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An Economic View of the Housing Crisis

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An Economic View of the Housing Crisis

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This past year, 2008, was a watershed year in terms of the devastation in the United States residential housing market. Not since the Great Depression have home values fallen so far and so fast. A look at current housing market statistics such as median home prices, market inventories of existing homes, delinquency rates, and foreclosure rates suggests that it will be quite some time before the housing market returns to a sense of normalcy, with much economic pain to be felt by homeowners in the process.

With the benefit of hindsight, one can see the seeds of housing market destruction were sown years ago through the deterioration of mortgage underwriting standards which inflated homeownership demand beyond sustainable levels, and the lax regulation of financial firms which facilitated the expansion of ever more complex structured finance derivative products without adequate capital requirements and risk controls. It is clear that the U.S. must now plug the gaps in its regulatory structure and take the steps necessary to provide greater transparency of financial transactions, while laying out a clear set of comprehensive rules of the game for financial firms going forward.

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An Economic View of the Housing Crisis

CHRISTOPHER A. RICHARDSON*

I. INTRODUCTION

The bursting of the housing bubble in the United States left the residential housing market in a critical state in 2008, with no clear end in sight. By all measures, house prices in 2008 fell rapidly. According to data from the National Association of Realtors[®], the median price of existing homes fell from a peak of nearly \$222,000 in 2006 to slightly under \$181,000 in November 2008.¹ Similarly, the Case-Shiller composite index of house prices showed a precipitous year-over-year fall in prices of 18.2% from November 2007 to November 2008.² Areas of the United States that experienced larger increases in home prices, particularly in the western parts of the country, saw even larger declines from 2006 to 2008.³ However, prices fell in all regions.⁴

The stabilization of the housing market will depend fundamentally on achieving balance between the supply of and the demand for homes. Experts consider the housing market to be in equilibrium when the inventory of existing homes on the market equals about six months of

* At the time of *The Subprime Crisis: Going Forward* symposium held on November 14, 2008 at the University of Connecticut School of Law, Dr. Richardson was a Vice President at State Street Associates, a subsidiary of State Street Corporation. Many thanks to symposium sponsors *Connecticut Law Review* and the Insurance Law Center, symposium brainchild Professor Patricia McCoy, Managing Editor of the *Connecticut Law Review* Krystna Cloutier, and the *Connecticut Law Review* staff. Thanks also to the participants on my panel—Marsha Courchane, Lauren Willis, and Anthony Pennington-Cross—for sharing their insightful and timely research with symposium attendees and participants.

¹ NATIONAL ASSOCIATION OF REALTORS[®], EXISTING-HOME SALES, http://www.realtor.org/wps/wcm/connect/88c8a5004cce73f7b8c7fbb7f711181/research_EHS012609.pdf.pdf?MOD=AJPERES&CACHEID=88c8a5004cce73f7b8c7fbb7f711181 [hereinafter NAR SALES DATA].

² See J.W. Elphinstone, *S&P Index Sows Plunge in November Home Prices*, YAHOO! FINANCE, Jan. 27, 2009, <http://finance.yahoo.com/news/SampP-Home-values-post-182-apf-14164793.html> (“Nationally, prices in Case-Shiller’s 20-city index tumbled by the sharpest annual rate on record, 18.2 percent, as the deepening housing slump and national recession spared no region.”).

³ See NAR SALES DATA, *supra* note 1 (showing that the largest decline in sales prices occurred in the western region of the country, where prices dropped \$71,900 between 2006 and 2008); see also Elphinstone, *supra* note 2 (stating that, according to Case-Shiller’s 20-city index, the cities with the largest annual decline in home prices between November 2007 and November 2008 were Phoenix, Las Vegas, and San Francisco).

