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Beyond the Minsky and Polanyi Moments: Social Origins of the Foreclosure Crisis

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ABSTRACT

The period of very high foreclosure rates sets the 2007–8 financial meltdown apart from similar banking crises fueled by asset price booms. Why did the 2007–8 meltdown lead to a prolonged foreclosure crisis? Through a theoretical perspective built on Minsky’s financial instability hypothesis, Polanyi’s ideas about adverse consequences of commodity fiction, financialization of homes, and institutional coupling, I argue that commodifying houses as financial assets exposed mortgage loan holders to price fluctuations originating in capital markets and elevated their risk of default. I show how increased exposure to price fluctuations followed from the tight coupling between U.S. housing and capital markets, a coupling that resulted directly from the rising preponderance of securitization in U.S. housing finance. I provide further evidence from countries where housing finance was tightly coupled with capital markets (Iceland and Ireland) to countries where housing finance did not rely dominantly on capital markets (Canada and the Netherlands).

Keywords

housing foreclosures, securitization, institutional coupling, financialization, financial instability, great recession

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Introduction

The world economy has yet to emerge out of the slump caused by the greatest financial crisis since the Great Depression. Few commentators question the diagnosis that the crisis originated from a financial system that has engendered systemic fragility for the past three decades. This recognition is deemed “the Minsky moment” and is now part of mainstream discourse on the financial crisis.¹ Another inescapable recognition is the substantial social cost of the financial crisis. Extending the analogy, one can call this “the Polanyi moment”—the realization that markets, when left to their own devices, are destructive to social relations and fabric. The dire consequences of the 2007-8 crisis are a testament to the power of Polanyi’s insights on the perils of markets. These consequences—in particular the massive surge in foreclosures for an extended period of time—are the focus of the analysis presented here. Thus in this paper I aim to explain why the elevated level of foreclosures persisted for a prolonged period of time.²

Financial crises are often associated with severe disturbances to financial markets that cause sharp movements in inflation, credit volume, balance sheets of various actors, asset prices, interest rates, and value of domestic currency.³ Similarly, a foreclosure crisis is associated with

¹ The use of Minsky in mainstream analyses of financial crisis is prevalent today. For instance, one finds an influential economist such as Krugman publishing a mathematical model incorporating insights from Hyman Minsky’s work. This stands in contrast to the vitriolic attacks (not to mention ridicule) Minsky faced previously. See Gauti B. Eggertsson and Paul Krugman, “Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach,” *Quarterly Journal of Economics* 127 (2012): 1469–1513; Kindleberger, Charles P. and Jean-Pierre Laffargue, eds., *Financial Crises: Theory, History, and Policy* (New York, NY: Cambridge University Press, 1982).

² Daniel Immergluck, *Foreclosed: High-Risk Lending, Deregulation, and the Undermining of America’s Mortgage Market* (Ithaca, NY: Cornell University Press, 2009).

³ Barry Eichengreen and Richard Portes, “Anatomy of Financial Crises,” in Richard Portes and Alexander K. Swoboda, eds., *From Threats to International Financial Stability* (New York, NY: Cambridge University Press, 1987), 10–58; Carmen M. Reinhart and Kenneth S. Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton, NJ: Princeton University Press, 2009).

sharp increases in mortgage defaults and foreclosures.⁴ While various types of financial crises can instigate sharp increases in foreclosures, a foreclosure crisis can originate from other macroeconomic phenomena such as a sudden rise in unemployment. Typical discussions of the 2007–8 crisis bundle the discussion of financial meltdown with the discussion of the severe downturn in housing markets.⁵ Such a view is misleading, because it inevitably portrays the prolonged rise in foreclosures as a collateral damage from the financial meltdown. In contrast, I argue that an institutional mechanism—the tight coupling between the housing sector and financial markets—was the root cause of the magnitude and prolonged nature of the foreclosure crisis in the United States.⁶ In countries such as Iceland and Ireland, financial meltdown did not lead to a foreclosure crisis because various social institutions and government action acted as circuit breakers between financial markets and housing sector.⁷ This is despite the fact that financial meltdowns in these countries were either comparable or more severe than the one in the United States.

The increasing coupling between the housing sector and financial markets after the 1970s re-embedded homes into the circuits of capital markets. This institutional change resulted in

⁴ In this paper, I use mortgage default and foreclosure interchangeably whenever the context eliminates ambiguity. From a legal viewpoint, mortgage default is defined as “the transfer of the legal ownership of the property from the borrower to the lender either through the execution proceedings or the acceptance of a deed in lieu of foreclosure.” This definition encompasses judicial, nonjudicial, and strict foreclosures; and, it should be distinguished from technical default which is caused by “any nonpayment of a scheduled mortgage payment.” Roberto G. Quercia and Michael A. Stegman, “Residential Mortgage Default: A Review of the Literature,” *Journal of Housing Research* 3, no. 2 (1992): 341–379, 343. Unless otherwise stated, I follow the standard convention of reporting seriously delinquent loans (90 days or more delinquent, or in the process of foreclosure) when I discuss foreclosure rates.

⁵ Alan Greenspan, “The Crisis,” *Brookings Papers on Economic Activity* Spring (2010): 201–246; Gregory N. Mankiw, “Comment,” *Brookings Papers on Economic Activity* (2010): 247–250.

⁶ J. Douglas Orton and Karl E. Weick, “Loosely Coupled Systems: A Reconceptualization,” *Academy of Management Review* 15, no. 2 (1990): 203–223; Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (New York: Basic Books, 1984).

⁷ Fred Block, “Contesting Markets All the Way Down,” *Journal of Australian Political Economy*, no. 68 (2011): 27–40.

converting homes into liquid financial assets subject to the endogenous instability of financial markets, which implied that households were increasingly exposed to the inherent destructiveness of financial markets. This explanation combines insights from studies on institutional coupling, financialization,⁸ embeddedness,⁹ and financial instability hypothesis.¹⁰ Such an approach differs from the mainstream literature by suggesting that factors such as securitization, the credit bubble, and household debt were only the proximate causes of the foreclosure crisis.¹¹ It also diverges from the literature on financialization of homes, as this literature is vague about the causal mechanisms producing greater instability in housing markets.¹² In the existing literature, Mian and Sufi's analysis of debt in the U.S. economy is the one that is most relevant to the argument presented in this article, as these authors focus on the severity of the foreclosure crisis and aim to explain the negative cascade caused by the

⁸ Manuel B. Aalbers, "The Financialization of Home and the Mortgage Market Crisis," *Competition and Change* 12, no. 2 (2008): 148–166; Greta R. Krippner, "The Financialization of the American Economy," *Socio-Economic Review* 3, no. 2 (2005): 173–208.

⁹ Fred L. Block and Margaret R. Somers, *The Power of Market Fundamentalism: Karl Polanyi's Critique* (Cambridge, MA: Harvard University Press, 2014); Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, 2001 [1944]).

¹⁰ Hyman P. Minsky, "The Financial-Instability Hypothesis: Capitalist Processes and the Behavior of the Economy," in Charles P. Kindleberger and Jean-Pierre Laffargue, eds., *Financial Crises: Theory, History, Policy* (Cambridge, UK: Cambridge University Press, 1982), 13–47.

¹¹ Viral V. Acharya and Itay Goldstein, "Special Issue: Research on the Financial Crisis," *Journal of Financial Intermediation* 22, no. 1 (2013): 1–3; James Barth, *The Rise and Fall of the U.S. Mortgage and Credit Markets: A Comprehensive Analysis of the Market Meltdown* (Hoboken, NJ: Wiley, 2009); John L. Campbell, "The US Financial Crisis: Lessons for Theories of Institutional Complementarity," *Socio-Economic Review* 9 (2011): 211–234; John Cassidy, *How Markets Fail: The Logic of Economic Calamities* (London: Penguin Books, 2009); Neil Fligstein and Adam Goldstein, "The Roots of the Great Recession," in David B. Grusky, Bruce Western, and Christopher Wimer, eds., *The Great Recession* (New York, NY: Russell Sage Foundation, 2011), 21–55; John Bellamy Foster and Fred Magdoff, *The Great Financial Crisis: Causes and Consequences* (New York, NY: Monthly Review Press, 2009); Martin F. Hellwig, "Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis," *De Economist* 157, no. 2 (2009): 129–207; Raghuram G. Rajan, *Fault Lines: How Hidden Fractures Still Threaten the World Economy* (Princeton, NJ: Princeton University Press, 2010); Gillian Tett, *Fools' Gold: How the Bold Dream of a Small Tribe at J.P. Morgan Was Corrupted by Wall Street Greed and Unleashed a Catastrophe* (New York, NY: Free Press, 2009).

¹² Aalbers, "The Financialization of Home."

downward spiral of house prices.¹³ However, they identify the level and nature of debt in the U.S. economy as the primary cause of the foreclosure crisis. Such an analysis misidentifies the factors that led to the vicious cycle of falling housing prices and foreclosures feeding into one another. Neither the level nor the nature of debt is sufficient to explain the foreclosure crisis. The crucial mechanism was the tight coupling between housing market and capital markets, which resulted in a feedback loop between credit supply in capital markets and housing prices. The feedback loop came about only because home loans were bundled into various financial instruments, based on the assumption that loans can be converted into fungible financial commodities. As a result, housing prices became much more sensitive to inflationary and deflationary dynamics of financial markets. The mutual dependence of housing prices and credit supply, a direct corollary of the tight coupling between housing market and capital markets, reached an unprecedented level in the subprime segment of the housing market, where new mortgage loans were offered on the expectation of future increases in housing prices. As predicted by Minsky's financial instability hypothesis, this episode of speculative finance burst when the creation of additional financial leverage became unsustainable. From that point onward, the fall in housing prices and the distress in financial markets fed each other, leading to a negative cascade in both markets. If housing market and financial markets were not tightly coupled, such a negative cascade would not ensue. Furthermore, if mortgage loans were not converted into fungible financial commodities, these loans could be renegotiated between lenders and borrowers, which would have prevented the negative cascade that fueled the increase in foreclosures. Thus, in line with a Polanyian analysis, the commodification of home loans lies at the origins of the foreclosure crisis and explains why foreclosures in the United States remained

¹³ Atif Mian and Amir Sufi, *House of Debt: How They (and You) Caused the Great Recession, and How We Can Prevent It from Happening Again* (Chicago: The University of Chicago Press, 2014).

at elevated levels for a very long time. To substantiate these arguments, I offer a study in depth of the transformation of housing finance in the United States since the late 1960s. I provide further evidence for the arguments presented in this article by comparing the effects of the financial crisis in Canada, Iceland, Ireland, and the Netherlands.

