ARTICLE

HOW GOVERNMENT GUARANTEES PROMOTE HOUSING FINANCE STABILITY

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In the aftermath of the financial crisis, major reforms of the U.S. housing finance system are likely. One of the key issues facing policy makers in this area is whether and to what extent the federal government should maintain its current role in the residential mortgage markets. Since the New Deal, the federal government has guaranteed the primary sources of housing finance in the United States—bank and thrift deposits, and the obligations of the mortgage securitization conduits Fannie Mae, Freddie Mac, and Ginnie Mae.

The prevailing view of government guarantees is that they increase financial instability because they encourage excessive risk-taking and reduce market discipline. But this perspective fails to explain why such guarantees have been closely correlated with stability in the housing finance system through our nation's history.

Incorporating historical and economic analyses, this Article challenges the conventional wisdom around government guarantees in U.S. housing finance, and argues that these guarantees actually help to promote stability in several important ways: they prevent banking panics, they limit the formation of credit bubbles, and they promote the origination of consumer-friendly loans that are less likely to default. The Article concludes with the counterintuitive proposition that the positive stabilizing effects of U.S. mortgage guarantees outweigh any destabilizing effects they may have, which is why guarantees have been so closely tied to financial stability.

I. INTRODUCTION

In the aftermath of the recent financial crisis and the federal government's costly takeovers of the Federal National Mortgage Association, known as Fannie Mae,[1] and the Federal Home Loan Mortgage Corporation, known as Freddie Mac,[2] major reforms of the U.S. housing finance system appear inevitable. One of the central points of contention in proceeding with

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[1] *See* Fed. Nat'l Mortg. Ass'n, Annual Report (Form 10-K) (Feb. 29, 2012), *available at* http://www.fanniemae.com/resources/file/ir/pdf/quarterly-annual-results/2011/10k_2011.pdf.

[2] *See* Fed. Home Loan Mortg. Corp., Annual Report (Form 10-K) (Mar. 9, 2012), *available at* http://ir.10kwizard.com/cgi/convert/pdf/FMCC-20120309-10K-20111231.pdf?ipage=8126154&num=-2&pdf=1&xml=1&dn=2&rid=12&quest=1&dn=3.

these reforms has been whether, and to what extent, the federal government should continue to guarantee the financial instruments used to fund most U.S. home mortgages. Critics of the government's role in housing finance have long argued that these guarantees encourage excessive risk taking, and have seized on recent events to push for the elimination of government guarantees in the U.S. residential mortgage markets. But this perspective fails to explain why government guarantees have been so closely correlated with housing finance stability in our nation's history. This Article argues that U.S. housing finance guarantees have contributed in several important ways to promoting stability, and that these positive stabilizing effects have collectively outweighed the negative effects ascribed to guarantees.

The 2008 financial crisis, generally described as the worst[3] and costliest[4] financial crisis to hit the United States since the Great Depression, was largely caused by problems emanating from the residential mortgage markets.[5] The United States had experienced a major housing bubble during the early- to mid-2000s, and when this began to burst in late 2006, home prices experienced a steady decline, ultimately falling more than 33% from their peak.[6] Coupled with falling employment and stagnant wages, the bursting of the housing bubble would lead to historically high delinquency rates on U.S. residential mortgages.[7]

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[3] *See, e.g.*, PHIL ANGELIDES ET AL., THE FINANCIAL CRISIS INQUIRY REPORT: FINAL REPORT OF THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES 3 (2011) [hereinafter FCIC REPORT]; *The Administration's Proposal to Modernize the Financial Regulatory System: Hearing Before the S. Comm. on Banking, Hous., and Urban Affairs*, 111th Cong. (2009) (statement of Timothy Geithner, Sec'y, U.S. Dep't of the Treasury); Jon Hilsenrath et al., *Worst Crisis Since '30s, With No End Yet in Sight*, WALL ST. J., Sept. 18, 2008, at A1. Indeed, some notable observers have described this crisis as the first major U.S. financial crisis since the Great Depression. *See* Gary Gorton, Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007 3 (May 9, 2009) (unpublished manuscript), *available at* http://www.frbatlanta.org/news/Conferen/09fmc/gorton.pdf.

[4] *See The Costs of Implementing the Dodd-Frank Act: Budgetary and Economic: Hearing Before the H. Comm. on Fin. Servs.*, 112th Cong. (2011) (statement of David K. Min) (noting that the costs of the financial crisis had been estimated at over ten trillion dollars in lost household wealth, twelve million expected foreclosures, and nearly ten million lost jobs).

[5] With eleven trillion dollars in debt outstanding, U.S. residential mortgages are by far the largest single form of consumer credit in the world. Moreover, U.S. residential mortgage debt has an outsized role in the financial system, insofar as it is a key component of many other financial products and markets around the world.

[6] *See* Press Release, Standard & Poor's, Some More Seasonal Improvement in Home Prices According to the S&P/Case-Shiller Home Price Indices (July 26, 2011), *available at* http://www.standardandpoors.com/indices/articles/en/us/?articleType=PDF&assetID=1245315652614.

[7] As of the second quarter of 2011, the rate of residential mortgages either thirty days delinquent or in foreclosure was estimated at 12.54%, down from 13.97% a year before. *See* Press Release, Mortg. Bankers Ass'n, Delinquencies Rise, Foreclosures Fall in Latest MBA Mortgage Delinquency Survey (Aug. 22, 2011), *available at* http://www.mortgagebankers.org/NewsandMedia/PressCenter/77688.htm. By way of comparison, in 1990, the rate of residential mortgages that were either thirty days delinquent or in foreclosure was 5.6%, and in 2000, this rate was also 5.6%. *See* U.S. CENSUS BUREAU, TABLE 1194: MORTGAGE ORIGINATIONS AND DELINQUENCY AND FORECLOSURE RATES:1990–2010, *available at* http://www.census.gov/compendia/statab/2012/tables/12s1194.pdf.

The prospect of a sharp housing downturn had an outsized impact in the financial markets, due to both the sheer size of U.S. residential mortgage debt—$11.2 trillion outstanding as of September 2008[8]—and the proliferation of financial instruments tied to the performance of this debt, which had the effect of greatly amplifying the systemic importance of U.S. home loans.[9] As investors and other stakeholders in the financial markets began to recognize the likelihood of large mortgage-related losses, for themselves and others, they became increasingly reluctant to extend credit.[10] By Fall 2008, the financial system essentially became frozen, with financial institutions largely refusing to lend to each other because of concerns about the creditworthiness of their counterparties.[11] During this period of turmoil, Merrill Lynch, Lehman Brothers, and AIG failed, further exacerbating the growing panic in the financial markets.

The federal government responded with a series of taxpayer-funded bailouts of longstanding financial institutions, committing trillions of taxpayer dollars to stabilize credit markets.[12] None of these was more shocking,

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[8] *See* FED. RESERVE, FLOW OF FUNDS ACCOUNTS OF THE UNITED STATES 94 (2008), *available at* http://www.federalreserve.gov/releases/z1/20080918/z1.pdf.

[9] These products include mortgage-backed securities, collateralized debt obligations, and credit default swaps based on underlying residential mortgages. The Financial Crisis Inquiry Commission report has an excellent discussion of the role played by these financial products, and more generally, financial innovation, in causing the financial crisis. *See generally* FCIC REPORT, *supra* note 3.

[10] As Gary Gorton, among others, describes, an increasingly large amount of the functional activity of banking, including the use of short-term liabilities to finance long-term loans, had migrated outside of the traditional banking structures into lightly regulated areas such as the overnight repo market. The illiquidity that took hold of the financial markets in the fall of 2008 was largely centered upon this "shadow banking" system. *See generally* Gorton, *supra* note 3.

[11] One widely used measure of the willingness of financial institutions to lend is the so-called "TED Spread," which economist Paul Krugman describes as:

> [T]he difference between the interest rate banks charge each other on 3-month loans (3 month LIBOR [London Interbank Offered Rate]) and the interest rate on 3-month U.S. Treasury bills . . . . If banks believe that their peers are solid, they should be willing to lend each other money on almost the same terms as money lent to Uncle Sam. When they start demanding a big interest rate premium, that's a sign of fear.

Paul Krugman, *My Friend TED*, *The Conscience of a Liberal*, N.Y. TIMES (Mar. 14, 2008, 4:04 PM), http://krugman.blogs.nytimes.com/2008/03/14/my-friend-ted. During the financial crisis, the TED Spread reached unprecedented levels. *See generally* Marcia Millon Cornett et al., *Liquidity Risk Management and Credit Supply in the Financial Crisis*, 101 J. FIN. ECON. 297 (2011), *available at* https://www2.bc.edu/~strahan/CMST_v15.pdf.

[12] The U.S. response to the financial crisis was led by the Treasury Department (using funds from the $700 billion Troubled Asset Relief Program created by the Emergency Economic Stability Act of 2008), the Federal Reserve Board of Governors, and the Federal Deposit Insurance Corporation. Collectively, these agencies committed as much as $2.4 trillion to stabilize the financial system, through more than 25 newly created programs and commitments. *See generally* CONG. OVERSIGHT PANEL, MARCH OVERSIGHT REPORT, THE FINAL REPORT OF THE CONGRESSIONAL OVERSIGHT PANEL 17–35 (2011). Many observers think of U.S. intervention during this period primarily in terms of the $700 billion Troubled Asset Relief Program ("TARP") fund. *See, e.g.*, Jonathan G. Katz, *Who Benefited from the Bailout?*, 95 MINN. L. REV. 1568, 1580 (2011). But by most standards, the Federal Reserve's efforts were at least as important, and much larger in terms of dollar value. In response to the financial crisis,

or expensive, than the federal takeover of Fannie Mae and Freddie Mac. Fannie and Freddie had been the bulwarks of U.S. residential mortgage finance for several decades, and at the onset of their federal conservatorship, were responsible for almost half of all outstanding residential mortgages.[13]

As government-sponsored enterprises, or GSEs, Fannie and Freddie are hybrid public-private entities—privately owned, for-profit companies with public policy missions, as set out in their charters.[14] Fannie and Freddie were created by Congress "to provide a stable source of funding for residential mortgages across the country."[15] To help them in this mission, the GSEs have been provided with several important advantages, with perhaps the most important of these being a federal guarantee of their obligations that significantly lowers their cost of funding.[16] This guarantee was tapped in September 2008, when Fannie and Freddie ran into severe problems accessing liquidity to fund their mortgage activities. The Department of the Treasury agreed to provide up to $200 billion in capital to each of the two companies, in the form of senior preferred stock purchases, and extend them short-term secured loans, but only on the condition that Fannie and Freddie be placed into federal conservatorship under the authority of their primary

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the Federal Reserve lowered its federal funds rate to historically low levels, created a series of new lending programs meant to provide credit liquidity to severely impacted markets, provided large amounts of credit directly to a number of systemically significant financial institutions, and authorized the large-scale purchases of federal debt, federal agency debt, and mortgage-backed securities issued by Fannie Mae and Freddie Mac, in an attempt to lower borrowing rates in key credit markets. *See generally* Bd. Of Governors, *Usage of Federal Reserve Credit and Liquidity Facilities*, FED. RESERVE, http://www.federalreserve.gov/newsevents/reform_transaction.htm (last updated Dec. 13, 2012).

[13] *See* FED. Reserve, *supra* note 8, at 94.

[14] As the Congressional Budget Office has described, a GSE is broadly defined as "a corporation chartered by the federal government to achieve public purposes that has nongovernmental status, is excluded from the federal budget, and is exempt from most, if not all, laws and regulations applicable to federal agencies, officers, and employees." CONG. BUDGET OFFICE, CONTROLLING THE RISKS OF GOVERNMENT-SPONSORED ENTERPRISES 2 (1991). The term "government-sponsored enterprise" is statutory in origin. *See* 2 U.S.C. § 622(8) (2006).

[15] *The Budgetary Cost of Fannie Mae and Freddie Mac and Options for the Future Federal Role in the Secondary Mortgage Market: Hearing Before the H. Comm. on the Budget*, 112th Cong. 1 (2011) (statement of Deborah Lucas, Asst. Dir. for Fin. Analysis, Cong. Budget Office), *available at* http://www.cbo.gov/doc.cfm?index=12213&type=1 [hereinafter Lucas]. There are other government-sponsored enterprises, including the Farm Credit System and the Federal Home Loan Bank System. The latter, like Fannie and Freddie, is a housing GSE, which operates primarily by providing advances, essentially secured loans, to member banks. While not as large as Fannie Mae and Freddie Mac, the FHLB System is still a major presence in the residential mortgage markets. As of the second quarter of 2011, the FHLB System had over 7,700 members and nearly $430 billion in outstanding advances. *See* Press Release, Council of Fed. Home Loan Banks, Second Quarter Numbers Show Federal Home Loan Banks Supporting Economy (July 29, 2011), *available at* http://www.fhlb-pgh.com/media-center/press-releases/2011/2nd-Quarter-system-Highlights-statement2011.pdf. In general, the FHLB System has not been subject to the same scrutiny as Fannie and Freddie, so I do not address it in this Article.

[16] This guarantee is implicit, as described in greater detail below. *See infra* notes 105–108 and accompanying text.

regulator, the Federal Housing Finance Agency.[17] These federal bailouts have cost taxpayers $130 billion as of 2011.[18]

The high costs of the GSEs' conservatorship, coupled with the central role of U.S. residential mortgages in the financial crisis, have led to a growing consensus that a major restructuring of the U.S. housing finance system is necessary.[19] But, as illustrated by the broad array of comprehensive housing finance reform proposals that have been issued, while there is general agreement on the need for comprehensive reforms of the system, there is strong disagreement on what those reforms should look like. On one side of this debate are the various proposals seeking to wind down Fannie and Freddie and replace them with private market actors that do not enjoy access to any government guarantees.[20] On the other side of this debate stand a broad variety of proposals seeking to replace Fannie and Freddie with market participants that receive access to an explicit government guarantee in the secondary markets for mortgage-backed securities, arguing that such a guarantee is critical for U.S. mortgage finance.[21]

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[17] *See* FCIC REPORT, *supra* note 3, at 318–321; *see generally* FED. HOUS. FIN. AGENCY, FACT SHEET: QUESTIONS AND ANSWERS ON CONSERVATORSHIP, *available at* http://www.fhfa.gov/webfiles/35/FHFACONSERVQA.pdf. The conservatorship of Fannie and Freddie effectively transferred the powers of the companies' directors, officers, and shareholders to the conservator (FHFA). The purpose of this conservatorship was to preserve and conserve the assets and property of the GSEs and to put them into a sound and solvent condition. Conservatorship was chosen over other alternatives in part because it would not lead to the liquidation of the two companies. *Id.* Although Fannie and Freddie were effectively nationalized through this federal conservatorship, it was carefully structured to avoid giving the federal government an ownership stake of 80% or more, to support the position that they were still independent entities, rather than government corporations, and thus did not need to have their assets and liabilities brought onto the federal balance sheet. *See* Steven M. Davidoff & David Zaring, *Regulation by Deal: The Government's Response to the Financial Crisis*, 61 ADMIN. L. REV. 463, 489 (2009). As a result, Fannie and Freddie are still typically described as "government-sponsored" enterprises, despite the fact that they appear to be government-owned.

[18] *See* Lucas, *supra* note 15. This $130 billion cost is net of payments made by Fannie and Freddie to the federal government.

[19] Policy leaders across the ideological spectrum, ranging from the Obama Administration to House Republicans, from the liberal Center for American Progress to the conservative American Enterprise Institute, generally agree that Fannie and Freddie should be wound down, and major reforms of the housing finance system implemented. See *infra* notes 20–22 and accompanying text.

[20] *See, e.g.*, PETER J. WALLISON, ET AL., AM. ENTER. INST., TAKING THE GOVERNMENT OUT OF HOUSING FINANCE: PRINCIPLES FOR REFORMING THE HOUSING FINANCE MARKET (2011), *available at* http://www.aei.org/files/2011/03/23/AEI-White-Paper-FINAL-3-22-11.pdf; DAVID REISS, CATO INST., FANNIE MAE, FREDDIE MAC, AND THE FUTURE OF FEDERAL HOUSING FINANCE POLICY: A STUDY OF REGULATORY PRIVILEGE (2011), *available at* http://www.cato.org/pubs/pas/PA674.pdf; Dwight M. Jaffee, Reforming the U.S. Mortgage Market Through Private Market Incentives (Jan. 31, 2011) (unpublished manuscript), *available at* http://faculty.haas.berkeley.edu/jaffee/Papers/JaffeeMortgageReform.pdf; VIRAL ACHARYA ET AL., GUARANTEED TO FAIL: FANNIE MAE, FREDDIE MAC AND THE DEBACLE OF MORTGAGE FINANCE (2011).

[21] *See, e.g.*, MORTG. BANKERS ASS'N, MBA'S RECOMMENDATIONS FOR THE FUTURE GOVERNMENT ROLE IN THE CORE SECONDARY MORTGAGE MARKET (2009), *available at* http://www.mbaa.org/files/News/InternalResource/70212_RecommendationsfortheFutureGovernmentRoleintheCoreSecondaryMortgageMarket.pdf; MORTG. FIN. WORKING GRP, CTR. FOR AM. PROGRESS, A RESPONSIBLE MARKET FOR HOUSING FINANCE: A PROGRESSIVE PLAN TO

This schism over the issue of government guarantees was reflected in the Obama Administration's February 2011 report to Congress on the future of the U.S. housing finance system, which laid out three potential options for reform.[22] Option 1 proposed removing government guarantees entirely from the prime residential mortgage market currently served by the GSEs; Option 2 proposed providing a limited government guarantee that would remain inactive during normal times but which would "scale up" during credit downturns (as private sources of mortgage finance dried up); and Option 3 proposed keeping a government guarantee that largely resembled the current guarantee in place for the GSEs, but with a smaller scope and greater protections for taxpayers.[23]

By laying out the options for reform in this way, the Obama Administration highlighted the importance of government guarantees in the residential mortgage markets. Indeed, it is notable that there appears to be only one major proposal for housing finance reform that fits the Option 2 description.[24] In other words, the debate over housing finance reform has, at least initially, centered upon whether a government guarantee should exist in something like its current form, or not at all.

Why should we have government guarantees in housing finance? In general, proponents of keeping government guarantees have argued that these guarantees are necessary for ensuring that residential mortgage finance

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REFORM THE U.S. SECONDARY MARKET FOR RESIDENTIAL MORTGAGES (2011), *available at* http://www.americanprogress.org/issues/2011/01/pdf/responsiblemarketforhousingfinance.pdf; DONALD MARRON & PHILLIP SWAGEL, ECON. 21, WHITHER FANNIE AND FREDDIE? A PROPOSAL FOR REFORMING THE HOUSING GSES (2010), *available at* http://www.economics21.org/files/pdfs/commentary/05_24_2010_Whither.pdf; TONI DECHARIO ET AL., FED. RES. BANK OF N.Y., STAFF REPORT NO. 466, A PRIVATE LENDER COOPERATIVE MODEL FOR RESIDENTIAL MORTGAGE FINANCE (2010), *available at* http://www.ny.frb.org/research/staff_reports/sr466.pdf; DIANA HANCOCK & WAYNE PASSMORE, FED. RES. BOARD, DIVS. OF RESEARCH & STATISTICS & MONETARY AFFAIRS, STAFF WORKING PAPER NO. 2010-46, AN ANALYSIS OF GOVERNMENT GUARANTEES AND THE FUNCTIONING OF ASSET-BACKED SECURITIES MARKETS (2010), *available at* http://www.federalreserve.gov/pubs/feds/2010/201046/201046pap.pdf; MARK ZANDI & CHRISTIAN DERITIS, THE FUTURE OF THE MORTGAGE FINANCE SYSTEM (2011), *available at* http://www.economy.com/mark-zandi/documents/Mortgage-Finance-Reform-020711.pdf.

[22] U.S. DEP'T OF TREASURY & U.S. DEP'T OF HOUS. AND URBAN DEV., REFORMING AMERICA'S HOUSING FINANCE MARKET: A REPORT TO CONGRESS 26–30 (2011), *available at* http://www.treasury.gov/initiatives/Documents/Reforming%20America%27s%20Housing%20Finance%20Market.pdf.

[23] *Id.*

[24] This proposal, authored by Harvard Business School professor David Scharfstein, a former senior advisor to Treasury Secretary Timothy Geithner, and his HBS colleague Adi Sunderam, proposes the creation of a government guarantor for mortgage-backed securities, which would primarily operate during periods of market distress. *See* David Scharfstein & Adi Sunderam, The Economics of Housing Finance Reform: Privatizing, Regulating and Backstopping Mortgage Markets (unpublished manuscript) (Feb. 11, 2011), *available at* http://www.hofinet.org/upload_docs/Scharfstein_The_Economics_of_Housing_Finance_Reform.pdf; *see also* Lawrence J. White, *The Way Forward: Residential Mortgage Finance in a Post-GSE World* 19 n.42 (Mercatus Ctr., Working Paper No. 11-10, 2011) (noting that the Scharfstein-Sunderam proposal appeared to be the sole basis for the Administration's Option 2).

remains broadly,[25] consistently,[26] and affordably[27] available.[28] These arguments are consistent with the justifications originally provided by the New Deal architects who introduced these government guarantees into housing finance, as described in greater detail below.

Conversely, those proposing the elimination of government guarantees in mortgage finance have argued that they are unnecessary,[29] encourage excessive risk-taking,[30] and pose an unacceptably high risk of loss to taxpayers.[31] These arguments largely derive from economic analyses developed beginning in the late 1960s,[32] when a number of scholars began to challenge government guarantees in banking and housing finance, on the grounds that they distorted the efficient outcomes of markets and led to increased risk

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[25] *See, e.g.*, MORTG. FIN. WORKING GRP., *supra* note 21, at 13 (arguing that a government support for the mortgage markets is critical for providing broad access to mortgage credit); MARRON & SWAGEL, *supra* note 21, at 3–4 (stating that a key principle behind their proposal, which features a government guarantee, is the need to maintain the broad availability of mortgage credit).