⁴ See NAR SALES DATA, *supra* note 1 (indicating that the sales price of existing homes declined in all four regions of the country between 2006 and 2008).

supply (i.e., the existing inventory can be sold off in six months).⁵ Currently, there is a huge excess inventory of homes that are on the market or vacant—in November 2008, housing inventory totaled about 4.2 million units, representing 11.2 months of supply.⁶ The housing market has not seen inventory of six months since the latter half of 2006.⁷ Prior to then, in the boom year of 2005, the inventory of existing homes was 2.8 million units, which represented only 5.1 months of supply.⁸

Current sales trends do not bode well for the market regaining balance any time soon. In 2005, more than 7 million existing homes were sold.⁹ That figure fell to just under 6.5 million in 2006 and to 5.7 million in 2007 as the mortgage market began faltering.¹⁰ By mid-2007, existing home sales had fallen to an annualized rate of slightly over 5 million, where they remained until November 2008, with preliminary figures indicating a decline to a rate of 4.49 million units.¹¹

Meanwhile, since 2006 the number of homes on the market has continued to grow. In 2007, the housing market softened further, with the stock of existing homes on the market rising to nearly 4 million units, representing almost 9 months of supply for the year.¹² And in 2008 the onset of recession, the spike in foreclosures, and the unraveling of the credit markets decimated the demand for housing, with home inventory fluctuating between 4 million and 4.5 million units, representing 10–11 months of supply.¹³ Given these trends, the moribund housing market will not return to a sense of normalcy for some time.

In addition, there are significant headwinds pushing against the clearing of the housing market, in particular the precipitous rise in mortgage delinquencies and foreclosures. Data from the Mortgage Bankers Association's National Delinquency Survey show that 6.99% of all mortgages outstanding were delinquent at the end of the third quarter of 2008, the highest rate ever recorded by the survey.¹⁴ However, delinquency

⁵ See, e.g., REALTOR Magazine Online, Absorption Rate Key to Successful Pricing, <http://www.realtor.org/RMODaily.nsf/pages/News2007111404?OpenDocument> (last visited, Feb. 9, 2009) (“Six months’ supply is considered a balanced market . . .”).

⁶ See NAR SALES DATA, *supra* note 1.

⁷ See *id.* (showing that, in 2006, home inventory had risen to 3.45 million units, representing 6.5 months of supply).

⁸ See News Release, National Association of Realtors®, Existing-Home Sales Down in December but 2005 Sets a Record, Jan. 24, 2006, http://www.realtor.org/press_room/news_releases/2006/01/decehs05.

⁹ See *id.* (“There were 7,072,000 existing-home sales in all of 2005 . . .”).

¹⁰ See NAR SALES DATA, *supra* note 1.

¹¹ See NAR: Poor Economy Takes Toll on Home Sales, REALTOR MAG. ONLINE, Dec. 23, 2008, <http://www.realtor.org/RMODaily.nsf/pages/News2008122301?OpenDocument>.

¹² See NAR SALES DATA, *supra* note 1.

¹³ See *id.*

¹⁴ Delinquency is defined as loans at least one payment past due but excludes loans in foreclosure. See Press Release, Mortgage Bankers Association, Delinquencies Increase, Foreclosure Starts Flat in

statistics are vastly different between prime and subprime mortgages: in the third quarter of 2008 the delinquency rate was 4.34% for prime mortgages but was 20.03% for subprime mortgages.¹⁵ Even more troubling are the rates of serious delinquency—mortgages ninety or more days delinquent—as these mortgages are very likely to end up in foreclosure without a major intervention by the lender, servicer, or governmental entity. At the end of the third quarter of 2008, a whopping 19.56% of subprime mortgages outstanding were seriously delinquent, compared with 2.87% of prime mortgages.¹⁶ Moreover, both the rate and the level of serious delinquency is much higher for subprime mortgages: the subprime rate increased 1.71 percentage points from the year-ago quarter, while the prime rate rose a smaller, but still vexing, 0.52 percentage points from a year ago.¹⁷

In many cases, the end result of serious mortgage delinquency is foreclosure. In the foreclosure process, the social burden of the weakened housing market manifests itself to the greatest extent. A foreclosed home is a losing proposition for borrowers, lenders, servicers, investors, neighborhoods, and state and local governments—particularly in a recessionary economic environment where a glut of homes on the market already exists. Unfortunately, the mortgage delinquency statistics discussed above point to a continued increase in the already record-setting number of foreclosed homes for the foreseeable future. In the third quarter of 2008, nearly 3% of loans were in foreclosure, a percentage that was 1.28 percentage points higher than one year ago.¹⁸ The rate of foreclosure starts in the third quarter of 2008 was 1.07%, virtually unchanged from the previous quarter, but 0.29 percentage points higher than one year ago.¹⁹

Before one can think in a meaningful way about possible solutions to the current housing market crisis, it is important to consider the forces that contributed to the market's current state. The next section provides a brief discussion of the confluence of forces that brought the housing market to its current weakened state.

