively because even if judges theoretically prefer the pursuit of other normative values they nonetheless pursue wealth maximization as the most practical to accomplish, as if by an implicit process of elimination where judges find other goals to be unattainable in light of the constraints of the judicial process. (For a discussion and summary of critiques of Posner's early hypothesis, see Zywicki 2003).

One possible explanation for the preference of judges for economic efficiency as compared to other social values is that utilitarianism is a dominant philosophical preference of judges. Because of the difficulty of measuring utility directly, Posner argues that judges instead seek to maximize economic efficiency, as defined as wealth maximization. Under this standard, also referred to as Kaldor Hicks efficiency, efficiency is attained when the net willingness to pay associated with different outcomes is maximized. (Posner, 1980a, p. 491; Posner 1980b, p. 243; Posner 2007). Posner, for example, has argued that during the formative period of the common law, English judges implicitly adopted the utilitarian philosophy of 19th century English liberalism and thus implicitly sought wealth maximization. (Posner 1979). To the extent that the common law has deviated from its orientation toward economic efficiency, a common claim, this presumably could be explained by a change in the philosophical orientation of judges during the 20th century toward a heightened focus on redistributive and social engineering goals of the law and away from a traditional concern for utilitarianism and classical liberal values. (Priest 1991; Priest 1985; Priest 1987a; Priest 1987b; Tullock 1997).

Explaining changes in the orientation of the common law toward or away from efficiency by changes in judicial ideology is highly contestable. First, it assumes that earlier judges were largely moral utilitarians, as opposed to promoting some notion of “justice” or rights (O’Driscoll 1980); Claeys 2010; Cordato 1992) or imposed no systematic moral philosophy on the common law but simply tried to apply existing precedent to the best of their ability (as implied by Hayek (1978) or Leoni 1991). Moreover, as a theory of preferences or tastes, the theory is difficult to verify as a testable hypothesis. On the other hand, there is a substantial body of literature that finds a relationship between judges’ ideology and case outcomes in many areas of the law, which suggests some plausibility to the thesis. (See Stearns and Zywicki (2009), Chapter 7, for a summary).

Posner has also articulated a weaker version of the argument. Rather than judges professing an affirmative preference for efficiency over other moral values, he suggests that even if judges prefer other values (such as redistribution) to efficiency, they will still be led to promote efficiency because these other values are unattainable as a practical matter because of the limitations of the judicial process. Unlike redistributive goals, which are highly contested as a social matter, there is a broad consensus that efficiency is a desirable social goal, even if it is not the only social goal. Thus, everything else being equal, most people (including judges) prefer rules that result in more rather than less wealth for society. Moreover, judges have limited tools to engage in effective and consistent wealth redistribution: because most common law rules are default rules that parties can alter by contract or relative price adjustments, while judges can alter the distribution between the parties in any given case, they lack the power to engage in systematic wealth redistribution such as a legislature can do through tax, spending, and

regulatory powers. Because common law judges “cannot do much ... to alter the slices of the pie that the various groups in society receive, they might as well concentrate on increasing its size.” But this explanation of judicial preferences also runs afoul of the concern about its untestable and potentially tautological nature. Moreover, this theory cannot explain the apparent trend of recent years for the common law to depart in many areas from the promotion of efficiency to the apparent motivation to satisfy other social goals, such as redistribution and the apparent growth in the number of judges dedicated to the promotion of redistributive goals for law (Krier 1974). In short, even if judges are constrained in their ability to engage in systematic wealth redistribution, they nonetheless appear to have increased their desire and efforts to do so, which seems to contradict the hypothesis of pursuing efficiency by default.

II. A Demand Side Analysis of Common Law Efficiency

In response to the theoretical and empirical imitations of the original “judicial tastes” model of efficiency in the common law, scholars instead proposed various “demand” theories of the evolution of the common law that argue that there will be a tendency toward the promotion of efficient common law rules through an invisible hand process of selective relitigation of judicial precedents. In these models, a tendency toward efficiency will be observed regardless of judicial tastes or preferences for efficiency.

Zywicki (2003) argues that the process of litigation and common law rule production can be conceived of as a demand for judicial rule outputs, just as public choice theorists have modeled the process by which interest groups lobby (or bid) for

favorable legislation or regulation (or to avoid unfavorable legislation or regulation). Zywicki argues that as with standard models of the legislation process (Tullock 1967) parties will invest in the process of legal change in order to procure favorable judicial rules, and that in equilibrium, parties will be willing to invest up to the expected present value of the stream of economic rents to be generated by the beneficial legal precedent (or to preserve a beneficial precedent) in securing that precedent. Zywicki thus offers a stylized demand function to illustrate the process of legal change in these expected present value terms, where the demand (D) for legal change is a function of two variables: (1) the expected total value of wealth to be transferred by the law in question (V), and (2) the expected durability or longevity of the favorable legal rule to the favored party, in terms the expected length of time over which the valuable law will produce benefits to the parties (L):

$$D = (VL)$$

Where

D = demand for a particular legal rule,

V = the annual value of the amounts to be transferred, and

L = the expected longevity of the law and the number of periods over which wealth will be transferred.

Zywicki thus argues that where the value of a given rule increases (in terms of the amount of wealth to be transferred per period) or the expected durability of the rule increases (in terms of its protection from being overruled or reversed) parties will be willing to invest greater amounts in litigation. As a corollary to this observation, it follows that parties who are repeat players will be more willing to invest in the promotion

of favorable rules than those who are not repeat players. A favorable legal rule can thus be analogized to a sort of capital investment, in which an up-front investment in litigation to gain a favorable rule may be amortized by a subsequent stream of economic rents to the party benefited by that rule.

As with standard public choice analysis of the legislative process, there is a second-order collective action problem that arises in terms of the ability of parties to effectively organize in order to litigate strategically in order to bring about legal change. Thus, even if a group will gain a substantial benefit or incur a substantial cost from a legal rule change, they face the additional problem of organizing in order to bring about the desired rule changes.

Paul Rubin provided a demand-side model of the evolution of efficiency in the common law that is consistent with this model and which he argues tended to the production of efficient common law rules, at least during the formative periods of the common law. (Rubin 1977). Rubin argues that at least to some extent the ability of one party or the other to prevail in a given case will be a reflection of the amount of money that they are willing to expend litigating the case. Higher stakes in any given case will tend to produce larger investments in lawyers and litigation expenses. But the potential for precedent to be created by a case further raises the stakes, as a precedent increases the stakes in future cases as well as the current case. Thus, parties who have a particular stake in precedent, such as repeat players, will be willing to invest more in litigation than those who have lower interests, such as non-repeat players.

Rubin suggests that the evolution of legal rules can thus be divided into three categories depending on whether the litigants are repeat players. When both parties are

repeat players then they both have a continuing interest in future precedent and they will both be expected to fully and vigorously litigate actions, such that their investments will essentially cancel out. In such cases, Rubin predicts that we will tend to see a tendency toward efficiency-enhancing rules. When neither party is a repeat player with an interest in precedent beyond the current case, and thus have relatively equal stakes, we would expect to see no systematic bias in the law toward one party or the other and might instead observe either random drift or a slight tendency toward efficient rules. Finally, where one party is a repeat player and the other is not, we would expect to see a tendency for the law to favor the repeat player at the expense of the other party. This may come about either because the repeat player has a greater incentive to litigate certain cases more aggressively or alternatively because the repeat player has an incentive to avoid litigating unfavorable cases that might be expected to produce unfavorable outcomes, such as by settling a case before it results in an unfavorable judgment and precedent.

Rubin argues that this model explains trends in the common law over time. He argues that in the early nineteenth century (and presumably before), rule making (both common law and statutory) was dominated by individual actors acting independently, rather than by organized special interests acting collectively. (Rubin 1982). These interests generally were not repeat players and even if they were, they were unlikely to be consistently found on one side of a dispute. For example, small independent businesses were unlikely to systematically be plaintiffs or defendants in contract, tort, or property cases. Rubin argues that the 19th century brought about the development of large-scale manufacturing enterprises that produced repeat players with systematically biased preferences in favor of liability-limiting legal rules on issues such as nuisance and tort

law (such as for workplace accidents). In the latter half of the 20th century, by contrast, a new interest group arose: trial lawyers who had an interest in expanding legal liability rules. Thus, with respect to mass torts and other similar issues, even though injured individuals are not repeat players, the lawyers who represent them often are, and thus are willing to engage in litigation and other activities in order to expand the reach of liability under law. (Bailey & Rubin 1994; Rubin & Bailey 1994). Moreover, changes in communications technology and changes in legal procedure both have made it easier for interest groups (such as lawyers) to organize more effectively to promote legal change (Rubin & Bailey 1994) as well as raising the stakes in current and future cases by making it easier to aggregate plaintiffs' claims and launch expensive litigation (Zywicki 2000).

George Priest (1977) offered a complementary story to Rubin's demand side model. Priest argues that inefficient rules will tend to produce more societal conflict which, because litigation only arises when parties' expectations clash, will lead to more litigation involving those rules than efficient rules. He postulates that even if judges reverse precedents at a stochastic rate, the tendency for inefficient rules to arise more frequently in litigation will lead to them being disproportionately overruled relative to efficient precedents (which are tested less often). This largely random process will thus lead to a tendency for inefficient rules to be tested, and thus corrected, more often than efficient rules. Of course, to the extent that other factors tend to promote efficiency as well (such as a preference by judges or parties for efficient rules), this will amplify this tendency toward efficiency.

Various refinements of these models have been offered over time. Goodman (1979) argued that efficient precedents were worth more to parties who would benefit

than inefficient precedents were to their beneficiaries, and thus litigants would be willing to invest greater amounts in the pursuit of efficient precedents than inefficient precedent, producing a tendency toward efficiency. While this assumption may be true (although contestable), Goodman does not consider the potential for collective action problems to undermine the ability of parties to effectively litigate in favor of efficient rules if the benefits are widely dispersed and are received by parties other than the litigating party as discussed below. Combining the tools of economics and evolutionary biology, Terrebonne (1981) presented an evolutionary model of the common law that concludes that where legal rules are inefficient, both plaintiffs and defendants adopt behavioral strategies that lead to a high rate of litigation and when rules are efficient they adopt strategies that lead to low rates of litigation. As a result, when rules are efficient the evolutionary stable strategy for both plaintiffs and defendants is to avoid litigation and take appropriate care instead and when rules are inefficient the evolutionary stable strategy is to not take the mandated care and instead to litigate. This leads, via a Priest mechanism of more frequent litigation of inefficient rules and to the elimination of inefficient rules and the preservation of efficient rules, except in the narrow situation when litigation costs exceed the costs of the inefficient rule to the potential litigant, and thus the inefficient rule is not actually litigated. Landes and Posner (1979) extended the original models by noting that relitigation of precedent might not result only in overturning precedent, but repeated relitigation and reaffirmation of a precedent might actually strengthen and entrench the precedent.

Others have argued that there is no theoretical reason to believe that the common law will tend to the production of either efficient or inefficient rules. Cooter and

Kornhauser (1980) argue that invisible hand evolutionary models of efficiency in the common law can provide at best a very weak tendency toward efficiency in the common law, but that the most likely result is an unstable cycle of efficient and inefficient rules and a chronic coexistence of both. They conclude that a strong tendency toward stable efficiency in the common law requires the affirmative commitment of judges. Wangenheim (1993) similarly concludes that cycles of efficiency and inefficiency are more likely than stable efficiency. He argues that judges follow a sort of herd behavior, which leads them to follow one another's opinion, regardless of whether they trend toward or away from efficiency. Thus, he predicts the generations of broad cycles of efficiency and inefficiency as judges follow one another. He does suggest, however, that there may be a systematic tendency toward inefficiency in a dynamic sense that results from the unusually difficult collective action problems faced by innovators, who will have an especially difficult time identifying one another and organizing to have their views heard. Drawing on evolutionary biology and evolutionary game theory, Hirshleifer (1982) argues that evolutionary models provide little reason to believe that there will be any strong tendency toward efficiency in economics or law. He also stresses that a complicating factor in the context of law is the public goods nature of more efficient law, which raises substantial collective action problems in organizing to litigate for more efficient law.