[26] *See generally* Scharfstein & Sunderam, *supra* note 24 (discussing the importance of countercyclical mortgage liquidity, provided during credit downturns, as a policy goal); ZANDI & DERITIS, *supra* note 21, at 11 (questioning the ability of private mortgage finance to provide stable mortgage finance); MORTG. FIN. WORKING GRP., *supra* note 21, at 12 (noting the strong procyclical tendency of private mortgage finance throughout history).

[27] There is often a great deal of confusion around the term "affordability," as it refers to at least three different concepts. First is the concept of whether the rates offered on mortgages are affordable to most households. While today we tend to assume that mortgages will not have usurious rates, this assumption did not always hold in U.S. mortgage finance. Second is the concept of whether the product terms (aside from price) are actually affordable. For example, a mortgage with a low "teaser" rate may appear affordable to the borrower, but the structure of the mortgage exposes the borrower to higher levels of risk and is thus inherently less "affordable" than a comparably priced product that bears less risk to the borrower. Third is the concept of extending affordable housing, either through homeownership or the availability of rental housing, to households that have lower income or wealth. This goal is primarily met through direct subsidies (such as rental vouchers), but may also be served through housing finance, such as through the offering of subsidized mortgage products for affordable rental housing development or lower-income households.

[28] *See, e.g.*, MORTG. FIN, WORKING GRP., *supra* note 21, at 18–19 (claiming that government involvement has been essential to the availability of affordable mortgage options); ZANDI & DERITIS, *supra* note 21, at 11–12 (stating that in the absence of a government guarantee, the long-term fixed-rate mortgage would no longer be broadly available, and mortgage rates would no longer be affordable).

[29] *See, e.g.*, Jaffee, *supra* note 20, at 9–11 (suggesting that the elimination of guarantees for the GSEs would have minimal impacts on the mortgage markets, with a small increase in mortgage prices (e.g., twenty-five basis points, or 0.25%) being the primary effect).

[30] *See, e.g.*, WALLISON, ET AL., *supra* note 20, at 1, 3–11 (arguing that by distorting the mortgage markets, and creating incentives for financial markets actors to take on excessive risk (moral hazard), government guarantees in housing finance caused the recent financial crisis).

[31] *See, e.g.*, REISS, *supra* note 20.

[32] As Edward Kane and Berry Wilson describe, the historical development of criticisms of government guarantees in housing finance largely began in the late 1960s, with the critiques of federal deposit insurance in banking. *See* Edward J. Kane & Berry K. Wilson, *A Contracting-Theory Interpretation of the Origins of Federal Deposit Insurance*, 30 J. MONEY CREDIT & BANKING, 573, 573–77 (1998).

among those institutions receiving the guarantee.[33] The work done during this period and thereafter arguing, largely on microeconomic grounds,[34] that government guarantees reduce market discipline and thus increase systemic risk,[35] has grown to become the dominant view of banking regulation.[36] Indeed, the international Basel Accords, the highly influential cross-country standards on banking regulation set by the Basel Committee on Bank Supervision, have explicitly adopted market discipline as one of the three "pillars" of banking supervision.[37]

Yet despite the prevailing view that government guarantees erode market discipline and incentivize excessive risk-taking, it is also clear that these guarantees have been historically correlated with housing finance stability. The introduction of government guarantees into housing finance coincided with the end of the cycle of extreme volatility that had previously plagued the U.S. housing finance system from the very early years of the Republic up until the Great Depression, and the beginning of an unprecedented period of financial stability from the 1930s until the 2000s, sometimes described as the "Quiet Period."[38] The end of this Quiet Period occurred contemporaneously with a sharp decline in the role of government guarantees in housing finance, starting in 2002.

This Article uses historical and economic analyses to challenge the prevailing orthodoxy around government guarantees, arguing that these guarantees provide three important stabilizing effects for housing finance, which cannot be ignored when considering why we had the financial stability of the Quiet Period.

First, guarantees eliminate the problem of banking panics, which can be extraordinarily costly even for healthy banking systems. Because banking

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[33] *See, e.g.*, Kenneth Scott & Thomas Mayer, *Risk and Regulation in Banking: Some Proposals for Deposit Insurance*, 23 STAN. L. REV. 857, 861–68 (1971) (arguing that deposit insurance was mispriced); Sam Peltzman, *Capital Investment in Commercial Banking and Its Relationship to Portfolio Regulation*, 78 J. POL. ECON. 1, 1–26 (1970) (arguing that mispriced deposit insurance had effectively replaced bank capital, leading to increased risk); *see also* Charles W. Calomiris & Charles M. Kahn, *The Role of Demandable Debt in Structuring Optimal Banking Arrangements*, 81 AMER. ECON. REV. 497 (1991).

[34] *See* Ben Bernanke & Mark Gertler, *Banking and Macroeconomic Equilibrium*, *in* NEW APPROACHES TO MONETARY ECONOMICS 89, 108 (William A. Barnett & Kenneth J. Singleton eds., 1987) (noting that governmental intervention in the banking sector was being reduced, based largely on microeconomic justifications).

[35] *See, e.g.*, Calomiris & Kahn, *supra* note 33.

[36] *See, e.g.*, Jeffrey M. Lacker, President, Fed. Reserve Bank of Richmond, A Program for Financial Stability, Remarks at the Banking Inst. of the Univ. of N.C. School of Law (Mar. 29, 2012) (arguing that government guarantees displace market discipline and create moral hazard problems), *available at* http://www.richmondfed.org/press_room/speeches/president_jeff_lacker/2012/lacker_speech_20120329.cfm; *see also infra* Section II, particularly the text accompanying notes 66–130.

[37] *See* BASEL COMM. ON BANKING SUPERVISION, PILLAR 3 (MARKET DISCIPLINE) 1 (2001), *available at* http://www.bis.org/publ/bcbsca10.pdf.

[38] Prior to the New Deal, the United States suffered major financial crises every five to ten years, which stunted capital formation and retarded economic growth. *See* Gorton, *supra* note 3.

relies on leverage,[39] it is vulnerable to the problem of bank runs, which unabated can quickly become panics, resulting in real and significant economic damage. As is well recognized in the banking literature, government guarantees can solve the problem of bank runs, simply by instilling confidence among investors, who no longer have any reason to rush to withdraw their funds.

Second, government guarantees can mitigate the inherent procyclical tendency of housing finance to take on excessive risk during economic expansions, by funneling the vast majority of mortgage financing into highly regulated institutions and products, which are subject to relatively stringent caps on leverage. In this way, government guarantees can reduce the likelihood and severity of credit bubbles.

Third, the federal government's support of the mortgage markets can have an important impact in directing capital towards products that are highly favorable to consumers, including the 30-year fixed-rate self-amortizing mortgage ("30-year fixed-rate mortgage" or "30-year FRM"), which transfer certain key risks, including interest rate and refinancing risk, from borrowers to lenders. The proliferation of these consumer-friendly products provides an important stabilizing force for housing markets, by significantly reducing the risk of homeowner delinquencies. The 30-year fixed-rate mortgage, a product that is fairly unique to the United States and which fundamentally relies on government support, also plays an important role in limiting price volatility in housing markets.

Part II of this Article describes the origins and development of the current dominant view that government guarantees reduce market discipline and thus increase risk-taking. Part III illustrates that despite these criticisms of government guarantees in housing finance, such guarantees have been historically correlated with housing finance stability. Part IV argues that the conventional wisdom around government guarantees ignores the several important ways in which guarantees promote financial stability, and that these stabilizing effects outweigh the destabilizing effects described by critics of such guarantees. Part V responds to potential counterarguments.

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[39] Leverage refers to the ratio of a firm's debt to its equity. *See* BLACK'S LAW DICTIONARY 926 (8th ed. 2004). Banks and other financial institutions have very high leverage compared to other types of firms, as their basic business model involves using short-term debt to finance the purchases of investment assets, supported only by a thin slice of equity. Regulated financial institutions such as banks are required to maintain a minimum amount of regulatory capital, which primarily consists of equity as well as certain types of debt and hybrid debt-equity instruments that act similarly to equity in absorbing losses. For a more detailed discussion of the relationship between equity, regulatory capital, and leverage, see generally DOUGLAS J. ELLIOTT, BROOKINGS INST., A PRIMER ON BANK CAPITAL (2010), *available at* http://www.brookings.edu/~/media/research/files/papers/2010/1/29-capital-elliott/0129_capital_primer_elliott.

II. The Prevailing View of Housing Finance Guarantees

As described in greater detail in this Section, government guarantees in housing finance date back to the New Deal, and have taken a number of different forms, including, most importantly, federal deposit insurance for banks and thrifts,[40] and federal guarantees behind the mortgage-related obligations of Fannie Mae, Freddie Mac, and Ginnie Mae.[41] When they were first introduced, government guarantees were criticized for eroding market discipline and encouraging greater risk-taking, but these criticisms largely subsided for several decades following the introduction of guarantees into housing finance. Market-based critiques of government guarantees began to reemerge in the late 1960s, as the thrift industry came under pressure from rising inflation and interest rates. These critiques gained increasing acceptance in the 1980s, as the thrift industry underwent large structural changes following Congressional deregulation, regulatory forbearance, and the subsequent insolvency of many thrifts. The arguments that government guarantees reduced market discipline in banking, encouraged excessive risk-taking, and exposed taxpayers to too much risk, quickly grew to be seen as conventional wisdom, as evidenced by the incorporation of market discipline into both U.S. and international banking regulation.

The failure of the thrift industry led to a rise in government-backed securitization, particularly in terms of the roles of the government-sponsored enterprises Fannie Mae and Freddie Mac. Government-backed securitization seemed to solve the problems with interest rate risk that had proven so toxic for government-backed depository institutions. The transition from a housing finance system that relied primarily on deposits to fund home loans to one that relied primarily on securitization proceeded fairly smoothly up until the early 2000s. But the recent costly federal takeovers of Fannie and Freddie have led to louder calls for the elimination of government guarantees in

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[40] The term "thrift" generally refers to savings institutions. A primary type of thrift is the savings & loan association. *See* R. Dan Brumbaugh, Jr. & Andrew S. Carron, *Thrift Industry Crisis: Causes and Solutions*, 2 Brookings Papers on Econ. Activity 349, 350 (1987). In modern times, the terms "thrift" and "savings & loan association" have generally been used interchangeably. *See* Quintin Johnstone, *Land Transfers: Process and Processors*, 22 Val. U. L. Rev. 493, 517–18 (1988). As discussed below, up until the savings and loan debacle, thrifts received deposit insurance from the Federal Savings and Loan Insurance Corporation, while banks received deposit insurance from the Federal Deposit Insurance Corporation.

[41] Ginnie Mae is the fully governmental counterpart of Fannie and Freddie, and like Fannie and Freddie, guarantees certain mortgage-backed securities that meet its standards. There are some important differences between Ginnie and the GSEs. While Fannie and Freddie guarantee MBS containing "conforming loans," Ginnie guarantees MBS composed of loans insured by the Federal Housing Administration and the Department of Veterans Affairs. Also unlike Fannie and Freddie, Ginnie's obligations are explicitly backed by the federal government. *See Our History*, Ginnie Mae, http://www.ginniemae.gov/inside_gnma/company_overview/Pages/our_history.aspx (last updated Dec. 7, 2012); *Ginnie Mae & the GSEs*, Ginnie Mae, http://www.ginniemae.gov/consumer_education/Pages/ginnie_mae_and_the_gses.aspx (last updated Feb. 25, 2013). The nature of the implicit government guarantee behind the GSEs is discussed below.

housing finance, based in large part on the claim that these reduce market discipline and create moral hazard.

A. Origins of Market Discipline Criticisms

Government guarantees were first introduced into U.S. housing finance as part of the New Deal's banking and housing reforms, not with the goal of engineering broad socioeconomic changes, but with the more limited aim of addressing the fallout from the banking and housing crises of the time.[42] A group of new federal institutions, including the Federal Housing Administration ("FHA") and the Federal National Mortgage Association ("Fannie Mae"), were created principally to prevent foreclosures and stabilize the housing market by restoring the availability of mortgage credit to U.S. households.[43] Federal deposit insurance, offered by the Federal Savings and Loan Insurance Corporation ("FSLIC") and the Federal Deposit Insurance Corporation ("FDIC") to thrifts and banks respectively,[44] was established to provide confidence to depositors and restore liquidity to the banking system, which had been devastated by the bank runs of the 1930s.[45]

Following the New Deal, the federal government guaranteed housing finance primarily through its provision of federal deposit insurance for banks and thrifts.[46] This deposit insurance was criticized at the time of its introduction for destroying market discipline—for example, the American Bankers

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[42] *See, e.g.*, Richard K. Green & Susan M. Wachter, *The American Mortgage in Historical and International Context*, 19 J. ECON. PERSP. 93, 94–97 (2005).

[43] *Id.*

[44] *See* George C. Seward & Robert M. Zaitzeff, *Insurability of Brokered Deposits: A Legislative Analysis*, 39 BUS. LAW. 1705, 1706–07 (1984). The FDIC was established in 1933 by the Federal Deposit Insurance Act, and FSLIC in 1934 by the National Housing Act. *See* Federal Deposit Insurance Act of 1933, 12 U.S.C. §§ 1811–1831 (2006); National Housing Act of 1934, ch. 847, 48 Stat. 1246 (codified as amended in scattered sections of 12 U.S.C.).

[45] *See* H.R. REP. NO. 101-54, at 3 (1989), *reprinted in* 1989 U.S.C.C.A.N. 86, 89 (stating that the 1934 National Housing Act created FSLIC to insure thrift depositors against losses); FDIC, THE FIRST FIFTY YEARS: A HISTORY OF THE FDIC 1933-1983, at 3–5 (1984) (stating that the Banking Act of 1933 created the FDIC to insure bank depositors against losses), *available at* http://www.fdic.gov/bank/analytical/firstfifty/index.html. The federal guarantee of bank and thrift deposits was not made explicit until 1987. *See* Allan J. Kaplan, Full Faith and Credit of U.S. Government Behind the FDIC Deposit Insurance Fund, FDIC Advisory Opinion, FDIC-87-36 (Nov. 9, 1987), *available at* http://www.fdic.gov/regulations/laws/rules/4000-2660.html. Much like with the GSEs, as described below, the unique governmental aspects of the FDIC and FSLIC led depositors to believe that these entities were fully backed by the federal government, a belief that was bolstered when Congress passed a non-binding joint resolution (H.R. Con. Res. 290) in March 1982, reaffirming that the United States pledged its full faith and credit behind FDIC and FSLIC. *Id.* The lack of explicit federal support was due in large part to President Roosevelt's opposition to the use of tax revenues to support depository institutions. *See* FDIC, THE FIRST FIFTY YEARS, *supra*, at 55.

[46] In addition to deposit insurance and the guarantees of Fannie, Freddie, and Ginnie obligations, the federal government also supports residential mortgage financing through a number of different programs, including the provision of mortgage insurance by the Federal Housing Administration and Department of Veterans Affairs, as well as through a variety of direct subsidies and tax expenditure programs. For a more detailed discussion of the ways in which the federal government supports housing finance, *see generally* MAGGIE MCCARTY ET AL.,

Association, in opposing deposit insurance in 1933, argued that it would eliminate any incentives for depositors to monitor their investments, and create a "lack of discrimination as between good and bad banking."[47] Advocates of federal deposit insurance did not dispute this claim, but rather argued for deposit insurance based on considerations of equity—namely, that it was unfair for innocent depositors to lose their hard-earned money[48]—and pragmatism—it was necessary to instill confidence in the soundness of bank and thrift deposits, and thus restore liquidity to a struggling banking system.[49] In the wake of the Great Depression, the latter arguments proved more politically potent than the market discipline arguments advanced by critics of federal deposit insurance.[50]

The post-New Deal housing finance system relied primarily on federally insured banks and thrifts. Federal deposit insurance served to provide banks and thrifts with a cheap and constant source of funding, as the government backing lowered the rate required to attract depositors, and ensured that funding would be available even during periods of financial and economic distress. These funding advantages were enhanced by existing state and federal restrictions on branching and interstate banking, which effectively granted these institutions local monopolies, both in terms of attracting deposits and making loans.[51] The value of these benefits led to a quick and widespread acceptance of federal deposit insurance. By the middle of 1934, 90% of commercial banks, representing 97% of all deposits, had accepted federal deposit insurance.[52]

CONG. RESEARCH SERV., RL 34591, OVERVIEW OF FEDERAL HOUSING ASSISTANCE PROGRAMS AND POLICY (2008).

[47] Mark D. Flood, *The Great Deposit Insurance Debate*, 74 FED. RES. BANK ST. LOUIS REV. 51, 60–61 n.57 (1992) (citing the American Bankers Association Journal from March 1933).

[48] *Id.* at 62–66.

[49] As Representative Henry B. Steagall, one of the architects of the Banking Act of 1933 (more commonly known as the Glass-Steagall Act), stated in the legislative debate around this bill,

> We cannot have a normal use of bank credit in the United States until people are willing to put their deposits in banks. Deposits constitute the basis for bank credit, and bankers can never be free to extend credit accommodations for the support of trade and commerce until they are permitted to retire at night without fear of mobs at their doors the next morning demanding cash for their deposits.

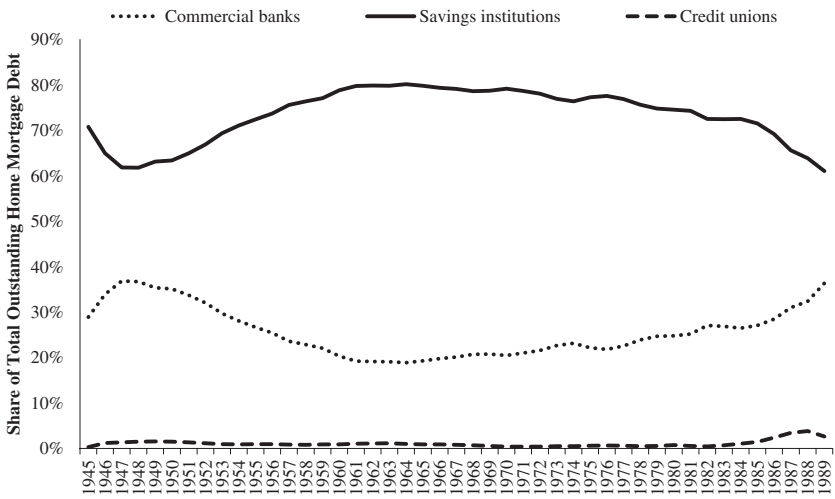
77 CONG. REC. 3839 (1933). *See also* Seward & Zaitzeff, *supra* note 44, at 1718 (stating that "[t]he legislative history reveals that the primary purposes of deposit insurance are to create public confidence in and attract deposits to banks and thrifts in order to maintain a strong banking system . . . .").

[50] *See* Flood, *supra* note 47, at 62.

[51] *See* Roberta S. Karmel, *Is the Public Utility Holding Company Act a Model for Breaking Up the Banks that are Too-Big-To-Fail?* 62 HASTINGS L.J. 821, 822–25 (2011).

[52] *See* Gerald P. Dwyer, Jr., *The Effects of the Banking Acts of 1933 and 1935 on Capital Investment in Commercial Banking*, 13 J. MONEY CREDIT & BANKING 192, 192 (1981).

FIGURE 1: SHARE OF OUTSTANDING DEPOSIT-BACKED MORTGAGE DEBT BY INSTITUTION TYPE, 1945-1989[53]



While commercial banks were also important, thrifts were the primary source of housing finance in the post-New Deal era.[54] As Figure 1 shows, from World War II to the termination of FSLIC in 1989, thrifts were generally responsible for more than 70% of all mortgages financed by deposits. By the 1970s, more than half of all outstanding home mortgage debt was held by federally insured thrifts.[55]

Because of their focus on residential mortgages, thrifts enjoyed additional privileges over other depository institutions, part of a deliberate attempt to foster the greater availability of affordable housing finance.[56] As members (or non-member borrowers) of the FHLB System, thrifts enjoyed

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[53] Data compiled from FED. RESERVE BD., FEDERAL RESERVE STATISTICAL RELEASE tbl.L218 (2013), *available at* http://www.federalreserve.gov/releases/z1/current/data.htm.

[54] *See* JONATHAN R. MACEY ET AL., BANKING LAW AND REGULATION 15 (3d ed. 2001). Commercial banks generally accounted for 15% to 20% of residential mortgages originated between 1950 and 1981. *See* Kent W. Colton, *Housing Finance in the United States: The Transformation of the U.S. Housing Finance System* 9 (Harv. Univ. Joint Ctr. for Hous. Studies, Working Paper No. 02-5, 2002).

[55] *See* Richard K. Green & Susan M. Wachter, *The Housing Finance Revolution* 19 (U. Pa. Inst. for Law & Econ. Research, Working Paper No. 09-37, Aug. 30, 2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1491688.