II. FACTORS CONTRIBUTING TO CURRENT MARKET DISTRESS

As discussed in the Article by Marsha Courchane, one clear contributor to the problems in the mortgage and housing markets was weak mortgage

the Latest MBA National Delinquency Survey (Dec. 5, 2008), <http://www.mbaa.org/NewsandMedia/PressCenter/66626.htm>.

¹⁵ See *id.* (citing delinquency rates of 12.92% and 7.28% for FHA and VA loans, respectively).

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

underwriting standards.²⁰ The Federal Reserve's Senior Loan Officer Survey seems to suggest that underwriting standards began to deteriorate in late 2005. However, underwriting standards probably began loosening in 2004; stimulative monetary policy by the Federal Reserve pushed mortgage rates down to record lows and a steep yield curve provided banks and mortgage lenders with incentives to fund the origination of adjustable-rate mortgages with low-cost short-term debt, with the expectation that the mortgages would be refinanced before the fixed-rate terms ended. One key problem with mortgage underwriting standards over the past several years was that they were predicated on the assumption of continued increases in house prices.²¹ Mortgages with more accommodating underwriting terms—Alt-A and subprime loans in particular—were made under terms that made them unsuitable to be held by borrowers for long periods of time. Perhaps the most widespread examples were the hybrid adjustable-rate mortgage (ARMs) featuring a low “teaser” interest rate for the fixed-rate time period, which increased substantially thereafter. The rationale behind the popularity of ARMs was the expectation that such loans could be refinanced into new loans with more affordable monthly payments before the lower fixed-rate period of the loan term ended. Borrowers would be able to refinance, so the reasoning went, as long as home values continued to increase. Such reasoning was also behind the introduction of the option-adjustable mortgage (“option ARM”), a mortgage that allows the borrower to choose to make monthly payments that are less than the monthly interest charges, thus resulting in “negative amortization.”

Mortgages with “exotic” underwriting features such as “teaser” rates on ARMs, negative amortization, interest-only (IO) amortization, reduced (or no) documentation of income and assets (so-called “low-doc” or “no-doc” loans), and high loan-to-value ratios (LTVs) helped fuel the explosive growth in the demand for mortgages and homes during 2003–2006. This increased demand led home builders to build more (and larger) homes, thereby increasing the supply of housing, which led to increased demand for more and larger mortgages; this continued in a virtuous cycle. Virtuous, that is, until the appetite for assets backed by non-prime (Alt-A and subprime) mortgages abruptly vanished in late 2006 and early 2007. Although the precise chain of causality is somewhat unclear (was the drop in secondary market demand for subprime mortgages caused by falling house prices, or did house prices start falling because subprime borrowers could not refinance as a result of a drop in secondary market demand?), it

²⁰ See generally Marsha J. Courchane, *Loan Originations/ Underwriting Standards: Recovering From the Subprime Crisis*, 41 CONN. L. REV. (forthcoming 2009).

²¹ See Gary Gorton, *The Panic of 2007*, 3–4, 19–34 (Yale Univ. Int'l Ctr. for Fin. Working Paper Series, Paper No. 08-24, 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1255362#.

is fairly clear that as the performance of mortgages continued to deteriorate (first subprime and Alt-A mortgages, then prime mortgages as well), the structured securities created or derived from those mortgages—mortgage- and asset-backed securities (MBS/ABS), and collateralized debt obligations (CDOs)—began to lose value and become more risky, and the demand and liquidity for these securities was decimated.