Others have argued that the common law might be predicted to actually exhibit a tendency toward inefficiency. A student comment in the *Yale Law Journal* (Comment 1983) observes that in theory the combination of the tendency of inefficient rules to be litigated more often (as described by Priest) together with the phenomenon described by

Landes and Posner that repeated reaffirmation of rules in litigation might entrench inefficient rules could perversely lead the common law to favor rules that inefficiently lead to more accidents and greater social costs. He argues that these “reckless” rules will be both deeper rooted (because repeatedly reaffirmed) but also more sophisticated and well-developed intellectually, thus they will cast a larger shadow and bear more weight as persuasive authority, thus reckless principles will gradually displace efficient principles which are less-frequently litigated and less-developed. Thus, he argues, reckless rules will come to dominant the common law and further speculates that the growth in legislation displacing the common law in the 20th century might result from a perceived need to correct reckless common law doctrines. Hathaway (2001) similarly argues that the use of *stare decisis* in the common law could lead to lock-in or path-dependency in the common law, potentially preserving inefficient precedents (or precedents that are originally efficient but which become inefficient as social conditions change) as much as efficient ones. She argues that judges should be alert to situations where the costs of path dependency are especially high and should relax the binding force of precedent in those situations. Stearns notes that this problem of path dependency gives rise to problem of strategic litigation as parties seek to engage in “path manipulation” in order to gain favorable precedents. (Stearns 1995). He argues that judges use procedural rules such as the standing requirement in order to reduce this threat of strategic path manipulation.

These contrarian theorists thus provide several theoretical arguments as to why the mechanisms of common law adjudication should not lead to the production of efficient rules. On the other hand, these articles do not seem to rebut the central empirical phenomenon to be explained: the apparent tendency of the common law to

produce efficient rules over time, even if that tendency is weaker than in prior eras. While some of these authors provide some isolated examples where the phenomena they describe arguably explains inefficient rules, they do not seem to rebut the central claim of common law efficiency that the original generation of scholars sought to explain. Thus, it is not always clear whether they reject the premise that the common law tends toward efficiency or whether they accept the proposition but not the models that had been offered to explain it.

III. A Supply Side Model of Common Law Efficiency

Todd Zywicki (2003) has supplemented the models developed by Rubin and Priest with a supply side analysis that explains what he characterizes as the rise and fall of efficiency in the common law. Rather than focusing on judicial preferences, as Posner's original model did, Zywicki instead points to the constraints imposed upon judges. Like the Rubin-Priest demand-side models, Zywicki suggests that the preferences of judges are largely irrelevant to the efficiency of the common law if the demand and supply structure provides meaningful constraints on judges from indulging their preferences. But Zywicki focuses on the incentives of judges rather than litigants and, in particular, traces changes in legal institutions over time that he argues explains the strong tendency toward efficiency in the common law during its classical period and the more recent susceptibility to rent-seeking litigation of the modern era.

In particular, Zywicki focuses on the polycentric legal order that characterized the English legal system during the formative centuries of the English common law system, when England had in many areas a competitive and non-coercive legal order. During the

Middle Ages multiple courts with overlapping jurisdictions existed side-by-side throughout England (and Europe generally, see Berman 1983), including: ecclesiastical (church) courts, law merchant courts, local courts, the Chancery court, and three different common law courts, the King's Bench, the Court of Common Pleas, and the Exchequer Courts. For many legal matters a litigant could bring her case in several different courts. For instance, church courts had jurisdiction over all matters related to testamentary succession, but if the deceased owed a debt at the time of his death this suggested the possibility of jurisdiction in other courts as well.

Judges were paid in part from the litigant filing fees, thus providing competitive incentives respecting the scope of jurisdiction and expansion of judicial dockets. This encouraged judges to compete for litigants. Depending on the institutional context, competition could provoke judges to compete either by offering pro-plaintiff or pro-efficiency law. As Adam Smith (1776, pp. 241-42), writing in the eighteenth century, observed, the competition of the Middle Ages generally encouraged the production of efficient law:

The present admirable constitution of the courts of justice in England was, perhaps, originally in a great measure, formed by this emulation, which anciently took place between their respective judges; each judge endeavouring to give, in his own court, the speediest and most effectual remedy, which the law would admit, for every sort of injustice.

Smith also noted that requiring judges to compete for fees motivated them to work harder and more efficiently, thereby removing incentives for judges to shirk or to indulge their personal preferences. Zywicki claims that this judicial competition helped drive the early common law toward efficiency as courts competed to provide the law and procedures most appropriate to parties' needs. (See also Rowley 1989). Choice of court was either

implicitly or explicitly made ex ante (at the outset of the contract), which would be expected to lead parties to prefer efficient rules that minimized transaction costs. (Stringham and Zywicki 2010). Moreover, many of these competing courts (most notably the law merchant and ecclesiastical courts) provided law that was rooted in principles of reciprocity derived from merchant custom or religious belief. Reciprocity tends to promote efficient legal rules as well, as parties who don't know ex ante whether they are likely to be the plaintiff or defendant in a subsequent dispute will tend to favor fair and cost-minimizing rules. Many of these substantive and procedural rules were incorporated into entered the common law and equity courts during the mid-nineteenth century. In fact, many of the doctrines which are often identified as demonstrating the efficiency of the common law, especially contract law, were originally created in these non-common law courts and incorporated into the common law by judges such as Mansfield.

Zywicki further explains that the polycentric legal order in which the common law emerged as a result of judicial competition, spurred in part by the judges' own financial incentives, produced an additional beneficial effect. The regime allowed dissatisfied parties to opt out of inefficient legal regimes and into more efficient ones. For instance, merchants rarely resorted to common law courts, opting instead for law merchant courts, thus limiting the reach of sometimes archaic common law rules in commercial transactions. Zywicki also explains that the coercive element necessary for judicial rent seeking was largely absent giving potentially burdened parties an exit option. For parties to successfully rent-seek via litigation it is necessary for beneficiaries of wealth transfers to be able to involuntarily capture the wealth of otherwise unwilling

parties to provide the transfer. In this sense, choice among competing courts can be thought of as a radical form of federalism, providing a heightened version of the exit and matching (Tiebout) functions of federalism.

Easy exit provided by a polycentric legal system enabled parties to avoid being the source of involuntary transfers. Authors such as Benson (1990) describe how many of these courts did not involve compulsion but judgments were enforced by threat of ostracism and reputational sanctions. Zywicki argues that in the United States, the legal regime of competing courts that prevailed prior to *Erie Railroad v. Tompkins* served a similar function of reducing the opportunities for rent-seeking via litigation by enabling out-of-state corporate defendants to avoid the clutches of state legislatures and judges responding to incentives to transfer wealth from out-of-state defendants (often corporations) to in-state plaintiffs. Federal courts were generally considered to be less susceptible to these parochial political forces than state courts. Over time, however, the common law became more monopolized to which Zywicki attributes the subsequent tendency toward inefficient common law rules in the 20th century. The reduced ability of litigants to choose their court or to exit inefficient courts dampened the incentives for judges to be responsive to parties' needs, raised the agency costs associated with judicial decision making, and increased the incentives and opportunities for rent-seeking litigation. Under a monopolized system judges have a much greater ability to infuse ideology, such as redistributive goals, into their judicial opinions and to respond to pressures for rent-seeking litigation.

In a recent article, Daniel Klerman has explored some of the historical facts that underlie these conclusions (Klerman 2007). Contrary to the argument of Adam Smith

and Zywicki, Klerman argues that inter-jurisdictional competition actually spurred the development of pro-plaintiff rules rather than efficiency-enhancing rules at least in the common law courts of the King's/Queen's Bench, Common Pleas, and Exchequer. Klerman observes that statutes enacted in 1799 and 1825 shifted judges to a salary-based compensation system, stripping them of their right to collect fees from litigants. Klerman claims that this reform led to a gradual elimination of the pro-plaintiff bias in the common law courts and to the adoption of a variety of pro-defendant rules instead. Although highly illuminating with respect to those areas under his scope, Klerman's analysis is limited just to cases in the Royal courts and ignores others, such as the law merchant, ecclesiastical, and Staple Courts (Stringham & Zywicki 2010). He also notes that the pro-plaintiff bias of the common law court was constrained to some extent by the Chancery, to which disputes could be removed, and which frequently served to restrain some of the rule-bound decision making of the Royal courts that produced problematic results. Other scholars have raised doubts about the importance and autonomy of the law merchant courts, but as noted by Benson (forthcoming) and Stringham and Zywicki (2010), inferences drawn from these findings are highly overstated.

IV. Public Choice Critiques of the Common Law

As the foregoing discussion suggests, interest groups have the potential to influence both the judiciary and legislatures, although the nature of such influence might differ from institution to institution. In his article, *Does Interest Group Theory Justify More Intrusive Judicial Review?*, Elhauge (1991) claims that judicial processes are subject to the same sorts of interest-group pressures as are legislatures. In particular,

those groups seeking to change the law through litigation (as in Rubin's model of legal evolution) will confront many of the same collective action problems as groups seeking change (or to prevent change) through the legislative process. Discrete well-organized groups, for instance, will tend to be more effective in organizing strategic litigation in much the same manner that they will in organizing for effective lobbying. Well-organized groups may also be able to bring about settlements that prevent "bad" cases from establishing undesirable precedents (Stearns & Zywicki 2009) or seek to influence judicial appointments or elections (Zywicki 2000; Rubin 2005b).

This analysis suggests that it might not be enough for a group to be a repeat player to effect legal change. If the group members are heterogeneous, dispersed, or otherwise difficult to organize they might be unable to monitor contributions effectively to ensure sufficient resources to bring about doctrinal change. As noted, Paul Rubin and Martin Bailey (1994) have argued that one reason trial lawyers have been effective in changing tort law in recent decades has been their considerable ability to organize and to engage in strategic litigation through organizations such as the American Association for Justice (formerly the Association of Trial Lawyers of America).

Thomas Merrill (1997a; 1997b) has argued that although it is true that interest groups influence both judges and legislatures, the pattern of influence is not identical and, most notably, the demand curve for legal change differs in these two contexts. Merrill claims that in general, interest groups seeking to lobby the legislature probably have to spend substantially more money to gain influence than do those seeking to effect legal change judicially. Specifically, he claims that the marginal return on each dollar invested in legislative lobbying is likely to decline much more slowly than for investments in

litigation. Simply put, politicians always need more money for reelection. In contrast, Merrill claims that the marginal return from increased financial investments in litigation will likely fall off very rapidly. Thus, Merrill argues, even if some groups are likely to outspend in absolute terms, the *relative* difference in terms of the influence is likely to be much smaller in adjudication than in legislative lobbying.

Adam Pritchard and Todd Zywicki (1999) have argued that in addition to the difference in the demand function that Merrill identifies, there might also be a difference in the relevant supply curves of legal change. The authors begin with the public choice premise that legislators generally seek election and reelection. In contrast, the judicial utility function is more elusive. Nonetheless, an important component appears to include the opportunity for judges to infuse their legal policy preferences in the cases that they decide. The authors further claim that judges are likely motivated by the desire for status and prestige. In the case of judges, the authors posit that status is substantially derived from perceptions of practicing lawyers and commentators in the academy and media. Thus, if lawyers and legal commentators have any sort of consistent ideological preferences, judges may tend to issue opinions that reflect those views.

Pritchard and Zywicki also suggest that judges might be biased in the direction of trying to enhance judicial power by absorbing a broad range of social issues under their jurisdictional umbrella. Moreover, the authors note, judges might not be entirely insulated from interest group pressures. Judges are obviously less susceptible than legislatures to influence produced by various forms of financial contribution. Instead, interest groups “appeal to judges’ interest in status, power, and ideological voting, rather than pecuniary gains or political support.” (Pritchard Zywicki 1999, p. 499). Interest

group tools include strategic litigation, filing amicus briefs in pending cases, or organizing judicial rallies. Those seeking judicial influence also might write scholarly or popular articles. Thus, in earlier eras when judges were drawn from a commercial class of lawyers, they were favorably disposed to business interests. Today, however, judges often reflect intellectual class values and seek the esteem of academics and journalists, which are often hostile toward commercial interests and more interested in social issues. Thus, while legislators are likely to be more responsive to those groups that can offer electoral and financial support, judges might be more receptive to those groups whose expressed views find reflection in the opinions they produce.