The severity of the U.S. foreclosure crisis can be best understood by comparing, first, the Great Recession to similar banking crises fueled by asset price booms. Reinhart and Rogoff offer such a comparison between the Great Recession and the “big five” crises in advanced industrialized economies (Spain 1977, Norway 1987, Finland 1991, Sweden 1991, and Japan 1992).¹⁴ As Reinhart and Rogoff define them, the “big five” crises are “protracted, large-scale financial crises that are associated with major declines in economic performance for an extended period.”¹⁵ Table 1 provides a comparison between various empirical attributes of the 2007-8 crisis and other crises. It can be seen that the 2007-8 financial crisis is comparable—in terms of output loss, fiscal costs, non-performing loans at the peak of the crisis, increase in public debt, and decline in housing prices—to the systemic banking crises in these five industrialized economies. It should be observed that the collapse in housing prices in the United States is smaller than Finland, Japan, and Norway and on the same level as Spain and Sweden. Figure 1 illustrates the trends in housing prices in the United States between 2000 and 2013.

[Table 1 Here]

[Figure 1 Here]

¹⁴ Carmen M Reinhart and Kenneth S Rogoff, “Is the 2007 US Sub-Prime Financial Crisis So Different? An International Historical Comparison,” *American Economic Review* 98, no. 2 (2008): 339–344; Reinhart and Rogoff, *This Time Is Different*.

¹⁵ Reinhart and Rogoff, “Is the 2007 US Sub-Prime Financial Crisis So Different?,” 340.

Notwithstanding similarities among the financial crises mentioned above, the foreclosure crisis in the United States is distinct from instances of housing market distress following similar financial meltdowns. Among all these cases, Sweden offers the most illuminating contrast in this regard. After financial deregulation in the 1980s, Sweden experienced a credit expansion and an accompanying bubble in asset prices. As in the United States, households were highly indebted and elevated loan-to-value ratios were common in the housing market. The asset price bubble fueled by credit expansion burst in 1991, which triggered a massive banking and currency crisis. In addition to the severe contraction in the economy and high unemployment rates, the Swedish housing sector was hit by a neoliberal turn. The reform of the Swedish housing system in the early 1990s eliminated tax benefits to homeowners and interest subsidies on new owner-occupied buildings; it also reduced the role of municipal housing companies.¹⁶ This was a dramatic market-oriented institutional transformation because it transferred risk from the public sector to private homeowners—a reversal of the defining characteristic of the Swedish housing system in the post-war era. As a result, Swedish house prices dropped 31.7 percent during the crisis period, which mirrors the decline in the U.S. house prices (see Table 1). In contrast to American borrowers, Swedish borrowers also faced high interest levels. Despite these

¹⁶ Peter Englund, “The Swedish Banking Crisis: Roots and Consequences,” *Oxford Review of Economic Policy* 15, no. 3 (1999): 80–97; Patric H. Hendershott and Bengt Turner, “The Determinants of Mortgage Default: Contrasting the American and Swedish Experiences,” *Housing Finance International* September (1994): 25–30; Dwight Jaffee, *The Swedish Real Estate Crisis* (Stockholm, Sweden: Center for Business and Policy Studies, 1994); Rickard Enström, “The Swedish Property Crisis in Retrospect: A New Look at Appraisal Bias,” *Journal of Property Investment & Finance* 23, no. 2 (2005): 148–164; Bertrand Renaud, “The 1985 to 1994 Global Real Estate Cycle: An Overview,” *Journal of Real Estate Literature* 5, no. 1 (1997): 13–44; Timothy A. Canova, “The Swedish Model Betrayed,” *Challenge* 37, no. 3 (1994): 36; Thomas S. Nesselin, “Markets versus Planning: An Assessment of the Swedish Housing Model in the Post-War Period,” *Urban Studies* 40, no. 7 (2003): 1259–1282; Bengt Turner and Christine M. E. Whitehead, “Reducing Housing Subsidy: Swedish Housing Policy in an International Context,” *Urban Studies* 39, no. 2 (2002): 201–217.

simultaneous shocks to the housing sector, foreclosures and loss of home equity were at highly elevated levels only in 1994 and 1995.¹⁷

By contrast, foreclosures remained at catastrophic levels for almost five years in the United States. As can be seen in Figure 2, foreclosures began picking up in the third quarter of 2006. The sharp increase in foreclosure rates continued until the end of 2009. At its peak point (the fourth quarter of 2009), the foreclosure rate on prime and subprime loans combined was a remarkable 9.67 percent. In the subprime segment of the market, the rate of seriously delinquent and foreclosed loans was an astonishing 30.56 percent. The distress in the U.S. housing market started easing only in 2013. As late as the second quarter of 2012, the foreclosure rate was still above 7 percent in the United States. Considering that the foreclosure rate on conventional mortgages was consistently below 1 percent until the 1990s, it is evident that every percentage point rise in foreclosure rates translates into a serious shock to the U.S. economy and American households. Because foreclosures remained at historic highs for such an extended period of time, the cumulative effect of these shocks on homeowners had no parallel in the post-Great Depression era.¹⁸

For instance, Hurd and Rohwedder show that, based on periodic surveys of the effects of the financial crisis on American households, by April 2010 “almost 40% of households have been affected either by unemployment, negative home equity, arrears on their mortgage payments, or

¹⁷ Roland Andersson and Mats Wilhelmsson, “How Can Regional Differences in the Risk-of-Foreclosure Be Explained? Evidence from Swedish Single Family Housing Markets,” *Journal of Property Research* 25, no. 3 (2008): 179–202; OECD, *OECD Economic Surveys: Sweden* (Paris, France: OECD, 1996).

¹⁸ Peter J. Elmer and Steven A. Seelig, “The Rising Long-Term Trend of Single-Family Mortgage Foreclosure Rates,” *FDIC Working Paper* 98, no. 2 (1998); Barry Z. Cynnamon, and Steven M. Fazzari, “The End of the Consumer Age,” in Barry Z. Cynnamon, Steven M. Fazzari, and Mark Setterfield, eds., *After the Great Recession: The Struggle for Economic Recovery and Growth* (Cambridge University Press, 2013), 129–186.

foreclosure.”¹⁹ Wolff, Owens, and Burak estimate that 16.4 percent of U.S. households had negative home equity in 2009. The incidence of being underwater was much higher among socially underprivileged groups: 27.9 percent of African-American and 23.2 percent of Hispanic homeowners had negative home equity in 2009.²⁰ The prolonged increase in foreclosures also led to the erasure of a quarter of household wealth between 2007 and 2009.²¹ In other words, the Great Recession has seriously hampered the accumulation of wealth through homeownership, a defining element of economic security in the United States.

[Figure 2 Here]

Although it is certainly correct that the boom in credit to households was the immediate cause of the housing price bubble, as a large number of analyses suggest,²² a housing price bubble by itself cannot explain the foreclosure crisis that followed the 2007-8 financial meltdown. The comparison with similar financial crises of comparable magnitude indicates that housing price bubbles have been observed elsewhere, and some of these price bubbles collapsed more spectacularly than the one in the United States. However, those collapses did not lead to stark increases in mortgage defaults over such a prolonged period. Furthermore, following the 2007-8 meltdown, the experiences of various countries in Europe that feature sophisticated, highly developed mortgage sectors stand in contrast to the pattern of defaults and foreclosures in

¹⁹ Michael D. Hurd and Susann Rohwedder, “Effects of the Financial Crisis and Great Recession on American Households,” *NBER Working Paper No. 16407* (2010): 21;

²⁰ Edward N. Wolff, Lindsay A. Owens, and Esra Burak, “How Much Wealth Was Destroyed in the Great Recession?” in David B. Grusky, Bruce Western, and Christopher Wimer, eds., *The Great Recession* (New York, NY: Russell Sage, 2011), 127–158, Table 5.1.

²¹ Barry P. Bosworth, *Economic Consequences of the Great Recession: Evidence from the Panel Study of Income Dynamics* (Boston, MA: Center for Retirement Research at Boston College, 2012).

²² Markus K. Brunnermeier, “Deciphering the Liquidity and Credit Crunch 2007-2008,” *Journal of Economic Perspectives* 23, no. 1 (2009): 77–100; Fligstein and Goldstein, “The Roots of the Great Recession”; Gary B. Gorton, *Slapped by the Invisible Hand: The Panic of 2007* (New York, NY: Oxford University Press, 2010); Greenspan, “The Crisis.”

the United States. As Lea notes: “Despite greater house price volatility than the United States on average, the incidence of default and prevalence of negative equity in other nations remain far below that of the United States.”²³ I show that the elevated rates of negative equity and increased risk of default are observed only in countries where the housing sector was tightly coupled with wholesale debt and securities markets, such as Iceland, Ireland, and the United States.

This article is organized as follows. In the first section, I develop a theoretical framework that is inspired by Minsky’s financial instability hypothesis and Polanyi’s ideas on the social consequences of commodity fiction. I propose that a theoretical approach à la Minsky and Polanyi underlines how the commodification of houses as financial assets exposes ordinary mortgage loan holders to price fluctuations. These price fluctuations, in turn, have their roots in the ups and downs of capital markets. In the second section, I offer an empirical analysis of innovations in U.S. housing finance that resulted in the conversion of home loans into major financial assets. Here, I also examine how the integration of the U.S. housing finance system into capital markets is the causal factor behind the remarkable surge in foreclosures following the 2007-8 financial meltdown. The following section provides further evidence for the arguments presented in this article by comparing countries where the housing sector was tightly coupled with capital markets (Iceland and Ireland) with countries where housing finance did not rely dominantly on capital markets (Canada and the Netherlands).

Minsky and Polanyi on the Perils of the Market Economy

The U.S. housing system has three fundamental facets. A house in the United States is simultaneously a dwelling place connected to institutions such as family, a quintessential

²³ Michael J. Lea, *International Comparison of Mortgage Product Offerings* (Research Institute for Housing America, 2010): 29.

commodity changing hands in markets, and a major asset class traded in financial markets.²⁴ As a dwelling place, a house is a means of subsistence that has an important role in social reproduction. As a commodity, a house is provisioned through capitalist production relations and circulated through market exchange. As a financial asset, a house is an investment whose valuation over time depends on the dynamics of financial markets. These three facets are not necessarily harmonious. If production organized through commodity exchange is inherently unstable and chaotic, as Marx argues, the second facet of housing is itself a potentially destabilizing force. The third facet of housing—house as a financial asset—is, in theory, a greater source of instability because it involves credit and time.²⁵

The central argument in this article is that the surge in foreclosures following the 2007-8 meltdown results from the increasing prevalence of the third facet of housing—house as financial asset and long-term investment instrument—in the institutionalization of housing in the

²⁴ Adam Gordon, “The Creation of Homeownership: How New Deal Changes in Banking Regulation Simultaneously Made Homeownership Accessible to Whites and Out of Reach for Blacks,” *Yale Law Journal* 115, no. 1 (2005): 186–226.