Another factor contributing to the housing crisis was the failure of bank regulatory agencies—the Office of Thrift Supervision, the Office of the Comptroller of the Currency (OCC), the FDIC, and the Federal Reserve—to require and enforce a tightening of mortgage underwriting standards before house prices leveled off.²² In the regulatory and economic environment in place during 2003–2006, one with a vibrant economy driven in large part by cheap financing and few prohibitions on risky lending, financial firms sprinted well ahead of their regulators by engineering new financial products that allowed banks and investors to create, package, re-package and sell cash flows that we now know carried considerably more risk than standard products. Many of these products, such as CDO tranches and credit derivatives, contained not only the normal risk directly associated with the characteristics of the assets underlying the products, but added on a layer of counterparty risk, where the actions of secondary parties to the transaction may impact the value of the underlying assets of a financial product in ways that are difficult or impossible to quantify.²³ Unfortunately, the increase in systemic risk created by these products often is not observable at the time the products are structured, given the tendency for new financial products to be structured at times that are favorable to the structurers and investors. Consequently, regulators may be reluctant to impose restrictions on new financial products until there is evidence that there is a problem. Sometimes, as was the case with the current credit crisis, by then it is too late.

Given the benefit of hindsight, it is likely that early implementation of restrictions and oversight of the use of mortgages with particularly risky combinations of “exotic” features would have ameliorated the riskiness of market transactions. The Article on product innovations by Souphala Chomsisengphet, Timothy Murphy, and Anthony Pennington-Cross, provides empirical evidence on the mismatch between mortgage borrowers and the mortgages they received during the housing market bubble

²² Two related factors in the overheating of the housing market were the push by the Department of Housing and Urban Development (HUD) to promote homeownership at the expense of focus on the availability of affordable rental housing, and HUD's reluctance to regulate underwriting for independent mortgage lenders that did not fall directly under the regulatory purview of the bank regulatory agencies.

²³ For a comprehensive narrative of the role of CDOs and credit derivatives in the credit crisis, see Gorton, *supra* note 21, at 34–45.

period.²⁴ For example, their analysis indicates that 2007 interest-only mortgages were used in the Pacific region about four times more often than the amount predicted by economic and financial conditions, and non-amortizing loans in the Pacific region were used about 20 percentage points more often than predicted.²⁵

Such misallocations of mortgage products are indicative of the type of decision failures discussed in the Article by Lauren Willis—in particular, failures that lead to inefficient transactions and are difficult to correct given the institutional barriers currently existing in the mortgage market.²⁶

Despite the deficiencies in the regulation of mortgage products, lax underwriting by itself was not enough to ignite a global financial crisis. Systemic risk in the financial system was propagated by the winds of securitization—the packaging of mortgages and other debt instruments into MBSs, CDOs, and other structured products. The securitization of mortgages provided a way for investors to invest in fixed-income products tied to mortgages and other types of loans, ostensibly without having to assess the credit risk of each individual borrower. Moreover, the tranche structure of MBSs created layers of bonds featuring different coupon rates and levels of prepayment and default risk, depending on the tranche's rating and priority in the “waterfall” structure of the MBS. These individual tranches could then be sold directly to investors or bundled with other tranches from different MBSs (or other types of structured products backed by various types of assets) in the form of CDOs.

While a thorough discussion of CDOs is beyond the scope of this Article, a key complication with CDOs is that computing their values is made difficult by the disconnect between the cash flows of each underlying asset and the cash flows of the various tranches of the CDO. In fact, many CDOs backed by subprime mortgages received the highest AAA rating from private ratings agencies.²⁷ Due to the difficulty of modeling and accurately pricing CDO tranches, investors for the most part relied heavily on the ratings given to the securities by the ratings agencies. This head-in-the-sand investing approach worked for investors as long as cash flows on the securities were not impaired (i.e., low defaults and high prepayments).

²⁴ See Souphala Chomsisengphet et al., *Product Innovation & Mortgage Selection in the Subprime Era* 5–6 (Oct. 2008), available at <http://ssrn.com/abstract=128876>.

²⁵ *Id.* at 11–12, 32.

²⁶ Lauren Willis, *Will the Mortgage Market 'Correct'?*, 41 CONN. L. REV. (forthcoming 2009). Willis lists as supply-side barriers to market correction: (i) characteristics of modern lending profit models, namely risk spreading, diversification and hedging, risk-based pricing, and pool-based profitability; (ii) limits on disciplining brokers and originators; (iii) limits on aligning servicer incentives; and (iv) no incentive to internalize social costs of the particular types of mortgages being provided. Demand-side barriers to market correction include (i) a lack of responsiveness of borrowers to price signals; (ii) poorly calibrated borrower responses to risk; and (iii) unmoored risk preferences. *Id.*

²⁷ See Gorton, *supra* note 21, at 32–33 (providing a chart with ratings data from Moody's, Standard and Poor's, and Fitch, the major private ratings agencies).

