

The Political, Regulatory and Market Failures that Caused the US Financial Crisis: What are the Lessons

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Abstract: In this paper I discuss the key regulatory, market and political failures that led to the 2008 US financial crisis. While Congress was fixing the Savings and Loan crisis, it failed to give the regulator of Fannie Mae and Freddie Mac normal bank supervisory power. This was a political failure as Congress was appealing to narrow constituencies. Second, in the mid-1990s, to encourage home ownership, the Administration changed enforcement of the Community Reinvestment Act, effectively requiring banks to lower bank mortgage standards to underserved areas. Crucially, the risky mortgage standards then spread to other sectors of the market. Market failure problems ensued as banks, mortgage brokers, securitizers, credit rating agencies and asset managers were all plagued by problems such as moral hazard or conflicts of interest. I explain that financial deregulation of the past three decades is unrelated to the financial crisis, and suggest several recommendations for regulatory reform.

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David G. Tarr

“From the current handwringing, you’d think that the banks came up with the idea of looser underwriting standards on their own, with regulators just asleep on the job. In fact, it was the regulators who relaxed these standards—at the behest of community groups and “progressive political forces.”

Professor Stan Leibowitz, University of Texas¹

I. Summary

In 2008, the US is in the worst financial crisis since the Great Depression. The core of the crisis is that forty-four percent of all home mortgages (or 25 million mortgages) are default prone, a figure that is unprecedented in US history.² Why did financial institutions and homeowners acquire so many mortgages that are in default or in danger of wider default? I argue that the crisis is a result of regulatory failure, market failure and, most of all, political failure.

First, the seeds of the crisis were sown while Congress was appropriately imposing tougher regulation on banks and savings and loan associations in the early 1990s in response to the Savings and Loan crisis. Congress made a grave error: it agreed to avoid real regulation of the two Government Sponsored Enterprises (GSEs) commonly known as Fannie Mae and Freddie Mac and allow them to take on unlimited risks with an implicit government guarantee. Fannie and Freddie avoided real regulation by proposing an affordable housing mission, which ultimately led to a lowering of their mortgage standards. Subsequently Congress used Fannie and Freddie projects like earmarked pork projects and taxpayers are now on the hook for an estimated 50 percent (or \$1.6 trillion) of the sub-prime, alt-A and other default prone mortgages. These mortgages are now defaulting at a rate eight times that of the GSEs traditional quality loans.³ The failure to give the GSE regulator normal bank supervisory power was a regulatory failure. But given that Congress was in the process of fixing the Savings and Loan crisis, Congress had to be aware of the risks. Therefore it was even more of a political failure. That is, the general social good was sacrificed to appeal to narrow political constituencies.

Second, in the mid-1990s, the Administration changed enforcement of the Community Reinvestment Act and effectively imposed quotas on commercial banks to provide credit to underserved areas. The banks were told to use “flexible or innovative” methods in lending to meet the goals of the Community Reinvestment Act. Failure to meet the quotas would result in

¹ New York Post, February 5, 2008.

² Pinto (2008, 8).

³ For detailed estimates, see Pinto (2008, attachment 5).

denial of merger or consolidation requests. The evidence reveals that bank mortgage standards fell as a consequence of this regulatory change. Crucially, the risky mortgage standards then spread to other sectors of the market. Encouraged by the home mortgage interest deduction and an expanding money supply in the 5-6 years prior to the crisis, speculators and households trading up to bigger houses acquired a large number of high risk mortgages. Riskier mortgage standards by banks were not the consequence of deregulation; rather the banks were compelled to change the standards by new regulations at the behest of community groups. Again, this was a political failure as the Administration sacrificed the greater social good to appeal to narrow constituencies.

Once the banks were pressured by regulation to offer risky mortgages to underserved areas, they (and mortgage brokers) found they could make money on them by selling them to “securitizers,” who in turn packaged the mortgages in pools and sold them. The securitizers were able to make money in the process since they were able to get the ratings agencies to underestimate the risk of the mortgage pools. Since the securitizers paid the rating agencies for the ratings, this was accomplished awarding repeat business to agencies that gave good rating, and by “rating shopping,” a practice in which securitizers would ask multiple rating agencies how they would rate their pool of mortgages, and then select a ratings agency that gave a very secure rating. The problems were exacerbated by the fact that asset managers in the private sector who bought the pools of mortgages had a conflict of interest. Constrained to invest in high quality assets, rather than return the money of their clients and lose management fees, money managers closed their eyes to the signals that the mortgage pools were riskier than the ratings. These problems were market failures.

Within limits, a targeted program to expand home ownership to low or moderate income families is a worthy social goal. A much more efficient way to do it, however, is to subsidize down payments of first time low and moderate income home buyers, without encouraging or forcing banks to lower lending standards. Politicians, however, often prefer to mandate a regulation on firms to achieve a political objective, since this allows them to avoid exposure of the costs of their programs. In this sense, the financial crisis is, at its root, a political failure. What is ominous is that the supporters of the programs that got us in this deep financial mess appear to still be pushing the same policies.