²⁵ David Harvey, *The Limits to Capital* (London: Verso, 2006 [1982]), 200–203. Here I follow Marx’s distinction between the general form of crises in capitalist economies and crises associated with credit. The following lengthy quote from the *Theories of Surplus Value* offers a clear picture of the distinction: “The general possibility of crisis is given in the process of metamorphosis of capital itself, and in two ways: in so far as money functions as means of circulation, [the possibility of crisis lies in] the separation of purchase and sale; and in so far as money functions as means of payment, it has two different aspects, it acts as measure of value and as realisation of value. These two aspects [may] become separated. ... The form mentioned first is possible without the latter—that is to say, crises are possible without credit, without money functioning as a means of payment. But the second form is not possible without the first—that is to say, without the separation between purchase and sale. But in the latter case, the crisis occurs not only because the commodity is unsaleable, but because it is not saleable within a particular period of time, and the crisis arises and derives its character not only from the unsaleability of the commodity, but from the non-fulfilment of a whole series of payments which depend on the sale of this particular commodity within this particular period of time. This is the characteristic form of money crises.” Karl Marx, *Theories of Surplus Value: Volume Two* (London: Lawrence and Wishart, 1969), 514. For an extended discussion on the role of money and credit in Marx’s ideas on capitalist crises, see James Crotty, “The Centrality of Money, Credit, and Financial Intermediation in Marx’s Crisis Theory: An Interpretation of Marx’s Methodology,” in S. Resnick and R. Wolff, eds., *Rethinking Marxism: Essays for Harry Magdoff and Paul Sweezy* (Brooklyn, NY: Autonomedia, 1985), 45–81.

United States. This argument combines Minsky's ideas on financial instability with the Polanyian focus on the place of economy in society. Specifically, I argue that the gradual transformation of housing finance in the United States since the early 1970s set the stage for the type of financial instability admirably analyzed by Minsky. The transformation in housing finance developed in tandem with the conversion of conventional mortgage loans into financial commodities. As such, this transformation embodied a greater role for financial markets in the organization of the U.S. housing sector. As an analysis inspired by Polanyi would suggest, the greater role of financial markets came with increased perils for homeownership in the United States.

For Minsky, equilibrium and stability are elusive conditions in markets with debt contracts.²⁶ His financial instability hypothesis suggests that capitalist economies lead, through their own dynamics, to “the development over historical time of liability structures that cannot be validated by market-determined cash flows or asset values.”²⁷ According to Minsky, a stable period generates optimistic expectations. Increased confidence and positive expectations of future income streams cause economic actors to decrease margins of safety in their investment decisions. That feeds a surge in economic activity and profits, which turns into a boom as investments are financed by higher degrees of indebtedness. As the economic boom matures, an increasing number of financial intermediaries and firms switch from hedge finance to speculative and Ponzi finance. Actors using speculative and Ponzi finance are vulnerable to macroeconomic volatility and interest rate fluctuations. A boom ends when movements in short- and long-term interest rates render the liability structures of speculative and Ponzi finance unsustainable. The

²⁶ Hyman P. Minsky, *John Maynard Keynes* (New York, NY: Columbia University Press, 1975), 164.

²⁷ Minsky, “The Financial-Instability Hypothesis,” 13.

likelihood of a financial crisis (as opposed to a business cycle) depends on the preponderance of speculative and Ponzi finance in the economy under question.²⁸

While Minsky is precise in his depiction of the economic mechanisms leading to financial instability, he abstains from theorizing about the social origins of financial instability. This is unfortunate for two reasons. First, from a historical perspective, one can argue that financial crises originate in transformations in the organizational and institutional architecture of financial markets that lead to new forms of credit contracts and debt relations. An early example is the canal mania in England at the end of the eighteenth century, where new types of banks fueled a credit boom by financing a frenzy of canal development.²⁹ Second, such transformations are closely related to commodification and thus to the penetration of markets into social life. This gap is addressed by investigating the place of markets in society, a central concern for Polanyi.

Polanyi attributes the dangers of the market economy to the mechanism of self-regulation and the market's separation from "a great variety of institutions other than markets, in which

²⁸ Minsky's focus on investment derives from the premise that the fundamental dynamics of capitalist economies are determined by long-term investments. He identifies several essential characteristics of investment that orthodox economic theories fail to analyze. First, investment incorporates temporality. Second, it involves uncertainty since expectations concerning future profits shape the decisions to invest. Third, investment is the link between the price of current production and the price of capital assets. The validation of debt commitments occurs through current output. However, such validation cannot be taken as an automatic mechanism when the prices of capital assets, the prices of current output, and the level of investment are jointly determined in an environment characterized by fundamental uncertainty, subjective expectations, and complex temporal connections between debt commitments and future profits. Temporality, uncertainty, and subjective expectations are the ultimate reasons why capitalist markets are not self-equilibrating systems. As long as long-term investments require financing, it is erroneous to expect capitalism to be a stable system. Elisabetta De Antoni, "Minsky on Financial Instability," in Philip Arestis and Malcolm Sawyer, eds., *A Handbook of Alternative Monetary Economics* (Cheltenham, UK: Edward Elgar, 2006), 154–71, 155, 157, 163–64; Minsky, *John Maynard Keynes*, 64–68, 88–90; Minsky, "The Financial-Instability Hypothesis," 14–19; Hyman P. Minsky, *Stabilizing an Unstable Economy* (New York: McGraw-Hill, 2008 [1986]), 191–93, 230–32, 245; Jan Kregel, "Minsky's 'Two Price' Theory of Financial Instability and Monetary Policy: Discounting versus Open Market Intervention" in Steven Fazzari and Dimitri B. Papadimitriou, eds., *Financial Conditions and Macroeconomic Performance: Essays in Honor of Hyman P. Minsky* (London: M.E. Sharpe, 1992), 85–103, 87.

²⁹ Charles P. Kindleberger, *Manias, Panics, and Crashes: A History of Financial Crises* (Wiley & Sons: New York, NY, 2000), 64.

man's livelihood was embedded."³⁰ He uses the term "commodities" in the specific sense of "objects produced for sale on the market."³¹ Not everything that is circulated through the market exchange is produced for sale, but objects become subject "to the laws of the market" once their transactions operate through the "commodity description."³² Polanyi deems the subordination of social relations to the "organizing principle" of the market perilous to the "fabric of society."³³ His paradigmatic examples are labor, land, and money, which are subject to the price-supply-demand mechanism under the market economy despite the fact that "none of them is produced for sale."³⁴ This is what Polanyi calls "the commodity fiction"—a fiction that "handed over the fate of man and nature to the play of an automaton that ran in its own grooves and was governed by its own laws."³⁵

Polanyi's historical argument is that changes in the social organization of production during the nineteenth century—combined with the commodification of land, labor, and money—led to the diffusion of the institutional logic of the market to the entire sphere of economic relations and activities. Such a social transformation implies that the market operates through its own laws, unregulated by, and separated from, other social institutions.³⁶ Polanyi is cautious to add that this

³⁰ Karl Polanyi, "The Economy as Instituted Process," in Conrad M. Arensberg, Harry W. Pearson, and Karl Polanyi, eds., *Trade and Market in Early Empires* (Glencoe, IL: The Free Press, 1957), 243–270, 245.

³¹ Polanyi, *The Great Transformation*, 75; Jane I. Guyer, "Composites, Fictions, and Risk: Toward an Ethnography of Price," in Chris Hann and Keith Hart, eds., *Market and Society: The Great Transformation Today* (New York, NY: Cambridge University Press, 2009), 203–220.

³² Polanyi, *The Great Transformation*, 71–77.

³³ Fred Block, "Introduction" in *The Great Transformation: The Political and Economic Origins of Our Time* by Karl Polanyi (Boston, MA: Beacon Press, 2001), xviii–xxxviii; George H. Jr. Hildebrand, "Review of The Great Transformation, by Karl Polanyi," *The Journal of Economic Review* 36, no. 3 (1946): 398–405; Sarah C. Humphreys, "History, Economics, and Anthropology: The Work of Karl Polanyi," *History and Theory* 8, no. 2 (1969): 165–212; Karl Polanyi, *The Livelihood of Man* (New York, NY: Academic Press, 1977), 10–12; Polanyi, *The Great Transformation*, 135.

³⁴ Polanyi, *The Great Transformation*, 76.

³⁵ Polanyi, *The Livelihood of Man*, 10–11.

³⁶ Yvon Garlan, "L'oeuvre de Polanyi: La Place de L'économie Dans Les Sociétés Anciennes," *La Pensée* 171 (1973): 119–127; Karl Polanyi, "Ports of Trade in Early Societies," in George Dalton, ed.,

is a utopian project that can never exist without disruptive strains to society.³⁷ A Polanyian interpretation of the instability observed in the housing sector would suggest that it is a paradigmatic example of excessive market penetration and intrusion into a fundamental aspect of social life: housing. At the heart of this interpretation lies a key aspect of Polanyi's thought: the duality of embeddedness and disembeddedness, whose pendulum swings with the place of markets in society.³⁸ This approach's diagnosis is that the collapse of the housing sector and its negative outcomes follow from the commodity fiction and the mechanism of the self-regulating market.

Combining Hyman Minsky's insights on financial fragility with a Polanyian focus on commodification offers a distinct perspective on the causes and consequences of the foreclosure crisis. First, following Polanyi, we should expect to find commodity fiction—applied to arenas of social life previously isolated from markets—to be at the heart of the recent financial crisis. Second, following Minsky, the transformations caused by novel uses of commodity fiction should be among the primary causes of financial fragility. Finally, in line with a Polanyian focus on the effects of supply-demand-price mechanism, the price fluctuations caused by financial fragility should disrupt existing social relations and institutions in a significant manner.

Following this line of thought, I propose a multi-stage argument. First, I argue that securitization of mortgage loans prior to the 2007-8 meltdown amounted to commodification of houses as financial assets. Securitization achieved this by converting mortgage loans on ordinary houses into financial assets traded on capital markets. Second, I contend that commodification of

Primitive, Archaic, and Modern Economies: Essays of Karl Polanyi (New York, NY: Anchor Books, 1968), 238–260.

³⁷ Gareth Dale, *Karl Polanyi: The Limits of the Market* (Cambridge, England: Polity Press, 2010).

³⁸ Philippe Steiner, "Who Is Right About the Modern Economy: Polanyi, Zelizer, or Both?," *Theory and Society* 38, no. 1 (2009): 97–110.

houses as financial assets through securitization represented a major revolution in the U.S. housing finance system. In other words, financial commodification under securitization stood in stark contrast to the post-Great Depression housing finance system. Third, I suggest that the housing system and capital markets were tightly coupled in a world where securitization was the dominant practice in the housing finance system. Finally, such tight coupling between the U.S. housing system and capital markets exposed homes to the ups and downs of capital markets, which made mortgage default much more likely in the case of a financial meltdown.

Investigating this argument empirically requires examining the causes of foreclosures in the United States before and after the 2007-2008 crisis. Such an investigation can combine a historical narrative with quantitative research on the determinants of foreclosure rates in the United States. Although I note the complementarity of these approaches, in this article I focus on the temporal order of events and processes that contributed to the foreclosure crisis. I build my empirical account on a comparison between the housing system before and after the 1970s. I show that (1) various structural transformations in the U.S. housing system resulted in the tight coupling between mortgage loans and capital markets; and (2) how this coupling was a radical departure from the housing finance system that emerged after the Great Depression, which was characterized by a dominant circuit of capital that was cut off from capital markets.