One implication of Pritchard and Zywicki's model is that it suggests that different interest groups will have a comparative advantage in pursuing their competing interests in different forums and will rationally allocate their resources and efforts to influence policy accordingly. The analysis thus implicates the demand function of interest group litigants and the supply functions of judges and legislators. Legal change can be produced in several different institutional arenas: most commonly courts and legislatures, as well as regulation by executive or independent agencies. In some situations, however, formal constitutional processes are used (Boudreaux & Pritchard 1993; Crain & Tollison 1979), including initiative, referendum, and other direct democratic means. (For an overview, see Stearns and Zywicki (2009)). In some areas of law "private legislatures" such as the American Law Institute which drafts the various Restatements of the Law or the National Conference of Commissioners on Uniform State Laws which drafts and revises the Uniform Commercial Code and other uniform laws which are then typically adopted by state legislatures as binding law (Schwartz & Scott 1995). Pritchard and Zywicki argue

that interest groups will allocate their lobbying efforts among these various institutional decision-makers in the manner designed to maximize the marginal return from their lobbying activity, a calculation that implicates the interaction of the demand function of various interest groups on one side and the supply of legal rules by judges, legislators, private legislators, or constitutional processes on the other. Rubin, Curran, and Curran (2001) and Osborne (2002) propose similar models of interest groups deciding whether to use litigation or legislative lobbying as a method for rent seeking. Crew and Twight (1990) provide a comparative analysis of rent-seeking in the common law and legislative processes.

A related problem is that of forum shopping to advance rent-seeking goals. As noted in the discussion of the polycentric and competing legal systems of the middle ages, forum shopping can promote economic efficiency by enabling parties to contract for law that closely matches their expectations, encourages judges to compete for cases by being responsive to the parties needs, and discourages rent-seeking litigation by enabling those who otherwise would be forced to provide wealth transfers to avoid doing so by exit. This benevolent forum-shopping competition can arise where the parties agree *ex ante* to the body of law that will govern any disputes that arise under the contract encouraging the parties to agree to be governed by the law that minimizes the transaction costs of entering into and performing the contract. (Zywicki 2006). On the other hand, where court choice is unilateral, such as by allowing a plaintiff to file a case without the defendant's implicit or explicit agreement, this can give rise to malign forum shopping, as plaintiffs can involuntarily drag defendants into jurisdictions favorable to the plaintiff. In this situation, judges competing for cases will do so by aggressively promoting pro-

plaintiff law in order to attract cases to their jurisdiction. (Zywicki 2006; DiIanni (Forthcoming); Stringham & Zywicki 2010). Fon and Parisi (2003) provide a similar insight: since plaintiffs decide in which court to file, those with marginal cases will file cases with judges who favor rules that expand liability. This creates a problem of adverse selection, as judges who favor expanded liability will have more cases filed in their court, providing them with more cases on which to imprint their stamp on the law. As a result, those judges will also have greater long-run influence on the path of the law as well. Fon and Parisi observe that this theoretical model of strategic forum shopping is consistent with an observed trend in the law over time toward more expansive liability. In other situations whether the results of forum shopping will be benign or malign will be ambiguous as an *a priori* matter rendering the inquiry empirical in nature (Zywicki 2006).

V. The Common Law as a Rent-Seeking System

Scholars have also explored the implications of public choice theory for evaluating the relative merits of the adversary process within common law systems and the inquisitorial process within civil law systems. Gordon Tullock argues that the adversarial feature of common law adjudication is fundamentally a rent-seeking, or rent-dissipating, system. (Tullock 1997; Tullock 2005). As applied to a civil lawsuit, for example, Tullock assumes that the parties are exclusively concerned with the distributional consequences determined by which party prevails. Tullock posits that the parties within adversarial systems can increase their likelihood of prevailing by investing additional financial resources, thus transforming the litigation process into something

akin to a rent-seeking game. Tullock likens the resulting litigation to an arms race in which each party has an incentive to expend increasing amounts with the risk that the overall process might dissipate the entire value of the dispute through lawyers' fees and other costs.

Tullock assumes that within each dispute one side's claim is consistent with revealing the truth to the factfinder, while the other side's expenditures primarily obstruct discovery of the truth. He further assumes that the most important normative criterion for comparing the adversarial and inquisitorial adjudicatory processes is the joint minimization of administrative and error costs (i.e., the highest level of accuracy at the lowest possible cost). Tullock contends that expenditures that obstruct the search for truth—or that would not arise but for the other side's tactical obfuscation of the truth—provide no social benefit. Within the inquisitorial system, the judges rather than the parties generally control the expenditure of resources in the quest for truth. Because inquisitorial judges internalize most of the costs of the litigation process, Tullock posits that they therefore lack incentives to expend resources in a manner that obstructs the quest for outcomes consistent with the truth. Tullock concludes that as compared with the adversarial systems, inquisitorial systems eliminate, or at least significantly reduce, incentives for rent dissipation. From a social perspective, Tullock maintains not only that the adversarial system is more expensive than the inquisitorial system, but also that the increased expense is unjustified given that as compared with the common law system the inquisitorial system produces more accurate judgments at lower cost.

Zywicki (2008) has evaluated Tullock's claim of the superiority of the inquisitorial system by noting that the efficacy of a legal system can be evaluated

according to two criteria: administrative costs and error costs. The most efficient dispute resolution system can be recognized as that which minimizes these joint costs. Zywicki notes that, in part for the reasons Tullock identifies, the administrative costs of dispute resolution in the adversary system is almost certainly higher than for the inquisitorial system. Thus, to the extent that the higher administrative costs of the adversary system can be justified, it must be on the basis that the error costs associated with the adversary system are sufficiently reduced so as to justify these higher administrative costs.

Surveying available experimental and empirical literature, Zywicki finds some scholarly agreement that the adversary system produces more accurate decisions than the inquisitorial system in cases where there relevant evidence that is difficult or expensive to locate. In more routine cases there is no noticeable difference in accuracy between the two systems. Finally, Tullock's argument rests in part on the assumption that judges in the inquisitorial system will act efficiently and diligently in pursuing the truth, an assumption that seems untenable in light of the absence of any obvious incentives for judges to engage in an energetic pursuit of the truth. Judges bear the full cost of additional work expended to increase the marginal accuracy of their decisions while externalizing much of the costs of errors on the parties and the public. Many adverse decisions are not appealed and among those that are, judges are rarely reversed on appeal. (Higgins & Rubin 1980). Moreover, there is an information asymmetry between trial court judges and appellate judges with respect to the facts of any given case. This may suggest substantial agency slack for judges which might permit them to engage in some degree of shirking. Parisi (2002) also compares the dynamics of rent-seeking and rent-dissipation in the adversarial and inquisitorial systems.

Zywicki (2003) argues that in addition to the ability of parties to exit inefficient jurisdictions there are various institutional elements of a legal system that can make the system more or less resistant to rent-seeking litigation. In particular, Zywicki notes the double-edged sword nature of a regime of strong *stare decisis* regarding judicial precedent in contrast to a regime of more flexible precedent, such as the view that prevailed in the formative centuries of the common law, where precedents do not become established at once, but rather only when a succession of several independent judges agree upon the proper resolution of the issue. Precedent in this view is treated as inherently persuasive rather than binding, with the degree of persuasiveness growing marginally with each affirmation of agreement. While strict *stare decisis* can theoretically increase the predictability of the law (although this is not clear as Zywicki (1996) and Leoni (1991) note) and reduce the administrative costs associated with relitigating issues until established as precedent, this comes at the cost of potentially encouraging greater rent-seeking litigation. Where one case establishes a binding precedent with just one favorable decision (as under *stare decisis*), this provides a target for interest groups to shoot at in seeking to establish a favorable precedent. By contrast, where precedent is established only after the independent agreement of several different judges, this opportunity and incentive to engage in rent-seeking litigation is less likely to be successful, more expensive to establish, and less valuable of a prize, thereby reducing both the incentives to engage in rent-seeking litigation and the value of the prize to be obtained. Zywicki argues that once rent-seeking costs are taken into account, the optimal level of adherence to precedent may be less than the strict rules of *stare decisis* but

instead may be some more moderate form of adherence to precedent similar to that in the earlier ages of the common law.

Oman (2009) argues that another feature of the common law that makes it more resistant to rent seeking than civil law is that it generally operates (with some exceptions) according to a conceptual framework that applies general abstract categories of doctrine to a wide range of specific subject matter disputes (such as the doctrines of consideration or negligence), rather than providing different rules and doctrines for specific subject areas (such as fundamentally distinct liability rules for cars versus trains or different standards of negligence for lawyers versus doctors). This requirement of generality and abstractness of principle, Oman argues, makes it more difficult for interest groups to manipulate the path of the law by carving out unique favorable rules for themselves, thereby insulating the common law from rent-seeking to some extent. (See also Zywicki (2003)). With legislation, or by implication civil law systems, discrete rules for particular categories of goods and services are more common, perhaps exposing those systems to greater rent-seeking pressures.

Luppi and Parisi (2009) offer a similar analysis of precedent and *stare decisis*, describing a tradeoff between the costs of judicial error and legal certainty. Like Zywicki (2003), they implicitly assume that a system of weaker precedent may be more likely to promote correct (or efficient) rules if a decision must be agreed to by several different judges deciding independently before maturing into a binding precedent as opposed to enabling a single decision to establish the law. In this sense, although they do not expressly develop the argument, both Zywicki and Luppi and Parisi may be implicitly invoking the logic of the Condorcet jury theorem by suggesting that the agreement of

multiple judges is more likely to generate a correct outcome than just one. Fon, Parisi, and DePoorter (2005) contrast the regime of *stare decisis* under the common law with the weaker form of precedent that prevails in the civil law system that resembles the older common law rule, such as the Louisiana doctrine of *jurisprudence constante* (“settled jurisprudence”) or the German concept of “permanent adjudication.” As noted by Fon and Parisi (2006)), under the doctrine of *jurisprudence constante* caselaw decisions are persuasive in nature and the force of judicial decisions derives from “a consolidated trend of decisions” on point, not a single decision. Luppi and Parisi (2010) also note that because one source of rent-seeking in Tullock’s model of the adversary system is the ability of parties to externalize some of their costs on their rivals, this problem can be mitigated by adopting the British “loser pays” that requires the losing party to pay the attorneys’ fees and expenses of the prevailing party, thereby forcing parties to internalize a greater share of the costs of meritless litigation.

One implication of Zywicki’s model is that strict adherence to *stare decisis* has the potential to increase the stability of both efficient and inefficient precedents, including those that result from rent-seeking litigation. Moreover, stronger *stare decisis* doctrine increases the societal costs of rent-producing precedents by making overruling more difficult, and thus simultaneously increases the value of the “prize” *ex ante* by increasing the precedent’s lifespan. Zywicki contends that to the extent that rent-seeking litigation dynamics approximate those in legislatures in favoring well-organized discrete groups, the result is may be to increase the production and maintenance of inefficient precedents relative to efficient precedents. Zywicki posits therefore that interest groups might prefer a more costly common law *ex ante* that produces more stable rules (and

hence longer payouts) ex post and that this is most likely to hold for those groups that are better suited than their competitors to engage in judicial rent-seeking.

Tullock also argues that the civil law system of lawmaking is superior to the common law system. This claim is susceptible to economic testing. If Tullock is correct that the civil law is a better and more efficient system of rule generation than the common law, then countries that have adopted the civil law system should be wealthier than those that have adopted the common law system. Based on this criterion, Tullock's expressed preference for the civil law is difficult to justify. Mahoney (2001), for example, finds that current countries with common law legal origins tend to have more economic freedom and tend to be wealthier. The underlying causal explanation for these observed relationships, whether freedom or legal origins matter most, remains open. Several possible mechanisms about the importance of legal origins have been postulated. First, is a "political" theory that points to a general preference for private ordering in the common law versus the civil law. Second, an "adaptability" theory that points to the flexibility of the common law system to respond to societal and economic changes more rapidly and sensibly than the civil law (Beck et al. 2002). Others have explained the relationship by pointing to differences in norms and social trust among countries, which may hold some correlation with the development of the common law system (Coffee 2001). Some authors argue that the rights of financial investors are stronger in common law countries, leading to greater levels of investment and economic growth (Levine 1998, Laporta et al. 1997, 1998).