[56] *See* H.R. REP. NO. 101-54, at 4 (1989), *reprinted in* 1989 U.S.C.C.A.N. 86, 90 (stating that "[p]romoting the availability of affordable housing has been a primary goal of the federal government for many years. In an effort to further that goal, the Congress . . . created the specialized thrift industry to provide people with mortgage credit.").

federally backed funding through FHLB advances,[57] giving them another important source of cheap funding in addition to federally insured deposits.[58]

Moreover, while commercial banks were subject to caps on the interest rates they could pay under Regulation Q,[59] thrifts were initially exempt from this requirement, providing them with an important competitive advantage in attracting funds.[60] In 1966, Congress extended Regulation Q to thrifts, but allowed thrifts to offer a slightly higher interest rate on deposits than commercial banks,[61] a 0.25%–0.50% advantage that maintained the advantage of thrifts in attracting funds.[62]

This system, in which governmentally backed depository institutions dominated housing finance, worked remarkably well for several decades, and homeownership expanded rapidly, rising from 43.6% in 1940 to 64.4% in 1980,[63] due in large part to the wide availability of affordable housing

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[57] FHLB advances are essentially loans made by one of the 12 regional FHLBs to its members. These loans are (over)collateralized with assets (typically mortgage-related) pledged by the borrower. The FHLB is protected from losses through a number of mechanisms, including overcollateralization, a "super-lien" on the assets used to collateralize the loan, and the right to swap out non-performing assets with performing ones at any time. As a result of these very strong protections, FHLB advances have never resulted in losses. *See generally* Mark J. Flannery & W. Scott Frame, *The Federal Home Loan Bank System: The "Other" Housing GSE*, 91 FED. RESERVE BANK OF ATLANTA ECON. REV. 33 (2006), *available at* http://www.frbatlanta.org/filelegacydocs/erq306_frame.pdf. FHLB advances were historically important in facilitating the origination of FHA mortgages, which as I discuss *infra* was a key to standardizing the long-term fixed-rate self-amortizing mortgage. In determining the collateral necessary to secure an FHLB advance, the overcollateralization required for FHA-insured loans (90% weighted) was significantly less than the overcollateralization required for loans that were not insured by FHA (65% weighted), which was an important incentive for thrifts to originate FHA-insured loans. *See* Adam Gordon, Note, *The Creation of Homeownership: How New Deal Changes in Banking Regulation Simultaneously Made Homeownership Accessible to Whites and Out of Reach for Blacks*, 115 YALE L.J. 186, 198 (2005).

[58] *See* Lucia J. Mandarino, *Too Many Consonants and Not Enough Consonance: The Development of the S&L Regulatory Framework*, 59 FORDHAM L. REV. S263, S270–75 (1991).

[59] Regulation Q, 12 C.F.R. § 217 (2010). The Emergency Banking Act of 1933 gave the Federal Reserve Board the statutory authority to implement Regulation Q, which set maximum interest payments on deposits. Banking Act of 1933, Pub. L. No. 73-66, § 11(b), 48 Stat. 162, 181–82 (codified as amended in scattered sections of 12 U.S.C.). Similarly, the FDIC implemented FDIC Regulation 329 to impose interest rate ceilings on banks that were not regulated by the Federal Reserve. 12 C.F.R. § 329 (2010). For most of the post-World War II era, these interest rate ceilings were set between 3% and 5%. The regulatory authority to set deposit rate ceilings was not permanent, but made subject to periodic review and extension by Congress. *See* Timothy A. Canova, *The Transformation of U.S. Banking and Finance: From Regulated Competition to Free-Market Receivership*, 60 BROOK. L. REV. 1295, 1298 n.7 (1995). These deposit rate caps were eventually ended in the 1980s, as described below.

[60] *See generally* Richard W. Kopcke & Richard R. H. Woglom, *Regulation Q and Savings Bank Solvency—The Connecticut Experience*, 21 REG. FIN. INST. 68 (1979).

[61] The Interest Rate Adjustment Act of 1966 authorized this competitive advantage. Interest Rate Adjustment Act of 1966, Pub. L. No. 89-597, 80 Stat. 823 (codified as amended in scattered sections of 12 U.S.C.). *See also* Canova, *supra* note 59, at 1299 n.12.

[62] *See* H.R. REP. NO. 101-54, at 6 (1989), *reprinted in* 1989 U.S.C.C.A.N. 86, 91.

[63] *See Historical Census of Housing Tables*, U.S. CENSUS BUREAU, http://www.census.gov/hhes/www/housing/census/historic/owner.html (last updated Oct. 31, 2011). This actually understates the impacts of the changes in mortgage finance, since many homeowners in 1940 were farmers who had acquired cheap or free land. *See* Julie Andersen Hill, *Bailouts and Credit Cycles: Fannie, Freddie, and the Farm Credit System*, 2010 WIS. L. REV. 1, 10 (2010).

finance.[64] Favorable macroeconomic conditions were an important factor in the success of the mortgage finance system during this period. Interest rates were low and stable in the post-World War II period, up until the late 1960s.[65]

Perhaps because of the success of federal deposit insurance, market discipline criticisms of government guarantees remained dormant for several decades, but were reanimated beginning in the late 1960s, as a number of scholars began to argue that federal deposit insurance was incentivizing banks and thrifts to take on excessive risk.[66] These criticisms accelerated over the next few decades, as part of a broader shift in economics, which went from focusing on market failures following the Great Depression to focusing on government failures following several decades of prosperity.[67]

The market discipline argument gained significant traction in the late 1980s, following a series of events that eviscerated depository institutions and led to a massive taxpayer bailout of the thrift industry. Starting in the 1970s, the U.S. economy was hit by a potent combination of economic stagnation and high inflation—stagflation.[68] Because depository institutions borrow short (from depositors) and lend long (including to homeowners), they are highly vulnerable to sharp fluctuations in short-term interest rates. This was particularly true of thrifts in the 1970s, which were limited by statute and regulation to originating and holding long-term (10- to 30-year) fixed-rate mortgages.[69] The inability of thrifts to diversify this risk left them vulnerable to interest rate fluctuations.

As inflation spiked in the late 1970s, thrifts were forced to offer higher rates on the deposits used to fund their outstanding mortgages. The rising costs of funding resulted in losses for thrifts (whose income was essentially fixed because their assets were almost entirely composed of long-term fixed-rate mortgages),[70] and these problems were exacerbated when the Federal

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The urban homeownership rate, which may be a better proxy for current homeownership, was far lower in the pre-World War II era; for example, it was only 29.9% in the District of Columbia in 1940. *See Historical Census of Housing Tables*, *supra*.

[64] *See generally* Matthew Chambers et al., *Did Housing Policies Cause the Postwar Boom in Homeownership?* (Fed. Reserve Bank of St. Louis, Working Paper No. 2012-021A, 2012), *available at* http://research.stlouisfed.org/wp/2012/2012-021.pdf.

[65] Between 1945 and 1966, yields on three-month Treasury bills never rose above 4%. *See* Green & Wachter, *supra* note 42, at 97.

[66] *See* Kane & Wilson, *supra* note 32, at 573–77.

[67] *See generally* David A. Moss, *Reversing the Null: Regulation, Deregulation, and the Power of Ideas* (Harv. Bus. Sch., Working Paper No. 10-080, 2010).

[68] *See generally* Robert J. Laughlin, *Causes of the Savings and Loan Debacle*, 59 FORDHAM L. REV. S301 (1991).

[69] *See* Carl Felsenfeld, *The Savings and Loan Crisis*, 59 FORDHAM L. REV. S7, S10–11 (1991). As Felsenfeld notes, thrifts were monoline businesses that were also restricted from hedging or diversifying their risks. Commercial banks were not saddled with comparable restrictions and thus were able to diversify to some extent. *Id*. The share of residential mortgages held by commercial banks remained relatively constant as a result, going from 18.87% in 1950 to 14.89% in 1977. *See* Colton, *supra* note 54, at 9.

[70] *See, e.g.*, H.R. REP. NO. 101-54, at 2 (1989), *reprinted in* 1989 U.S.C.C.A.N. 86, 87 ("[T]he rising interest rate environment of the 1970's and early 1980's had a devastating effect

Reserve decided to combat inflation by rapidly increasing short-term interest rates.[71] Moreover, because of their deposit rate caps, banks and thrifts were limited in their ability to offer competitive interest rates in this inflationary environment. Many depositors responded by moving their money into U.S. Treasury securities, money market funds, and mutual funds.[72]

With the housing finance system facing a number of potentially existential threats by the early 1980s, legislators and regulators responded by removing many of the regulatory restrictions that had governed depository institutions, and particularly thrifts, since the New Deal era. Congressional legislation,[73] intended to "strengthen the financial stability of home mortgage lending institutions and [ensure] the availability of home mortgage loans,"[74] removed the caps on rates that could be paid to depositors,[75] eliminated most of the restrictions limiting thrifts to investing in residential home mortgages,[76] allowed thrifts to originate adjustable-rate mortgages

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on thrifts. Thrifts, locked into long-term, low-yielding, fixed-rate mortgages, experienced enormous operating losses."); Colton, *supra* note 54, at 10 ("Because they were forced to finance these mortgage loans by paying savers market rates reflecting the rate of inflation, the thrifts were caught in an earnings squeeze that hobbled them as a source of housing finance and threatened their long-term viability."). *See also* Green & Wachter, *The American Mortgage in Historical and International Context*, *supra* note 42, at 98 (noting that while commercial banks had also been affected by rising rates, their losses were not nearly as problematic, since they had been able to diversify their portfolios and hedge some of their interest rate risk).

[71] *See* H.R. REP. NO. 101-54, at 5.

[72] *See* Green & Wachter, *supra* note 42, at 98.

[73] In 1980, in an attempt to aid the ailing thrift industry, Congress passed the Depository Institutions Deregulation and Monetary Control Act ("DIDMCA"), Pub. L. No. 96-221, 94 Stat. 132 (1980) (codified as amended in scattered sections of 12 U.S.C.). DIDMCA did not succeed as hoped in reviving the thrift industry. From January 1981 to the end of the third quarter of 1982, thrifts saw a net deposit outflow of $45.7 billion. *See* NED EICHLER, THE THRIFT DEBACLE 71 (1989). In 1982, Congress passed a second, more comprehensive round of deregulation in the Garn-St Germain Depository Institutions Act of 1982 ("Garn-St Germain"). Garn-St Germain Depository Institutions Act of 1982, Pub. L. No. 97-320, 96 Stat. 1469 (codified as amended in scattered sections of 12 U.S.C.). These two bills, in tandem, significantly deregulated banks and particularly thrifts.

[74] 96 Stat. at 1469. In signing Garn-St Germain into law, President Ronald Reagan remarked that the bill was:

> the most important legislation for financial institutions in the last 50 years. It provides a long-term solution for troubled thrift institutions . . . by permitting the industry to make commercial loans and increase their consumer lending. It reduces their exposure to changes in the housing market and in interest rate levels. This in turn will make the thrift industry a stronger, more effective force in financing housing for millions of Americans in the years to come.

Remarks on Signing the Garn-St Germain Depository Institutions Act of 1982, 2 PUB. PAPERS 1331, 1331–1332 (Oct. 15, 1982).

[75] *See* 94 Stat. at 143.

[76] The 1980 passage of DIDMCA allowed thrifts to place up to 20% of their assets in short-term, market-rate investments, such as consumer loans, commercial paper, and corporate debt securities. *See id.* at 153. In 1982, Garn-St. Germain went further in deregulating thrift investments, by: (1) allowing thrifts to commit up to 10% of their assets to commercial or agricultural loans, (2) increasing the amount thrifts could invest in consumer loans to 30%, (3) increasing the amount thrifts could invest in non-real estate secured loans to 40%, (4) lifting restrictions on the amount thrifts could invest in educational loans and state and municipal

("ARMs"),[77] allowed thrifts to offer significantly more products to attract depositors (including checking accounts, money market funds, trust services, and credit cards),[78] and provided regulators with other tools to help struggling thrifts.[79]

The federal deregulation of thrifts quickly led to a regulatory "race to the bottom" with many state legislatures responding by deregulating their own oversight of thrifts, to the point where many state-chartered thrifts completely abandoned their traditional home mortgage lending in favor of other, riskier activities, including investments in fast food restaurants, junk bonds, and commercial paper.[80] Federal regulators also joined in the effort to provide regulatory relief to the thrift industry, allowing thrifts to use questionable accounting to mask weaknesses in their health and capital.[81]

Deregulation and regulatory forbearance ultimately proved to be devastating for the thrift industry, as they allowed and encouraged excessive risk-taking that quickly led to enormous losses.[82] By August 1989, thrift losses had grown so large that the federal government was forced to acknowledge the insolvency of the FSLIC fund, and enact the Financial Institutions Re-

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securities, and (5) permitting investments in the deposits and savings accounts of other federally insured thrifts. *See* H.R. REP. NO. 101-54, at 7.

[77] DIDMCA preempted state usury laws that had prevented thrifts from ARMs and other interest-rate sensitive mortgage products. *See* Laughlin, *supra* note 68, at S309–10. In 1981, the Federal Home Loan Bank Board ("FHLBB"), then the primary regulator for federally chartered thrifts, adopted regulations allowing federally regulated thrifts to originate and hold ARMs. At the time, some states, including California, were already allowing their state-chartered thrifts to issue ARMs. *See* Lawrence White, *The S&L Debacle*, 59 FORDHAM L. REV. S57, S61 (1991). The preemption of state usury laws set the stage for the subprime mortgage explosion that occurred two decades later. *See* Cathy Lesser Mansfield, *The Road to Subprime "Hel" Was Paved With Good Congressional Intentions: Usury Deregulation and the Subprime Home Equity Market*, 51 S.C. L. REV. 473, 492–95 (2000).

[78] *See* 94 Stat. at 146–158. *See also* H.R. REP. NO. 101-54, at 7.

[79] DIDMCA raised the maximum amount of deposits covered by federal deposit insurance from $40,000 to $100,000. 94 Stat. at 147–148. Garn-St Germain authorized the issuance of "net worth certificates" to assist any institution guaranteed by the FDIC or FSLIC. *See* H.R. REP. NO. 101-54, at 7. These net worth certificates were sold by FSLIC to financially troubled thrifts in exchange for promissory notes and a promise of future profits. *See* Laughlin, *supra* note 68, at S313–14.

[80] *See* Laughlin, *supra* note 68, at S315. By 1984, more than one-third of all states had granted their state-chartered thrift investment powers broader than those of federally chartered thrifts. *Id*.

[81] For example, the FHLBB allowed thrifts to use a number of misleading accounting methods for regulatory capital purposes that made their balance sheets appear stronger than they were, including the inclusion of net worth certificates as capital, the appreciated valuation of certain types of assets, and the exclusion of certain liabilities such as loans in process and deferred fees and credits. By 1984, these accounting methods, which were not allowed under generally accepted accounting principles ("GAAP"), had caused the thrift industry's regulatory capital to be overstated by $9 billion over GAAP. By the end of 1988, that differential had grown to nearly $15 billion. These problems were exacerbated by reductions in the capital standards governing thrifts, as the FHLBB reduced the minimum net worth requirement under which thrifts could operate from 5% to 3% by 1982. *See* H.R. REP. NO. 101-54, at 8; *see also* Felsenfeld, *supra* note 69, at S24–28.

[82] Felsenfeld, *supra* note 69, at S19.

form, Recovery, and Enforcement Act of 1989 ("FIRREA").[83] Ultimately, over 1,000 thrifts were taken over by the federal government,[84] leaving only 1,645 thrifts in existence by the end of 1995.[85] The costs of the thrift industry's implosion were hefty, with taxpayers incurring an estimated $123.8 billion in costs.[86] The thrift system of the post-War era was effectively ended, as the FDIC absorbed the insurance functions of FSLIC.[87]

These events accelerated the criticisms of the federal government's role in housing finance. A flood of post-mortem analyses argued that federal deposit insurance had caused increased risk-taking, and thus was primarily to blame for the high taxpayer costs of FIRREA.[88] The arguments that government guarantees reduced market discipline in banking, encouraged excessive risk-taking by banks, and exposed taxpayers to too much risk, which were ignored following the introduction of federal deposit insurance in the 1930s, quickly grew to be seen as conventional wisdom, as evidenced by the incorporation of market discipline into both U.S. banking regulation[89] and international banking guidelines in the 1980s and 1990s.[90]

B. The Rise of Secondary Market Guarantees

Following the enactment of FIRREA, the role of thrifts in U.S. housing finance declined dramatically. But the importance of depository institutions

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[83] Act of Aug. 9, 1989, Pub. L. No. 101-73, 103 Stat. 183 (codified as amended in scattered sections of 12 U.S.C.).

[84] *See* Timothy Curry & Lynn Shibut, *The Cost of the Savings and Loan Crisis: Truth and Consequences*, 13 FDIC BANKING REV. 26, 26 (2000).

[85] *Id.* at 26.

[86] *Id.* at 30–33.

[87] *See* H.R. REP. NO. 101-54, at 19 (1989), *reprinted in* 1989 U.S.C.C.A.N. 86, 106 (stating that FIRREA "transfers regulatory and chartering functions of the [FHLBB] to a newly created Office of Thrift Supervision . . . . The insurance function of the FSLIC will be transferred to the FDIC which will now administer both the commercial bank and thrift deposit insurance funds.").

[88] *See, e.g.*, JAMES R. BARTH, THE GREAT SAVINGS AND LOAN DEBACLE (1991); James R. Barth & Michael G. Bradley, *Thrift Deregulation and Federal Deposit Insurance*, 2 J. FIN. SERVICES RES. 231 (1989); Mitchell Berlin et al., *Deposit Insurance Reform: What are the Issues and What Needs to be Fixed?*, 15 J. BANKING & FIN. 735 (1991); EDWARD J. KANE, THE GATHERING CRISIS IN FEDERAL DEPOSIT INSURANCE (1985); Edward J. Kane, *Appearance and Reality for Deposit Insurance: the Case for Reform*, 10 J. BANKING & FIN. 175 (1986); Alden F. Shiers, *Deposit Insurance and Banking System Risk: Some Empirical Evidence*, 34 Q. REV. ECON. & FIN. 347 (1994); Clifford F. Thies & Daniel A. Gerlowski, *Deposit Insurance: A History of Failure*, 8 CATO J. 677 (1989); Lawrence J. White, *The Reform of Federal Deposit Insurance*, 3 J. ECON. PERSP. 11 (1989).

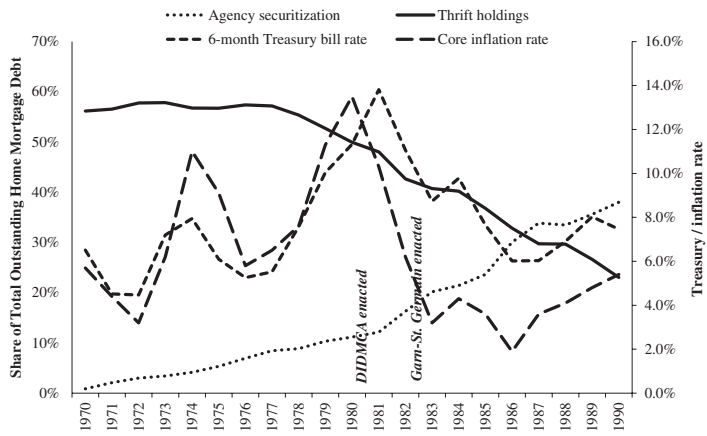
[89] *See also* Robert P. Bartlett, III, *Making Banks Transparent*, 65 VAND. L. REV. 293, 304 n.36, 308–09 (2012) (citing Proposed Statement of Policy Regarding the Availability and Use of Financial and Other Information by Depositors and Other Creditors of Banks and Thrifts, 49 Fed. Reg. 26,809 (proposed June 29, 1984) (stating that "the FDIC believes the supervisory efforts of the regulatory agencies must be supplemented by market discipline to promote sound bank and thrift management")).

[90] *See generally* BASEL COMM. ON BANKING SUPERVISION, *supra* note 37. *See also* BASEL COMM. ON BANKING SUPERVISION, ENHANCING BANK TRANSPARENCY: PUBLIC DISCLOSURE AND SUPERVISORY INFORMATION THAT PROMOTE SAFETY AND SOUNDNESS IN BANKING SYSTEMS (1998), *available at* http://www.bis.org/publ/bcbsc141.pdf.

for U.S. residential mortgage finance had actually begun to tail off well before the savings and loan crisis took hold. Following the high inflation and interest rate spikes of the late 1970s and early 1980s, thrifts saw a steady drop in their share of the overall residential mortgage market, as Figure 2 (below) illustrates. Moreover, having been burnt by the interest rate risk associated with long-term fixed-rate mortgages, banks and thrifts were increasingly loath to hold onto these types of loans. During the 1980s, depository institutions increasingly originated and held only adjustable-rate mortgages, where the interest rate risk lay with the borrower. To the extent that they originated fixed-rate loans, banks and thrifts increasingly sought to resell these loans in the so-called "secondary market" for residential mortgages. This secondary market demand for mortgages existed in large part because of the development of mortgage securitization pioneered by the government-sponsored enterprises Fannie Mae and Freddie Mac, and the governmental agency Ginnie Mae.[91]

Thus, while banks and thrifts continued to play an important role in the origination of mortgages, their role in financing mortgages diminished significantly, as the old "originate-to-hold" model of mortgage finance became replaced by a new "originate-to-distribute" model in which the sales of mortgages to secondary market actors (which themselves were funded by the sales of mortgage-backed securities to investors), rather than deposits, served to finance new mortgage originations.[92]

FIGURE 2. HISTORICAL SHARE OF AGENCY AND THRIFT HOME MORTGAGE DEBT COMPARED TO INFLATION AND TREASURY RATES[93]



[91] *See* Green & Wachter, *supra* note 42, at 98–99.

[92] *See* Eric S. Belsky & Nela Richardson, *Understanding the Boom and Bust in Nonprime Mortgage Lending* (Harv. Univ. Joint Ctr. for Hous. Studies, Working Paper No. UBB10-1, 2010), *available at* http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/ubb10-1.pdf.

[93] *See* FED. RESERVE BD., *supra* note 52 (data from years 1970–1990).

Like federal deposit insurance, these government-backed entities had their origins in the New Deal, with the establishment in 1938 of Fannie Mae. Fannie was created to support the market for mortgages insured by FHA (and later, mortgages backed by the Veterans Administration[94] for soldiers returning home from World War II), by purchasing these loans from originating lenders.[95] This new "secondary market" entity was not a major factor in the U.S. housing finance markets for the first several decades of its existence.[96] During its first decade of operations, Fannie purchased $318 million in mortgages,[97] and as of 1964, Fannie accounted for only $2 billion in outstanding home loans, less than 1% of the total market.[98]

In 1968, the Housing and Urban Development Act of 1968 split Fannie into two new entities.[99] The first was a fully governmental agency, called the Government National Mortgage Association ("Ginnie Mae"), which kept Fannie's original mission of ensuring a liquid secondary market for FHA- and VA-backed loans. The second entity, which retained the original Fannie Mae name, was a government-chartered, but for-profit, corporation authorized to buy and sell conventional mortgages (those not insured by FHA or VA).[100] In 1970, Congress created a second housing finance government-sponsored enterprise, the Federal Home Loan Mortgage Corporation ("FHLMC" or "Freddie Mac"), to help increase the availability of home loan finance, and to provide competition for Fannie Mae.[101] Like Fannie, Freddie was a private, government-chartered corporation empowered to buy and sell conventional mortgages in the secondary mortgage markets.[102] Neither Fannie, Freddie, nor Ginnie originates loans.