How Homes Became Financial Assets

The transformation of the U.S. housing finance since the early 1970s is a classic case of the market's expanding reach in social life. After the New Deal, the housing finance system was a major factor in ensuring the stability of housing tenure. In that period, financial markets were tamed by an institutional design "that segmented the financing of housing into specialized

circuits that were cut off from the rest of the economy.”³⁹ The housing finance system was designed for the stable provisioning of the house as a dwelling place. The increasing importance of capital markets in housing finance in the 1970s radically altered the relationship between the housing finance system and mortgage markets. As homes became integrated into capital markets through the securitization of mortgage loans, the organization of housing in the United States converged to a system in which financial market valuation became the ultimate arbiter. In addition, by converting pooled mortgage loans into major financial assets in the American financial system, this transformation paved the way for financial instability driven by capital markets.

Housing Finance After the Great Depression

The basic contours of the housing system in the United States took shape after the Great Depression. The reforms that ushered a new era in the organization of housing included the creation of various institutions: the Federal Home Loan Bank System under the Hoover administration (1932), the Home Owners Loan Corporation (1933),⁴⁰ the Federal Housing Administration (1934), and the Federal National Mortgage Association (1938). The result was that a particular form—the fixed-rate, long-term, self-amortizing, low down-payment mortgage loan—became prevalent in U.S. housing finance.⁴¹ This commodity form in housing finance differed from the mortgage products that dominated American markets before the Great Depression, the majority of which “featured variable interest rates, high down payments and

³⁹ Richard K. Green and Susan M. Wachter, “The Housing Finance Revolution” in Susan J. Smith and Beverley A. Searle, eds., *The Blackwell Companion to the Economics of Housing* (Oxford, UK: Wiley-Blackwell, 2010), 414–445, 415.

⁴⁰ The Home Owners Loan Corporation (HOLC) was an important milestone in dealing with foreclosures following the Great Depression. It performed its functions until 1936 and FNMA took its place in 1938.

⁴¹ Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (New York: Oxford University Press, 1985), 196.

short maturities.”⁴² A crucial pillar of the new mortgage product was the insurance provided by the Federal Housing Administration against defaults, which enabled private financial intermediaries to offer long-term loans.⁴³ The Servicemens’ Readjustment Act of 1944 provided further support and stimulus to FHA-insured loans by extending the scope of loans guaranteed by the Veterans Administration.⁴⁴

Combined with the extended mortgage guarantee program by the Veterans Administration after World War II, the fixed-rate, long-term, self-amortizing, low down-payment mortgage loan in American housing markets led to a significant increase in home ownership in the United States.⁴⁵ This institutional stability was further buttressed by steady interest rates from the end of World War II until the late 1960s. In this environment, four types of financial intermediaries supplied the bulk of the funding to the housing system: savings and loan associations, commercial banks, life insurance companies, and mutual savings banks.⁴⁶ Among these, savings and loan associations took the lion’s share of residential mortgage debt, and their dominant role in this market continued until the early 1980s.⁴⁷

These four financial intermediaries had different strategies for acquiring funds and channeling the acquired funds to the residential mortgage market. Various regulations ensured

⁴² Richard K. Green and Susan M. Wachter, “The American Mortgage in Historical and International Context,” *The Journal of Economic Perspectives* 19, no. 4 (2005): 93–114, 93.

⁴³ Steven Abrahams, “A Brief History of the US Mortgage Market,” in Stefania Perrucci, ed., *Mortgage and Real Estate Finance: Latest Innovations and Opportunities* (London: Incisive, 2008), 3–23, 6–7.

⁴⁴ Saul B. Klaman, *The Postwar Residential Mortgage Market* (Princeton University Press, 1961), 52–53; Jackson, *Crabgrass Frontier*, 204.

⁴⁵ While the government role through mortgage insurance was crucial in creating a mortgage product that supported homeownership and stability of tenure, the government’s role was by no means without contradictions. For instance, the FHA insurance program involved racial profiling and excluded, by design, racial minorities and low-income neighborhoods. Gordon, “The Creation of Homeownership.”

⁴⁶ Klaman, *The Postwar Residential Mortgage Market*, 5.

⁴⁷ Michael J. Lea, “Innovation and the Cost of Mortgage Credit: A Historical Perspective,” *Housing Policy Debate* 7 (1996): 147–174.

that savings and loan associations focused their lending activities locally.⁴⁸ Their source of funds consisted of deposits, which were federally insured. These institutions could borrow at below market interest rates.⁴⁹ Commercial banks too relied on deposits by the general public. Their lending practices, however, were both local and national in geographical focus. Although some commercial banks lent to local residential borrowers directly, other commercial banks were active in supplying short-term loans to private mortgage companies. Life-insurance companies obtained their funds from insurance premiums and they operated in the national market. They acquired mortgages through either a system of branch offices or mortgage correspondents. Finally, mutual savings banks, like savings and loan associations, obtained their funds from small savers. However, unlike savings and loan associations, mutual savings had a presence—albeit small—in national mortgage lending as well.⁵⁰

One can identify two circuits of capital in the post-Great Depression housing finance system. The first, and by far the most important, was predominantly local and involved savings and loan associations, commercial banks, and mutual savings. The second circuit was national and relied heavily on life insurance companies. The first circuit was, by definition, a primary mortgage market, in which “debt or equity instruments are created in transactions between borrowers or sellers and initial lenders or buyers.”⁵¹ The second circuit was a secondary mortgage market, in which “previously created securities are traded between investors,” but only to a limited extent. This was because many of the transactions in the national market involved life insurance companies, which invested in residential mortgages through prior allocations and long-term

⁴⁸ Klamann, *The Postwar Residential Mortgage Market*, 158–61.

⁴⁹ Green and Wachter, “The Housing Finance Revolution,” 432.

⁵⁰ Klamann, *The Postwar Residential Mortgage Market*, 149, 170–72.

⁵¹ *Ibid.*, 196.

commitments to mortgage originators.⁵² Hence, it is difficult to see the second circuit as a truly open capital market.

As a result, the housing finance system in the post-Great Depression period, and especially after 1944, was a system in which houses were not integrated into financial markets as frequently traded assets. Furthermore, the fixed-rate, long-term, and self-amortizing mortgage was a commodity form that increased the likelihood of housing tenure stability in a housing system oriented toward owner-occupation. The existence of long-term loans with fixed interest rates was perhaps the most important determinant of this stability, as it protected scheduled payments against market fluctuations. Combined with the separation of housing finance from capital markets, this system ensured that increases in foreclosure rates remained minimal even in periods of financial contraction and economic recession.⁵³

The Housing Finance Revolution

The shift from deposit-taking institutions to capital markets occupying the primary position in housing finance began in the late 1960s.⁵⁴ The major cause was higher inflation, which damaged the capacity of deposit-taking institutions to collect funds in an environment where interest rates were subject to a ceiling imposed by Regulation Q. The decision to split Fannie Mae into two organizations—creating Ginnie Mae (the Government National Mortgage Association)—and the chartering of Freddie Mac (the Federal Home Loan Mortgage Corporation) were important steps in furthering the role of capital markets in housing finance.⁵⁵ The purpose of establishing these agencies was to provide liquidity in mortgage markets. The

⁵² *Ibid.*, 198–99.

⁵³ K.D. Edmiston and R. Zalneraitis, “Rising Foreclosures in the United States: A Perfect Storm,” *Economic Review-Federal Reserve Bank of Kansas City* 92, no. 4 (2007): 115-145; Elmer and Seelig, “The Rising Long-Term Trend of Single-Family Mortgage Foreclosure Rates”; Immergluck, *Foreclosed*.

⁵⁴ Kim Hawtrey, *Affordable Housing Finance* (New York, NY: Palgrave Macmillan, 2009), 56–7.

⁵⁵ Green and Wachter, “The American Mortgage in Historical and International Context,” 97–8.

method to achieve this objective was securitization; the three agencies would buy mortgage loans from intermediaries such as savings and loans, with funds obtained from capital markets in return for securities backed by mortgages.

Securitization has a number of distinct features. First, and at the most fundamental level, it relies on “converting income streams into tradable assets.”⁵⁶ Second, it achieves the conversion of income streams into tradable asset by creating liquidity out of spatial fixity.⁵⁷ Third, as a consequence, securitization involves the integration of homes into capital markets as financial assets. In other words, the key consequence of securitizing homes is that houses are not simply means of subsistence and use values that remain outside the capitalist commodity circulation for extended periods of time, but instead are fully subject to the vagaries of price-supply-demand mechanism in capital markets. To be sure, housing in the American economy was commodified before the advent of securitization, including the long period of calm after the New Deal. However, as explained above, houses were cut off from capital markets until the early 1970s. when securitization decisively pulled houses into the orbit of capital markets. Green and Wachter aptly call this transformation “the housing finance revolution.”⁵⁸

Yet the full impact of securitization took a long time to materialize. The turning point in housing finance came in the late 1980s, when a great number of savings and loans became insolvent as a result of a decade-long interest rate volatility. The “housing finance revolution” reached its zenith with subprime lending—when the financial techniques of securitization were

⁵⁶ Dick Bryan, Michael Rafferty, and Scott MacWilliam, “The Global Financial Crisis: Foreclosing or Leveraging Labor’s Future?” in Martijn Konings, ed., *The Great Credit Crash* (London: Verso, 2010), 353–369, 365.

⁵⁷ Kevin Fox Gotham, “The Secondary Circuit of Capital Reconsidered: Globalization and the U.S. Real Estate Sector,” *American Journal of Sociology* 112, no. 1 (2006): 231–275; Kevin Fox Gotham, “Creating Liquidity out of Spatial Fixity: The Secondary Circuit of Capital and the Subprime Mortgage Crisis,” *International Journal of Urban and Regional Research* 33, no. 2 (2009): 355–371.

⁵⁸ Green and Wachter, “The Housing Finance Revolution.”

used to expand lending to racial minorities and low-income neighborhoods previously excluded from mortgage markets.⁵⁹ The magnitude of this transformation can be examined through Figures 3 and 4, which exhibit the growth of household debt and the explosion of securitization in residential mortgage debt between 2003 and the onset of the financial crisis.

[Figure 3 Here]

[Figure 4 Here]

Much has been written about subprime mortgage products, the securitization process, and the alphabet soup of complex financial engineering underlying the great subprime machinery.⁶⁰ The existing body of work focuses largely on the ways in which securitization contributed to the credit boom, which lay at the origin of the 2007-8 crisis. It shows that securitization enabled higher levels of leverage and ensuing credit expansion through multiple mechanisms: pooling, tranching, distributing default risks of the underlying loans, various credit enhancement techniques, and loading the risky tranches onto off-balance investment vehicles. This picture is certainly correct, but it is also incomplete. Most important, it misses how securitization—and the type of mortgage loans in the subprime segment of the residential mortgage market—made homeownership much more vulnerable than under a housing finance system that was not integrated into national and global capital markets. The argument that the expansion of credit to high-risk borrowers lay at the origin of the financial meltdown and foreclosure crisis is

⁵⁹ Abrahams, “A Brief History of the US Mortgage Market,” 10–13; G. A. Dymski, “Why the Subprime Crisis Is Different: A Minskyian Approach,” *Cambridge Journal of Economics* 34 (2009): 239–255; Immergluck, *Foreclosed*, 84–6.