On the other hand authors such as Rajan and Zingales (2003) and Mussachio (2008) point out that many of the correlations between legal origins and current economic

outcomes may be specious. For example, although in today's world well-developed financial markets happen to be in countries with common law origins, this was not always the case. Mussachio (2008, p.80) concludes, "there is too much variation over time in terms of bond market size, creditor protections, and court enforcement of bond contracts to assume that the adoption of a legal system can constrain future financial development." If one looks to the world's first two successful stock markets in 17th century Amsterdam (not in a common law country) and 18th century London (in a common law country), the fact that government did not enforce most contracts yet markets developed indicates that limited government intervention and successful self-policing were far more important than any positive legal action (Stringham, 2002; Stringham 2003). Such findings lend support for Zywicki's (2003) hypothesis that if one wants to understand the legal order in a country, one must look to more than just government courts.

VI. Austrian Critique and Theory of Efficiency in the Common Law

Beginning with Hayek (1978) there has been an alternative model of efficiency in the common law deriving primarily from the Austrian economic theory. Austrian theories of the common law are grounded in significantly different assumptions and methodologies than those that drive the standard neoclassical model of efficiency in the common law. (Zywicki & Sanders 2008). In particular, those writing in the Austrian tradition stress the substantial knowledge problems that confront judges seeking to even determine, much less to implement, their preferred vision of an efficient common law rule. In this sense, judges seeking to promote the economic efficiency of the law are in a

similar position to a Soviet-style central planner seeking to allocate resources in an efficient manner. Austrians also emphasize the subjective nature of individual cost and choice and the challenges this provides for any judge seeking to ascertain the efficient rule in any scenario. Austrian economists also stress the dynamism and constantly-changing nature of the economy and society, thereby highlighting law's primacy in providing a stable rule-bound framework within which people can coordinate their individual plans. Austrian economists also recognize the radical uncertainty that confronts a judge seeking to improve the efficiency of the law by tweaking the details of any particular rule. This fails to appreciate the delicate intertwining of any particular rule with the myriad of other rules that comprise the legal system such that an adjustment to any particular rule may have profound implications for other rules within the legal system. For instance, a movement from contributory to comparative negligence may have implications not only for other elements of the tort system (such as liability rules or damages), but also contract law, procedure, and remedies. For Hayek, therefore, the relevant level of analysis and selection for evaluating the law is at the level of the legal *system* or collection of relevant rules rather than at the level of any particular rule studied in isolation. (Zywicki & Sanders 2008). Given this complexity, when confronted with an ambiguous case, Hayek argues that the task of the judge should be to try to determine the individual rule that provides the best fit or coherence with the existing overall rule structure, rather than seeking to determine the best rule in isolation, which could disrupt the smooth functioning of the overall rule structure and thereby undermine predictability and coordination.

Hayek (1978) argued that the classical common law was a spontaneous order system in which the doctrines and principles of the law were emergent properties of individual judges deciding individual cases. (Leoni (1991) argued that the classical Roman Law had similar spontaneous order properties). Hayek analogized the common law process to the spontaneous order of markets: just as the prices for various goods and services that emerge from the “market” are really the byproduct of millions of individual consumer decisions, he argues that the legal principles that emerged under the classical common law reflected the decentralized decisions of many litigants and judges acting independently over time. Thus, just as no single person sets the price of apples, no single person makes the body of law that comprises contract or tort law, or even the concepts that lie within them, such as consideration, negligence, or strict liability. This decentralized process of law-making has two key elements that support a general preference for the common law over centralized legislative rule-making or the quasi-legislative rulemaking of a Posnerian judge seeking to maximize social efficiency. First, it draws on the local and decentralized knowledge of many judges and litigants resolving many cases in concrete factual disputes that arise from particular conflicts, rather than a judge essentially articulating a rule for the economy. Second, because rules emerge from the interaction of many judges not just one there is no central decision-maker for interested parties to capture which reduces the opportunity and incentive for rent-seeking litigation. This combination of the benefits of decentralization and the use of local knowledge and insulation from rent-seeking litigation was reinforced by the common law’s traditional reliance on custom as a source of legal principles, which manifests these

characteristics in an even more robust manner than the traditional common law itself. (Zywicki 2003; Pritchard & Zywicki 1999; Parisi 1995).

Working within this tradition, O'Driscoll (1980), Rizzo (1980b), Aranson (1992), and Zywicki and Sanders (2008) focus on the challenges that a Posnerian judge would confront in seeking to even identify, much less to implement, economically efficient legal rules. To consciously determine the efficient legal rule or allocation of rights in any given case presents challenges very similar to that of a Soviet-style economic central planner, a feat that was shown to be impossible during the so-called Socialist calculation debate of the 1920s. Given the inherent limitations of the litigation process on the ability of judges to acquire and assess the information necessary to determine the efficiency properties of any particular rule, and limits on their ability to acquire feedback necessary to fine-tune their rules, judges will have even greater difficulty in engaging economic planning than a central planning board.. Hadfield (1992) makes a similar but more narrowly-focused argument, that even if judges sought to improve the operation of the law through conscious effort, they would be unable to do so coherently because the cases that come to trial are a small and non-random sample of all of the interactions in society and the economy that are governed by legal rules. In order to assess the full efficiency implications of any decision, however, judges must possess information about all of the non-litigant parties who are affected by the decision but are not before the court. It is far from obvious how judges could possibly obtain the necessary information to conduct this inquiry. Given this radical ignorance, judges cannot have any reasonable expectation that they will improve the efficiency of the law.

An important difference between Austrian and neoclassical theories of efficiency in the common law is that of the nature of law and legal rules. An ideal Posnerian judge presumably would seek to ascertain the efficient rules and allocation of rights at any given time, using an explicit or implicit cost-benefit analysis of the marginal impacts of alternative rules. As optimal rules governing behavior and use changed, judges presumably would be encouraged to reallocate rights and responsibilities to reflect this new reality. This model implicitly assumes that at any given time the rest of the world is in equilibrium, enabling judges to estimate with confidence the costs and benefits of different allocations of rights and to reallocate those rights when necessary. Legal rules operate within and fine-tune this system of equilibrium relationships.

In the Austrian theory, by contrast, the world is in a state of constant disequilibrium as billions of consumers around the world seek to constantly adjust to millions of constant and simultaneous interactions that disrupt relationships and produce conflict among individuals. (Zywicki & Sanders 2008). Equilibrium, Hayek (1981) argues, cannot describe the world in the abstract, but is rather a relationship that describes the ability of individuals to mesh their particular plans at any given time and to form expectations about how parties will perform in the future. In this view, the primary purpose of the law is not to try to impose rules that promote overall efficiency, but instead to provide a stable institutional framework that will enable individuals to plan and coordinate their affairs in a world of constant “flux.” (Rizzo 1980a; Rizzo 1987). Economic efficiency arises as a byproduct of enabling individuals to plan and coordinate their affairs, not by direct design. In this vision of the relationship between law and economics, there is a primacy on the legal system providing a set of clear, stable rules

that enable people to predict one another's behavior, rather than on judicial tinkering and fine-tuning fine points of law, which might not only be impossible (because of the knowledge problem of central planning) but undesirable and welfare-reducing if such tinkering makes it more difficult for parties to predict the law and conform their behavior to it. As Hayek (1978), Epstein (1980), and Zywicki (1998) observe, clear and stable rules creates boundaries for property rights and other legal obligations enable individuals to use their local knowledge and to adapt their behavior to the ever-changing world that surrounds them. Adding a constantly-changing legal system—even one animated by a search for more efficient rules—to this chaotic world could create uncertainty and undermine the ability of individuals to coordinate their plans in the face of constant need for adaptation. For example, once these larger concerns of clarity and stability are considered, strict liability might be more conducive to social coordination and wealth production than a more fine-tuned but complex rule such as negligence, or equitable remedies such as injunctions or specific performance might be more predictable and clear than damages.

A final challenge for a Posnerian judge is dealing with the presence of subjective value. Posner justifies wealth-maximization as a desirable normative value as being a proxy for ethical utilitarianism, and one that is arguably more workable in practice than utilitarianism. But wealth maximization is an imperfect proxy at best, and the divergence between the two yardsticks widens if subjective value is taken seriously. Some economists argue that the only reliable evidence of whether an exchange is efficient is the voluntary consent of the parties to the transaction, and the only conceptually permissible framework for assessing social efficiency is Pareto optimality in which all exchanges are

carried out. (Buchanan 1969; Buchanan 1981; Buchanan 1959; Buchanan 1987; Buchanan 1982).

The wealth maximization framework relies on Kaldor-Hicks efficiency which relies on hypothetical compensation rather than actual agreed-upon compensation as the yardstick for efficiency. If subjective value is important, however, then judges may have no idea how much people value outcomes, so this conceptual move from Pareto optimality to Kaldor-Hicks efficiency is not defensible. (Stringham & White 2004; Stringham 2001; Zywicki 1996). Indeed, attempting to measure net willingness to pay at most only makes sense with a given legal system and allocation of rights, and that if one changes a legal system one changes net willingness to pay associated with different outcomes. As Skitovsky (1951) and others (Rizzo 1980b) have pointed out, as one changes the distribution of property rights the economically “efficient” outcome can change leading to a non-commensurability of different regimes, even within the same system under two hypothetically different property right allocations. In addition, the assumption that one can assume away the relevance of wealth effects is untenable to the extent that wealth distributions change individual budget constraints (and hence the willingness to pay) and because of the diminishing marginal utility of wealth. (Rizzo 1980b).

Instead, in order to promote economic efficiency it arguably follows that the role of the judges and the law should be to establish a clear, predictable legal framework that encourages consensual exchanges with a minimum of judicial intervention beyond enforcing consensual contracts. (Aranson 1990). Acknowledging the presence of subjective value suggests that where possible the law should seek to promote voluntary

market-based exchanges, such as by the use of property rules versus liability rules in many situations or a broader use of injunctive remedies that promote subsequent bargaining rather than damages as remedies. DeAlessi and Staaf (1991) argue that not only does the presence of subjective cost makes determining Kaldor-Hicks efficiency infeasible with any degree of confidence but it also creates a conflict with Arrow's (1963) General Possibility Theorem by implicitly assuming that all actors in society share the same preference ordering as the litigants before the court or even the average litigant. Following Buchanan (1954) they argue instead that the virtue of the common law is not in its promotion of Kaldor-Hicks efficiency, but rather that it provides parties with a stable institutional framework of default rules and then parties to voluntarily contract around those rules, thereby respecting subjective cost by promoting unanimity and Arrovian values. With respect to non-consensual transactions such as torts, where consensual transactions are not always present, Zywicki (1996) suggests that the protection of subjective value might be furthered by reliance on juries applying their intuitions about the degree of subjective value present in any given case. Inherently, however, non-consensual interactions present challenges for any economic theory of law that seeks to take subjective cost seriously.

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Spontaneous order and the common law: Gordon Tullock's critique

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Abstract Gordon Tullock critiques two specific aspects of the common law system: the adversary system of dispute resolution and the common law process of rulemaking, contrasting them with the inquisitorial system and the civil law systems respectively. Tullock's general critique is straightforward: litigation under the common law system is plagued by the same rent-seeking and rent-dissipation dynamics that Tullock famously ascribed to the process of legislative rent-seeking. The article concludes that Tullock's critique of the adversary system appears to be stronger on both theoretical and empirical grounds than his critique of the common law system of rulemaking.

Keywords Tullock · Posner · Law & economics · Economics of judicial procedures · Adversary system · Inquisitorial system · Civil law · Common law · Rent-seeking · Spontaneous order

JEL Classification B31 · D72 · K10 · K12 · K13 · K41

1 Introduction

Much of the research agenda of the modern law and economics movement has been predicated on the belief in the economic “efficiency” of the common law and positive explanations for it. Although there are important differences in the thinking of leading enthusiasts for the common law, they share a fundamental underlying assumption that in the most important respects the common law evolves according to an “invisible hand” process and that individual, self-interested action generally tends toward the creation of an efficient legal regime (Zywicki and Sanders 2008). The standard law and economics model argues that although the common law and its related processes (such as the adversary process of litigation) are shaped by decentralized, non-centrally planned individual actions, the outcome

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of these decentralized actions is superior to what would be the result were the legal process more centrally planned. Even those such as Posner who would vest more authority and discretion in judges to make the law than thinkers such as Hayek, still believe that the common law fundamentally is a socially-beneficent spontaneous order process. Gordon Tullock has dissented from this dominant view.¹

Tullock doubts that the uncoordinated actions of individual judges, juries, and litigants will be conducive to the generation of an efficient legal system. Rather, he predicts that the decentralized process of the common law system is prone to socially suboptimal outcomes—at least as the common law system operates today. Tullock believes that the common law and adversary process create incentives for individuals to act in zero-sum and negative-sum manners that will tend to the generation of suboptimal social outcomes, relative to other legal systems. Tullock expresses enthusiasm for the civil law and inquisitorial systems of law-making and dispute resolution instead. The common law system tends to the production of a malign, not beneficent spontaneous order, Tullock argues, and although the civil law system has its own problems, he insists that it is superior to the common law.