All three of these entities soon saw their importance rapidly increase with the creation of mortgage-backed securitization. In 1970, Ginnie Mae introduced the first mortgage-backed security in the form of "pass through

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[94] The Veterans Administration was renamed the Department of Veterans Affairs when it became a Cabinet-level department in 1989. *See History - VA History*, DEP'T OF VETERANS AFFAIRS, http://www.va.gov/about_va/vahistory.asp (last updated Apr. 5, 2012).

[95] Green & Wachter, *supra* note 42, at 95–96. Fannie was created in part to address a perceived market failure, wherein investors, who primarily came from affluent areas where mortgage demand was low, were reluctant to invest in mortgages, because the demand for mortgages primarily came from regions with which they were unfamiliar. *Id.* at 96. *See also* Colton, *supra* note 54, at 6.

[96] This was not the case for loans insured by FHA or guaranteed by the VA, which comprised a significant part of the market almost immediately. For example, FHA insurance was responsible for more than 30% of all the new homes built in the 1930s. *See* Colton, *supra* note 54, at 7.

[97] SAUL B. KLAMAN, THE POSTWAR RESIDENTIAL MORTGAGE MARKET 219 (1961).

[98] *See* FED. RESERVE BD., *supra* note 52 (data from years 1955–1964).

[99] Housing and Urban Development Act of 1968, Pub. L. No. 90-448, § 801, 82 Stat. 476 (codified at 12 U.S.C. § 1716b (2006)).

[100] *See, e.g.*, Colton, *supra* note 54, at 8; Green & Wachter, *supra* note 42, at 97–98.

[101] Federal Home Loan Mortgage Corporation Act, Pub. L. No. 91-351, § 301–10, 84 Stat. 451 (1970) (codified at 12 U.S.C. §§ 1451–59 (2006)).

[102] *See* Michael H. Schill, *Uniformity or Diversity: Residential Real Estate Finance Law in the 1990s and the Implications of Changing Financial Markets*, 64 S. CAL. L. REV. 1261, 1268 (1991).

certificates," which were securities collateralized by pools of FHA-insured mortgages and backed by Ginnie Mae's guarantee of timely payment of principal and interest to investors.[103] Fannie and Freddie followed with their own offerings.[104] Because Ginnie is a government agency, the federal government explicitly backs its MBS guarantees. Fannie and Freddie, as private, for-profit, companies, were not explicitly backed by the federal government, but their mortgage-related obligations came to be seen by investors as enjoying an implicit government guarantee, due to the combination of their government charters, governmentally granted benefits,[105] emphasis on public policy purposes, and special regulatory regimes.[106] Political leaders were careful not to dispel this assumption by investors, which was effectively confirmed with the 2008 conservatorship and bailouts of Fannie and Freddie.[107] Because of the government guarantee on mortgage-backed securities guaranteed by Fannie, Freddie, and Ginnie—often called "agency MBS"[108]—these securities enjoyed high demand from those seeking safe, low credit-risk investments.[109]

Notably, agency securitization appeared to solve the problem of interest rate risk that had caused such problems for the thrift industry.[110] While Fan-

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[103] *Id*. at 1270. It should be noted that mortgage-backed securities had predecessors from the pre-Depression era, in the form of "participation certificates" issued by large title and insurance companies. *See generally* William N. Goetzmann & Frank Newman, *Securitization in the 1920s* (Nat'l Bureau of Econ. Research, Working Paper No. 15650, 2010), *available at* http://www.nber.org/papers/w15650.

[104] In 1971, Freddie Mac offered the first mortgage-backed securities collateralized by conventional mortgages, in the form of "participation certificates," which were conventional mortgage versions of Ginnie's "pass through certificates." *See* MAUREEN BURTON ET AL., AN INTRODUCTION TO FINANCIAL MARKETS AND INSTITUTIONS 337–38 (2009). Fannie Mae became the last of the three agencies to offer mortgage-backed securities, in 1981. *Id*.

[105] These include: (1) the granting of federal charters, which can preempt state laws, (2) statutory authorization of special lines of credit with Treasury, (3) exemptions from most state and local taxes, (4) exemptions from SEC registration requirements for their securities, (5) the eligibility of their securities for open-market purchase by the Federal Reserve, and (6) other benefits not available to non-GSE firms. *See* Richard Scott Carnell, *Handling the Failure of a Government-Sponsored Enterprise*, 80 WASH. L. REV. 565, 580–84 (2005).

[106] *Id*. *See also* Lucas, *supra* note 15.

[107] *See generally* Lucas, *supra* note 15. This implicit guarantee may also have been bolstered by investors' belief that Fannie and Freddie were too important in housing finance to be allowed to fail. *Id*.

[108] Mortgage-backed securities guaranteed by Fannie, Freddie, or Ginnie are often referred to as "agency mortgage-backed securities" or "agency MBS," while other mortgage-backed securities are referred to as "private-label MBS." *See* BOND MKT. ASS'N, AN INVESTOR'S GUIDE TO PASS-THROUGH AND COLLATERALIZED MORTGAGE SECURITIES 2–3 (2002), *available at* http://www.freddiemac.com/mbs/docs/about_MBS.pdf.

[109] *Id.* at 2.

[110] There are at least three types of risk that arise in mortgage lending: credit risk, interest rate risk, and liquidity risk. Credit risk is the risk that the borrower will not repay the loan. Interest rate risk and liquidity risk are tied to the maturity transformation inherent in mortgage lending. Because modern mortgage finance typically relies on short-term, liquid instruments in order to finance longer-term, illiquid loans, high interest rate volatility, or a sudden loss of liquidity (such as from a banking panic) can cause major losses, or even insolvency. *See, e.g.*, Michael J. Lea, *Innovation and the Cost of Mortgage Credit: A Historical Perspective*, 7 HOUSING POL'Y DEBATE 147, 149–50 (1996), for a more detailed discussion of these and other risks in mortgage lending.

nie, Freddie, and Ginnie assume the credit risk—the risk that underlying mortgages might default—on the mortgage-backed securities they guarantee, they distribute the interest rate risk—the risk that short-term interest rate spikes might lead to a negative real yield between the cost of funds and the mortgage rates being paid by borrowers—on these securities to investors.[111] Given the high volatility of interest rates in the 1970s and early 1980s, followed by the increasing unwillingness of thrifts to hold mortgages (particularly fixed-rate mortgages, which have higher interest rate risk), the conditions were ripe for a major shift in U.S. residential mortgage finance away from deposits and toward agency securities as the major source of financing for home loans.[112]

In 1971, agency securitization accounted for about $6.7 billion in mortgage lending, about 2% of all outstanding residential mortgages.[113] By 1979, agency MBS had grown to account for $88.4 billion in mortgage loans, over 10% of all outstanding residential mortgages,[114] and by the end of 1984, agency securitization accounted for $283 billion in residential mortgages.[115] Following the formal restructuring of the thrift industry by FIRREA, agency securitization grew to dominate U.S. housing finance, accounting for 40% of all outstanding residential loans as of 1991.[116]

By the late 1990s, the shift from a housing finance system that was primarily dependent on retail deposits to a system that was primarily dependent on mortgage-backed securitization was basically complete. There were over $1 trillion in new mortgage originations each year from 1998–2000,

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[111] *See generally* ANDREW DAVIDSON & ANTHONY SANDERS, SECURITIZATION AFTER THE FALL (2009), *available* at http://merage.uci.edu/ResearchAndCenters/CRE/Resources/Documents/Davidson-Sanders.pdf; *see also* Green and Wachter, *supra* note 42, at 100; DWIGHT M. JAFFEE, CONTROLLING THE INTEREST RATE RISK OF FANNIE MAE AND FREDDIE MAC 5–6 (2006), *available at* http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID923568_code545810.pdf?abstractid=923568&mirid=5. As Jaffee notes, the retained mortgage portfolio business of Fannie and Freddie, discussed *infra*, has not controlled interest rate risk as well as their core securitization business. *Id.* at 11–14, 36.

[112] As discussed above, banks and thrifts would continue to play an important role in originating home mortgages following the rise of securitization. But banks and thrifts increasingly shied away from holding these loans to term, instead choosing to sell them to securitization conduits (either Fannie, Freddie, Ginnie, or private-label). Banks and thrifts (and their depositors) no longer provided the financing (other than short-term bridge financing) for loans that were part of this "originate-to-distribute" model, nor did they hold the risks associated with these loans. *See generally* Belsky & Richardson, *supra* note 92.

[113] *See* FED. RESERVE BD., *supra* note 52 (data from years 1965–1974).

[114] *Id.* (1975–1984).

[115] *Id.*

[116] *Id.* (1985–1994). To a large degree, this shift towards securitization was an outgrowth of deliberate policy decisions. President Reagan's Commission on Housing specifically called for a move away from relying so heavily on thrifts to finance residential mortgages, and made a series of recommendations, which were enacted into law, meant to improve the market for conventional MBS, including exemptions for Fannie and Freddie from state and local taxation as well as exemptions from registering their MBS with the SEC. *See* Kent W. Colton, *The Report of the President's Commission on Housing: The Nation's System of Housing Finance*, 11 J. AM. REAL EST. & URB. ECON. ASS'N 133, 157 (1983).

and the vast majority of these were financed by agency securitization.[117] By the end of 2003, Fannie and Freddie held or guaranteed more than $3.6 trillion in mortgages, over 40% of all outstanding residential mortgages.[118] Meanwhile, the thrift industry's market share fell precipitously from a high of 60% in 1976 to just 21% in 2000.[119]

That being said, the transition from deposits to securitization was not necessarily a transformative one. There are certainly major differences between depositories and the GSEs. For example, unlike depository institutions, Fannie and Freddie do not themselves originate mortgages. Instead they rely on third party lenders, including banks, thrifts, and independent mortgage lenders, to perform this function. And of course Fannie and Freddie finance their activities through the issuance of securities purchased by institutional investors rather than through retail deposits. But in terms of government guarantees, the charters for both depositories and GSEs are quite similar.[120]

Like federally guaranteed depository institutions, Fannie and Freddie are private, for-profit entities that enjoy a federal guarantee on their primary source of financing, ensuring that their mortgage funding will always be plentiful and cheap.[121] And like the thrifts of yore, Fannie and Freddie have been endowed with a number of other valuable, governmentally granted benefits, including an exemption from state and local taxes and an exemption from registering their securities with the Securities and Exchange Commission,[122] which provide them with a protected duopoly in the secondary markets that is analogous to the protected monopolies enjoyed by depository institutions during the first few decades following the New Deal.[123]

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[117] *See* Colton, *supra* note 54, at 13.

[118] *See* Green & Wachter, *supra* note 42, at 99.

[119] *See* Colton, *supra* note 54, at 14.

[120] Robert Van Order, a former Chief Economist for Freddie Mac, described this model in 2000 as one of "dueling charters," in which one set of government-backed intermediaries (GSEs) displaced the other (depositories). As Van Order notes, this was best understood as a substitution of government-chartered intermediaries rather than as a true transformation of the residential mortgage system. *See* Robert Van Order, *The U.S. Mortgage Market: A Model of Dueling Charters*, 11 J. HOUSING RES. 233, 236–39 (2000).

[121] *See supra* notes 105–07 and accompanying text. That being said, implicit government guarantees are not new to housing finance. As noted *supra* at note 45, federal deposit insurance was not explicitly backed by the federal government until 1987. Moreover, many observers believe that the explicit government guarantee of federal deposit insurance also includes an implicit guarantee of the non-depository obligations of banks and thrifts. *See, e.g.*, Kane & Wilson, *supra* note 31 at 576 (noting that while deposits were expressly covered by federal deposit insurance, "conjectural implicit federal guarantees" also cover "most of an insured bank's other contractual obligations").

[122] *See Assessing the Public Costs and Benefits of Fannie Mae and Freddie Mac Before the Subcomm. on Capital Mkts., Secs., and Gov't Sponsored Enters. of the H. Comm. on Banking and Fin. Servs.*, 104th Cong. 24 (1996) (statement of June E. O'Neill, Director, Congressional Budget Office) [hereinafter O'Neill].

[123] As Robert Clark describes in greater detail, the protections and benefits awarded by the federal government to depository institutions allowed them to extract what were essentially monopoly rents for their shareholders. *See generally* Robert Charles Clark, *The Soundness of Financial Intermediaries*, 86 YALE L.J. 1 (1976). Similarly, many critics of Fannie and Freddie

The transition in U.S. housing finance from deposits to securitization proceeded fairly smoothly, at least until the early 2000s, as Fannie, Freddie, and Ginnie provided ample mortgage liquidity that more than replaced the decline in mortgage credit from the ailing thrift industry.[124] Despite the strong criticisms of federal deposit insurance, there was generally a dearth of equivalent critiques of the government guarantees of Fannie and Freddie, at least initially, as government-backed securitization appeared to be working well in delivering mortgage finance broadly and on affordable terms to borrowers, with what appeared to be minimal risk to taxpayers.[125] The primary economic criticisms of Fannie and Freddie during this period revolved around the interest rate risk in the GSEs' investment portfolio[126] or the inefficient subsidization of the GSEs.[127]

But the 2008 financial crisis and federal conservatorship of Fannie and Freddie quickly reinvigorated criticisms of the government's role in housing finance. A number of new analyses, building on the market discipline criticisms of federal deposit insurance, argued that the government guarantees behind Fannie and Freddie had created a form of moral hazard which encouraged these two private companies to maximize their risk-taking, at an exorbitant cost to taxpayers.[128] Some went so far as to argue that these guarantees had caused the financial crisis.[129] Reducing the federal government's

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have pointed out the monopoly rents earned by these two GSEs. *See generally* Reiss, *supra* note 20.

[124] As Figure 2 indicates, by the 1990s, most thrifts had abandoned their traditional business model of originating and holding residential mortgages in favor of a new business model of originating and selling home mortgages to securitization conduits. Under this new "originate to distribute" model, thrifts no longer made the bulk of their revenues from mortgage interest payments, but rather from the fees generated by originating and reselling their loans. *See also* Belsky & Richardson, *supra* note 92.

[125] Gretchen Morgenson and Joshua Rosner have argued that a primary reason for the lack of academic research criticizing Fannie and Freddie during this period was the companies' large investment in academic research, both through their financial backing of the primary academic journals on housing, as well as through the payment of lucrative stipends for housing papers by leading academics in the field. GRETCHEN MORGENSON & JOSHUA ROSNER, RECKLESS ENDANGERMENT: HOW OUTSIZED AMBITION, GREED, AND CORRUPTION LED TO ECONOMIC ARMAGEDDON 73–76 (2011). They offer only anecdotal evidence to back this claim, so it is difficult to gauge the importance of the companies' expenditures on academic research.

[126] *See generally* JAFFEE, *supra* note 111.

[127] *See, e.g.*, O'Neill, *supra* note 122, at xii (finding that Fannie and Freddie retain about $2.1 billion a year—approximately one-third of the subsidy they receive—and this retained subsidy represents 40% of their corporate profits).

[128] *See, e.g.*, Jaffee, *supra* note 20, at 8 (arguing that government backing incentivized Fannie and Freddie to maximize their risk); Reiss, *supra* note 20.

[129] *See, e.g.*, WALLISON ET AL., *supra* note 20, at 7; ACHARYA ET AL., *supra* note 20; MORGENSON & ROSNER, *supra* note 125. It should be noted that all of these arguments rely heavily on the research of Edward Pinto, a former Fannie Mae executive and colleague of Wallison at the American Enterprise Institute. Pinto's research has been heavily criticized for a number of methodological flaws. *See, e.g.*, FCIC REPORT, *supra* note 3; DAVID MIN, FAULTY CONCLUSIONS BASED ON SHODDY FOUNDATIONS (2011), *available at* http://www.americanprogress.org/issues/2011/02/pdf/pinto.pdf; Belsky & Richardson, *supra* note 92; Jason Thomas & Robert Van Order, A Closer Look at Fannie Mae and Freddie Mac: What We Know, What We Think We Know and What We Don't Know (Mar. 2011) (unpublished manuscript), *available at* http://business.gwu.edu/creua/research-papers/files/fannie-freddie.pdf; Bethany McLean,

role in housing finance quickly became a leading position among key policy makers across the ideological spectrum.[130]

III. Mortgage Guarantees Are Correlated with Stability

While the dominant view in economics is that government guarantees in housing finance are destabilizing, insofar as they eliminate market discipline and encourage greater risk, this view must contend with the fact that government guarantees have historically been closely correlated with financial stability. As this Part describes, when government guarantees have been absent or on the wane, we have seen a high degree of volatility in housing finance. Conversely, when government guarantees have dominated the housing finance system, we have experienced extraordinary financial stability.

A. Pre-Depression Volatility

Prior to the introduction of government guarantees created by the New Deal's banking and housing reforms, U.S. mortgage finance (and financial intermediation more generally) was characterized by wild volatility. The cycle of asset booms followed by busts followed by banking crises was a regular occurrence during the pre-Depression era.

As financial historian Kenneth Snowden has noted, the 1920s-1930s banking cycle that preceded the Great Depression was not the first such bout of financial instability, but was rather "the worst in a series of booms and busts that shaped the development of the mortgage market in the U.S. during the nineteenth and early twentieth centuries."[131] This extreme volatility in pre-Depression mortgage finance was driven primarily by the well-documented procyclicality or "trend-chasing tendency" inherent in banking.[132]

Faith-Based Economic Theory, Reuters (Jan. 25, 2012, 3:45 PM), http://www.reuters.com/article/2012/01/25/us-reuters-magazine-mclean-faith-based-idUSTRE80O2F320120125.

[130] For example, both the Center for American Progress, a leading liberal think tank, and the American Enterprise Institute, a leading conservative think tank, emphasized that the federal government's "footprint" in housing finance should be dramatically reduced from previous historical levels. *See* Ctr. for Am. Progress, *supra* note 21; Wallison et al., *supra* note 20. The Obama administration and leading House Republicans also have both separately argued that the federal government's role in housing finance should be sharply reduced. *See* U.S. Dep't of Treasury & U.S. Dep't of Hous. & Urban Dev., *supra* note 22; Alan Zibel & Nick Timiraos, *House Republican Tries Again to Eliminate Fannie, Freddie*, Wall St. J., Mar. 17, 2011, http://professional.wsj.com/article/SB10001424052748704360404576206891471684866.html?mg=reno64-wsj.

[131] *See* Kenneth A. Snowden, The Anatomy of a Residential Mortgage Crisis: A Look Back to the 1930s 2 (2009), *available at* https://sedonaweb.com/attach/schools/NCBEfaculty/attach/chapter-297.pdf.

[132] *See, e.g.*, Raghuram G. Rajan, *Has Financial Development Made the World Riskier?* (Nat'l Bureau of Econ. Research, Working Paper No. 11728, 2005), *available at* http://www.kc.frb.org/publicat/sympos/2005/pdf/rajan2005.pdf; Claudio Borio et al., *Procylicality of the Financial System and Financial Stability: Issues and Policy Options* (Bank for Int'l Settlements, Working Paper No. 1, 2001), *available at* http://www.bis.org/publ/bppdf/bispap01a.pdf; Allen N. Berger & Gregory F. Udell, *The Institutional Memory Hypothesis and the Pro-*

During periods of strong economic growth, banks tend to overextend credit, and during periods of economic contraction, banks tend to be overly cautious in extending credit, in an irrational manner.[133] This financial procyclicality can create extreme bubble-bust cycles in the broader economy, as illustrated by the U.S. experience with macroeconomic volatility in the 1920s and the 1930s.[134]

Large asset price declines, including in real estate, were an important factor in the bank losses that triggered the banking panics of the early 1930s.[135] As depositors became worried about the solvency of banks, they sought to withdraw their funds. And because banks keep a large proportion of their assets in the form of long-term, illiquid loans, banks were unable to meet the sudden demands for deposit withdrawals, which caused insolvencies even among the healthiest banks.[136] By 1933, the situation had reached emergency levels. During the first few months of 1933 alone, 4,000 banks closed, leading President Franklin Roosevelt to declare a bank holiday on March 6, 1933 in an effort to stem the panic.[137] Between December 1930 and March 1933, about half of all U.S. banks had either closed or merged with other banks.[138]

But while this banking crisis was the worst in U.S. history, it was by no means unprecedented. The United States experienced major banking panics on a regular basis, including ones in 1814, 1819, 1837, 1839, 1857, 1861, 1873, 1884, 1890, 1893, 1907, and 1914.[139] These banking crises frequently triggered economic depressions, including ones in 1819, 1837, 1857, 1873, and 1893.[140]

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cylicality of Bank Lending Behavior (Fed. Reserve Bd., Working Paper No. 2003-02, 2003), *available at* http://www.bis.org/publ/work125.pdf.

[133] *See* Borio et al., *supra* note 132, at 11–18.

[134] *See generally* Barry Eichengreen & Kris Mitchener, *The Great Depression as a Credit Boom Gone Wrong*, 22 RES. IN ECON. HIST. 183 (2004).

[135] *See* Colton, *supra* note 54, at 2–3; *see also* Mandarino, *supra* note 58, at S267 (noting that the majority of failures of savings and loan institutions during the Great Depression "resulted from unsafe lending and borrowing practices in place before the Depression"). Bank losses were not limited to mortgages, as banks suffered large losses from speculative investments in the stock market. *See generally* Eichengreen & Mitchener, *supra* note 134.

[136] *See generally* Gorton, *supra* note 3.

[137] *See* FDIC, *supra* note 45, at 3–4.