⁶⁰ Barth, *The Rise and Fall of the U.S. Mortgage and Credit Markets*; Cassidy, *How Markets Fail*; Joshua Coval, Jakub Jurek, and Erik Stafford, “The Economics of Structured Finance,” *The Journal of Economic Perspectives* 23, no. 1 (2009): 3–25; Immergluck, *Foreclosed*; Tett, *Fools’ Gold*.

misleading, because it ignores how elevated levels of default risk were an endogenous product of a particular housing finance system.

Foreclosures

The final theoretical prediction of the framework outlined in this paper is that the tight coupling between the U.S. housing system and capital markets following the housing finance revolution exposed homes to the vagaries of capital markets, which made mortgage default—hence foreclosures—much more likely in the case of a financial meltdown. In this section, by relying on the theoretical and empirical literature on mortgage default; I explain how the housing finance system in the United States amplified the impact of the 2007-8 financial crisis.

In discussing the determinants of foreclosures, I follow Vandell, who makes a distinction between factors that are related mostly to the borrower and factors that are related mostly to the characteristics of the loan.⁶¹ Borrower-related factors include job loss, decline in household income, and financial leverage.⁶² Loan-related factors include interest rate and house value. Financial crises affect mortgage default rates through both borrower-related and loan-related factors. For instance, job loss and the ensuing decline in household income become more frequent during a financial crisis, triggering payment difficulties and increasing the mortgage default rate in the population under study. Similarly, rising interest rates during a financial crisis increase the likelihood of mortgage default. In both of these examples, the primary channel connecting the financial crisis to mortgage default is liquidity constraints. On the other hand, declining house value following a financial crisis leads to negative equity in the house. As a

⁶¹ Kerry D. Vandell, “Default Risk Under Alternative Mortgage Instruments,” *The Journal of Finance* 33, no. 5 (1978): 1279–1296. See also Yongheng Deng, John M. Quigley, and Robert van Order, “Mortgage Terminations, Heterogeneity and the Exercise of Mortgage Options,” *Econometrica* 68, no. 2 (2000): 275–307; James B. Kau, Donald C. Keenan, and Taewon Kim, “Default Probabilities for Mortgages,” *Journal of Urban Economics* 35, no. 3 (1994): 278–296.

⁶² Elmer and Seelig, “The Rising Long-Term Trend of Single-Family Mortgage Foreclosure Rates.”

result, mortgage defaults are likely to surge in the event of a financial crisis leading to a sharp fall in house prices.

If tight coupling between capital markets and housing finance were the root cause of the 2007-8 financial crisis's amplified effect on foreclosures, the negative equity channel would be the primary mechanism through which foreclosures emerged. That is because mortgage defaults arising from liquidity constraints would be observed in all economic crises, regardless of the degree of coupling between capital markets and the housing finance system. In other words, if tight coupling between capital markets and the housing finance system has a distinct effect, it should arise from exposing borrowers to fluctuations in housing prices. This is precisely what happened after the 2007-8 crisis.

Several empirical studies have examined the causal weight of negative equity compared to liquidity constraints following the 2007-8 financial meltdown.⁶³ These studies acknowledge the importance of liquidity constraints, but find that the negative equity channel—hence house prices—played a distinct role in amplifying the effects of the financial meltdown on American households. For instance, Gerardi et al., using a data set covering “all residential home sales and mortgage originations” for a twenty year period (1987-2007) in Massachusetts, “attribute much of the dramatic rise in Massachusetts foreclosures in 2006 and 2007 to the decline in house

⁶³ Ronel Elul, Nicholas S Souleles, Souphala Chomsisengphet, Dennis Glennon, and Robert Hunt, “What ‘Triggers’ Mortgage Default?,” *American Economic Review* 100 (2010): 490–494; John P. Harding, Eric Rosenblatt, and Vincent W. Yao, “The Contagion Effect of Foreclosed Properties,” *Journal of Urban Economics* 66, no. 3 (2009): 164–178; Andrew Haughwout, Richard Peach, and Joseph Tracy, “Juvenile Delinquent Mortgages: Bad Credit or Bad Economy?,” *Journal of Urban Economics* 64, no. 2 (2008): 246–257; Christopher L. Foote, Kristopher Gerardi, Lorenz Goette, and Paul S. Willen, “Just the Facts: An Initial Analysis of Subprime’s Role in the Housing Crisis,” *Journal of Housing Economics* 17, no. 4 (2008): 291–305; Christopher L. Foote, Kristopher Gerardi, and Paul S. Willen, “Negative Equity and Foreclosure: Theory and Evidence,” *Journal of Urban Economics* 64, no. 2 (2008): 234–245; Kristopher Gerardi, Adam Hale Shapiro, and Paul S. Willen, “Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosures,” *Federal Reserve Bank of Boston Working Paper* 07-15 (2007).

prices that began in the summer of 2005.”⁶⁴ Similarly, Foote et al., basing their arguments on the same data set, suggest that “the widespread decline in housing prices is the proximate cause of the current housing crisis.”⁶⁵ Haughwout et al. get to the heart of the issue through a careful econometric assessment of two competing explanations of foreclosures: “changes in underwriting standards” and “a sharp reversal in house price appreciation.”⁶⁶ By examining early default or serious delinquency through another very large data set, these authors conclude that the reversal in house price appreciation is the more important determinant of juvenile delinquency.

The strongest evidence for the overwhelming causal preponderance of the negative equity channel comes from a recent study by Ferreira and Gyourko, who examine “33 million unique ownership sequences in just over 19 million distinct owner-occupied housing units in 96 metropolitan areas.”⁶⁷ Their panel covers the period from the first quarter of 1997 until the third quarter of 2012; it provides rich micro-data on home purchase transactions and how these transactions were financed through mortgages and subordinate mortgages. Three findings of this study are noteworthy. First, the authors note that most of the literature on foreclosures focuses exclusively on the subprime segment of the housing market. That is not sufficient to explain the foreclosure crisis, as the subprime segment of the market is much smaller than the prime borrowers segment. Second, the authors find that negative equity explains almost the entire surge in foreclosures among prime borrowers after the financial meltdown, and approximately “three-

⁶⁴ Gerardi et al., “Subprime Outcomes,” 1, 17.

⁶⁵ Foote et al., “Just the Facts,” 305.

⁶⁶ Haughwout et al., “Juvenile Delinquent Mortgages,” 246-7.

⁶⁷ Fernando Ferreira and Joseph Gyourko, “A New Look at the U.S. Foreclosure Crisis: Panel Data Evidence of Prime and Subprime Borrowers from 1997 to 2012,” *National Bureau of Economic Research Working Paper 21261* (2015).

quarters of all home losses among subprime borrowers.”⁶⁸ Third, the authors show that the foreclosure crisis began in the subprime segment, but it then had most of its devastating impact on the larger segment of prime borrowers.

These findings are not surprising; they can easily be explained by the greater sensitivity of the majority of mortgages to house prices in a housing finance system in which mortgage loans are turned into financial commodities. Nor is it surprising that the foreclosure crisis began in the subprime segment and quickly spread into the prime borrowers segment. As Immergluck remarks, a typical loan in the subprime mortgage market was a hybrid structure involving an initial period of fixed rates (typically two-three years) followed by adjustable rates.⁶⁹ In these loans, the initial “teaser” period featured favorable rates, only to be followed by a substantial increase afterward. These products were viable options for the borrowers only if they could refinance their assets, which was contingent on the appreciation of the value of the underlying asset during the initial two-three year period.⁷⁰ As the boom gathered strength, various other mortgage products emerged, including low- or no-document loans, loans tolerating very high debt-to-income ratios, and exotic products featuring interest-only and negative amortization payment options.⁷¹ Thus, the structure of subprime loans implied that these loans were extremely attractive for borrowers, regardless of their income. However, this condition depended on continuous house price appreciation. By design, a reversal in house price appreciation would lead—for a great number of subprime mortgage holders—to negative equity. Once house prices started their downward spiral in the subprime segment, capital markets acted as the conveyor belt that carried the destructive fall in house prices to the prime borrower segment.

⁶⁸ Ferreira and Gyourko, “A New Look at the U.S. Foreclosure Crisis,” 2–4.

⁶⁹ Immergluck, *Foreclosed*, 85.

⁷⁰ Gorton, *Slapped by the Invisible Hand*, 65–8.

⁷¹ Immergluck, *Foreclosed*, 85–8.

It should be emphasized that the negative equity channel—the primary mechanism leading to higher rates of foreclosures—was a direct corollary of the commodification of mortgage loans in financial markets. Because mortgage loans were packaged and sold as debt instruments in financial markets, housing prices became much more sensitive to the supply of funds in capital markets. In a symmetrical fashion, the debt instruments derived from pooled mortgage loans were highly sensitive to housing prices. The very narrow buffer between housing prices and debt instruments derived from mortgage loans led to a cascade of falling housing prices and distressed capital markets feeding into each other in a vicious cycle. Furthermore, the fact that mortgage loans were converted into fungible financial commodities made breaking this negative feedback loop very difficult. This is a point that few analyses of the Great Recession recognize.⁷² Had mortgage loans not been fungible financial commodities, it would have been feasible to renegotiate mortgage loans and implement measures such as principal write-downs. However, the form of financial commodity that prevailed in the U.S. housing finance constituted a major barrier to such circuit-breaking measures as principal write-downs.

Finally, both journalistic and academic accounts of the financial crisis portray subprime loans as a prime example of underwriting standards that fell to dangerously low levels before the financial meltdown.⁷³ Regardless of the merits of such portrayals, these accounts inevitably ignore the structural causes behind the boom in subprime loans. Those products mushroomed because they satisfied a seemingly insatiable demand for high returns in capital markets awash in liquidity.⁷⁴ As long as such demand existed, subprime loan market continued its expansion and

⁷² Mian and Sufi, *House of Debt*, 137–47.

⁷³ Cassidy, *How Markets Fail*; Atif Mian and Amir Sufi, “The Consequences of Mortgage Credit Expansion: Evidence from the 2007 Mortgage Default Crisis,” *NBER Working Paper 13936* (2008).

⁷⁴ Foster and Magdoff, *The Great Financial Crisis*; Nouriel Roubini and Stephen Mihm, *Crisis Economics: A Crash Course in the Future of Finance* (New York, NY: Penguin Press, 2010).

house prices kept rising.⁷⁵ Hence, subprime borrowing was a vivid illustration of the tight coupling between capital markets and the housing finance system. That coupling implied that capital markets became the primary cause of the fluctuations in the housing system because securitization reached significant proportions in the system.