There were numerous regulatory failures and there is a clear need for new regulation and changes in regulation in several areas. The causes of the crisis, however, were sub-prime lending and securitization. Securitization was available for banks, investment banks and other financial institutions since the 1970s, and sub-prime lending was encouraged to promote wider home ownership. There is no connection securitization and sub-prime lending and financial deregulation of the past three decades. Characterization of the problems as “deregulation” diverts attention from the crucial task of fixing the perverse regulations in place and identifying where new regulation is needed.

In the next three sections, I explain these issues in more detail. This note concludes with lessons for regulatory reform to help us avoid similar crises in the future.

II. The failure to regulate Fannie Mae and Freddie Mac.

Top on the list of regulatory failures is the failure to regulate Fannie Mae and Freddie Mac. It is estimated that about \$1.6 trillion or about 50 percent of the toxic mortgages were purchased or guaranteed by these GSEs, and the government is now on the hook for these mortgages (Pinto, 2008). How did this happen? There were two key economic principles that were ignored. One is that if the government and taxpayers stand behind the financial obligations of a company, the company should be regulated against taking excessive risks for which the taxpayers are responsible. The government agreed not to regulate the GSEs and even encouraged them to take on risky mortgages in order to widen home ownership among low and moderate income households (and the government also pressured banks to take on risky mortgages for the same reasons).

Government guarantees without regulation against excessive risk taking

Fannie Mae was chartered originally as a government enterprise to add liquidity to the mortgage market and hopefully to lower the costs of borrowing for mortgages. Fannie borrowed money cheaply on capital markets because it was a government entity and used it to buy mortgages. Fannie Mae was privatized in 1968, and Freddie Mac was privatized in 1989 with an almost identical charter to Fannie. But even as private enterprises, the GSEs were able to borrow at very attractive rates of interest because investors believed that the government would back them in the event they went bankrupt. This belief was validated in September 2008 when the US government placed the GSEs in “conservatorship,” and began to inject taxpayer dollars into the companies.

The Affordable Housing Mission to Avoid Regulation

In the light of the S&L crisis of the late 1980s, many in Congress realized that it was necessary to regulate the GSEs, since it was dangerous to allow private enterprises to take on large risks with government guarantees. In order to stave off regulation, Fannie Mae CEO Jim Johnson proposed that the GSEs add an affordable housing mission to their objectives (Wallison and Pinto, 2008). Members of Congress saw they could use GSE projects much as they use earmarked pork projects to boost popularity in their home districts. Congressmen could request funding from the GSEs for projects in their districts. For example in 2006, Senator Charles Schumer’s office issued a press release headlined:

“Schumer announces up to \$100 million Freddie Mac commitment to address Fort Drum and Watertown Housing Crunch.”

The press release indicated that Senator Schumer had urged the commitment (Wallison and Pinto, 2008). Jim Johnson realized that the local projects could be used to influence Congress. He created Fannie Mae “local partnership offices” (eventually totaling 51) in urban areas throughout the US. These offices performed a grassroots lobbying function, assuring Congressional backers of GSEs that they could tap into local supportive groups at election time.⁴ (In addition, Fannie and Freddie, through their PACs, contributed to the campaigns of many Congressional supporters.) In the end, the legislation that was passed in the early 1990s

⁴ Wallison and Pinto (2008).

provided for the GSEs to lend to low and moderate income lenders, and in return their regulator lacked the authority routinely given bank regulators. As the problems with the GSEs rose and became evident over the years, the bargain that was struck, that Congress would not regulate seriously and the GSEs would undertake an affordable housing objective (which was implemented through lower mortgage standards), continued until the GSE bankruptcies in September 2008 (and maybe beyond since the fundamental political failure regarding the GSEs has not been resolved).

Although the GSEs were willing accomplices, in the 1990s, HUD Secretary Mario Cuomo used the implicit bargain of the GSEs to add pressure on them to take on a higher share of its mortgages to low and middle income borrowers. As early as 1999, astute journalists warned that this meant that banks had to loan to progressively riskier borrowers and provide riskier mortgages, increasing the risks to Fannie and Freddie.⁵

In 2003 and 2004, the GSEs were caught in Enron style accounting scandals that eventually led to the resignation of Fannie CEO Franklin Raines, and there were calls for tougher regulation. Moreover, Federal Reserve Board and Congressional Budget Office studies concluded that despite the implicit government guarantees that allowed them to borrow cheaply, GSE activity had not lowered mortgage interest rates. Since they were creating risks for the taxpayer, what value were they providing? Alan Greenspan called for tougher regulation.

At this time, internal documents of Fannie and Freddie show that its own risk managers were sounding strong alarm bells in 2004, and they recognized that the GSEs had the power to influence standards in the market.