[138] *See* Ben S. Bernanke, Member, Fed. Reserve Bd. of Governors, Money, Gold, and the Great Depression, Remarks at the Washington and Lee Univ. H. Parker Willis Lecture in Econ. Policy (Mar. 2, 2004), *available at* http://www.federalreserve.gov/boarddocs/speeches/2004/20040403022/default.htm.

[139] *See* Charles W. Calomiris & Gary Gorton, *The Origins of Banking Panics: Models, Facts, and Bank Regulation*, *in* FINANCIAL MARKETS AND FINANCIAL CRISES 109, 113–119 (R. Glenn Hubbard ed., 1991). *See also* Richard Sylla, *Political Economy of Supplying Money to a Growing Economy: Monetary Regimes and the Search for an Anchor to Stabilize the Value of Money*, 11 THEORETICAL INQUIRIES L. 1, 18 (2010).

[140] *See* IRVING FISHER, BOOMS AND DEPRESSIONS: SOME FIRST PRINCIPLES 46–47 (1932).

B. The Quiet Period

As described in Part II, the government's support for residential mortgage finance has historically come through two mechanisms: federal deposit insurance and the federal guarantee behind the obligations of Fannie Mae, Freddie Mac, and Ginnie Mae.

For the first fifty years following the New Deal, government support in housing finance came primarily through federal deposit insurance, as bank and thrift deposits were the main source of mortgage funding. During this period, mortgage banking was a predictable, boring, and profitable enterprise that largely operated according to the "3-6-3" rule of the time: pay 3% interest on deposits, lend out these deposits at 6%, and be on the golf course by 3 p.m.[141] Despite the relatively low rates paid on deposits, federal insurance coupled with a lack of competitors kept demand for these deposits high. As long as banks and thrifts offered rates competitive with short-term Treasuries, they had a plentiful source of funds.

As described in the previous Section, bank and thrift deposits gave way to agency securitization beginning in the late 1980s and early 1990s for a number of reasons, including interest rate pressure and deregulation. During this period, government support in housing finance largely shifted from federal deposit insurance to the federal guarantees behind agency securities.[142]

This period from the 1930s until the early 2000s has become known as the "Quiet Period" of U.S. banking because of the extraordinary and unprecedented financial stability the U.S. experienced. There was no major asset bubble (and thus no consequent bust) between 1929 and the late 1990s.[143] There was no credit bubble between 1929 and the mid-2000s.[144] The banking system did not experience a significant number of failures until the savings and loan crisis of 1990, and there was no major systemic event until the 2008 financial crisis.[145] Notably, this Quiet Period overlapped with an era in which government guarantees dominated the housing finance system. As Figure 3 below illustrates, during the period from their introduction until the early 2000s, government guarantees, either in the form of federal deposits or federal guarantees on agency MBS, have financed the vast majority of U.S. residential mortgages, often backing more than 80% of outstanding home loans.[146]

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[141] *See* Canova, *supra* note 59, at 1299.

[142] *See supra* note 124 and accompanying text.

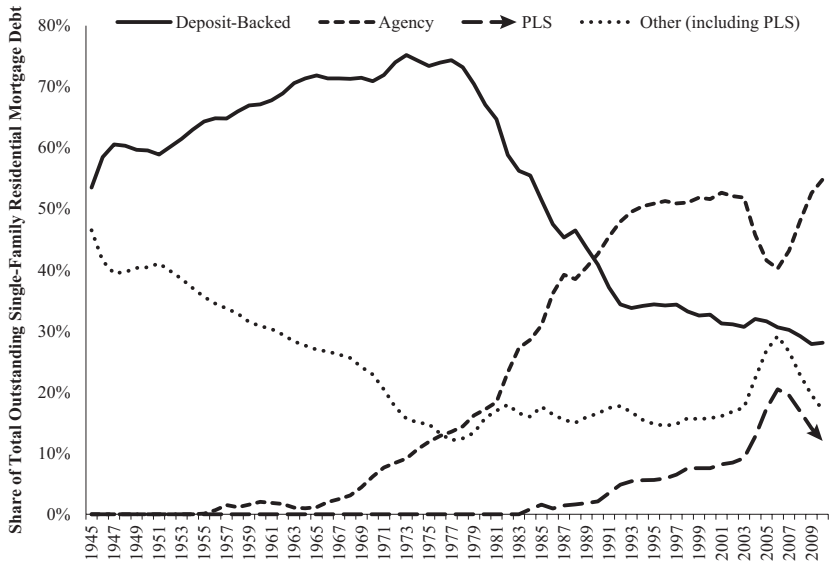
[143] *See* CHARLES P. KINDLEBERGER & ROBERT Z. ALIBER, MANIAS, PANICS, AND CRASHES: A HISTORY OF FINANCIAL CRISES 142–64 (2005).

[144] *See generally* CARMEN M. REINHART & KENNETH S. ROGOFF, THIS TIME IS DIFFERENT: EIGHT CENTURIES OF FINANCIAL FOLLY (2009).

[145] *See* Gorton, *supra* note 3, at 2–3.

[146] *See* FED. RESERVE BD., *supra* note 52 (data from 1945–2010).

FIGURE 3: SHARE OF OUTSTANDING MORTGAGE DEBT BY CHANNEL, 1945–2010[147]



C. The Return of Non-Guaranteed Housing Finance

The U.S. housing finance system finally experienced another major boom-bust cycle in the 2000s, as soaring real estate prices created in part by loose credit culminated in a 33% peak-to-trough decline in home prices, with a corresponding increase in mortgage delinquencies and foreclosures.[148] Importantly, the growth of this housing bubble coincided almost perfectly with a sudden surge in non-guaranteed housing finance, in the form of Wall Street's "private-label" securitization, which had been developed as an alternative to agency securitization.

Like agency securitization, private-label securitization revolves around purchasing and pooling mortgages from originating lenders and then issuing securities based on the expected cash flow of these mortgages.[149] But while private-label mortgage-backed securities ("private-label MBS") are superficially similar to agency MBS, they have some key differences that are important to note. Perhaps most importantly, private-label MBS were not

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[147] *See id.* Deposit-backed institutions include commercial banks, savings institutions, and credit unions. "Agency" describes Fannie, Freddie, and their fully governmental counterpart Ginnie Mae (*see supra* note 47 and accompanying text). "PLS" represents the share of private-label mortgage-backed securities.

[148] *See* Adam J. Levitin & Susan M. Wachter, *Explaining the Housing Bubble*, 100 GEO. L.J. 1177, 1177 (2012).

[149] *See id.* at 1182–83.

backed by a government guarantee.[150] Moreover, private-label MBS were typically issued by special purpose, off-balance sheet conduits, which were not subject to capital requirements or any other form of prudential regulation.[151] Additionally, the mortgages in private-label MBS were often originated by non-bank lenders not subject to regulatory supervision.[152]

From 2001 to 2003, private-label MBS hovered between 8% and 12% of total mortgage originations.[153] But beginning in 2003, private-label MBS experienced an incredible increase in growth followed by an equally incredible withdrawal from the market, which coincided almost perfectly with the bubble-bust cycle we saw in the broader housing market.[154] By 2006, private-label MBS accounted for 38% of all mortgage originations, surpassing the market share of the GSEs.[155] This amazing growth was facilitated by a number of instances of deregulation,[156] regulatory forbearance,[157] and regula-

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[150] *Id.* at 1181–83. As Levitin and Wachter explain, because of the lack of a guarantee, private-label investors assumed both interest rate risk and credit risk, which investors in mortgage-backed securities have generally been reluctant to absorb. *Id.* at 1190. To address investor concerns about credit risk, private-label MBS sponsors developed structural innovations to achieve high credit ratings, including overcollateralization and a tranching structure in which mortgage pools were "tranched" into discrete securities, with junior subordinated tranches supporting a senior, highly rated tranche. These innovations created large buffers against credit losses, and at least facially justified investment grade credit ratings for the senior tranches of securities issued. *Id.* at 1190–91.

[151] *See id.*

[152] The financial crisis has temporarily ended the issuance of private-label MBS. *See* Elizabeth Ecker, *Private Products: Return Inevitable, Impact Unknown*, REVERSE MORTGAGE DAILY (Apr. 28, 2011), http://reversemortgagedaily.com/2011/04/28/private-products-return-inevitable-impact-unknown. Moreover, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 fundamentally changes the way that private-label securities will be issued going forward. *See* 15 U.S.C. § 78o–11. Thus, in this section I largely use the past tense to refer to the way in which private-label MBS were issued.

[153] FIN. CRISIS INQUIRY COMM'N, PRELIMINARY STAFF REPORT: SECURITIZATION AND THE MORTGAGE CRISIS 10–11 (2010), *available at* http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/2010-0407-Preliminary_Staff_Report_-_Securitization_and_the_Mortgage_Crisis.pdf.

[154] *See* Atif Mian & Amir Sufi, *The Consequences of Mortgage Credit Expansion: Evidence from the U.S. Mortgage Default Crisis*, 122 Q.J. ECON. 1449, 1490 (2009) (noting that the unique home price appreciation patterns from 2002 to 2005 coincide exactly with the growth of private-label mortgage securitization).

[155] FIN. CRISIS INQUIRY COMM'N, *supra* note 153, at 10–11.

[156] For example, the exemption of swap derivatives from SEC oversight in the 2000 Commodity Futures Modernization Act was a key factor in the rapid proliferation and opacity of credit derivatives such as collateralized debt obligations and credit default swaps, which proved to be critical for expanding the demand for private-label MBS. *See* FCIC REPORT, *supra* note 3, at 48–51.

[157] Among the more notable instances of regulatory forbearance that helped to facilitate the rapid growth of private-label MBS were the failure of the Federal Reserve to issue and enforce anti-predatory lending rules authorized by the Home Ownership and Equity Protection Act of 1994 ("HOEPA") until 2008; *see* FCIC REPORT, *supra* note 3, at 83–96; the regulatory competition between the two primary federal banking regulators, the Office of Thrift Supervision and the Office of the Comptroller of the Currency ("OCC"), which appeared to cause these regulators to drag their feet on downgrading their regulated institutions' safety and soundness ratings; *see generally id.*; and the Securities and Exchange Commission's ill-fated and short-lived Consolidated Supervised Entities program, a safety and soundness regime that

tory preemption of stronger state laws,[158] which allowed private-label MBS to avoid the types of traditional bank regulation that characterized the Quiet Period.[159]

A major factor in the high demand for private-label MBS during this period was the development of the markets for short-term repurchase agreements ("repos") and asset-backed commercial paper ("ABCP").[160] Investment grade private-label MBS were heavily utilized as collateral in these highly liquid and very large markets.[161] Repo and ABCP in turn grew rapidly because they were eligible for purchase by money market funds, which were limited to investing in short-term liquid assets.[162] Collectively, repos, ABCP, and money market funds were key components in a capital markets infrastructure that became known as the "shadow banking system"—so called because it serves the key functions of banking (utilizing short-term liabilities to fund investments in long-term assets) without the government guarantees, access to Federal Reserve liquidity, or federal regulation of traditional banks.[163] In the decade leading up to the crisis, shadow banking grew tremendously, accounting for $6.2 trillion in *known* short-term liabilities in 2007, an amount that far exceeded the $4.3 trillion in FDIC-insured deposits in the traditional banking system.[164]

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was created at the behest of the five largest U.S. investment banks to avoid more stringent European regulation. *Id.* at 151–155.

[158] Probably the most notorious example of federal preemption of state laws in the 2000s was the OCC's preemption of state laws prohibiting predatory lending practices, which were themselves modeled after HOEPA. As many consumer advocates at the time complained, not only had federal regulators failed to enact HOEPA consumer protection rules, but they had preempted the so-called "mini-HOEPA" rules enacted by the states. *See* FCIC REPORT, *supra* note 3, at 111–14.

[159] *See generally* FCIC REPORT, *supra* note 3; Patricia A. McCoy, et al., *Systemic Risk Through Securitization: The Result of Deregulation and Regulatory Failure*, 41 CONN. L. REV. 1327 (2009).

[160] *See* FCIC REPORT, *supra* note 3, at 102–126, 324–85; *see generally* Gorton, *supra* note 3.

[161] *See* FCIC REPORT, *supra* note 3, at 102–126, 324–85. It should be noted that mortgage-backed securities are, for the most part, not themselves short-term instruments. As discussed *supra* in this Section, there are two types of mortgage-backed securities, agency MBS and private-label MBS. Agency MBS are primarily issued with stated durations of thirty years, although there are some five-, seven-, and fifteen-year securities as well. *See* THE BOND MKT. ASS'N, *supra* note 108, at 6. The actual durations of these MBS are shorter than their stated durations, due to the fact that most homeowners move or refinance their loans before they mature, thus prepaying their loans. *Id.* at 3–6. AAA-rated private-label MBS were typically issued with expected terms of approximately two years because these were constructed with a high percentage of short-term adjustable-rate mortgages designed to be refinanced upon the expiration of the low "teaser" rate. *See* Thomas & Van Order, *supra* note 129, at 7. But while MBS are not themselves short-term instruments, the repo and ABCP instruments that utilize these MBS as collateral are of very short duration (typically a few days or less), as are shares in the money market funds that purchase large amounts of repo and ABCP.

[162] *See generally* ZOLTAN POZSAR ET AL., FED. RESERVE BANK OF N.Y., SHADOW BANKING (2012), *available at* http://www.newyorkfed.org/research/staff_reports/sr458.pdf.

[163] *See generally* Gorton, *supra* note 3; POZSAR ET AL., *supra* note 162.

[164] *See* Morgan Ricks, *Regulating Money Creation After the Crisis*, 1 HARV. BUS. L. REV. 75, 84 (2011).

As many observers have noted, the financial crisis that occurred in the fall of 2008 centered upon the actual and perceived degradation of the credit quality of private-label MBS.[165] As the Financial Crisis Inquiry Commission describes, expected losses on private-label MBS triggered a full-fledged panic in the shadow banking system, as investors in short-term securities across a number of different markets with potential exposure to private-label MBS (including repos, ABCP, money market funds, prime brokerage accounts, and credit derivatives) simultaneously sought to redeem their funds or raise margin requirements, which also had the effect of sharply reducing liquidity.[166] This financial panic, which led to the failure of a number of well-established financial institutions such as American International Group, Lehman Brothers, and Reserve Primary Fund and prompted a series of bailouts from the Federal Reserve, Treasury, and Congress, was the first such panic the U.S. had experienced since the New Deal.[167]

The precipitous drop in the market share of private-label MBS was as remarkable as their sudden growth. Since the 2008 financial crisis, private-label MBS have essentially been a negligible source of housing finance in the United States.[168] As a result, Fannie and Freddie, along with Ginnie, have picked up an enormous amount of slack in the mortgage markets, even while under federal conservatorship. These three institutions currently are responsible for the financing for about 90% of all new residential mortgage originations.[169]

Given that the extreme rise and fall of private-label mortgage-backed securities coincided neatly with the bubble-bust cycle in housing, many leading experts have identified private-label MBS as a proximate cause of the financial crisis.[170] While the exact causes of the financial crisis are obviously a matter of great and intense debate,[171] it is indisputable that the sudden rise of non-guaranteed private-label MBS to become the primary source of housing finance during the mid-2000s was accompanied by the return of extreme

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[165] *See, e.g.*, Gorton, *supra* note 3; FCIC REPORT, *supra* note 3, at 324–85; Ricks, *supra* note 164; Markus K. Brunnermeier, *Deciphering the Liquidity and Credit Crunch 2007-2008*, 23 J. ECON. PERSP. 77, 78 (2009).

[166] *See* FCIC REPORT, *supra* note 3, at 324–85.

[167] *See generally* FCIC REPORT, *supra* note 3.

[168] Since the 2008 crisis, there have been only two small issuances of private-label mortgage-backed securities. *See* Ecker, *supra* note 152. These two deals, which amount to less than $600 million, were closed in early 2010 and mid-2011, by the Northern California real estate investment trust Redwood Trust. *Id.*

[169] *See* Binyamin Appelbaum, *New Housing Era: 30-Year Mortgage May Fade*, N.Y. TIMES, Mar. 4, 2011, at A1, *available at* http://www.nytimes.com/2011/03/04/business/04housing.html?pagewanted=all.

[170] *See, e.g.*, Levitin & Wachter, *supra* note 148; FCIC REPORT, *supra* note 3. *But see* FCIC REPORT, *supra* note 3, at 443–49 (Dissenting Statement of Peter J. Wallison) (rejecting the notion that private-label securitization was a meaningful cause of the financial crisis and arguing that governmental affordable housing policies, as overseen through the GSEs and regulated banks and thrifts, were primarily to blame).

[171] Levitin and Wachter provide a comprehensive overview of some of the leading explanations on what caused the financial crisis. *See* Levitin & Wachter, *supra* note 148, at 3–5.

volatility in housing finance, including the development of a large asset bubble in housing and a major financial panic.

D. The Costs of Financial Instability

Financial instability is extraordinarily costly for the larger economy. As economists Carmen Reinhart and Ken Rogoff have observed in their comprehensive review of financial crises, the cycle of asset bubbles and financial crises invariably leads to major financial and macroeconomic losses.[172] In the modern era, government debt increased an average of 86% in the three years following a banking crisis, primarily not because of bailouts but rather due to the sharp decline in tax receipts caused by a slumping economy.[173] Financial crises result in major reductions in household wealth, the availability of credit, and economic growth.[174]

The recent financial crisis in the United States has proven to be no exception to this rule. Following the 2008 financial crisis, U.S. households suffered an estimated $10 trillion decline in wealth,[175] with the median

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[172] *See generally* REINHART & ROGOFF, *supra* note 144.

[173] *See id.* at 142, 164.

> [T]his nearly universal focus on . . . bailout costs is both misguided and incomplete . . . [as] the fiscal consequences of banking crises reach far beyond the more immediate bailout costs. These consequences mainly result from the significant adverse impact that the crisis has on government revenues (in nearly all cases) and the fact that in some episodes the fiscal policy reaction to the crisis has also involved substantial fiscal stimulus packages.

Id.

[174] Why financial crises lead to deep recessions or depressions is of course a matter of significant debate. Reinhart and Rogoff suggest that financial crises are "an amplification mechanism" that severely exacerbate existing monetary shocks by sharply reducing credit availability. *Id.* at 145. Federal Reserve Chairman Ben Bernanke has hypothesized that this amplification, which he calls a "financial accelerator" effect, also exacerbates problems in the real economy, by causing a reduction in household consumption. *See* Ben S. Bernanke, Chairman, Fed. Reserve Bd., The Financial Accelerator and the Credit Channel, Remarks at the Credit Channel of Monetary Policy in the Twenty-First Century Conference, Fed. Reserve Bank of Atlanta (June 15, 2007), *available at* http://www.federalreserve.gov/newsevents/speech/bernanke20070615a.htm. A related concept, the "paradox of thrift," was advanced following the Great Depression by famed economist John Maynard Keynes and has recently received renewed interest as an explanation of why financial crises lead to economic downturns. The "paradox of thrift" contends that as households (or governments) seek to increase their savings in the aftermath of financial crises, aggregate demand is reduced, which actually results in economic deterioration and a reduction in the wealth of the household (or government). *See, e.g.*, Paul Krugman, *The Paradox of Thrift—for Real*, *The Conscience of a Liberal*, N.Y. TIMES (July 7, 2009, 8:48 AM), http://krugman.blogs.nytimes.com/2009/07/07/the-paradox-of-thrift-for-real/; W. MAX CORDEN, CTR. FOR ECON. POLICY RESEARCH, GLOBAL IMBALANCES AND THE PARADOX OF THRIFT, 4–6 (2011), *available at* http://www.cepr.org/pubs/policyinsights/PolicyInsight54.pdf.

[175] *See Cyclical Tailwinds, Secular Headwinds and the Market of Bonds*, PIMCO (Apr. 2010), https://canada.pimco.com/EN/Insights/Pages/Viewpoints%20Crescenzi%20April%202010.aspx.

household experiencing an 18% decline in its total net worth.[176] The financial crisis also had large spillover effects on the broader economy. The Organization of Economic Cooperation and Development ("OECD") estimated that the crisis will cause a 2.4% reduction in the long-run gross domestic product of the United States.[177] Other attempts to quantify the economic impacts of the 2008 financial crisis have estimated that the United States lost 9.5 million jobs as a result of the financial crisis,[178] with wage losses of $3,250 per household.[179] In other words, financial stability, of the kind we enjoyed from the 1940s through the 1980s (and arguably up until the 2000s[180]), is highly beneficial to society at large.

IV. How Housing Finance Guarantees Promote Stability

How can we reconcile the stark difference between prevailing economic theory, which tells us that government guarantees prevent efficient market outcomes and increase systemic risk, with the experience of actual history, which shows that government guarantees are strongly linked with stability in the housing finance system? As this Part lays out in greater detail, the structure of government guarantees in the U.S. housing finance system has promoted stability in three ways, which in the aggregate appear to outweigh any putative destabilizing effects attributed to government guarantees.

A. Key Impacts of Government Guarantees in U.S. Housing Finance

Prior to the Great Depression, the federal government did not provide guarantees for mortgage financing. As a result, the housing finance system looked dramatically different than it does today in several important ways. First, there was no federal deposit insurance or equivalent guarantee for other sources of housing finance. Second, the intermediaries that provided mortgage finance were highly heterogeneous, meaning that regulation of these intermediaries differed across jurisdiction, (and was typically quite

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[176] Jesse Bricker et al., Fed. Reserve Bd., Surveying the Aftermath of the Storm: Changes in Family Finances from 2007 to 2009, at 8 (2011), *available at* http://www.federalreserve.gov/pubs/feds/2011/201117/201117pap.pdf.

[177] Org. for Econ. Cooperation and Dev., Economic Policy Reforms: Going for Growth 2010, at 18–19 (2010), *available at* http://www.oecd.org/social/labour/economicpolicyreformsgoingforgrowth2010.htm.

[178] *See* Philip Swagel, The Cost of the Financial Crisis: The Impact of the September 2008 Economic Collapse 11 (2010), *available at* http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/Economic_Mobility/Cost-of-the-Crisis-final.pdf.

[179] *Id.* at 12.