Such tight coupling means that the riskiness of borrowers cannot be assessed as if it were independent of the developments in capital markets. To the contrary, in a world where housing finance and capital markets are tightly coupled, the riskiness of borrowers is endogenous to the structure of housing finance. In other words, the distinction between risky and non-risky borrowers—a distinction that establishes the basis for many analyses on the 2007-8 crisis—is misleading. It is rather the case that the riskiness of mortgage borrowers increased nationwide as tight coupling between capital markets awash in liquidity made risky borrowing choices much more rational for ordinary mortgagors.⁷⁶

Financialization of Homes across the World

The consequences of tight coupling between financial markets and the housing sector can also be observed in various countries that were directly affected by the Great Recession. The substantial institutional differences in housing systems among developed economies make a naive comparison of the magnitude and duration of foreclosures problematic. A more reliable

⁷⁵ However, such an expansion is sustainable to the extent that there are first-time buyers—or existing homeowners who refinance their homes—with the purchasing power to continue purchasing mortgage loans. Clearly, there were severe limits to the expansion of the subprime market in an economy where real income growth was far below the growth of subprime loans. Paul McCulley, “Plankton Theory Meets Minsky,” *PIMCO Newsletter* (March 2007); Foster and Magdoff, *The Great Financial Crisis*.

⁷⁶ For instance, a good number of foreclosures originated among borrowers who financed their homes through prime loans but then ventured into sub-prime loans as house price appreciation made subprime borrowing an attractive option. Obviously, prime borrowers cannot be classified, *ex ante*, as risky borrowers. Prime borrowers became risky only through their entry into subprime borrowing, which was a rational decision for many households given the low interest levels and attractive conditions attached to subprime loans. See Gerardi et al., “Just the Facts”; Gerardi et al., “Subprime Outcomes.”

method of comparison is to examine whether financial market instability directly affected the housing sector in the cases under examination. A particularly important issue to examine is whether the negative equity channel was a major cause of hardship for homeowners after the Great Recession. In this section, I offer such an analysis by focusing on the effects of the Great Recession on homeowners in Canada, the Netherlands, Iceland, and Ireland.⁷⁷ All of these countries experienced adverse macroeconomic developments beginning in 2006, including significant slowdown in economic activity, elevated unemployment rates, and instability in financial markets. However, they differ in the extent to which capital markets and the housing sector was coupled through practices such as securitization. While all four countries moved toward liberalizing housing finance in the 1990s and 2000s, the integration between capital markets and the housing sector was slow to develop in Canada and the Netherlands. In contrast, Iceland and Ireland were prime examples of tight coupling between capital markets and the housing sector. As such, financialization of homes was quite advanced in Iceland and Ireland, which directly exposed homeowners to the meltdown in domestic and global financial markets.

Macroeconomic developments in the Canadian housing sector followed a trajectory very similar to that of the housing sector in the United States. First, mortgage interest rates were more or less the same in Canada and the United States between 2001 and 2006. Second, both house prices and the ratio of mortgage debt to disposable income rose significantly between 2000 and

⁷⁷ While there are various informative studies of the impact of the Great Recession on housing sector in a single country, comparative studies of the link between financialization of homes and housing is sorely lacking. Notable exceptions are Ray Forrest and Ngai-ming Yip, eds., *Housing Markets and the Global Financial Crisis: The Uneven Impact on Households* (Cheltenham, U.K.: Edward Elgar, 2011) and Laurence Murphy, “The Global Financial Crisis and the Australian and New Zealand Housing Markets,” *Journal of Housing and the Built Environment* 26, no. 3 (2011): 335–351. Overall, these studies provide strong support for the arguments advanced in this article.

2006, albeit at a pace that was slower than the United States.⁷⁸ Despite these macroeconomic similarities, the rate of mortgage delinquencies in these two countries followed very different trajectories. In Canada, mortgage arrears rate remained around 0.5 percent throughout the entire crisis period, a fairly low rate.⁷⁹ Here, a particularly important difference is the timing of the rise in mortgage delinquencies. The rise in mortgage delinquencies in the United States developed in tandem with instability in wholesale capital markets such as repo markets.⁸⁰ In Canada, mortgage delinquencies began to rise only after the economic recession; and, this increase was closely associated with the rise in unemployment. The explanation for this difference lies in the dominant role of deposit-taking institutions in Canadian mortgage markets.⁸¹ While funding through capital markets increased in the 2000s, a number of institutional factors and economic policies prevented the integration of housing finance and capital markets.⁸² Perhaps the most important of these factors was the limited ability of financial institutions to move asset-backed securities to off-balance-sheet vehicles, which was prevented by strict federal regulation of leverage. Another contributing factor was the requirement that mortgages with high loan-to-value ratios were insured against default.⁸³ These restrictions on the financial sector and

⁷⁸ J. McGee, “Why Didn’t Canada’s Housing Market Go Bust?” (Economic Commentary, Federal Reserve Bank of Cleveland, 2009), Available at <https://www.clevelandfed.org/Newsroom%20and%20Events/Publications/Economic%20Commentary/2009/Why%20Didnt%20Canadas%20Housing%20Market%20Go%20Bust>.

⁷⁹ Calista Cheung, *Deconstructing Canada’s Housing Markets*. OECD Economics Department Working Papers (Paris: Organisation for Economic Co-operation and Development, 2014), 21.

⁸⁰ Gorton, *Slapped by the Invisible Hand*.

⁸¹ Cheung, *Deconstructing Canada’s Housing Markets*; McGee, “Why Didn’t Canada’s Housing Market Go Bust?”

⁸² McGee, “Why Didn’t Canada’s Housing Market Go Bust?”; Alan Walks, “Mapping the Urban Debtscape: The Geography of Household Debt in Canadian Cities,” *Urban Geography* 34, no. 2 (2013): 153–187; Alan Walks, “Canada’s Housing Bubble Story: Mortgage Securitization, the State, and the Global Financial Crisis,” *International Journal of Urban and Regional Research* 38, no. 1 (2014): 256–284.

⁸³ Cheung, *Deconstructing Canada’s Housing Markets*, 17; McGee, “Why Didn’t Canada’s Housing Market Go Bust?”

mortgage industry prevented the rapid transformation of Canadian housing finance into one dominated by capital markets.

Like Canada, the Netherlands is an important example of the limited impact of the Great Recession on the housing system, despite the increasing commodification of homes in the 1990s and 2000s. As Ronald and Dol remark, low levels of home repossessions stand in sharp contrast to the macroeconomic troubles that plagued the Dutch economy after the 2007-8 financial meltdown.⁸⁴ Particularly since the Second World War, the state played a strong role in the development of the housing system through its financial support for the housing sector, social-rental housing programmes, and assistance for housing associations.⁸⁵ However, beginning in the early 1990s, the Dutch state began to withdraw from the housing sector through the promotion of homeownership, privatization, and deregulation of housing markets.⁸⁶ These steps toward the privatization of the housing system gained speed after 2001, when the *Promotion of Home Ownership Act* came into effect. Following such policies, the mortgage debt in the Dutch economy surged more than 50 percent between 1998 and 2008, to 99.1 percent of GDP.⁸⁷ However, several institutional factors reduced the extent of commodification and financialization of homes in the Netherlands. First, although in decline, public housing continued to constitute a significant part of the entire housing stock in the Netherlands. The large share of public

⁸⁴ Richard Ronald and Kees Dol, "Housing in the Netherlands Before and After the Global Financial Crisis," in Ray Forrest and Ngai-ming Yip, eds., *Housing Markets and the Global Financial Crisis: The Uneven Impact on Households* (Cheltenham, U.K.: Edward Elgar, 2011), 93–112, 105.

⁸⁵ Manuel B. Aalbers, "Promoting Home Ownership in a Social-Rented City: Policies, Practices and Pitfalls," *Housing Studies* 19, no. 3 (2004): 483–495; Sako Musterd, "Public Housing for Whom? Experiences in an Era of Mature Neo-Liberalism: The Netherlands and Amsterdam," *Housing Studies* 29, no. 4 (2014): 467–484; Hugo Priemus, "The Credit Crunch: Impacts on the Housing Market and Policy Responses in the Netherlands," *Journal of Housing and the Built Environment* 25, no. 1 (2010): 95–116.

⁸⁶ Musterd, "Public Housing for Whom?"

⁸⁷ Aalbers, "Promoting Home Ownership in a Social-rented City," 485; Ronald and Dol, "Housing in the Netherlands," 94.

housing—more than 30 percent of the housing stock in 2014—stabilized the housing system by offering affordable homes. Second, the Dutch state provided an effective subsidy to homeowners through its mortgage interest tax-deductibility scheme. Third, the Dutch state exercised effective supervision of housing finance and mortgage markets through various institutions such as the *Authority for Financial Markets* and *De Nederlandsche Bank*. Fourth, as a consequence of these three factors, the extent of funding of mortgages through capital markets remained limited. Overall, these institutional characteristics of the Dutch housing system limited the integration of housing markets and capital markets.⁸⁸

Like many countries around the world, Iceland began to liberalize its economy in the early 1990s. The liberalization drive reached an important milestone in the early 2000s, when the major state-owned banks were privatized.⁸⁹ The newly privatized banks grew at a spectacular rate in the 2000s, making Iceland “the world’s greatest banking nation in the sense that the size of the banks’ total financial undertakings grew to become ten times greater than Iceland’s GDP.”⁹⁰ However, an overwhelming proportion of this growth was funded through borrowing in international capital markets, which made Iceland’s banks particularly fragile.⁹¹ Unfortunately, these vulnerable banks financed a major boom in mortgage lending to homeowners from 2004 onwards. Private banks offered very attractive mortgage loans to existing and first-time

⁸⁸ Aalbers, “The Financialization of Home,” 155; Musterd, “Public Housing for Whom?”; Ronald and Dol, “Housing in the Netherlands,” 99; Priemus, “The Credit Crunch.”

⁸⁹ Ásgeir Jónsson, *Why Iceland?* (New York: McGraw-Hill, 2009); Francesco Macheda, “The Role of Pension Funds in the Financialisation of the Icelandic Economy,” *Capital & Class* 36, no. 3 (2012): 433–473; Throstur Olaf Sigurjonsson and Mar Wolfgang Mixa, “Learning from the ‘Worst Behaved’: Iceland’s Financial Crisis and the Nordic Comparison,” *Thunderbird International Business Review* 53, no. 2 (2011): 209–223.

⁹⁰ Jon Rúnar Sveinsson, “Housing in Iceland in the Aftermath of the Global Financial Crisis,” in Ray Forrest and Ngai-ming Yip, eds., *Housing Markets and the Global Financial Crisis: The Uneven Impact on Households* (Cheltenham, U.K.: Edward Elgar, 2011), 57–73, 57.