Tullock's critique of the common law focuses on two points: first, the adversary system as a system for dispute resolution and second the common law as system for making legal rules. The remainder of this article is as follows. Section 2 sets out a conceptual framework for thinking about legal process and legal evolution as spontaneously ordered systems. Section 3 examines Tullock's critique of the adversary system of litigation as a process for resolving individual disputes and the comparison to the inquisitorial system. Section 4 examines Tullock's critique of the common law as a social rule-making system and his comparison to the civil law system. Section 5 concludes.

2 Spontaneous order and the common law

2.1 Beneficent versus malign spontaneous orders

A spontaneous order is an order among persons that emerges from self-motivated individual actions that combine into a larger concatenation of coordinated activity, without any central directing authority. Although produced from the purposive activities of individuals, the overall order itself is not the product of any particular person or persons' contrivance (Barry 1982). It is thus often said, following the Scottish Enlightenment's Adam Ferguson, that a spontaneous order is one that is "the product of human action but not human design." Although the individuals that comprise the order follow individual purposive plans, the overall order itself has no specific direction or "purpose," but rather is a purpose-independent forum through which individuals pursue and coordinate their diverse plans. A spontaneous order can thus be distinguished from a "designed" or "constructed" order, which reflects an effort by an individual or group of individuals to design an institution for a particular purpose.

Examples of spontaneous orders abound: language, money, traditions, "the market." A famous and often-cited example of spontaneous order is the common law (Hayek 1972; see

¹This article focuses primarily on Tullock's critique of the common law broadly identified, rather than his extensive and important contributions in other areas of law and economics. This focus is not intended to slight Tullock's important contributions to many doctrinal areas of law, such as criminal law and civil procedure, as well as a far-reaching and influential critique of the use of citizen juries to resolve disputes. Instead, the focus is intended to get at the underlying root of Tullock's critique of the common law, what amounts to a critique to the notion that the common law and the adversary process that is associated with the common law can be understood as a beneficent example of spontaneous order.

also Polanyi 1997). Statutory law, such as the Napoleonic Code, is designed by its authors (the members of the legislature) according to a conscious plan to accomplish particular goals. Statutory law is abstract and prospective in nature, an intentional effort to design generally applicable rules that can be applied deductively to particular cases that arise. The classical common law, by contrast, results from many judges resolving particular disputes involving particular individuals in concrete fact situations, from which emerge abstract and generalizable legal concepts as the byproduct.

Spontaneous orders are often socially beneficent, such as the division of labor or a Hayekian division of knowledge. Spontaneous orders may be more flexible and robust than designed orders, especially if the order and the rules that govern it are the product of a decentralized evolutionary process that allows for decentralized testing and improvement at the margins over time (Pritchard and Zywicki 1999). The mere existence of a spontaneous order, however, does not necessarily imply its social optimality. In particular, a spontaneous order may represent an order that is optimal from a local perspective but not a global perspective. Thus, for instance, the system of Roman numerals presumably emerged as spontaneous order; nonetheless, it was less efficient than Arabic numbers in terms of performing complicated mathematical or financial calculations. An arms' race is a spontaneous order, in that the order arises from the uncoordinated activities of the participants into a stable order, yet given the social waste of duplicative arms' expenditures it would be welfare-enhancing if the spontaneous order could be replaced by a designed order that eliminated the arms' race, *ceteris paribus*. Prisoner's dilemma games similarly result in a form of spontaneous order, in the sense that the parties activities are coordinated and predictable but yet suboptimal, and outcomes could theoretically be improved by replacing the uncoordinated actions of the participants with an overarching designed order.

Two types of spontaneous orders are thus conceptually possible—beneficent or malign spontaneous orders. A beneficent spontaneous order is one that tends to produce a globally-optimal social result when compared to alternative realistic ways of organizing that element of society, such as the division of labor.² A malign spontaneous order is one in which a stable order emerges, but is suboptimal when compared to an alternative system that can be realistically achieved, such as an equilibrium solution to a prisoner's dilemma game. The test of the value of a spontaneous order, therefore, is whether it conduces to the production of results that are more socially-beneficial than perfectly-constructed arrangements.

To illustrate the point, consider the distinction drawn by James Buchanan in comparing the process of "profit-seeking" in the market versus "rent-seeking" in politics (Buchanan 1980). Regardless of the forum, whether private market activity or political activity, individuals will be engaged in the relentless pursuit of economic "rents," i.e., "that part of the payment to an owner of resources over and above that which those resources could command in any alternative use" or "receipt in excess of opportunity cost." As Buchanan observes, "So long as owners of resources prefer more to less, they are likely to be engaged in rent seeking, which is simply another word for profit seeking." In the private market, the individual pursuit of economic rents (profits) by self-interested individuals produces "results beneficial to all members of the community." Notably, Buchanan invokes the conceptual structure of spontaneous order in explaining how this result comes about, "In an idealized model of market order, profit seeking as an activity produces consequences neither predicted nor understood by any single participant, but 'good' when evaluated as a characteristic of the order

²It is important to stress that the alternative orders must be *realistic*, in the sense that they are achievable in practice, not just a comparison to an ideal alternative.

itself” (Buchanan 1980, p. 4). The relentless search by *individual* entrepreneurs to earn economic profits results in economic growth and development at the *social* level but only as an unintended by-product of individual self-interested actions. The attainment of short-term economic rents generates entry by competitors that dissipates those profits. Thus, in the institutional structure of the market, the uncoordinated, self-interested actions of individual actors aggregate into a benevolent spontaneous order that benefits all involved. Buchanan refers to the socially beneficent spontaneous order of the market as “profit seeking.”

Under different sets of institutional rules, however, the “unintended results of individual efforts at maximizing opportunities may be ‘bad’ rather than ‘good.’” Under these institutional settings, individual efforts to maximize value generate social waste rather than social surplus. For instance, rather than securing economic rents through making a new or better product, one can instead secure a protective tariff or anti-competitive economic regulation. In a competitive political market to secure laws and regulations that benefit oneself and hamper competitors, “entrepreneurs” will expend real resources simply to gain a political advantage, with no beneficial unintended consequences to consumers or society (Tullock 1967). The uncoordinated rent-seeking activity of political “entrepreneurs” results in negative unintended consequences to society, as in equilibrium rent-seekers will dissipate all of the economic rents potentially available from investments in redistributive activity. A spontaneous order of full competition for government favors and dissipation of economic rents results, but the end result of this competition is the net generation of social waste rather than increasing social welfare. Human nature and individual self-interested behavior is identical in both cases; the differing outcomes result from the institutional rules that provide incentives for the individuals and shape the interactions between them.

2.2 Tullock’s critique of the common law

This brings us to Gordon Tullock’s critique of the common law. The common law, as noted, typically is extolled as an example of a beneficent spontaneous order. There are two distinguishing features of the Anglo-American common law system. First, disputes are resolved through the adversary system, where each party hires his own lawyer to discover facts and present his partisan view of the case, with respect to both the law and the facts. This approach can be distinguished from the inquisitorial system that prevails throughout continental Europe, where most fact-finding activity is conducted centrally by the judge as a purportedly unbiased expert. Second, the substantive rules and principles of the common law emerge inductively out of these individual cases (which are decided by the adversary system), rather than being part of a legislative process that produces a comprehensive set of rules.

Tullock’s critique of the common law is straightforward—in contrast to Hayek, Tullock argues that the common law system (at least as it exists today) is a suboptimal spontaneous order. He models the behavior of competing litigants in the adversary system as essentially rent-seeking parties pleading for favors from the judicial decision-maker. There is little reason to believe, he argues, that this clash of self-interested parties under these institutional constraints will be likely to result in socially beneficial results, as opposed to mere rent-dissipation with random results. Similarly, the development of the common law itself is unlikely to lead to efficient results, but instead should reflect the same sorts of rent-seeking pressures as legislative decision-making. As a result, the common law should be no more efficient as a macroeconomic system than the civil law.

3 Tullock's critique of the adversary system³

Consider first the economic question of the most effective means for the resolution of discrete disputes between private parties. From an economic perspective, the optimal procedural regime for resolving disputes arises from the interaction of two offsetting cost functions, with the optimal regime being that which minimizes these joint costs. The first cost relates to the accuracy of the outcome of the case in imposing liability—more accurate results are to be preferred to less accurate results *ceteris paribus*. Second, less-expensive systems of dispute resolution are to be preferred to more expensive systems *ceteris paribus*. The costs of inaccuracy can be referred to as *error costs* and the costs of dispute resolution can be referred to as the *administrative costs* of the system. The optimal system of dispute resolution, therefore, is that which minimizes the *joint* error and administrative costs of the system (Posner 1973; Zywicki 2007a). Consider each of these elements.

3.1 Error costs and administrative costs

3.1.1 Error costs and accuracy

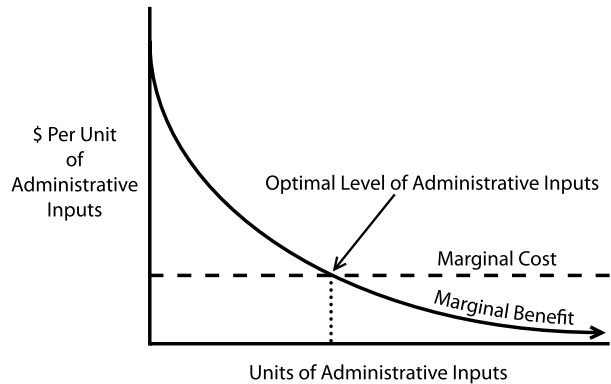
First, an efficient dispute-resolution scheme should seek to minimize error costs, *ceteris paribus*. From a social perspective, legal rules provide incentives or “prices” informing citizens on how to behave, and more accurate case decisions send clearer signals to individuals. From an individual perspective, the promise of more accurate case resolutions *ex post* will tend to reduce the costs to parties of contracting *ex ante* by permitting them to rely on third party adjudicators to resolve disputes that arise (such as under a contract), thereby relieving them the costs of alternative mechanisms for accomplishing their goals, such as informal means of reputation, repeat-dealings, self-enforcement (such as bonding, collateral, or the use of hostages), and vertical integration (Zywicki 2006). By reducing the costs of contracting, the promise of more accurate *ex post* resolution of disputes reduces the transaction costs of contracting and thereby increases the gains to trade between the parties.

There are two types of errors that can affect the accuracy of a given dispute-resolution system, false positives and false negatives. A false positive occurs when liability is erroneously imposed by the Court; a false negative occurs when the Court erroneously fails to impose liability, such as where the defendant had a legal duty to undertake some action which had a social benefit, and the court erroneously fails to compel him to do so. It will be assumed for purposes of the analysis here that the costs of false positives and false negatives are symmetrical.⁴ Total error cost is the sum of all false positives and false negatives produced by the system.

³The discussion in this section is based on Tullock (2005a).

⁴This is likely an accurate assumption for civil litigation. For criminal law enforcement, American society seems to have reached a working (but perhaps unreflected) consensus that the costs of a false positive that results in wrongful imprisonment is greater in magnitude than a false negative (erroneous acquittal), as reflected in the ancient aphorism that “it is better that n guilty men go free than one innocent man be wrongly convicted.” The exact “exchange rate” between false positives and negatives has been expressed differently over time by different theorists. See Volokh (1997). If this is the case, and it seems to be a normative question of how heavily to weigh the costs of wrongful convictions versus wrongful acquittals, then it indicates that in the criminal system the costs of false positives and false negatives is not symmetrical. On the other hand, it could be plausibly argued that in some situations the exchange rate runs in the opposite direction. If, for instance, criminal punishment deters multiple crimes against innocent victims, then punishment of some innocent defendants could theoretically reduce the total social cost of criminal activity, so long as the system was still *perceived* as being accurate.