[180] For example, Gorton states that the "Quiet Period" of U.S. banking extends from 1934 up until the recent financial crisis. *See* Gorton, *supra* note 3, at 2. While he acknowledges that the savings and loan crisis was costly, he argues that it was not a systemic event since there was no contagion outside of the thrift industry. *See id.*

lacking).[181] Third, mortgages themselves had much shorter durations, higher down payments, and far more risks borne by the borrower.[182] The introduction of government guarantees radically transformed these aspects of housing finance.

1. Guarantees of Bank and Thrift Deposits (and Agency MBS)

Government guarantees most obviously transformed the housing finance system by reassuring the investors who provided capital for housing finance (depositors and, later, purchasers of agency MBS) that their funds would be repaid. Before the New Deal, bank deposits and other forms of funding for housing finance were unguaranteed, and investors in these financial instruments could, and sometimes did, lose everything. As described above in Parts II and III, the New Deal fundamentally changed this dynamic, as the federal government guaranteed the vast majority of obligations (deposits and agency MBS) used to finance U.S. residential mortgages.

2. Establishment of Unified and Strong Regulation

The widespread dominance of government guarantees was also a critical factor in establishing a unified system of strong regulation of the U.S. housing finance system. State-chartered banks and thrifts that accepted federal deposit insurance became subject to examination and regulation by a federal bank regulator, in addition to their existing state regulatory oversight.[183] This radically transformed the regulatory framework that had previously been in place.

During the pre-Depression period, residential mortgage financing was dominated by commercial banks, savings institutions (including building and loan associations, which were the predecessor to savings and loan associations, and mutual savings banks), and life insurance companies.[184]

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[181] *See* Kris James Mitchener, *Bank Supervision, Regulation, and Instability During the Great Depression* 5–12 (Nat'l Bureau of Econ. Research, Working Paper No. 10475, 2004) (arguing that regulations varied highly between jurisdictions, with many jurisdictions subject to regulatory and legislative capture by financial institutions). Most mortgages were originated either by savings institutions, or by third party mortgage brokers who acted on behalf of commercial banks, life insurance companies, and other investors. *See, e.g.*, Michael J. Lea, *Innovation and the Cost of Mortgage Credit: A Historical Perspective*, 7 HOUSING POL'Y DEBATE 147, 154–59 (1996); Marc A. Weiss, *Market and Financing Home Ownership: Mortgage Lending and Public Policy in the United States, 1918-1989*, 18 BUS. & ECON. HIST. 110, 111–12 (1989); Daniel Immergluck, *Private Risk, Public Risk: Public Policy, Market Development, and the Mortgage Crisis*, 36 FORDHAM URB. L.J., 447, 450–53 (2009).

[182] *See* Snowden, *supra* at note 131, at 6–8.

[183] State-chartered banks that were members of the Federal Reserve System were regulated and examined by the Federal Reserve. Frank Wille, *State Banking: A Study in Dual Regulation*, 31 LAW & CONTEMP. PROBS. 733, 735 n.8 (1966). State-chartered banks that were not members of the Federal Reserve System were regulated by the FDIC. *Id*. State-chartered thrifts were regulated by FSLIC and the FHLBB. *Id*.

[184] *See* Snowden, *supra* note 131, at 6. Most mortgage originations were done either by savings institutions or by third party mortgage brokers that acted on behalf of commercial

These institutions were all highly localized, with an enormous amount of regional variance in terms of how mortgage origination and mortgage financing were conducted from market to market.[185] State regulations dominated the U.S. banking system prior to the Great Depression, with 64.5% of all commercial banks being state-chartered in 1929.[186]

The high degree of regional variance in banking meant that prudential regulations, including capital and reserve requirements, were widely uneven and frequently quite lacking across different jurisdictions.[187]

When federal guarantees were introduced into U.S. housing finance, they were paired with strong federal regulation. State-chartered banks and thrifts that accepted federal deposit insurance became subject to examination and regulation by a federal bank regulator, in addition to their existing state regulatory oversight.[188] This federal oversight included caps on the interest rates that could be paid on deposits.[189] Banks were specifically prohibited from engaging in risky activities such as investment banking and insurance, and the federal government obtained the power to conduct regular intrusive examinations of banks and thrifts to help ensure their safety and soundness.[190] This examination authority was used to closely scrutinize the composition and risk of the investment portfolios held by depository institutions.[191] Thrifts were also prohibited from originating loans with bullet payments.[192] Government guarantees for securitization were also paired with strong federal regulation for safety and soundness,[193] with an emphasis on ensuring

banks, life insurance companies, and other investors. *See* Immergluck, *supra* note 181, at 451–52.

[185] *See* Mitchener, *supra* note 181, at 5–10. One of the principal reasons that U.S. housing finance was so heterogeneous during the pre-Depression era was the so-called "dual banking system" of federal and state banking charters, created by the National Banking Acts of the 1860s, which created a large amount of disparity in regulatory standards across jurisdictions. *See id.* at 5–6. This dynamic also created a regulatory race to the bottom, with state regulators and legislators often seeking to offer a more favorable regulatory climate to attract more financial institutions. *See generally* EUGENE NELSON WHITE, THE REGULATION AND REFORM OF THE AMERICAN BANKING SYSTEM, 1900-1929 (1983). Another reason that pre-Depression housing finance was so fractured and variable was the geographic restrictions on banking that existed at the time. Nationally chartered banks were restricted from opening branches; while some states allowed their banks to branch, state-chartered banks could not open branches outside their states. *See* Mitchener, *supra* note 181, at 7–9.

[186] Eugene Nelson White, *A Reinterpretation of the Banking Crisis of 1930*, 44 J. ECON. HIST. 119, 122 (1984).

[187] *See* Mitchener, *supra* note 181, at 7–10.

[188] Wille, *supra* note 183, at 735 n.8.

[189] *See supra* note 59 and accompanying text.

[190] *See* FDIC, MANAGING THE CRISIS: THE FDIC AND RTC EXPERIENCE 738–40 (2003), *available at* http://www.fdic.gov/bank/historical/managing. As one prominent member of Congress described the banking regulation regime under consideration in the Glass-Steagall bill, "[t]he best way to restore [confidence in the banking system] is to examine strictly and regulate banking and guarantee the deposits of all banks sufficiently solvent to pass a rigid examination." 77 CONG. REC. 4032 (1933) (statement of Rep. Charles Fuller (D–Ark.)).

[191] *See* Clark, *supra* note 123, at 44–47.

[192] *See infra* text accompanying notes 208–209.

[193] Many have argued that Fannie and Freddie were not regulated heavily enough for safety and soundness, in the wake of their large losses and costly taxpayer bailouts. That being

that Fannie and Freddie held sufficient regulatory capital against their outstanding risks.[194] In other words, Fannie and Freddie are regulated much like depository institutions.

Underlying this regime of government guarantees coupled with heavy regulation was a belief that unrestrained competition in the banking industry caused the banking crises that preceded, and arguably brought about, the Great Depression.[195] In particular, many believed that a competitive escalation of interest rates paid on deposits caused a "race to the bottom" in which banks invested in increasingly riskier assets.[196] The potent combination of valuable government guarantees paired with strong regulation rapidly and radically transformed the regulatory terrain of mortgage finance in the United States. Almost overnight, U.S. housing finance went from having no government guarantees and mostly haphazard state regulation to having nearly universal government guarantees paired with a largely unified system of strong federal regulation, a combination that existed up until the early 2000s.

3. Introducing the Modern Mortgage

Mortgages offered during the pre-Depression period typically were written for no more than 50% of the property's value, had a short term (usually five years or less), a variable rate of interest and featured "bullet" or "balloon" payments of principal at term—unless borrowers could refinance the loan when it came due, they would have to pay off the outstanding loan balance.[197] Home loans were also quite expensive by today's standards, with mortgage rates in the 1920s averaging a 2% "spread" above the rates for high-grade corporate bonds (as opposed to a 0.50% spread today).[198]

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said, it is clear that Fannie and Freddie were regulated much more stringently than other types of non-depository financial institutions (such as investment banks).

[194] *See, e.g.*, OFFICE OF FED. HOUS. ENTER. OVERSIGHT, FY 2000-2005 STRATEGIC PLAN 9–10 (2000), *available at* http://www.fhfa.gov/webfiles/1108/SP2000-5.pdf (outlining OFHEO's efforts to ensure that Fannie and Freddie are adequately capitalized).

[195] *See* Canova, *supra* note 59, at 1298. Critics of the New Deal-era reforms argued that the combination of federal deposit insurance and heavy prudential regulation would ruin the U.S. banking system. *See* Nicholas Economides et al., *The Political Economy of Branching Restrictions and Deposit Insurance: A Model of Monopolistic Competition Among Small and Large Banks*, 39 J.L. & ECON. 667, 698 (1996) (citing efforts by Francis H. Sisson, the president of the American Bankers Association, to prevent the passage of the Glass-Steagall Act).

[196] *See* Canova, *supra* note 59, at 1298.

[197] *See* Green & Wachter, *supra* note 42, at 94 It should be noted that there were strong regional disparities in the specific terms offered on mortgage loans, as there was no national mortgage market in the pre-Depression era. *Id*. *See also* Snowden, *supra* note 131, at 5.

[198] *See, e.g.*, Lea, *supra* note 184, at 151; Ben S. Bernanke, Chairman, Fed. Reserve Bd., Housing, Housing Finance, and Monetary Policy, Speech at the Economic Symposium of the Fed. Reserve Bank of Kansas City (Aug. 31, 2007), *available at* http://www.federalreserve.gov/newsevents/speech/bernanke20070831a.htm. Bernanke also makes the point that the localized nature of mortgage financing during this period resulted in large regional disparities in mortgage pricing, with differentials of as much as two to four percentage points between different parts of the country. *Id*.

Ironically, the prevalence of loan characteristics that so heavily favored the interests of lenders[199] was a major factor in the large lender losses that occurred during the Great Depression.[200] Because mortgages of this time featured short durations and bullet payments of principal at term, borrowers bore significant refinancing risk, insofar as they were required to roll over their loans every few years. As the mortgage boom of the 1920s collapsed,[201] and the economy soured, lenders became more and more reluctant to roll over expiring loans. In the absence of available refinancing options, many mortgage borrowers were forced to sell their homes or go into foreclosure. But the impact of so many homes being offered for sale (either by their owners or by foreclosing banks) at the same time depressed home prices even further. Lower home prices effectively meant that borrowers seeking to refinance had less home equity, further harming their ability to refinance under the strict (50% or lower) loan-to-value ("LTV") requirements used by lenders at the time.[202] The inability of homeowners to find refinancing created more downward pressure on prices and led to increased delinquencies, which in turn made banks even less likely to lend.

This "vicious circle"[203] of falling home prices, increasing delinquencies, and decreasing availability of mortgage finance led to enormous losses

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[199] There are several key risks associated with mortgage lending, including credit risk, interest rate risk, and liquidity risk. *See supra* note 110. The mortgage terms of the pre-Depression era mostly laid these risks onto borrowers, and were thus highly favorable to lenders. The short durations of these loans protected lenders from fluctuations in interest rates, the low loan-to-value requirements (requiring either a high down payment or the securing of second or even third loans) gave lenders a large buffer against credit losses, and the relatively high interest rates gave lenders an attractive rate of return for taking on these risks. *See* Green & Wachter, *supra* note 55.

[200] There is much debate over what caused the Great Depression. Earlier scholars argued that the Depression was critically linked to a fall in housing investment. *See, e.g.*, BERT HICKMAN, GROWTH AND STABILITY OF THE POSTWAR ECONOMY 320–21 (1960); ROBERT A. GORDON, ECONOMIC INSTABILITY AND GROWTH: THE AMERICAN RECORD 70–71 (1974). But in recent years, the literature has mostly focused on other causes, including monetary policy errors, as principally responsible for the Great Depression. *See, e.g.*, MILTON FRIEDMAN AND ANNA J. SCHWARTZ, MONETARY HISTORY OF THE UNITED STATES (1963). Regardless, the high losses associated with mortgage delinquencies and foreclosures weighed heavily on the banking system during the banking crash of the early 1930s.

[201] During the 1920s, U.S. mortgage lending surged, with urban home mortgage debt rising from about $9 billion to about $20 billion between 1920 and 1930. *See* Fed. Home Loan Bank Bd., *A Safer Home-Mortgage Debt*, 5 FED. HOME LOAN BANK REV. 262, 262–70 (1939), *available at* http://fraser.stlouisfed.org/docs/publications/fhlbr/fhlbr_193906.pdf. Total residential mortgage debt more than tripled during this period. *See* Weiss, *supra* note 181, at 112. This mortgage boom peaked in 1925 and ended with the banking panic of the early 1930s. *See* REINHART & ROGOFF, *supra* 144, 160–62. *See also* Mandarino, *supra* note 58, at S266 (noting that the savings and loan industry experienced a boom in the 1920s, with the number of savings and loan institutions rising from about 8,600 to around 12,000 in the 1920s, with a housing and banking crash occurring in the early 1930s).

[202] *See*, *e.g.*, Green & Wachter, *The American Mortgage in Historical and International Context*, *supra* note 42, at 94–95; Green & Wachter, The Housing Finance Revolution, *supra* note 55, at 17–18; Lea, *supra* note 184, at 158–59.

[203] Irving Fisher famously argued in 1932 that the Great Depression had been caused by a "vicious spiral" in which falling asset prices forced debtor liquidations, which caused asset prices to fall further. *See generally* FISHER, *supra* note 140.

in the housing markets. Property values declined by 50% from their peaks, a development that was devastating for mortgagees and mortgagors alike.[204] During the worst of the Great Depression, the delinquency rate for urban home mortgages reached approximately 50%,[205] with a national foreclosure rate of nearly 10%.[206] This foreclosure rate would have been even higher were it not for various moratoria imposed by states on foreclosures.[207]

The introduction of government guarantees into housing finance had the effect of radically transforming the product characteristics of home loans. Government guarantees created and popularized the modern mortgage we take for granted today: the affordably priced, high loan-to-value, long term, fixed-rate, fully self-amortizing loan.[208] This was accomplished with a carrot-and-stick approach to mortgage finance.

The stick was a prohibition on "bullet" loans—short-term mortgages that did not fully amortize and thus required a bullet payment of principal at term—for all federally regulated thrifts, which were a primary source of mortgage originations at the time. Bullet loans were seen as a major cause of the Great Depression-era foreclosure crisis, and the prohibition on their origination placed severe restrictions on the ability of thrifts to originate short-term and variable-rate loans, effectively steering them towards long-term, fixed-rate home loans.[209]

The carrot was FHA mortgage insurance, which was created to stimulate more liquidity in the private mortgage markets by providing government insurance against mortgage defaults on qualifying loans. FHA insurance was limited to covering mortgages with certain standards, and initially only covered fixed-rate, self-amortizing loans up to an 80% LTV.[210] Moreover, FHA

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[204] *See* Green and Wachter, *supra* note 42, at 94–95.

[205] *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, 138–39 (2008), *available at* http://research.stlouisfed.org/publications/review/08/05/Wheelock.pdf. This data was compiled through a study of twenty-two cities by the Department of Commerce. As Wheelock notes, more comprehensive data (such as national delinquency rates) do not exist. *Id.*

[206] *See* Green & Wachter, *supra* note 42, at 94–95.

[207] *See* Wheelock, *supra* note 205, at 138 (citing J. Douglass Poteat, *State Legislative Relief for the Mortgage Debtor During the Depression*, 5 LAW & CONTEMP. PROBS. 517 (1938)).

[208] A fully self-amortizing mortgage is one that pays off its principal over the term of the loan. As aforementioned, *supra* text accompanying notes 197–202, mortgages during the pre-Depression era typically did not fully amortize, requiring large bullet payments of principal at term.

[209] *See* Green & Wachter, *supra* note 42, at 95; *see also* Robert Van Order & Lynn Fisher, *Economics of the Mortgage and Mortgage Institutions: Differences Between Civil Law and Common Law Approaches* 10–11 (Ross School of Bus., Working Paper No. 1081, 2006); and John M. Quigley, *Federal Credit and Insurance Programs*, 88 FED. RES. BANK OF ST. LOUIS REV. 281, 282–88 (2006), *available at* http://urbanpolicy.berkeley.edu/pdf/QFederalCredit Proof0506.pdf.

[210] *See* Green & Wachter, *supra* note 42, at 95–97. In 1948, the 20-year term for FHA loans was extended to thirty years. In 1956, the maximum LTV ratio for FHA purchase mortgages was raised from 80% to 90%. *Id.* For a good discussion of the early years of the FHA, *see generally* FED. HOUS. ADMIN., THE FHA'S FIRST 25 YEARS: THE FHA STORY IN SUMMARY 2–5 (1959), *available at* http://www.scribd.com/doc/23806997/The-FHA-s-First-25-Years.

loans capped the amount of interest that could be charged on mortgages (initially at 5% annually).[211] Coupled with a similar VA program introduced in 1944 (for servicemen returning home from World War II),[212] FHA effectively created a new national set of mortgage standards, which transformed the typical U.S. home loan from a high-cost, low LTV (50% or less), variable-rate, short-term, non-amortizing loan into a low-cost (rate initially capped at 6%), relatively high LTV (initially 80%), fixed-rate, long-term (initially twenty years, then later changed to thirty years), fully self-amortizing loan.[213]

B. U.S. Mortgage Guarantees Promote Financial Stability

The three effects of government guarantees described in the previous section—guaranteeing bank and thrift deposits, establishing strong and unified regulation of the U.S. housing finance system, and broadly introducing the modern, 30-year fixed-rate mortgage—promote stability in three key ways that cannot be overlooked when considering why government guarantees have been so closely tied to housing finance stability. First, they prevent financial panics. Second, they limit the procyclicality of banking. And third, they help to stabilize the housing market (as opposed to housing finance) through the promotion of consumer-friendly products that are less likely to default.

1. Preventing Banking (and Shadow Banking) Panics

The most obvious way in which government guarantees promote housing finance stability is by preventing banking panics, a situation in which a number of bank runs occur contemporaneously, causing the insolvency of

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[211] *See* National Housing Act, Pub. L. No. 73–479, 48 Stat. 1246, 1248 (1934).

[212] Servicemen's Readjustment Act of 1944, Pub. L. No. 78-346, §§ 500, 501, 58 Stat. 284, 291–92. The VA program differed from FHA insurance, insofar as the VA guaranteed only a portion of the loan (up to 60%), required no down payment, and had no mortgage insurance premium since it was a guarantee rather than an insurance program. These differences were relatively minor in terms of the functioning of the two programs, which is why they are often described in tandem. *See* Colton, *supra* note 54, at 7.

[213] *See* Green & Wachter, *supra* note 42, at 95–97. These new standards served to dramatically expand the demand for home loans, as the higher LTVs and longer amortization periods lowered the upfront and monthly costs of mortgages, and the fixed rates provided cost certainty to households. Between 1949 and 1979, mortgage debt grew from 20% to 46% of total household income. *Id.* at 93. The growth in mortgage financing was reflected in the national homeownership rate, which increased from 43.6% to 64.4% between 1940 and 1980. *See* U.S. CENSUS BUREAU, HISTORICAL CENSUS OF HOUSING TABLES, http://www.census.gov/hhes/www/housing/census/historic/owner.html (last visited April 7, 2013). The Home Owners Loan Corporation ("HOLC"), which was created in 1933 to combat the foreclosure crisis, also played an important role in the development of the modern mortgage. In the early 1930s, HOLC purchased delinquent mortgages from banks and other lenders, and refinanced the borrowers into long-term (twenty years), fixed-rate, fully amortizing mortgages. HOLC did one million such refinances before being dissolved in 1936. *See* Green & Wachter, *supra* note 42, at 95–96.

the banking system in the absence of some extraordinary action (such as government intervention).[214]

In their seminal paper on bank runs,[215] Douglas Diamond and Philip Dybvig describe a bank run as a situation in which "depositors rush to withdraw their deposits because they expect the bank to fail. In fact, the sudden withdrawals can force the bank to liquidate many of its assets at a loss and to fail."[216] More recently, bank runs have been described as a phenomenon in which "large numbers of funding providers with near-term maturities decline to renew their contracts upon expiration . . . . [T]hey decline to 'roll over.'"[217]

Because banking relies on leverage (using debt to finance lending) and maturity transformation (using short-term debt to finance long-term loans), it is inherently vulnerable to the problem of bank runs. Even a very well capitalized, highly conservative bank is essentially borrowing 80-90% of the funds (in the form of deposits) it uses to make loans. If a critical mass of investors seeks to redeem its funds (say because of rumors of coming losses), a bank will be forced to sell off its loans, which are typically illiquid assets, at fire sale prices. This dynamic can cause the insolvency of even a healthy bank.[218]

Bank runs can also lead to the problem of contagion, in which one bank run triggers a decline in confidence among investors in other banks, leading to a series of bank runs. As more banks seek to sell their illiquid loan assets to satisfy the demands of their depositors, this depresses the prices of those assets, causing bank insolvencies which in turn foment even greater panic in the markets. If left unchecked, bank runs can quickly spiral out of control, leading to banking panics and the large economic costs associated with these. This can happen even when banks are solvent, as the sudden loss of liquidity causes real economic losses.[219]

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[214] Charles Calomiris and Gary Gorton note that "[t]he term banking panic is often used somewhat ambiguously" to describe the failure of a large number of banks, which can sometimes sweep in events that do not include financial market turmoil, such as stock market crashes or recessions. They define a banking panic as something that "occurs when bank debt holders at all or many banks in the banking system suddenly demand that banks convert their debt claims into cash (at par) . . . ." *See* Calomiris & Gorton, *supra* note 139, at 112–13.

[215] As Calomiris and Gorton note, banking panics and bank runs are often confused. A banking panic "involves a large number of banks and is, therefore, to be distinguished from a 'run' involving only a single bank." *Id.* at 112.

[216] Douglas W. Diamond & Philip H. Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*, 91 J. POL. ECON. 401, 401 (1983).

[217] Ricks, *supra* note 164, at 84.