⁹¹ Sigurjonsson and Mixa, “Learning from the ‘Worst Behaved’.”

homeowners, which led to a property boom in a country where homeownership rate has been around 90 percent since the late 1980s. This fragile financial system collapsed in 2008, which made Iceland one of the worst casualties of the 2007-8 crisis. The rapid growth of Iceland's economy stopped in 2008; the GDP growth rate was negative in 2009 and 2010. Homeowners faced significant dangers arising from the collapse of the banking system, rising unemployment, and decreasing house prices. In particular, approximately 28 percent of households had negative equity in their homes in 2009.⁹² In 2010, the ratio of households with negative equity surged to 40 percent.⁹³

Despite such adverse conditions, Iceland avoided more catastrophic outcomes for homeowners through measures such as extending the maturity of existing mortgages, payment deferment, and even suspension of mortgage payments for a fixed period. The most effective circuit-breaker was a mortgage write-down policy that limited the debt burden of deeply underwater households to 110 percent of debtor's assets. Two important factors enabled such comprehensive policies in favor of homeowners. First, a large number of social groups, including homeowners, mobilized against the political parties and leaders who were responsible for reckless financialization in the 2000s. Second, the total collapse of the banking sector, combined with mounting political pressure, led to the government takeover of major private banks.⁹⁴ As a result, Iceland managed to put into effect one of the boldest and most effective policy responses to the collapse of the housing sector.

The foreclosure crisis in Ireland was similar to that in the United States because financialization of housing through the tight coupling between capital markets and the housing

⁹² Sveinsson, "Housing in Iceland," 68-69.

⁹³ IMF, *World Economic Outlook, April 2012*, 107-111.

⁹⁴ Martin Hart-Landsberg, "Lessons from Iceland: Capitalism, Crisis, and Resistance," *Monthly Review* 65, no. 5 (2013): 26-45.

sector was a major determinant of the rising tide of mortgage arrears after 2007.⁹⁵ Following a period of rapid economic growth in the 1990s, both the housing and commercial property markets in Ireland expanded significantly in the 2000s. A spectacular increase in the supply of credit to Irish homeowners, where residential mortgage debt to GDP surged from 29 to 92 percent between 1999 and 2009, fueled the property bubble.⁹⁶ In similar fashion to the U.S. housing sector, financialization of homes through innovative mortgage products was a crucial component of the increase in the credit supply. These developments implied that the Irish housing sector diverged from its safe practices before the 1990s, where building societies dominated the housing finance system and the majority of mortgage lending relied on retail deposits.⁹⁷ However, money markets and debt securities became the largest source of funds for mortgage lending between 2000 and 2006.⁹⁸ As a result, the Irish housing system became increasingly coupled with global financial markets. The consequences of such tight coupling were grave for Irish homeowners. While the estimates vary, no less than 50 percent of outstanding mortgages were in negative equity in Ireland by 2012.⁹⁹ Nonetheless, the increase in the ratio of mortgages in negative equity did not lead to a surge in foreclosures for a number of reasons. First, while the credit boom in Ireland relied on wholesale capital markets, practices such as securitization were more limited than in the United States, and, the extent of financial

⁹⁵ Michelle Norris and Nessa Winston, “Transforming Irish Home Ownership through Credit Deregulation, Boom and Crunch,” *International Journal of Housing Policy* 11, no. 1 (2011): 1–21; Richard Waldron and Declan Redmond, “The Extent of the Mortgage Crisis in Ireland and Policy Responses,” *Housing Studies* 29, no. 1 (2014): 149–165.

⁹⁶ Waldron and Redmond, “The Extent of the Mortgage Crisis in Ireland,” 151.

⁹⁷ Dermot Coates, “The Irish Sub-Prime Residential Mortgage Sector: International Lessons for an Emerging Market,” *Journal of Housing and the Built Environment* 23, no. 2 (2008): 131–144; Norris and Winston, “Transforming Irish Home Ownership”; Waldron and Redmond, “The Extent of the Mortgage Crisis in Ireland.”

⁹⁸ Michelle Norris and Dermot Coates, “How Housing Killed the Celtic Tiger: Anatomy and Consequences of Ireland’s Housing Boom and Bust,” *Journal of Housing and the Built Environment* 29, no. 2 (2014): 299–315, 304–06.

⁹⁹ Waldron and Redmond, “The Extent of the Mortgage Crisis in Ireland,” 153.

commodification of mortgage loans was limited accordingly. Second, as a consequence, the mainstream lenders dominating the Irish housing finance market could renegotiate mortgage loans. Third, such policies received major support from the Irish state, which implemented measures such as short-term relief for borrowers. Fourth, the Irish state and the Central Bank of Ireland encouraged mortgage forbearance on a case-by-case basis.¹⁰⁰ At a later stage during the crisis, the authorities supported measures such as principal write-downs as well. Most important, the mortgage forbearance and short-term relief policies were serious, carefully designed, and enforced with the full authority of the Irish state. The Central Bank of Ireland introduced a Code of Conduct on Mortgage Arrears in February 2009 and kept this code effective through multiple revisions in subsequent years. This code sets clear rules on staffing requirements, provision of information, and mortgage resolution process for all lenders.¹⁰¹

In contrast, the Obama administration's approach to tackling the foreclosure crisis was timid and halfhearted. In fact, the available evidence indicates that the administration worried about bank balance sheets much more than they worried about foreclosures.¹⁰² The administration's measures to prevent the tide of foreclosures were limited to the Home Affordable Modification Program (HAMP). That program was voluntary, poorly designed, complex, and remarkably ineffective. A glaring shortcoming of HAMP was its failure to take into account that mortgage servicers in the United States did not have the capacity to process modification requests. Nor did they have incentives to do so, as the servicers' revenues depended on unpaid principal and late

¹⁰⁰ Ibid., 154-158.

¹⁰¹ Central Bank of Ireland, *Code of Conduct on Mortgage Arrears* (Dublin: Central Bank of Ireland, 2013).

¹⁰² Mian and Sufi, *House of Debt*, 130-35; Timothy F. Geithner, *Stress Test: Reflections on Financial Crises* (New York, NY: Crown, 2014), Kindle edition, 5842; Lawrence Summers, "Lawrence Summers on 'House of Debt'," *Financial Times*, June 6, 2014.

fees on a mortgage loan.¹⁰³ Given that U.S. mortgage loans were highly commodified, a new legal framework was required to facilitate and enforce loan renegotiation. However, rather than addressing the negative feedback loop directly through a new bill, the Obama administration and the Federal Reserve bolstered financial institutions based on the belief that lending by a healthy financial sector would trigger the recovery from the Great Recession.¹⁰⁴

Comparative assessment of the arguments advanced in this article through these four countries provides compelling evidence on the adverse consequences of tight coupling between the housing sector and capital markets. The experiences of these countries following the 2007-8 crisis show that the integration between capital markets and housing sector was an important determinant of the extent to which homeowners were affected by the financial meltdown. The contrast between the Irish and the American cases illustrates how the state could implement circuit-breaker measures to prevent the negative cascade resulting from falling housing prices. As a consequence of various social institutions and state policies, countries such as Ireland and the Netherlands avoided the vicious cycle of negative equity, rising arrears, and defaults despite major instability in their financial systems. The divergent consequences of the financial crisis in Canada, Iceland, Ireland, the Netherlands, and the United States highlight that high rates of arrears, foreclosures, and distress for homeowners occurred only when financial markets were re-embedded in housing systems through the tight coupling between capital markets and housing finance. Such practices amounted to financialization of homes. As such, they exposed homeowners to the inherent instability of financial markets.

Conclusion

¹⁰³ David Dayen, “A Needless Default,” *The American Prospect* 26, no. 1 (2015): 62–68.

¹⁰⁴ Mian and Sufi, *House of Debt*, 130–35, 145–49.

In this paper I explain the social origins of the foreclosure crisis; I seek to understand how the 2007-8 financial meltdown led to a surge in foreclosures for an extended period of time. In order to answer these questions, I employ a theoretical perspective that builds on Minsky's financial instability hypothesis and Polanyi's ideas on the negative consequences of commodity fiction. I combine the insights of Minsky and Polanyi with the sociological analyses of financialization and organizational coupling. I argue that the adverse social consequences of the 2007-8 financial meltdown¹⁰⁵ can best be understood as the direct effect of the conversion of mortgage loans into major assets in capital markets. The historical account in this paper demonstrates that financial commodification is a direct result of the rising preponderance of securitization in the U.S. housing finance system. This historical transformation—a revolution in the U.S. housing finance system—implied that the U.S. housing system was tightly coupled with domestic and international capital markets. As highlighted by Minsky's remarkable insight on finance in capitalist economies, such a tightly coupled system exposed homes in the United States to financial instability driven by speculative and Ponzi finance. Furthermore, following Polanyi, it can be seen how such a system subjected homes to the fluctuations of the market mechanism. The greater exposure of borrowers to the vagaries of capital markets was directly at the root of the foreclosure crisis, simply because a great number of American families financed their homes through loans that stayed afloat only when financial markets were riding high.

“I bought a dozen volumes on banking and credit and investment securities, and they stood on my shelf in red and gold like new money from the mint, promising to unfold the shining secrets that only Midas and Morgan and Maecenas knew.” These words belong to Nick Carraway, the narrator of *The Great Gatsby*, and they echo from the roaring twenties. They

¹⁰⁵ These consequences are the massive increases in foreclosures, the destruction of homeownership, and the accompanying loss of homes as a dwelling place.

might as well belong to the 2000s, when finance became—once more—the dominant aspect of American capitalism. The increasing power of finance over social life comes at a hefty price. I argue that the foreclosure crisis is the direct consequence of housing becoming integrated into circuits of finance capital, in ways that are qualitatively different from previous periods in American history. The financial instability that originated from the subprime markets should be understood in this structural context, rather than being seen as collateral damage of a “big” financial crisis. As Minsky writes, “All capitalisms are unstable, but some capitalisms are more unstable than others.” The Great Recession and its social consequences are evidences to this statement.¹⁰⁶

¹⁰⁶ Minsky, “The Financial-Instability Hypothesis,” 36.

Tables and Figures

	Decline in Housing Prices*	Output Loss**	Fiscal Costs***	Peak NPLs****	Increase in Public Debt*****
Finland (1991-1995)	-50.4	69.6	12.8	13	43.6
Japan (1997-2001)	-40.2	45	14	35	41.7
Norway (1991-1993)	-41.5	5.1	2.7	16.4	19.2
Spain (1977-1981)	-33.3	58.5	5.6	5.8	3.8
Sweden (1991-1995)	-31.7	32.9	3.6	13	36.2
United States (2007-2011)	-33.8	30.6	4.5	5	23.6

Table 1. The Big Five Crises and the Great Recession.

Sources: Housing prices data come from Carmen M. Reinhart and Kenneth S. Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton, NJ: Princeton University Press, 2009), Table 10.8 except the data for the United States, which are from the Federal Reserve Bank of St. Louis (Seasonally Adjusted S&P Case-Shiller 20-City Home Price Index). For the United States the peak point for housing prices is April 2006 and the trough is January 2012. All other columns are from Luc Laeven, and Fabián Valencia, “Systemic Banking Crises Database,” *IMF Economic Review* 61, no. 2 (2013): 225–270, Table A1.