Fig. 1 Optimal level of administrative inputs for dispute resolution



3.1.2 Administrative costs

The costs of investigating and trying cases can be defined as *administrative costs*. In theory, accuracy can be increased at the margin by increasing resource investment in truth-finding. In investigating a murder, for instance, if the police allocated 25 detectives to the case rather than 1, presumably it would increase the likelihood of accurately resolving the case. The constraint, of course, is the opportunity cost of allocating 25 detectives to trying to solve a single crime when from a social perspective it may be more socially-optimal to allocate at least some of their efforts to investigating other cases. Similarly, it would be possible to require an extensive investigation and trial for every speeding ticket, yet these citations are resolved in a summary, and often non-judicial, manner. As a result, the incidence of errors, both false negatives and false positives, is likely to be higher for speeding tickets than for other more serious crimes. Nonetheless, the limited severity of the punishment imposed implies that additional administrative resources dedicated to truth-finding are not justified for speeding tickets.

Given this apparent tradeoff between error and administrative costs, it thus becomes possible to describe a joint cost-minimization model of the litigation system, with the objective being to minimize the joint sum of error and administrative costs. Marginal investments of administrative inputs will generate decreasing marginal returns in terms of improved accuracy as illustrated in Fig. 1, the optimal level of administrative inputs will be that point where further expenditures on administrative costs exceed the improved accuracy.

In this model, the efficient level of resource investment (administrative costs) is determined by the diminishing marginal returns in terms of error costs. It is thus efficient to invest additional resources up to the point at which that investment substantially reduces error costs, but not beyond.

3.2 Tullock's critique of the adversary system

This analytical framework enables us to better understand Tullock's double-barreled attack on the adversary system as a device for dispute resolution. Tullock argues that when compared to the inquisitorial model of dispute-resolution, the adversary system is both *less accurate* and *more expensive* than the inquisitorial model. In other words, the adversary system is inferior under both measures of dispute resolution and thus inferior overall. Consider each of his arguments in turn.

Tullock argues that error costs will be higher under the adversary system than under an inquisitorial system. Indeed, Tullock's critique is even more fundamental. He suggests that in the adversary system there is no fundamental tradeoff between error costs and administrative costs. This is because in the adversary system only the deserving party in the case is investing resources for the "truth" to come out. The adversary system "places little or no value on searching for the truth. It is a combat system in which winning is the sole objective" (Tullock 2005b). The investments of the undeserving party are made simply to obscure the truth from the finder of fact. He thus concludes, as an *a priori* matter that the inquisitorial system is inherently more accurate than the adversary system. His critique goes to fundamental heart of the adversary system, yet is so exceedingly straightforward and simple that it can be stated in one basic paragraph:

In the adversary proceedings, a great deal of the resources are put in by someone who is attempting to mislead. Assume, for example, that in the average American court case, 45 percent of the total resources are invested by each side and 10 percent by the government in providing the actual decision-making apparatus. This would mean that 55 percent of the resources used in the court are aimed at achieving the correct result, and 45 percent at reaching an incorrect result. Under the inquisitorial system, assume that 90 percent of the resources are put up by the government which hires a competent board of judges (who then carry on an essentially independent investigation) and only 5 percent by each of the parties. Under these circumstances, 95 percent of the resources are contributed by people who are tempting to reach the correct conclusion, and only 5 percent by the saboteur. Normally we would anticipate a higher degree of accuracy with the second type than with the first⁵ (Tullock 2005c).

It follows from Tullock's argument that increasing marginal expenditures on administrative costs in the context of the adversary system is not likely to increase the accuracy of the system, but instead will decrease accuracy (Tullock 2005b). Tullock specifically analogizes litigation under the adversary system to interest groups engaging in rent-seeking activity to secure favorable legislation, with the same negative social consequences. These costs include not only the direct costs to the parties, but all other costs of litigation, from the maintenance of the court systems (including courthouse buildings and judicial and other public salaries), the misallocated human capital investments of litigation lawyers who rather than engaging in efforts to redistribute wealth through litigation could otherwise be engaging in socially productive activities (such as writing contracts or even "selling vacuums"), and finally the opportunity costs of all of the largely involuntary participants in the system, such as witnesses, jurors, and the parties themselves.

Tullock charges that litigation under the adversary system is fundamentally a random process with little claim to producing reliably accurate outcomes. The results in any given case will be the result of the investments of the parties in lawyers, expert witnesses, and other litigation expenses, rather than the intrinsic truth of the matter. Moreover, knowing this, the parties will invest in litigation as if it were an arms-race, with each party being willing to invest to try to gain a relative advantage over their rival. Each dollar invested in litigation expenses simultaneously increases that party's chance of winning and reduces the

⁵Elsewhere he similarly posits, "I should explain that I believe that European courts are less prone to error than American courts, but this is more a matter of feeling that their procedure is more likely to reach the truth than a decision based on actual statistical knowledge." He adds, "I think [European courts] are more likely to be correct than American courts, but this is not an estimate based on real data." A similar discussion of the matter appears elsewhere in his work. See Tullock (2004).

chance of the other (Tullock 2005d). Thus, as with an arms-race, the cost incurred by each party is incurred primarily to impose costs on the other party, and these investments simply cancel each other out. He says, “[T]he benefit to my case and the injury to the other case are identical. In other words, there is an externality falling on my opponent of exactly the same size as the benefit I receive”⁶ (Tullock 2005c, p. 354).

The process is thus essentially a rent-seeking process with an unpredictable outcome—parties invest in litigation, but doing so does not increase the accuracy of the system, because the investments should offset each other on a one to one basis. Thus, there is no benefit to the parties themselves from the investments, but nonetheless, these resources are squandered from a social perspective. “As in rent-seeking,” Tullock writes, “the party which wins makes a net profit from the activity, but from the social standpoint this is more than offset by a cost inflicted on other people. This is the similarity between the legal process and lobbying” (Tullock 2005d, p. 187). Tullock predicts that in equilibrium all surplus should be dissipated by the parties in the course of litigation. To the extent that there is some prospect of genuine social product, such as compensation to an injured party, Tullock charges that this “social product itself tends to be lost in a sea of social waste” (Tullock 2005b, p. 423).

Tullock explicitly rejects the notion that the common law is a beneficent spontaneous order, and argues instead that it is a malign spontaneous order because decentralized self-interested behavior by litigants depresses overall social welfare. The spontaneous order produced by the adversary system, therefore, is a spontaneous order in the same way that the “tragedy of the commons” is a spontaneous order—individual self-interest results in an order of sorts, but it is an order that is suboptimal from a social perspective. Or the way in which legislative rent-seeking is a spontaneous order, but similarly an order that is suboptimal from a social perspective given the undefined property rights that generates the rent-seeking scramble. Tullock’s conclusion is worth considering in full:

In his zeal to liken the common law system to a private market, Posner oversteps the mark. The common law system is not a private marketplace. It is a socialistic bureaucracy in which attorneys essentially lobby government officials—judges and juries—much in the same way that special interest groups lobby the legislature. The greater the rents at stake in an action, the more lavish will be the outlay of resources on attorney-lobbyists and on expert witness-lobbyists whose prime goal is to tilt the judgment of the judge-jury regulators in favor of their client. In some cases, attorneys will engage in judge-shopping to secure a compliant judge and in jury manipulation to secure a compliant jury. The distinction between the common law courthouse and the legislature is far less than Posner is willing to admit (Tullock 2005b, p. 450).

He adds:

[T]he invisible hand of the market does not have its counterpart in the disinterest of the judge. Rather, its counterpart is the visible boot of the politically active judge and

⁶He notes that the problem is exacerbated under the so-called “American Rule” for legal fees and expenses where each party pays his own attorney, as compared the English “loser pays” rule. In the American system, the ability of each party to externalize costs on the other party raises the total expenses of litigation. In addition to direct costs, litigants can impose indirect costs on each other as well. For instance, a plaintiff can depose as witnesses senior officials of a defendant corporation, detaining them for hours under questioning (not counting preparation for the deposition itself), yet need not pay for the opportunity cost of the deponents’ time. Nor are the parties likely to care about the burden that they impose on those who are not their clients, such as third-party witnesses, or the total social cost of their case, such as the cost to taxpayers from use of the court system and undercompensated quasi-conscripted jurors. Those costs are all externalized by both parties to the litigation.

the bony knees and elbows of the semi-blindfolded, intellectually lame jury. Competition between the parties does not convey information efficiently to the courtroom, because laws of evidence are designed deliberately to obfuscate the process. In consequence, the American legal system at best is extremely capricious, and at worst is a random lottery. It would be much more cost effective, in such circumstance, to decide outcomes by flipping a coin or by rolling a die rather than by indulging in the high-cost farce of the typical jury trial⁷ (Tullock 2005b, p. 451).

Tullock thus expressly rejects the notion that the adversary system aggregates decentralized individual actions into a benevolent spontaneous order. Rather, it is more analogous to a rent-seeking or arms'-race scenario, where many of the expenses made by one side have the effect of simply imposing costs on the other side of the dispute. Tullock posits that the end result should be the dissipation of the entire social product of the litigation in attorneys' fees and other direct and indirect costs. Moreover, because these heightened costs simply cancel out each other, they do nothing to improve the accuracy of the outcome.

3.3 The inquisitorial system compared

Tullock argues that the inquisitorial system will be both a more accurate and less expensive means of dispute resolution than the adversary system. In the inquisitorial system, the overwhelming majority of work is performed by the judge, rather than the parties. Tullock argues that this will have a salutary effect on both accuracy and administrative costs. The overwhelming number of resources in the inquisitorial system are directed toward pursuing the truth of the matter, rather than its concealment. Unlike the litigants in the adversary system, the judge has no reason to pursue facts or theories that are misleading or conceal the truth, or to try to divert the fact-finder's attention toward irrelevant or misleading facts. As a result, Tullock argues that as an *a priori* matter the judge in an inquisitorial system will almost certainly converge on the truth more easily, predictably, and at lower cost than the fact-finder under the adversary system.⁸

The judge-centered inquisitorial system has an incentive to prevent the excessive spending and rent-dissipation associated with the adversary system. Under the adversary system, the parties have the incentive and opportunity to externalize many of their costs on each other, as well as on the public at large. In the inquisitorial system, by contrast, the judge internalizes those costs, and thus has an incentive to incur additional administrative costs only so long as the value of increased expenditures increase the expected accuracy of the final result.⁹ Overall, Tullock concludes that the social costs under an inquisitorial system are likely to be both much lower and more likely to be set at a socially-efficient level than under the adversary system.

⁷See also Parisi (2002) (criticizing analogy between market competition and common law).

⁸Tullock also argues that accuracy is likely to be higher in inquisitorial systems because of the absence of rules of evidence that exclude potentially relevant and probative facts from the fact-finder in Anglo-Saxon countries. The justification for excluding evidence thought to be irrelevant, misleading, or unfairly prejudicial is justified as necessary to prevent jurors from being confused or distracted. Tullock notes, for instance, that hearsay evidence is generally excluded in the Anglo-Saxon countries, but is admissible (although discounted in importance) in the inquisitorial system. Although these rules are designed primarily to constrain juries from misusing the evidence, Tullock observes that for some reason they are also applied when the judge sits as a finder of fact. Thus, to the extent that these restrictions unduly interfere with fact-finding under the adversary system they seem counterproductive.

⁹For instance, the judge has an incentive to call only those witnesses who are relevant to the case and to keep them and question them only so long as necessary to improve the accuracy of the judge's decision.