[218] *Id.* at 105 ("[I]t is entirely possible for a well-capitalized [bank]—one whose assets exceed its liabilities in value—to experience [a run]. Running out of cash and running out of equity are not the same thing . . . .").

[219] This was a central and highly influential finding of Diamond and Dybvig, namely that bank runs could occur in the absence of some exogenous event, such as large credit losses. A simple loss of confidence could lead to the insolvency of the entire banking system. *See generally* Diamond & Dybvig, *supra* note 216. For a broader review of the extensive literature on bank runs, *see* Hancock & Passmore, *supra* note 21, at 22. *See also generally* GARY GORTON

The presence of government guarantees for bank deposits instills confidence even during periods of crisis, thus inoculating banks against runs and preventing banking panics from occurring.[220] Since the implementation of federal deposit insurance, runs on insured depository institutions have mostly disappeared,[221] and banking panics have completely disappeared from this part of the financial system.[222]

But as we learned during the 2008 financial crisis, bank runs and banking panics need not be limited to depository institutions. Any financial activity that relies on leveraged maturity transformation—the use of short-term debt liabilities to finance long-term credit assets—is essentially "banking" and thus vulnerable to bank runs.[223] As discussed above, following the interest rate shocks of the 1970s, most mortgage finance went from being financed by deposits to being financed by securitization; the mortgage-backed securities issued out of this process became an integral part of the shadow banking system.[224] Shadow banking, much like the traditional deposit-based banking system it has displaced, relies upon leverage and the use of short-term instruments to finance long-term loan assets (particularly home loans).[225] But unlike traditional banks, shadow banks did not have access to Federal Reserve liquidity or federal deposit insurance and were thus vulnerable to the problem of runs and panics, as we saw during the financial crisis of 2008.[226]

& ANDREW WINTON, *Financial Intermediation*, *in* HANDBOOK OF THE ECONOMICS OF FINANCE 432 (George Constantinides et al. eds., 2003).

[220] *See, e.g.*, George G. Kaufman, *Deposit Insurance, The Concise Encyclopedia of Economics*, LIBRARY OF ECON. AND LIBERTY, http://www.econlib.org/library/Enc1/DepositInsurance.html (last visited Mar. 10, 2013).

[221] Government guarantees have made bank runs virtually non-existent, but runs have still occasionally occurred since the introduction of these guarantees. In 1984, depositors with accounts exceeding the $100,000 FDIC insurance limit then in place carried out a run on Continental Illinois. In 2003, foreign-born depositors who were not fully familiar with FDIC insurance staged a three-day run on Abacus Federal Savings Bank, a healthy thrift in Queens, New York. *See* RICHARD SCOTT CARNELL, JONATHAN R. MACEY & GEOFFREY P. MILLER, THE LAW OF BANKING AND FINANCIAL INSTITUTIONS, 46–47 (4th ed. 2009).

[222] *See generally* Gorton, *supra* note 3.

[223] *See generally* Ricks, *supra* note 164.

[224] As discussed above, investment-grade private-label MBS were heavily utilized as collateral across many key markets in the shadow banking system. *See supra* text accompanying notes 160–64.

[225] As discussed, *supra* note 161, MBS (agency and private-label) are not themselves short-term instruments, but are heavily utilized as collateral in various short-term financing markets such as short-term repo and ABCP.

[226] As the FCIC shows, *supra* note 3, at 293, in September 2008 fears about exposure to "toxic" private-label MBS sparked panics in the markets for short-term repos, ABCP, unsecured commercial paper, and over-the-counter derivatives, which in turn caused runs on money market funds, prime brokers, and hedge funds, among others. *See also* Gorton, *supra* note 3, at 30 (describing the shadow banking system as "vulnerable to panic"); Paul McCulley, Managing Director, PIMCO, Comments Before the Money Marketeers Club (Mar. 19, 2009) (transcript available at http://www.pimco.com/EN/Insights/Pages/Global%20Central%20Bank%20Focus%20April%202009%20Money%20Marketeers%20Solitaire%20McCulley.aspx) (describing shadow banks as "levered-up intermediaries without access to either FDIC deposit insurance or the Fed's discount window to protect against runs or stop runs");

The financial crisis once again confirmed the effectiveness of government guarantees in preventing runs and panics. While the non-guaranteed shadow banking system suffered through a series of devastating panics that continued to escalate until enormous federal bailouts were provided, the guaranteed parts of the housing finance system were fairly immune to this problem. While there were several runs in the federally insured traditional banking system, these were largely concentrated among creditors who were not eligible for FDIC coverage, such as uninsured depositors and other creditors, and these runs did not lead to a panic.[227] Similarly, as Financial Crisis Inquiry Commission Chairman Phil Angelides has noted, there was no panic around agency MBS because these enjoyed a guarantee from the federal government.[228]

By preventing runs and panics, a government guarantee improves market stability and eliminates the high economic and other costs associated

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Nouriel Roubini, Editorial, *The Shadow Banking System is Unraveling*, FIN. TIMES, Sept. 21, 2008, http://www.ft.com/intl/cms/s/0/622acc9e-87f1-11dd-b114-0000779fd18c.html#axzz1YS71Go73 (stating that the shadow banking system, like the regular banking system, is vulnerable to the risk of a "self-fulfilling and destructive run").

[227] There are two notable instances of depository institutions suffering runs during the summer and fall of 2008. In July 2008, IndyMac, a federally chartered thrift with high exposure to poorly underwritten nontraditional mortgages, experienced a sudden surge in redemptions, as depositors withdrew $1.55 billion following the release of a letter from Senator Charles Schumer (D-N.Y.) to the FDIC and OTS alleging that IndyMac had a number of serious problems and requesting regulatory action. IndyMac was subsequently put into receivership by the FDIC, although the Inspector General of the Treasury Department concluded that IndyMac's failure was due to credit losses rather than the withdrawals of deposits. *See generally* OFFICE OF INSPECTOR GEN., DEP'T OF THE TREASURY, OIG-09-032, SAFETY AND SOUNDNESS: MATERIAL LOSS REVIEW OF INDYMAC BANK, FSB, at 27 (2009), *available at* http://www.treasury.gov/about/organizational-structure/ig/Documents/oig09032.pdf. Immediately following these well-publicized problems with IndyMac, depositors at Washington Mutual ("WaMu"), another federally chartered thrift with high exposure to poorly underwritten nontraditional mortgages, withdrew $9.4 billion in funds. "[M]ost of the money withdrawn during the July bank run lacked FDIC coverage, because it exceeded the $100,000 limit at the time." Kirsten Grind, *The Downfall of Washington Mutual*, PUGET SOUND BUS. J., Sept. 27, 2009, http://www.bizjournals.com/seattle/stories/2009/09/28/story1.html?page=all. WaMu suffered another, more devastating and ultimately fatal run in September 2008, as depositors withdrew $16.7 billion in the eight days following the failure of Lehman. *See* OFFICE OF INSPECTOR GEN., DEP'T OF THE TREASURY & OFFICE OF INSPECTOR GEN., FDIC, REP. NO. EVAL-10-002, EVALUATION OF FEDERAL REGULATORY OVERSIGHT OF WASHINGTON MUTUAL BANK 51 (2010), *available at* http://www.fdicoig.gov/reports10/10-002EV.pdf. In contrast to the July 2008 run, most of the money withdrawn during the September 2008 run was insured by the FDIC, prompting John Reich, the OTS Director at the time, to speculate, "I think we have a new generation of bank customers who know little or nothing about deposit insurance and I think that we need to reeducate the public." Jim Zarroli, *Washington Mutual Collapses*, NPR (Sept. 26, 2008), *available at* http://www.npr.org/templates/story/story.php?storyId=95105112. *See also* Grind, *supra*. Wachovia also experienced significant outflows of deposits in September 2008, although this is generally not described as a run. *See* FCIC REPORT, *supra* note 3, at 366–71.

[228] Phil Angelides, Op-Ed., *Fannie, Freddie and the Financial Crisis*, BLOOMBERG, Aug. 3, 2011, http://www.bloomberg.com/news/2011-08-04/fannie-freddie-role-in-the-financial-crisis-commentary-by-phil-angelides.html ("GSE mortgage securities essentially maintained their value throughout the [financial] crisis largely due to the implicit government backstop, while those created by other financial firms crashed.").

with banking panics. The 2008 crisis served as an important demonstration of the perils that can accompany a non-guaranteed banking (or shadow banking) system.

2. Preventing Bubbles from Forming

Government guarantees can also limit the tendency of housing finance intermediaries to overextend risk during economic expansions. To the extent that government guarantees in U.S. housing finance direct the vast majority of housing finance capital into the intermediaries that are most highly regulated for safety and soundness, as they have historically done, they may serve to prevent housing bubbles from forming.

As discussed above in Section II, the procyclicality of housing finance is well documented.[229] During periods of strong economic growth, banks and other housing finance intermediaries tend to overextend credit, and during periods of economic contraction, they tend to be overly cautious in extending credit, in an irrational manner.[230] This procyclicality causes boom-bust cycles that are extraordinarily inefficient insofar as they misallocate capital to unproductive purposes during economic expansions, thus inflating credit bubbles.

Because government guarantees in housing finance provide a powerful competitive advantage in the form of broad, cheap, and constant funding,[231] they have the effect of directing capital into the financial intermediaries that receive these guarantees, which also happen to be the financial intermediaries that are most highly regulated for safety and soundness and thus, at least in theory, least capable of taking on excessive risk due to regulatory constraints. In this way, government guarantees can potentially neuter the procyclical tendencies of mortgage finance.

Indeed, during the 2000s, we saw some evidence of the value of government guarantees in limiting housing bubbles. Traditional banks had far lower leverage ratios than did shadow banks, which were levered up as high

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[229] *See supra* note 132 and accompanying text.

[230] *See* Borio et al., *supra* note 132, at 11–18. *See also* Jianping Mei & Anthony Saunders, *Have U.S. Financial Institutions' Real Estate Investments Exhibited "Trend-Chasing" Behavior?*, 79 REV. ECON. AND STAT. 248 (1997).

[231] As Georgetown University Law Center professor Adam Levitin recently noted, "the overwhelming majority of investors" in U.S. mortgage finance are seeking investments that carry no credit risk. *See Housing Finance Reform: Should There Be a Government Guarantee?: Hearing Before the S. Comm. on Banking, Hous., and Urban Affairs*, 112th Cong. 2 (2011) (statement of Adam J. Levitin, Professor of Law, Georgetown University Law Center), *available at* http://banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=aa482ec8-5ee6-40db-bca4-b16d6744eca7. These "interest rate risk" investors, which include foreign investors, foreign central banks, and fixed-income investors, began to purchase AAA-rated private-label MBS en masse during the 2000s because they believed these securities carried no credit risk. *Id*. But of course, it is now clear that private-label securities carry significant amounts of credit risk, no matter how highly rated they are. Gorton refers to these investors as "informationally-insensitive" insofar as they are seeking risk-free instruments that do not require due diligence. Gorton, *supra* note 3, at 4.

as forty-to-one.[232] Within bank holding companies, regulated bank subsidiaries and affiliates had far lower leverage than their shadow bank counterparts.[233]

Given the propensity of non-guaranteed housing finance to take on greater risk during economic booms, it is unsurprising that the rapid growth of shadow banking was exactly contemporaneous with the first housing bubble we had experienced since the New Deal.[234]

3. Promoting Housing Market Stability

Another important way in which government guarantees serve to stabilize mortgage finance is by promoting and "mainstreaming" consumer-friendly products, particularly the 30-year fixed-rate, self-amortizing mortgage. As discussed above, one of the major impacts of the government guarantee in the mortgage markets was transformation of the standard mortgage from a product that was very onerous for consumers—such as a 5-year, interest-only bullet loan with a high interest rate—into a product that is very

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[232] *See* FCIC REPORT, *supra* note 3, at xix.

[233] For example, Citigroup's risk was concentrated among its off-balance sheet Structured Investment Vehicles, which were created for the purpose of issuing collateralized debt obligations. Bank of America's risk was primarily located in its securities business and the legacy businesses of Merrill Lynch. *See generally id.*

[234] One question that this Article does not answer is how shadow banking and private-label securitization were able to achieve such a large share of the market for housing finance, given the competitive advantage provided by government guarantees. One possible factor is the Securities and Exchange Commission's allegations of accounting fraud against Freddie Mac and its top executives in 2003, and Fannie Mae and its top executives in 2004. The SEC alleged that Freddie had understated earnings in an effort to smooth its earnings reports and show strong and steady growth; the SEC alleged that Fannie had manipulated its accounting, particularly around two hedge accounting standards, FAS 91 and FAS 133. *See* FCIC REPORT, *supra* note 3, at 122; *see generally* In re Fed. Nat'l Mortg. Ass'n Sec., Derivative, and "ERISA" Litig., No. 04–1639(RJL) 2012 WL 5869386 (D.D.C. Nov. 20, 2012). In response, the Office of Federal Housing Enterprise Oversight ("OFHEO"), the predecessor agency to FHFA, levied a number of strong sanctions against the two companies, including a 30% capital surcharge, the ousting of the companies' top executives, a commitment to improving internal accounting and governance controls, and in the case of Fannie, requiring a comprehensive internal investigation. *See* FCIC REPORT, *supra* note 3, at 122. As one senior Fannie executive described, these accounting issues distracted management from the mortgage business and may have caused Fannie to be "less aggressive or less competitive in the marketplace [than it] otherwise might have been." *Id.* Another theory for this phenomenon is simply that the private sector grossly underpriced risk. *See generally* Levitin & Wachter, *supra* note 148. One other important factor may have been changes in the way that private-label MBS were risk-weighted for purposes of calculating risk-based capital. In 2001, following an intensive lobbying campaign by critics of the GSEs, federal regulators lowered the risk weighting for investment-grade private-label MBS from 100% to the same 20% risk weighting that agency securities enjoyed. Thus, for purposes of calculating risk-based capital, there was no longer any difference between agency securities and AAA-rated private-label MBS, and the latter provided higher yields to investors. *See* Risk-Based Capital Guidelines, 66 Fed. Reg. 59618 (Nov. 29, 2001). *See also* CANFIELD & ASSOCIATES, THE GSE REPORT 3 (2001).

beneficial to consumers—the 30-year fixed-rate, self-amortizing mortgage[235] that has been the standard American mortgage for many decades now.

As has been pointed out by almost all advocates and critics of the thirty-year fixed-rate mortgage, it is unlikely that this product would be widely available without a government guarantee to support it.[236] The thirty-year FRM carries a very large amount of interest rate risk for lenders (or investors)[237] and, in the words of one prominent critic of the government's role in mortgage finance, "has to be a creation of government intervention, *and not the market*, [because] it is a one-sided loan arrangement that bestows huge benefits on the borrower, but with almost no compensating benefits for the lender/bank/thrift, i.e., it's 'pro-borrower and anti-lender.'"[238]

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[235] The U.S. thirty-year FRM is also prepayable, which allows borrowers to refinance when rates drop. The prepayability of U.S. mortgages is beyond the scope of this Article, but it is a valuable pro-borrower characteristic of the standard American mortgage.

[236] *See, e.g.*, Susan E. Woodward, *The Future of the Capital Markets: Connecting Primary Consumer and Mortgage Credit Markets to Global Capital* 6–8 (Harv. Univ. Joint Ctr. for Hous. Studies, Working Paper No. MF10-4, 2010), *available at* http://www.jchs.harvard.edu/publications/MF10-4.pdf (pointing out the various ways in which government policy is essential for the widespread availability of the thirty-year FRM); David Min, *Future of Housing Finance Reform: Why the 30-Year Fixed-Rate Mortgage is an Essential Part of Our Housing Finance System*, CTR. FOR AMER. PROGRESS (Nov. 19, 2010), http://www.americanprogress.org/issues/2010/11/pdf/housing_finance.pdf ("One nearly certain outcome of [privatizing the mortgage finance system] would be the elimination of the 30-year fixed-rate loan as a mortgage financing option for the vast majority of Americans."); ZANDI & DE RITIS, *supra* note 21, at 10 (noting that privatization would likely result in the decline of the thirty-year FRM); Michael Lea & Anthony Sanders, *Do We Need the 30-Year Fixed-Rate Mortgage?* 12 (Mercatus Ctr., Working Paper No. 11-15, 2011), *available at* http://mercatus.org/sites/default/files/publication/Do%20We%20Need%2030yr%20FRM.Sanders.3.14.11.pdf (concluding that in the absence of government support, the "standard" U.S. mortgage would no longer be a thirty-year FRM). Peter Wallison of the American Enterprise Institute has taken a contrary view, arguing that the notion that government support enables the thirty-year FRM to exist is a "myth" and pointing to the availability of the jumbo thirty-year FRM, which is offered by the private market and thus does not enjoy a government guarantee, as evidence of his claim. *See* Peter J. Wallison, *Going Cold Turkey*, AMER. ENTER. INST. 2–3 (2010), http://www.aei.org/files/2010/09/27/FSO-2010-9-g.pdf.

[237] Economist Arnold Kling has stated that the thirty-year FRM carries so much interest rate risk that it is unhedgeable, and therefore cannot be a reasonably prudent product for the private markets to offer. *See* Arnold Kling, *More on the 30-Year Fixed-Rate Mortgage*, *EconLog*, LIBRARY OF ECON. AND LIBERTY (May 31, 2010), http://econlog.econlib.org/archives/2010/05/more_on_the_30-.html. Michael Lea and Anthony Sanders point out that government policy has been integral to the ubiquity of the thirty-year FRM in the United States and argue that the thirty-year FRM would exist, albeit in significantly reduced volume and at far higher rates, in the absence of government support. Lea & Sanders, *supra* note 236, at 12. *But see* Scharfstein & Sunderam, *supra* note 24, at 16–18 (arguing that the impacts on the thirty-year FRM of removing the government guarantee would be minimal, primarily based on the claim that the significant interest rate risk associated with the long-term FRM could be hedged through the derivatives markets).

[238] Mark J. Perry, *Should We End the 30-Year Fixed-Rate Mortgage?*, CARPE DIEM (May 30, 2010, 8:56 AM), http://mjperry.blogspot.com/2010/05/should-we-end-30-year-fixed-rate.html. The United States is one of only two countries, the other being Denmark, where the thirty-year FRM is widely available. In other countries, the standard mortgage product is either a variable rate mortgage, where the mortgage rate floats with the prevailing interest rate, or a short-duration (one to ten years) fixed-rate bullet loan designed to be refinanced upon maturity. *See* Lea & Sanders, *supra* note 236, at 10.

During the past decade, as private-label securitization grew to dominate the U.S. housing finance system, we saw very clearly the tendency of non-guaranteed mortgage financing to shun the thirty-year FRM. During the period from 2001–2008, private-label securitization displayed a remarkable bias toward adjustable-rate products. Adjustable-rate mortgages accounted for 70% of all loans originated for private-label securitization.[239] In contrast, adjustable-rate mortgages account for only 12% of all loans originated for Fannie and Freddie securitization.[240] Moreover, the ARMs that were being originated for private-label securitization were notable for other deviations from the thirty-year FRM, including teaser rates and negative amortization.[241]

Thus, government guarantees have a critical role in promoting the origination of the thirty-year FRM. This is important for housing finance stability because this particular loan is very pro-borrower, thus reducing the likelihood of costly delinquencies, and because it promotes home price stability. The thirty-year FRM is pro-borrower in at least two ways. First, it breaks up the mortgage repayment schedule over a thirty-year amortization period, which lowers the monthly payment to a level that is manageable for most households. Second, by locking in a mortgage rate over that thirty-year period, it provides valuable cost certainty for borrowers. These features have been extolled as important for extending homeownership to a broader swath of American families, but the extent to which they also promote housing market stability has largely been ignored.

The affordability and cost certainty of the thirty-year FRM means that households will always know what their mortgage payments will be. Conversely, other products, such as the adjustable-rate mortgage, which currently serves as the main alternative to the thirty-year FRM, are designed to be refinanced every two to seven years. If, as was the case between 1983 and 2007, interest rates are stable or dropping, home prices are rising, and financing is readily available, ARMs perform comparably to the thirty-year FRM, as mortgage rates remain manageable, and even if these reset to unaf-

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[239] FED. HOUS. FIN. AGENCY, DATA ON THE RISK CHARACTERISTICS AND PERFORMANCE OF SINGLE-FAMILY MORTGAGES ORIGINATED FROM 2001 THROUGH 2008 AND FINANCED IN THE SECONDARY MARKET 3 (2010), *available at* http://www.fhfa.gov/webfiles/16711/RiskChars9132010.pdf.

[240] *Id.*

[241] *See generally* Eric S. Belsky & Nela Richardson, *Understanding the Boom and Bust in Nonprime Mortgage Lending* (Harv. Univ. Joint Ctr. for Hous. Studies, Working Paper UBB10-1, 2010), *available at* http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/ubb10-1.pdf. Private market bias against long-term fixed-rate mortgages is also displayed in the commercial real estate finance sector, which is not as dominated by government guarantees as residential mortgage finance. As the Congressional Oversight Panel for TARP has described, commercial mortgage markets feature short-duration, non-amortizing loans with high (often 50%) down payments, similar to the "bullet" loans that were featured in pre-Depression housing finance. *See* CONG. OVERSIGHT PANEL, FEBRUARY OVERSIGHT REPORT: COMMERCIAL REAL ESTATE LOSSES AND THE RISK TO FINANCIAL STABILITY 11–15, 36–62 (2010), *available at* http://cybercemetery.unt.edu/archive/cop/20110401232630/http://cop.senate.gov/documents/cop-021110-report.pdf.

fordable levels, borrowers can either refinance or sell their home. But when interest rates rise, home prices decline, or mortgage finance becomes unavailable, ARMs perform far worse than the thirty-year FRM, as borrowers face increased mortgage rates or an inability to refinance their homes or both. Thus, it is only during times of economic distress that the relative stability of the thirty-year fixed-rate mortgage becomes apparent.