Investors did not have to concern themselves very much with pricing and valuing opaque CDOs, as there was an active, liquid market for them which provided pricing data with which they could mark their portfolios to (mainly favorable) market prices. Once the underlying assumptions about house price appreciation were breached, however, the ratings were shown to be unreliable.

The role of CDOs and other structured products in the crisis should not be underestimated. CDOs allow credit risk, market risk and liquidity risk to be packaged, sold, and hedged to investors willing to absorb those risks. However, it appears that the market was missing a backstop mechanism to ensure that investors that were *willing* to absorb credit, market, and liquidity risks from other parties were actually *able* to absorb them. The collapse and subsequent bailout of AIG is a prime example of the perils of allowing the existence of what is essentially a specialized insurance market—in AIG's case, the market for credit default swaps—without imposing controls—i.e., capital requirements—on the insurance writers to provide some assurance they will be able to honor their obligations to all counterparties. Without such a backstop, systemic risk can grow virtually unchecked as counterparty risk rises.

III. WHERE DO WE GO FROM HERE?

The collapse of liquidity that spread through the global financial system had its origin in the market failures evident in the residential mortgage market. When all is said and done, trillions of dollars will have been spent by governments around the world in an effort to revive and restore credit markets. Given the enormity of the economic problems we face both nationally and globally, where do we go from here?

A viable blueprint for reforming the regulatory foundation of the US financial system was provided in a speech by then-Senator Barack Obama in March 2008—several months before both the meltdown in the debt markets in October 2008 and his election as President on November 4, 2008:

[T]here needs to be general reform of the requirements to which all regulated financial institutions are subjected. Capital requirements should be strengthened, particularly for complex financial instruments like some of the mortgage securities that led to our current crisis. We must develop and rigorously manage liquidity risk. We must investigate rating agencies and potential conflicts of interest with the people they are rating. And transparency requirements must demand full disclosure

by financial institutions to shareholders and counterparties.²⁸

President Obama's speech, heavily influenced by the ideas of former Federal Reserve Chairman Paul Volcker,²⁹ masterfully touched upon the major issues and provided an economically sound blueprint for strengthening and revamping the regulatory system. With regard to the excerpt above, two further actions should be considered. First, given the pervasiveness of lax underwriting in the current crisis, one key element to re-establishing a properly functioning housing market will be to tighten mortgage underwriting standards. To a large extent this has already happened.³⁰ Further tightening could take the form of prohibiting certain types of mortgages with questionable consumer value—particularly mortgages that allow for negative amortization. Second, improved disclosure and transparency requirements will be effective only to the extent that financial products are structured in a way that allows them to be accurately priced. Transparency, therefore, must apply to the individual assets constituting structured securities. If structured securities are to be viable investment vehicles in the future, they must be structured in ways that can be properly modeled and priced by the market.³¹ Ultimately, reviving the residential housing market will require rebuilding and strengthening our regulatory foundation in ways that allow the market to function properly, while ensuring that the mistakes of some do not undermine the well-being of all.

²⁸ Senator Barack Obama, Speech at Cooper Union: Renewing the American Economy 6 (Mar. 27, 2008), available at <http://www.usatoday.com/news/mmemmottpdf/obama-econ-speech-3-27-2008.pdf>.

²⁹ See Edward Harrison, *Paul Volcker: Obama's Other Economic Advisor*, CREDIT WRITEDOWNS, Oct. 21, 2008, <http://www.creditwritedowns.com/2008/10/paul-volcker-obamas-other-economic.html> (emphasizing the importance of former Chairman Volker's addition to President Obama's economic team).

³⁰ See Memorandum, Board of Governors of the Federal Reserve, The January 2009 Senior Loan Officer Opinion Survey on Bank Lending Practices (Feb. 2, 2009), available at <http://www.federalreserve.gov/boarddocs/SnLoanSurvey/200902/default.htm> ("In the January survey, the net fractions of respondents that reported having tightened their lending policies on all major loan categories over the previous three months stayed very elevated.").

³¹ Under this standard, so-called "CDO-squareds" (CDOs that contain other CDOs as underlying assets) and other manifestations of "derivatives of derivatives" would not be permitted.