Given the obvious superiority (to him) of the inquisitorial system, Tullock professes puzzlement that the adversary system has persevered in the Anglo-American world: “The line of reasoning is so simple that I always find it difficult to understand why the Anglo-Saxon court system has persisted” (Tullock 2005c, p. 300). He offers two explanations for the persistence of the adversary system. First, is the “inertia of established custom” and path dependency. The adversary system, Tullock argues, is a blind residuum of the ancient trial by battle, with the parties’ lawyers filling the roles previously performed by champions in battle.¹⁰ Second, is the “immensely powerful interest group favoring the preservation of the present situation in Anglo-Saxon courts,” namely lawyers. Tullock observes that the number of lawyers per capita in Anglo-Saxon countries is much higher than in countries that rely on the inquisitorial systems. A change from the adversary to the inquisitorial system would reduce the demand for lawyers, thereby reducing lawyers’ incomes as well. Moreover, given the substantial investments in industry-specific capital by lawyers, this reduction in the demand for lawyers and this dramatic reduction in their roles would eliminate much of the value of their accumulated human capital. As a result, lawyers would be likely to oppose any reform that would result in such dire financial consequences. By contrast, any public benefit from legal reform would be dispersed widely among consumers. Thus, for standard Olsonian reasons, it is doubtful that any reform is likely to come about. Tullock concludes that the perpetuation of the adversary system is explained by these two factors—path-dependency and interest group pressures—not its efficacy.

3.4 Adversary v. inquisitorial systems compared: A second look

Is it true that the Tullock has demonstrated that it can be established as a matter of *a priori* reasoning that the adversary system is both inferior and more expensive than the inquisitorial system? And that the persistence of the adversary system reflects nothing more than path-dependency and interest group pressures by lawyers?

It certainly seems evident that litigation expenditures are higher in adversary systems. It is also evident that there are more lawyers in economies with adversary-based legal systems, and probably a greater number of lawsuits as well, suggesting that higher levels of social costs are allocated to dispute resolution in those countries. Thus, there seems to be little doubt that the overall administrative costs of dispute resolution are higher in those countries with the adversary system. On this count, at least, Tullock’s reasoning seems sound.

If the administrative costs of the adversary system are higher than the inquisitorial system, then the only economic defense for the persistence of the adversary system is whether its use results in lower error costs (i.e., greater accuracy) relative to the inquisitorial system. Tullock argues that cannot be the case, and even if the adversary system produces greater accuracy for some reason, the difference is unlikely to be so large as to justify the much-higher administrative costs. But is this so?

The fundamental assumption of Tullock’s conclusion is his assumption that litigation can be best understood as a zero sum rent-seeking enterprise with one side seeking to reveal “the truth” and the other to obscure it. Thus, centralizing investigation in the hands of a judge will minimize the social waste and dissipation associated with competition between the lawyers for both sides. At best, therefore, there is no improvement in accuracy as a result of these competing investments. Indeed, he goes so far as to argue that beyond some point

¹⁰The trial by battle, of course, is a classic rent-seeking interaction, as there is no social surplus generated by resolving disputes in that manner, and each parties’ efforts are designed simply to gain a comparative advantage by injuring the other party.

greater investments in lawyers will be likely to lead to *less* accuracy. The argument for the superiority of the adversary system, however, rests on the idea that “the truth” is not merely out there to be recognized, but must be discovered.

First, experimental evidence indicates that the adversary system may be superior to the inquisitorial system in mitigating any decisionmaker biases¹¹ (Thibaut et al. 1972; Block et al. 2000). Thus, where a decisionmaker is biased, the adversary system may improve accuracy of outcomes.

Second, private parties in an adversary system will have a greater incentive to investigate and produce information in a case than would a judge in an inquisitorial system.¹² In the inquisitorial system, judges essentially have a monopoly on evidence production. Judges in an inquisitorial system internalize the administrative costs of searching for greater accuracy, but can externalize error costs on parties and society unless the judge suffers some independent private cost from inaccuracy, such as reversal and some sanction derived therefrom.¹³ Moreover, an inquisitorial judge’s budget for evidence gathering is set exogenously and somewhat arbitrarily by the taxpayers, in terms of money, time, and support staff available for investigation. This divergence between private and social costs may lead judges in an inquisitorial system to exert suboptimal levels of effort.

The adversary method of litigation, by contrast, is essentially a competitive model of evidence production. The budget for evidence gathering is endogenous to the case and is established by the parties. Thus, if both parties are wealthy, ample resources will be available for evidence gathering and production of arguments on each side of the case. But if one or both sides lack resources, then it seems probable that the adversary system will produce results inferior to the inquisitorial system. In the adversary system, lawyers for the parties have strong incentives to pursue and uncover all evidence relevant to their respective cases. Over the long run, trial lawyers’ compensation is based largely on the basis of their success at trial, thus they have strong incentives to develop evidence favorable to their client and to find flaws in their opponent’s case. The lawyers thus internalize the costs of their errors (and triumphs) through the impact on their market reputations.

Contrary to Tullock’s assumption, therefore, the relative accuracy of the two systems cannot be resolved as an *a priori* matter. Instead, their relative accuracy depends critically on the type of information in question, e.g., how difficult it is to uncover, the degree of asymmetry between the parties in the amount of relevant information that they hold, and the degree to which one party has some sense of the information possessed by the other party (Block et al. 2000; Block and Parker 2004). Experimental research suggests that lawyers in an adversarial system may work harder and will produce more information than judges in an inquisitorial system. Inquisitorial judges will tend to stop searching for evidence once they believe that they have all of the information that they need to decide the case. The adversary system is particularly effective at uncovering difficult to discover or private information, relative to the inquisitorial system (see Lind et al. 1973). Except in the situation of difficult to

¹¹ Moreover, although Tullock ridicules juries for being amateurs at fact-finding in litigation, their inexperience may also allow them to bring a “fresh” and relatively unbiased perspective to a case. On the other hand, jurors may also bring their own distorting biases to the case. For instance, there is widespread concern that jurors may exhibit a hostility to “deep pocket” corporations or to out-of-state parties relative to local parties.

¹² The standard law and economics model comparing the two systems is described in Posner (2003, §22.2, pp. 613–615).

¹³ The personal cost of reversal, however, appear to be small and do not seem to interfere with a particular judge’s likelihood of promotion. See Higgins and Rubin (1980). Of course, internal motivations of wanting to properly do justice or avoiding the possible embarrassment of being reversed matter as well.

discover facts, however, there seems to be no systematic tendency for the adversary system to produce “more” information than the inquisitorial system. As a corollary, given a weak or lopsided case, lawyers in an adversary system are likely to work harder than judges in an inquisitorial system.

These findings, however, are not necessarily incompatible with Tullock’s argument. Uncovering “more facts” may be irrelevant if those facts would not change the results in the case—i.e., if the key facts would be discovered under either scheme, and the new facts would simply be inframarginal, or if those facts simply confirm earlier-discovered evidence (Froeb and Kobayashi 2001). If the additional facts do not change the outcome, then the marginal cost of increased administrative costs expended on the investigation will exceed the marginal benefit returned. In most cases, moreover, the most important evidence or most important legal arguments probably will emerge early on in the investigation, regardless of whether a judge or lawyer is conducting the investigation; thus it is likely that subsequent investments will tend to result in diminishing marginal returns to search. Moreover, in any given case it cannot be known for certain *ex ante* whether further investigation will return a net benefit. Thus, any analysis of social welfare should be at the level of creating a rule for determining when further investigation is permissible. As a result, it is not obvious that the collection of “more” information will necessarily result in the collection of the “optimal” amount of information. Similarly, if lawyers with a “weak” case expended greater resources or work harder, then this too may be social waste if the case was weak because of its lack of merits and if the evidence simply makes the case less weak but still nonetheless a clear loser.¹⁴

Contrary to Tullock’s assumption, the increased administrative costs of the adversary system are not necessarily purely rent-seeking expenditures, but may contribute to increased accuracy in some cases by discovering useful evidence that would not be produced in an inquisitorial system and which may be relevant at the margin to the accurate resolution of the case. On the other hand, Tullock is surely correct that many of the increased costs of the adversary system are little more than rent-seeking costs imposed by one party on the other to try to obstruct discovery of evidence or to distract or mislead the fact-finder.

But given that administrative costs probably are higher under the adversary system, the burden of proof should rest on proponents of the adversary system to prove that those increased administrative costs are justified by reduced error costs.

4 Common law versus civil law

Tullock also critiques the common law as a system of legal rule-making when compared to the civil law. At its most simplistic, the common law is a system of judge-made law where legal principles are articulated as a by-product of deciding concrete factual disputes between private litigants. Abstract legal principles thus emerge inductively out of the process of judges deciding many cases that pose similar repeated legal questions (e.g., “Was the driver negligent?”) under different fact situations. Common law also is fundamentally retrospective in nature, as the legal principle is articulated and applied to the interaction that

¹⁴This tendency toward excessive expenditures may be ameliorated by certain rules of the adversary system that seek to minimize rent-seeking behavior. For example, private litigants in the adversary system may be prone to overinvestment in collecting personally embarrassing information on their adversary solely to improperly prejudice the fact-finder rather than to increase accuracy in the case. And even if this information might make a small contribution to increased accuracy at the margin, the administrative costs of acquiring this information will likely exceed the tiny reduction in error costs brought about by its acquisition (Posner 2003, §22.6–22.7, pp. 624–626; Parker and Kobayashi 2000).

has already occurred and which the judge must now resolve. Civil law, by contrast, is law enacted by a legislature. It is generally prospective and abstract in nature, in that it attempts to anticipate and resolve general categories of cases before they arise. Systems of procedure and rule-making pose distinct questions and could be disentangled as a conceptual matter, but in practice and historical development the adversary system is generally associated with common law rule-making whereas the inquisitorial system is generally linked to civil law rule-making.

Tullock prefers civil law to common law—at least as the common law system exists today—for similar reasons to his preference for the inquisitorial system over the adversary system. Again his analysis is comparative rather than absolute—his preference for the civil law arises not from his enthusiasm for legislative rule-making but rather because of his distinct lack of enthusiasm for the common law. Given Tullock’s seminal contribution of the concept of legislative rent-seeking, it may at first seem anomalous that he would prefer legislative rule-making over the common law. On closer inspection, however, Tullock’s preference for the civil law rests on the same logic that underpins his preference for the inquisitorial versus adversary system. Tullock’s critique of the common law is not as thoroughly developed as his critique of the adversary system; nonetheless, the logic of his argument is manifest.

4.1 Tullock’s critique of the common law

Tullock’s critique of the common law as a rule-making system is most systematically laid out in his monograph *The Case Against the Common Law* (Tullock 2005b). Tullock argues that although the common law was once a superior form of law making, that advantage has been eroded over time due to special interest pressures on the common law legal system. Tullock begins his discussion of the common law by introducing the “ideal of the common law,” as it came to flourishing during the eighteenth century. He identifies several fundamental structural characteristics of the common law of this period, such as the rule of law, judicial adherence to precedent, and the writ system, that provided the foundation for the efficiency of the common law. Tullock also adopts the conventional view in agreeing that during the classical period of the common law, the law tended toward the generation of economically efficient rules, which he attributes to three factors: the utilitarian ideological worldview of nineteenth century judges, the absence of effective tools for judges to engage in widespread wealth redistribution, and the evolutionary model of common law first described by Rubin and Priest (Rubin 1977; Priest 1977).

Tullock argues that during the twentieth century, however, both the structural characteristics and the tendency of the common law to promote economically efficient rules broke down, a widely-shared opinion.¹⁵ As a corollary to Tullock’s characterization of the adversary process as rent-seeking, Tullock views the production of the common law as a rent-seeking process as well (Tullock 2005b, pp. 411–412). “The U.S. common law system is appropriately analyzed,” he writes, “as part of the more general political marketplace, from the perspective of the interest group approach to politics.” In the interest group approach, politicians are modeled as “providing a brokering function in the political market for wealth transfers” of matching demand for wealth transfers with supply. Following Mancur Olson, Tullock contends that relatively small, homogeneous special interest groups will be more effective at demanding wealth transfers and larger, more heterogeneous groups will be the suppliers of the wealth to be transferred (Olson 1971).

¹⁵This feature of Tullock’s argument is discussed in greater detail in Zywicki (2007b).

4.2 Why Tullock prefers Napoleon

Faced with these trends, Tullock contends, “So diseased has the U.S. common law system become that even root-and-branch internal reform no longer is feasible. If individual autonomy and the rule of law are to be re-established, Wellington must now cede victory to Napoleon, and the common law must give way to the civil code” (Tullock 2005b, p. 448). A close reading of Tullock’s reasoning, however, reveals that although he has forcefully indicted the common law he has not demonstrated the superiority of the civil law. In fact, it appears that he has conflated two distinctive concepts: the question of the superiority of the adversary system versus the inquisitorial system as a system of dispute resolution on one hand and the distinct question of the relative superiority of the civil law versus common law rule-making processes on the other. Although Tullock describes the task of *The Case Against the Common Law* as comparing the civil law versus the common law his primary concern there actually is with a comparison of the adversary system versus the inquisitorial system.