In the midst of this housing crisis, the worst we have experienced since the Great Depression, holders of thirty-year fixed-rate mortgages are doing extraordinarily well. As of the second quarter of 2011, prime fixed-rate mortgages (which include thirty-year FRMs and other fixed-rate loans) had a 4.74% serious delinquency rate, as opposed to 11.76% for prime ARMs.[242]

Additionally, and perhaps relatedly, there is significant evidence that long-term fixed-rate mortgages dampen housing market price volatility. In a comprehensive analysis using both empirical data and modeling, David Miles (now a member of the United Kingdom's Monetary Policy Committee) found that in countries where short-term mortgages (either ARMs or fixed-rate mortgages with short durations) predominated, house price volatility was much more pronounced and home prices were much more sensitive to short-term interest rate changes.[243]

In short, the thirty-year fixed-rate mortgage is a highly sustainable loan that is largely immune to delinquencies and foreclosures and is less conducive to house price volatility than other types of products. By directing mortgage finance into long-term fixed-rate mortgages, as described in Section II, government guarantees were a key part of the housing market stability we enjoyed from World War II up until the 2000s, which was itself a critical element in financial market stability.[244]

V. Addressing Potential Counterarguments

There have been a number of potential counterarguments to my claim that government guarantees can promote stability in mortgage finance. I address the key ones in this Part.

A. Moral Hazard

Perhaps the most well developed criticism of government guarantees in housing finance is the argument that it creates "moral hazard," insofar as it reduces market discipline, as described above in Section II. This argument claims that government guarantees reduce market discipline, insofar as they

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[242] Mortg. Bankers Ass'n, *supra* note 7.

[243] David Miles, The Miles Review: The UK Mortgage Market: Taking a Longer-Term View, The Interim Report 91–114 (2003), *available at* http://www.hm-treasury.gov.uk/d/miles_review_sec67ar_430.pdf.

[244] As Reinhart and Rogoff note, housing market volatility is often tied to financial crises. *See* Reinhart & Rogoff, *supra* note 144, at 158–62.

eliminate the incentive for depositors and similarly situated investors to monitor the behavior of banks and withdraw their funds from poorly performing banks.[245] Without the market discipline of depositors, banks have incentives to take on higher levels of risk than they otherwise would.

As a threshold matter, it should be noted that the moral hazard argument in banking is largely theoretical, and direct evidence in support of it has been scarce.[246] More importantly, the moral hazard argument in banking (and by extension, shadow banking) relies critically on the assumption that bank runs—the mass withdrawal of deposits from banks believed to be performing poorly—provide an efficient form of market discipline.[247] This assumption has been challenged on a number of different, but interrelated, fronts.

First, even among those who believe that uninsured depositors provide efficient market discipline to banks, it is understood that this market discipline occurs ex post, but not ex ante.[248] In other words, the moral hazard argument asserts that depositors provide market discipline only *after* problems with the bank have become apparent, but not before.[249] Thus, market discipline by depositors does not necessarily prevent banks from taking on too much risk during credit booms; it merely punishes these banks during credit downturns.

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[245] *See generally* Calomiris & Kahn, *supra* note 35.

[246] *See* Richard S. Grossman, *Deposit Insurance, Regulation, and Moral Hazard in the Thrift Industry: Evidence from the 1930s*, 82 AM. ECON. REV. 800, 801 (1992). There is significant empirical evidence that depositors do attempt to exert market discipline—that is to say that they withdraw their funds or demand higher rates of return—on banks they perceive as risky. But the empirical evidence on the questions of whether depositors accurately distinguish between risky and safe banks, and whether banks actually respond to the market discipline exerted by depositors by reducing their risk is largely lacking and highly disputed. *See generally* Helen A. Garten, *Banking on the Market: Relying on Depositors to Control Bank Risks*, 4 YALE J. ON REG. 129 (1986); Jonathan R. Macey & Elizabeth H. Garrett, *Market Discipline by Depositors: A Summary of the Theoretical and Empirical Arguments*, 5 YALE J. ON REG. 215 (1988). *See also* John R. Hall et al., *Did FDICIA Enhance Market Discipline on Community Banks? A Look at Evidence from the Jumbo-CD Market* 1 (Fed. Res. Bank of St. Louis, Supervisory Policy Analysis Working Paper No. 2002-04, 2002), *available at* http://www.stlouisfed.org/banking/pdf/SPA/SPA_2002_04.pdf (noting that the "evidence to date is inconclusive" that market discipline "lead[s] to accurate assessments of bank risk . . . [that] force bank managers to maintain safety and soundness" and that "little evidence exists to suggest that these [market discipline] assessments [of risk] impel bank managers to reduce risk").

[247] *See, e.g.*, Jürg Blum, *The Limits of Market Discipline in Reducing Banks' Risk Taking* 2–4 (Swiss Nat'l Bank, Working Paper, 2000); Yehning Chen, *Banking Panics: The Role of the First-Come, First-Served Rule and Information Externalities*, 107 J. POL. ECON. 946, 947–48 (1999).

[248] *See, e.g.*, Calomiris & Kahn, *supra* note 35, at 500–01.

[249] There is a significant divide in the banking literature between those who advocate the "sunspot" view of banking panics—that they are events that can occur at any point in time, because they are fundamentally caused by structural weaknesses in banking—and those who advocate the business cycle view of banking panics—that they are integrally tied to the business cycle and occur when economic downturns reduce the value of bank assets. For a good discussion (with citations) of this divide, see Franklin Allen & Douglas Gale, *Optimal Financial Crises*, 53 J. FIN. 1245, 1247–48 (1998). The arguments in this paper are consistent with either viewpoint.

Second, there is the problem of asymmetric information in banking. Because of the unique function of banks—financing a portfolio of long-term loan assets—they are in a far better position than depositors to understand how risky their particular loan portfolios are.[250] This information asymmetry creates a principal-agent problem. While in theory depositors should monitor the activities of banks and withdraw their funds from those that have excessively risky exposures, in reality they lack the information and expertise to do so effectively. Thus, while bank runs may be a *rational* response by depositors, based on the information and expertise they have, they are not typically an *efficient* response, insofar as information asymmetry causes depositors to punish low-risk and high-risk banks equally.[251]

Third, the problem of asymmetric information is exacerbated by misaligned incentives between bank managers, bank shareholders, and depositors.[252] Bank managers and bank shareholders may have an incentive to maximize total risk-taking, since they have limited liability.[253] These principal-agent issues, coupled with information asymmetry, can result in excessive lending and an underpricing of risk that helps create asset bubbles.[254]

Fourth, because bank runs do not effectively discriminate between well-managed and poorly-managed banks, they lead to banking panics, which result in enormous systemic costs, as discussed above.[255] These systemic costs are not internalized by bank shareholders or bank managers. Thus, even if we assume that depositors effectively monitor and discipline poorly managed banks through bank runs, we must also recognize that banks face a moral hazard issue that is independent of any governmental intervention, as

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[250] *See generally* Ben Bernanke & Mark Gertler, *Banking and General Equilibrium* (Nat'l Bureau of Econ. Res., Working Paper No. 1647, 1985); Robert C. Merton & Zvi Bodie, *On the Management of Financial Guarantees*, 21 J. FIN. MGMT. ASS'N 87 (1994); Edward J. Kane, *Three Paradigms for the Role of Capitalization Requirements in Insured Financial Institutions*, 19 J. BANKING & FIN. 431 (1995). Gorton argues that bank (or shadow bank) liabilities (such as deposits or overnight repo agreements) fulfill a vital function as "informationally-insensitive debt" for investors who cannot or do not want to monitor their investments, a view that directly challenges the assumption that depositors and similarly situated investors can effectively provide market discipline. Gorton, *supra* note 3, at 4.

[251] *See generally* Diamond & Dybvig, *supra* note 216. *But see* Calomiris & Kahn, *supra* note 35, at 500 (arguing that while information asymmetries may exist, market discipline simply requires some, not all, depositors to monitor banks; the presence of informed depositors leads to efficient bank runs); Chen, *supra* note 247, 948–60 (noting that even if Calomiris and Kahn are correct, uninformed depositors can start runs just as well as informed depositors, leading to contagion and inefficient outcomes).

[252] *See generally*, Viral Acharya & Hassan Naqvi, *The Seeds of a Crisis: A Theory of Bank Liquidity and Risk Taking over the Business Cycle*, 106 J. FIN. ECON. 349 (2012); Janice Boucher Breuer, *Bank Instability, Conflicts of Interests, and Institutions* (Univ. of S.C. Ctr. for Int'l Bus. Educ. and Research Working Paper D-03-05, 2003).

[253] *See generally* Gary Gorton & Richard Rosen, *Corporate Control, Portfolio Choice, and the Decline of Banking*, 50 J. FIN. 1377 (1995).

[254] *See* Acharya & Naqvi, *supra* note 252, 13–27.

[255] *See generally* Paul H. Kupiec & Carlos D. Ramirez, *Bank Failures and the Cost of Systemic Risk: Evidence from 1900-1930* (FDIC Ctr. for Fin. Research, Working Paper No. 2009-06, 2009); Chen, *supra* note 247.

bank shareholders and managers do not fully bear the costs of their risks and thus are incentivized to create excessive risk.

Finally, the moral hazard argument in banking suffers from its failure to acknowledge implied guarantees. Given the outsized systemic costs of banking (and shadow banking) panics and the political importance of the banking system (housing finance in particular), it is unrealistic to believe that the banking (and shadow banking) system does not enjoy implied guarantees behind it. This is particularly true for very large financial institutions, whose sheer size and interconnectedness mean that their unsupported failures could cause a financial markets panic. As economists Robert Merton and Zvi Bodie have stated:

> For market discipline to work effectively, everyone must believe that the government will allow institutions to fail. . . . It is not credible to believe that the government will permit an individual institution to fail if to do so could induce system-wide damage or outright failure. In the case of bank failures, this credibility issue is called the "too-big-to-fail" problem.[256]

Following the massive bailouts provided to the financial system following the 2008 financial crisis, it is clear that the federal government cannot credibly claim it will allow systemically important financial institutions to fail. As Philip Swagel, a former senior Treasury official, has stated, "One clear lesson from the economic meltdown of 2008 [is that] [a]ny future U.S. administration will intervene directly and heavily if faced with a potentially devastating economic crisis."[257] Moody's Chief Economist Mark Zandi, who was Sen. McCain's top economic advisor during the 2008 presidential campaign, has expressed similar sentiments,[258] as have many others.[259]

These problems with the moral hazard argument in banking may help to explain why it is at odds with the actual historical experience of U.S. banking. When federal deposit insurance was first introduced in the 1930s, thrifts with federal deposit insurance had less risk on their balance sheets than

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[256] Merton & Bodie, *supra* note 250.

[257] Phillip L. Swagel, Op-Ed., *Will Free-Marketeers Save Fannie and Freddie?*, BLOOMBERG July 17, 2011, http://www.bloomberg.com/news/2011-07-18/will-free-marketeers-save-fannie-and-freddie-phillip-l-swagel.html.

[258] ZANDI & DE RITIS, *supra* note 21, at 10.

> [F]ull privatization is much more plausible in theory than it would be in practice. Regardless of what policymakers say, global investors will almost surely continue to believe the U.S. government would backstop a badly foundering mortgage finance system . . . . After the TARP and the bank bailout, investors believe that if push comes to shove, the U.S. will inevitably act to rescue the broader financial system.

Id.

[259] *See, e.g.*, David Moss, *An Ounce of Prevention: Financial Regulation, Moral Hazard, and the End of 'Too Big to Fail,'* HARV. MAG., Sept.–Oct. 2009, at 24–29, *available at* http://harvardmag.com/pdf/2009/09-pdfs/0909-24.pdf. As Moss notes, investors almost universally believe that the federal government is implicitly guaranteeing large financial institutions.

those without federal deposit insurance, contrary to what the moral hazard argument would have predicted.[260] Similar findings were noted in an analysis of the introduction of federal deposit insurance for credit unions in the 1970s.[261] Indeed, the primary factor in the level of risk taken by depository institutions was not the presence or absence of deposit insurance, as the moral hazard theory would suggest, but the stringency of the regulatory restrictions in place.[262]

The moral hazard argument also fails to explain the events of the past decade, when shadow banking grew to dominate the funding for housing finance through its purchases of private-label MBS.[263] Shadow banking should have been an ideal setting for the success of market discipline. The investors in the markets for repo and commercial paper did not enjoy government guarantees and thus had every incentive to monitor and discipline risky counterparties. At the same time, these investors were all highly sophisticated and, for the most part, enjoyed access to detailed information about the risk characteristics of their counterparties and the underlying collateral they held. Therefore, the information asymmetry problems that ordinarily might prevent effective market discipline were not present. Yet despite the presence of ideal conditions for market discipline to succeed, shadow banking saw extraordinarily high levels of overall risk that manifested into the financial crisis of 2008.

The idea that regulatory oversight, rather than market discipline, is the key factor in limiting excessive risk-taking by banks is consistent with the findings of Reinhart and Rogoff, who have found that financial liberalization (deregulation, regulatory forbearance, or regulatory laxity) is a key factor that typically precedes banking crises.[264]

B. Why Not Just Regulate Without Guarantees?

Another potential criticism of my argument is that many of the key stabilization benefits I ascribe to government guarantees are the result of regulation, not guarantees themselves. Thus, why not simply improve regulation without providing guarantees?

The answer, in brief, is regulatory arbitrage. As has been well documented, in the absence of countervailing factors, banking activities flow into

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[260] *See generally* Grossman, *supra* note 246.

[261] *See generally* Gordon V. Karels & Christine A. McClatchey, *Deposit Insurance and Risk-Taking Behaviour in the Credit Union Industry*, 23 J. BANKING AND FIN. 105 (1999).

[262] *See* Grossman, *supra* note 246, at 805–19. State-chartered thrifts were permitted, but not required, to accept federal deposit insurance and were thus an excellent area of study, since there were significant differences between how the different states regulated thrifts.

[263] As discussed above, investment-grade private-label MBS were heavily utilized as collateral across many key markets in the shadow banking system. *See supra* text accompanying notes 160–64.

[264] REINHART & ROGOFF, *supra* note 144, at 155–56.

less regulated jurisdictions,[265] markets,[266] and products.[267] The rise of the shadow banking system was in part a function of this regulatory arbitrage, as financial institutions moved their activities away from areas with greater regulation and higher capital requirements in an effort to increase their overall risk exposure.[268]

What the government guarantee (in conjunction with other valuable benefits of the bank or GSE charter) has served to do is to provide a carrot to pair with the stick of regulation and thus channel capital into highly regulated institutions. Without these guarantees, or some other benefit to compensate for the costs of regulation, theory and historical experience would both suggest that capital would simply flow into unregulated, or at least less regulated, areas, with disastrous results.

C. Criticisms of the Thirty-Year Fixed-Rate Mortgage

While I have outlined the benefits of the thirty-year, fixed-rate, fully self-amortizing mortgage to consumers, some critics have argued that the costs of this particular mortgage product to lenders and investors outweighs the benefits. In particular, these critics have noted that the thirty-year FRM leaves a large amount of interest rate risk with lenders and that this interest rate risk itself can be destabilizing for the financial system.[269]

Of course, any mortgage product with a long amortization period has large amounts of interest rate risk, including the adjustable-rate mortgages and short-term bullet loans (amortized over twenty-five to thirty years) that are cited as the principal alternatives to the thirty-year FRM.[270] It is true that the thirty-year FRM leaves this risk with the lender, but these alternatives to the thirty-year FRM also leave this risk with the borrower.[271] The appropriate

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[265] *See generally* Joel F. Houston, Chen Lin & Yue Ma, *Regulatory Arbitrage and International Bank Flows*, 67 J. FIN. 1845 (2012).

[266] *See generally* POZSAR ET AL., *supra* note 162.

[267] *Id.*

[268] *See generally* Gary B. Gorton & Andrew Metrick, *Securitized Banking and the Run on Repo*, 104 J. FIN. ECON. 425 (2012).

[269] As discussed previously, interest rate risk was at least the initial cause of problems with the thrift industry. In part because of this concern about interest rate risk associated with the thirty-year FRM, then-Chairman of the Federal Reserve Board Alan Greenspan suggested that Americans might be better off if they abandoned the thirty-year FRM in favor of ARMs. *See* Sue Kirchhoff & Barbara Hagenbaugh, *Greenspan Says ARMs Might Be Better Deal*, USA TODAY, Feb. 23, 2004, http://www.usatoday.com/money/economy/fed/2004-02-23-greenspan-debt_x.htm. That being said, Greenspan himself had never taken out an adjustable-rate loan, and when asked why he had always utilized long-term fixed-rate mortgages, he famously responded, "I like the certainty." PAUL MUOLO & MATTHEW PADILLA, CHAIN OF BLAME: HOW WALL STREET CAUSED THE MORTGAGE AND CREDIT CRISIS 288–89 (2010).

[270] Generally, most mortgages around the world have an amortization schedule (the period over which the loan principal is meant to be fully repaid) of twenty-five to thirty years. *See* David Min, *Future of Housing Finance Reform*, *supra* note 236, at 3.

[271] Additionally, borrowers face various other risks associated with refinancing, including the risk that their home price goes down (which makes it harder or even impossible to refi-

focus of analysis, then, is whether leaving interest rate risk with the borrower or the lender creates more systemic risk.

As discussed in Section IV, shifting risk, including interest rate risk, away from borrowers has a meaningful and positive impact on housing market stability by reducing the number of delinquencies. Simply put, the more risks that are borne by borrowers, the more likely they are to default on their mortgages. It is also clear that between banks (or other financial intermediaries) and borrowers, the former are far better equipped than the latter to handle interest rate risk;[272] this result favors the idea of placing interest rate risk with lenders and investors rather than borrowers. On the other hand, as discussed in Section II and as a number of critics of the thirty-year FRM have noted,[273] interest rate risk was at least a trigger (if not the proximate cause) of the savings and loan crisis, and this interest rate risk was created in large part by the emphasis on the thirty-year FRM, as this product left thrifts vulnerable to sharp increases in inflation and interest rates, as we experienced in the 1970s and early 1980s.[274]

But would the thrift industry's decline, which was at least initially triggered by historically high inflation and interest rates, have been mitigated if adjustable-rate mortgages or bullet loans, rather than the thirty-year FRM, had been the dominant type of loan in the United States? Karl Case, the cocreator of the eponymous Case-Shiller housing price index, thinks the answer to this question is "no" and argues that the predominance of the thirty-year FRM actually *insulated* the United States from the interest rate shocks of the early 1980s. He points to the experiences of Vancouver and California in the late 1970s and early 1980s as dispositive.[275] Then, as now, the dominant mortgage in Canada was a short-duration (three to seven years, primarily) rollover loan designed to be refinanced upon coming to term, and the dominant mortgage in the United States was the thirty-year FRM. Both regions experienced a large housing boom in the late 1970s, with California home prices rising by 147% between 1975 and 1980. And both countries saw large interest rate spikes in 1981 that made mortgage rates extremely costly, with U.S. mortgage rates settling between 16% and 18%. But in California, prices never fell in nominal terms, as potential sellers simply did not enter into the housing markets, preferring to hold onto their low fixed-rate

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nance, as many underwater homeowners are now discovering) or that mortgage finance becomes unavailable.

[272] Banks have access to derivatives and futures markets, and the in-house expertise to utilize these in a way that minimizes their interest rate risk.

[273] *See, e.g.*, Lea & Sanders, *supra* note 236.

[274] It should be reiterated that most analyses identify the deregulation and regulatory forbearance of the thrift industry as the proximate cause of the savings and loan crisis, as discussed *supra* in Section II.

[275] *See* Karl E. Case, *The Central Role of Home Prices in the Current Financial Crisis: How Will the Market Clear?*, BROOKINGS PAPERS ON ECON. ACTIVITY, Fall 2008, at 161, 175, *available at* http://www.brookings.edu/~/media/Files/Programs/ES/BPEA/2008_fall_bpea_papers/2008b_bpea_case.pdf. *See also* Diana Olick, *Karl Case on Canada Housing*, CNBC (July 7, 2010), http://www.cnbc.com/id/38132588/Karl_Case_on_Canada_Housing.

mortgages instead. Conversely, in Vancouver, the fact that the standard Canadian mortgage requires periodic refinancing, with borrowers bearing the interest rate and refinancing risk, led to a devastating housing bust. Vancouver homeowners with rollover mortgages were faced with the same problems that had afflicted U.S. homeowners with rollover mortgages in the 1930s, as they faced difficulties in refinancing and moreover could not deal with the interest rate shocks. The end result was that Vancouver home prices dropped by about 60% in the early 1980s.[276]

While the question of where interest rate risk is best placed is clearly a controversial one, and deserving of further research, Case's findings regarding Vancouver and California in the early 1980s provide some important evidence that the goal of systemic stability may be better served if this risk is not placed with borrowers.

VI. Conclusion

Government guarantees in housing finance are touted as a means of ensuring broad, consistent, and affordable access to mortgage finance. But this analysis misses the most important benefit of government guarantees—that, when well-structured, they promote mortgage market stability, in a way that benefits taxpayers and the broader economy.

While there are certainly valid points that government guarantees can incentivize behavior that leads to greater systemic risk and thus more financial instability, these negative effects appear to be outweighed by the positive stabilizing effects that government guarantees, as developed in U.S. housing finance, have provided.

Of course, not all government guarantees are the same, and one can easily imagine guarantees that lead to poor outcomes. But as it turns out, the ways in which government guarantees were imagined in the U.S. housing finance system happen to strongly promote financial stability.

Stopping banking panics, directing mortgage capital into highly regulated conduits that are restrained from overleveraging, and routing capital into consumer-friendly products that are less likely to default and promote home price stability are all important features of the ways in which U.S. mortgage finance guarantees have been designed. And these features are critical for promoting housing finance stability.

In thinking about how to reform the U.S. housing finance system, policy makers would be well served to ensure that these particular features of the current system, which are necessarily the product of government guarantees, remain in place in the future.

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[276] *Id*. Notably, this peak-to-trough decline in Vancouver home prices was actually greater than the national decline in U.S. home prices in the 1930s.