* Magnitude of decline (percent) in between the peak and trough of the crisis.

** In percent of GDP.

*** In percent of GDP.

**** Non-performing loans at the peak of the crisis. In percent of total loans.

***** In percent of GDP.

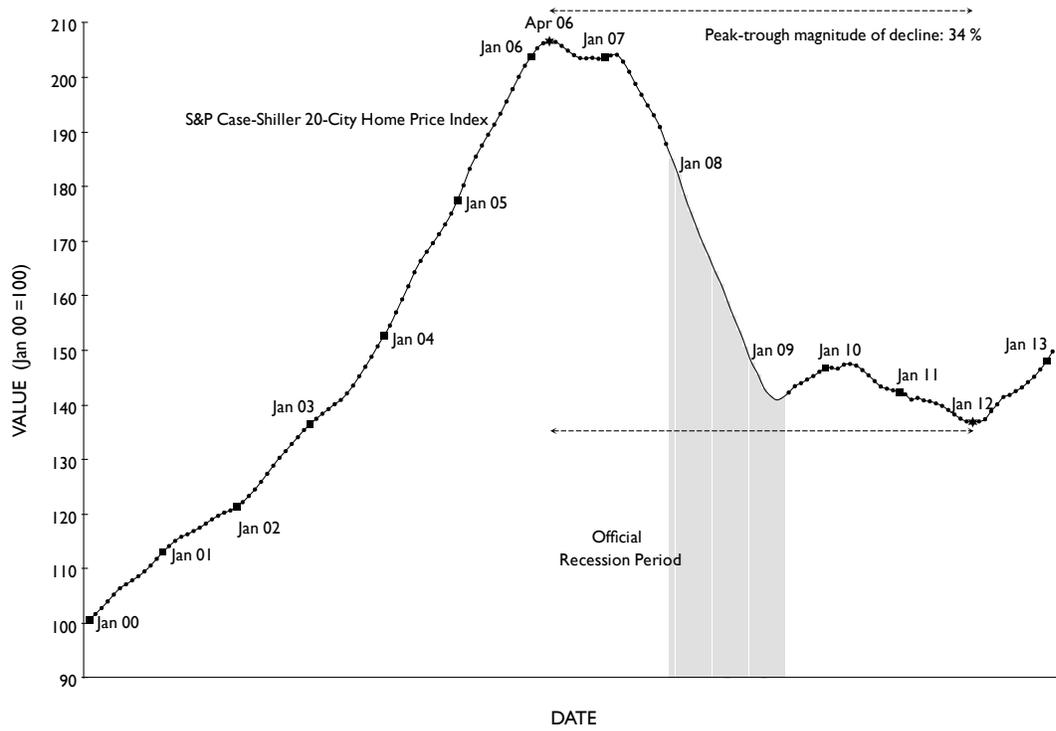


Figure 1. S&P Case-Shiller 20-City Home Price Index, January 2000 - February 2013. Source: Federal Reserve Bank of St. Louis.

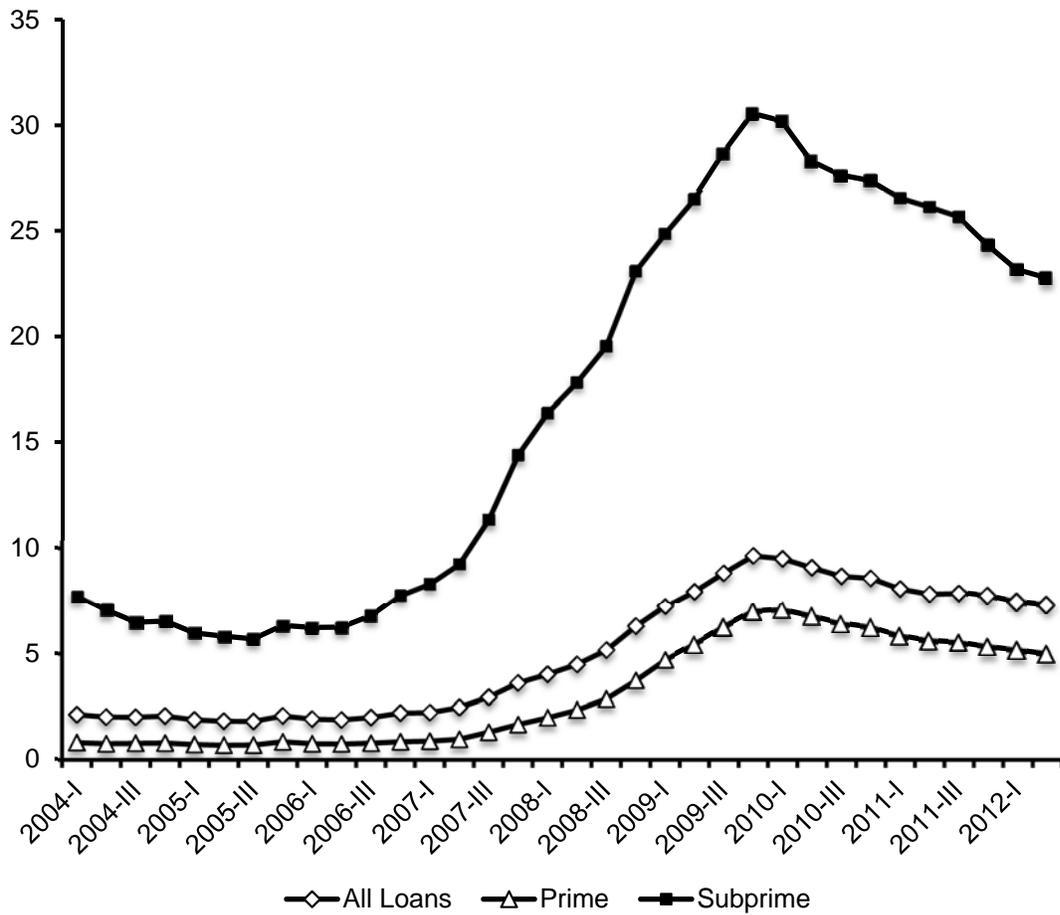


Figure 2. Mortgage foreclosure rates, 2004-2012.

Source: Mortgage Bankers Association, various National Delinquency Surveys.

Note: All figures are for seriously delinquent loans (90 days or more delinquent, or in the process of foreclosure).

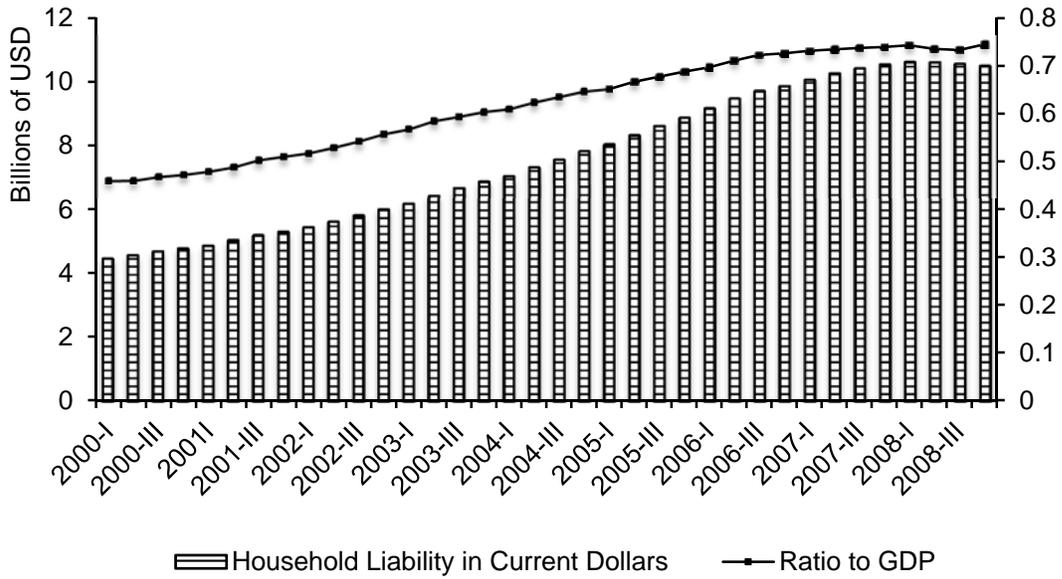


Figure 3. The Evolution of Household Debt, 2000-2008.
Source: Table L218, Flow of Funds, Federal Reserve.

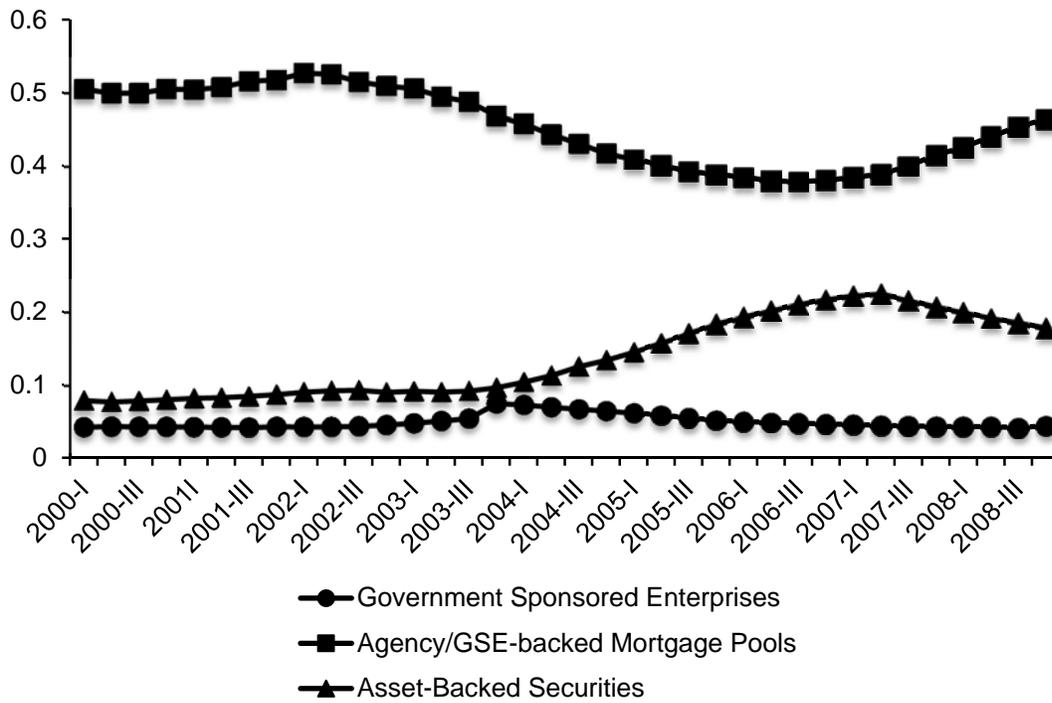


Figure 4. Home Mortgage Debt, Source of Funds (Share in Total), 2000-2008.
Source: Table L218, Flow of Funds, Federal Reserve.