Tullock’s criticisms of the evolution of the common law in recent decades seem sound and are consistent with the analysis of many other commentators. Yet, his foundational concept of rent-seeking was originated in his analysis of the legislative process, and his criticisms of the legislative process remain much more forceful than his critique of the common law (Tullock 1967). Although judge-made law has become increasingly prone to rent-seeking pressures, judges still seem less able than legislators in redistributing resources to well-organized special interests and imposing inefficient rules on society. The social cost of laws such as minimum wage, rent control, protective tariffs, earmarks, occupational licensing, farm subsidies, and similar laws and regulations, dwarf in the aggregate the wealth redistribution brought about by courts, and the flexibility and power of legislatures to redistribute wealth through taxation and mandatory legal is much more vast than for courts.

Perhaps a more plausible model is that neither courts nor legislatures are completely immune to rent-seeking pressures, but rather that they are susceptible to *different* rent-seeking pressures (Pritchard and Zywicki 1999). Legislatures will tend to be more responsive to well-organized economic interests that can convert their demand for legislation into campaign contributions and other products that assist in reelection. Courts, by contrast, may be more responsive to interest groups that share the judges’ upper-class, educated, elitist world view, such as interest groups organized around social issues and redistributionist policies.¹⁶ Beyond a certain point of resource investment, increased monetary investments in litigation (especially appellate litigation where legal rules are established) generate rapidly decreasing marginal returns—there are only so many briefs to be written or depositions to be taken. By contrast, legislators have an essentially unlimited appetite for money, suggesting that the marginal value of investment in lobbying legislatures will fall much more slowly.

Thus, as much as Tullock bemoans the evolution of the common law in recent decades, he has not demonstrated that a categorical substitution of increased legislative rule-making

¹⁶Id. This was not always the case. As Robert Bork notes, the bar and the Supreme Court during the *Lochner* era were drawn from the commercial class and were much more responsive to economic concerns, personal biases that may help to account for their receptivity to the arguments of commercial interests during that period. Lawyers and judges today, by contrast, often are drawn from the academy or the government, reflecting those biases. Moreover, in the past, lawyers entered the bar primarily through an apprenticeship with a practicing lawyer solving real-life legal dilemmas. Today, however, law schools are fully a part of the academy, and law professors and lawyers are best understood as members of the intellectual class, rather than the commercial class. These factors have tended to make today’s lawyers more responsive to elite, intellectual-class concerns than during the classical common law period. See Bork (1990).

in the civil law fashion in place of common law rule-making be an improvement. Instead, Tullock's actual agenda appears to be reform of the common law process, by replacing the adversary system with the inquisitorial system, for the reasons described earlier. If it is indeed lawyers who are driving the expansion of liability in an inefficient manner, Tullock suggests that the obvious response is to reduce the influence of lawyers in the legal system and to reduce the gains that they can capture from the legal system. The inquisitorial system, Tullock argues, does exactly that, by reducing the role of lawyers in the litigation process and enlarging that of judges. And although judges may have incentives to shirk, at least they do not have the distorting incentives of lawyers to expand liability as a means of increasing their own wealth, which is more detrimental to overall social welfare. Indeed, if anything, judges will have an incentive *not* to expand liability in order to prevent an expansion of their caseload, which would require them to work harder.

There is an internal inconsistency in Tullock's argument, however. Adopting the inquisitorial system would reduce the influence of lawyers and might thereby reduce their incentives and ability to lobby for liability-expanding rules. But at the same time, by increasing the power of judges, this seemingly would increase their discretion to impose their ideological worldviews on society and the economy. If it is true that the problems of the common law system have arisen because of the *combination* of rent-seeking lawyers and "socialist"-minded judges, as Tullock (2005b) argues, merely transferring some power from former to the latter would be unlikely to fundamentally alter the underlying trends. Moreover, increasing the power of judges would also tend to simply push back the political battles one step, placing greater importance on the political and ideological battles involving judicial appointments (Zywicki 2000). This would not necessarily reduce the influence of lawyers, but simply change the location where they exert this influence.

4.3 Precedent

Tullock also observes a change in the nature of judicial precedent over time, but on this point it is difficult to understand what he is saying. Tullock endorses the views of Italian Roman law scholar Bruno Leoni, who noted that under the Roman law, a judgment did not become a "true precedent" until it had been reached independently in separate cases by several judges, in large part because the absence of a "supreme court" meant that decisions had to be independently ratified by several courts based on their reason and persuasive authority, rather than being imposed by authority¹⁷ (Tullock 2005b, p. 444). Tullock observes that during the formative period of the English common law (until 1800), a similar view of precedent prevailed, as the "English common law itself had evolved out of a competing court system and was composed of judgments that had survived repeated scrutiny. Appeals to the House of Lords, though theoretically possible, were rare events. This implied that the common law evolved only very slowly and that changes had to survive a sequence of independent judgments before becoming established as precedent and subject to *stare decisis*." (Tullock 2005b, pp. 444–445).

In contrast to this more flexible view of precedent as based on ratification of the reasoning of opinions, elsewhere Tullock seems to urge a stricter form of *stare decisis* similar to the more modern view. Tullock, like traditional law and economics scholars, justifies *stare decisis* as being economically efficient because it increases the stability of legal rules,

¹⁷Leoni (1991) was an important early contributor to the analysis of the implications of public choice theory for law. See his lectures on "Law and Politics" appended to the Third Revised edition of *Freedom and the Law*.

thus making it easier for private parties to plan their transactions (Tullock 2005b, pp. 402). Greater predictability will also tend to reduce the amount of litigation by reducing the zone of uncertainty of legal obligations that will need to be resolved by a judge. Moreover, precedent will tend to reduce the administrative costs of courts in deciding cases as judges needn't reconsider legal rules once settled. This implies a stricter form of precedent than the classical view.

Tullock does not resolve this question of the optimal strength of precedent in his work, but it may be possible to resolve the question using Tullockian principles (Zywicki 2003, pp. 1565–1581). The standard law and economics justification for *stare decisis* focuses on the efficiency-enhancing value of strong precedent (i.e., *stare decisis*) in creating stability and preserving expectations. But this analysis is incomplete, because it ignores the incentives that strong precedent creates for private parties to invest in rent-seeking litigation.

We can model the common law process of rule-generation through litigation in the same manner in which we model the legislative process of rule-generation. In both rule-making institutions, the value of the stream of rents transferred to an interest group will be a function of two variables: the value of the rent to be transferred in each period times the number of periods over which the wealth transfers are expected to occur (the expected duration of the law). Thus, the present value of the wealth transfer to an interest group can be increased either by increasing the sum to be transferred in each period or by increasing the expected duration of the law and thus the expected number of periods over which the wealth transfers will occur. Moreover, the same Olsonian dynamics that drive the rent-seeking process with respect to legislation are likely to apply to litigation as well, as discrete, well-organized interest groups are likely to be able to organize better to try to manipulate the path of precedent better than more dispersed heterogeneous groups (Olson 1971).

Thus, although strict adherence to *stare decisis* will increase the stability of efficient precedents, it also will increase the stability of *inefficient* precedents that are the product of rent-seeking activity. Moreover, although stronger adherence to precedent will increase the costs to interest groups in capturing favorable precedents, it also will increase the value of the “prize” once captured, by increasing the expected lifespan of a precedent once created. To the extent that the dynamics of rule-creation through litigation approximate that of the legislative process by tending to favor well-organized discrete groups there will be stronger incentives on the judiciary to produce and maintain inefficient precedents that benefit small groups, rather than efficient precedents that benefit society generally. Thus, interest groups that “lobby” for rule-making through the common law process may prefer a regime where rule acquisition is more costly *ex ante* if it increases the stability of the rule (and hence the rents to be transferred over the lifespan of the rule) *ex post*, especially if those interest groups have a comparative advantage in lobbying for this rule-creation and preservation relative to other interest groups. Because there are social benefits and costs to both strict and more relaxed precedential regimes, again it is not possible to establish the single efficient rule as an *a priori* matter.

Thus, although strict *stare decisis* may seem efficient when examined in isolation, it may not be once the incentives it creates for rent-seeking are considered. Instead, the efficient rule may be a weaker form of precedent, perhaps one in which a legal rule becomes established as precedent only gradually and only after repeated agreement and approval by several independent judges considering the issue, as during the formative age of the common law. By reducing the ability to redistribute wealth through litigation, this may reduce the incentives to try to alter the path of legal precedent *ex ante*.

4.4 Macroeconomic effects of common law and civil law

Tullock's preference for civil law over common law is also susceptible to empirical evaluation. If Tullock is correct that the civil law is a better and more efficient system of rule generation than the common law, then countries that have adopted the civil law system should be wealthier than those that have adopted the common law system. Based on this criterion, Tullock's expressed preference for Napoleon is difficult to justify. Empirical studies have generally concluded that countries with common law legal systems are wealthier than those predicated on civil law systems (Mahoney 2001). The underlying causal explanation for this observed relationship remains open. Several possible mechanisms have been postulated. First, a "political" theory that points to a general preference for private ordering in the common law versus the civil law. Second, an "adaptability" theory that points to the flexibility of the common law system to respond to societal and economic changes more rapidly and sensibly than the civil law (Beck et al. 2002). A third theory argues that the rights of financial investors tend to be stronger in common law countries, leading to greater levels of investment and economic growth (Levine 1998, Laporta et al. 1997, 1998). Others have explained the relationship by pointing to differences in norms and social trust among countries, which may hold some correlation with the development of the common law system (Coffee 2001). Notwithstanding continuing efforts to isolate the mechanisms that explain the relative efficiency of the common law relative to the civil law, the overall consensus appears to clearly favor the macroeconomic efficiency of the common law system, in contrast to Tullock's preference for the civil law.

Tullock's response may be that the common law system of the *past* was indeed more efficient than the civil law, but the common law of the *present* is converging inevitably toward the civil law and adopting the civil law's tendencies toward rigidity, interest group pressures, and redistributive ideology, and that common law societies whose legal systems have degenerated to this point would do better to simply adopt the civil law system. This response, however, is necessarily somewhat speculative and less persuasive in the face of contrary empirical evidence that indicates that the common law is superior on this score. Tullock's preference for the civil law relative to the common law is difficult to understand. Thus, even if the common law's superiority over the civil law is not as overwhelming as it once was, even the degenerate modern common law system seems preferable to the civil law as a system of rule-making.

5 Conclusion

For purposes of analysis, this article has treated the common law and civil law systems as stylized "pure" forms in order to examine Gordon Tullock's critique of the common law. Subsequent research has confirmed some of his theories, others have questioned his conclusions, and still others remain open to further investigation. In particular, his preference for the inquisitorial over the adversary system seems to rest on stronger theoretical and empirical ground than his preference for civil law over common law as contrasting systems for producing legal rules.

There remains one larger question that this article has not attempted to address—what if the systems themselves are spontaneous orders subject to their own internal evolutionary processes, such that they will tend to improvement over time? In particular, Francesco Parisi (2002) notes that over time the "pure" distinction between the common law and civil law systems has eroded, as each system has come to borrow attributes from the other. Through its

system of evidentiary rules, for instance, the common law has some element of inquisitorial-style centralized control by the judge over the evidence that is introduced into the trial, and the judge has the power to decide cases on summary judgment and other devices that prohibit the parties from putting their cases before the finder of fact. In turn, Parisi reports that in civil law systems judges have come to permit the litigants greater control over many procedural choices. Similarly, civil law judges have always provided some deference to precedent, rather than a fully statutory scheme.

Thus it may be that each system itself is a spontaneous order at the system level with an internal dynamic process that permits evolution to adapt to changing circumstances and borrowing from other systems.¹⁸ Thus, in providing a full analysis of the common law and civil law from a spontaneous order perspective, future research may fruitfully examine this mechanism for evolution at the system level as well.

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¹⁸Notably, in the era of competing courts in medieval Europe, borrowing innovative procedural and substantive rules from other courts was quite common. See Zywicki (2003).

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