Donald Besenius of Freddie, in his April 1, 2004 letter to Mike May said *“we did no-doc lending before, took inordinate losses and generated significant fraud cases. I’m not sure what makes us think we’re so much smarter this time around.”*⁶

David Andrukonis of Freddie Mac said in an email to Mike May on September 8, 2004 that *“...we were in the wrong place on business or reputation risk.... What I want Dick [Freddie Mac CEO] to know that is that he can approve of us doing these loans but it will be against my recommendation.”*⁷

But Freddie Mac’s management ignored these warnings. Instead the GSEs turned to their Congressional allies. Senator Charles Schumer stated in late 2003:

*“My worry is that we’re using the recent safety and soundness concerns, particularly with Freddie, and with a poor regulator, as a straw man to curtail Fannie and Freddie’s affordable housing mission.”*⁸

⁵ See articles by Steven Holmes in the *New York Times*, September 30, 1999 and Ronald Brownstein in the *Los Angeles Times*, May 31, 1999.

⁶ Quoted in Calomiris (2008a).

⁷ Quoted in Calomiris (2008a). Dona Cogswell of Freddie Mac wrote similar warnings in a memo to Dick Syron, Mike May and others on September 7, 2004.

⁸ Quoted in Wallison and Pinto (2008).

At the House Financial Services Committee meeting in September 2003, speaking about GSE regulation, Representative Barney Frank said:

“I do not think I want the same kind of focus on safety and soundness....I want to roll the dice a bit more toward subsidized housing.”

And roll the dice they did.

Seeing what they had to do to avoid regulation in a tougher political environment, the GSEs increased their portfolios of sub-prime, alt-A and high risk mortgages from less than 8% of their mortgages in 2003 to over 30% in 2008.⁹ (A sub-prime loan is defined by the New York Fed as a loan to a borrower with blemished credit or poor documentation. Alt-A loans are loans with high risk factors even if the borrower may have a good credit history). But this worked in fending off the tougher regulation. Unfortunately, if defaults continue at the current high rates, the \$150 billion loss of the S&L crisis will easily be exceeded—at considerable cost to taxpayers in the future (Pinto, 2008).

Political Failure

As Edward Kane (who predicted the S&L crisis years in advance, Kane, 1985) and others have noted, in the early 1990s, Congress repeated with Fannie and Freddie the mistake that caused the collapse of the S&L industry. That is, it gave government backing to private enterprises without adequately limiting the risks these companies could take. But the Fannie and Freddie case is a far worse political failure than the S&L debacle. First, taxpayers’ losses will be much greater than in the S&L crisis. Second, in the S&L crisis, Congress might be excused for not recognizing that it should have imposed tighter limits on the risks assumed by government backed institutions. But while Congress was passing tough new banking regulation to fix the S&L crisis, the decision not to regulate the GSEs must have been a conscious decision on the part of the supporters of the GSEs in Congress. They decided not to regulate them so they could use GSE resources for their political constituencies.

Ominous Signs for the Future

In September 2008, Fannie and Freddie were placed in conservatorship under the newly created US Federal Housing Finance Agency. Although the US Treasury has been less definite, James B. Lockhart III, director of the agency that serves as both regulator and conservator of Fannie and Freddie stated “the conservatorship and the access to credit from the U.S. Treasury provide an effective guarantee to existing and future debt holders of Fannie Mae and Freddie Mac.”¹⁰ This approach still fails to address the underlying issue of guaranteed assets without constraints on risk taking. In the middle of this crisis, James B. Lockhart III appears ready to forge ahead with the same mistakes. He lamented, in testimony before the House Financial

⁹ Pinto (2008, 7).

¹⁰ Reuters, “GSE Debt has an ‘effective guarantee,’ ” October 23, 2008. On November 25, 2008, the Federal Reserve announced it would buy \$100 billion of debt of the GSEs and \$500 billion on the Mortgage Backed Securities guaranteed by the GSEs and Ginnie Mae.

Services Committee on Sept 25, 2008, that market turmoil of 2008 resulted in more stringent loan criteria, for example, higher required down payments. He hoped that both Fannie and Freddie would develop and implement ambitious plans to meet HUD regulations for low and moderate income lending. Shockingly, rather than seeing higher down payment requirements as a positive step toward stability in the housing market, the regulator is still pushing for a lowering of mortgage standards.

III. Incentives from the Community Reinvestment Act and Problems with the Private Sector

Pinto (2008) estimates that Fannie and Freddie bought an estimated 50 percent of the toxic mortgages. We still have to explain why the private sector created and bought the rest. And we also have to explain why so many homeowners who are wealthier than low or moderate income households are defaulting on mortgages. Part of the answer is that Fannie and Freddie played a “market maker” role. Their dominant size in the market and their readiness to purchase these risky mortgages set standards in the market and brought other actors into the business of trying to profit from risky mortgages.¹¹ There is, however, another crucial component to the lowering of bank mortgage standards. In the mid-1990s, the government changed the way the Community Reinvestment Act was enforced and effectively compelled banks to initiate risky mortgages. Moreover, there were incentive or market failure problems that induced all the key private actors to act in socially counterproductive ways.

What is Securitization?

Prior to the 1970s, home mortgages were the most illiquid asset on a bank’s balance sheet. Banks could not sell the mortgages on the secondary market due what is known as an “adverse selection” problem arising from asymmetric information. That is, buyers were afraid that banks, who knew their mortgages better, would sell only the bad mortgages and keep the better mortgages on their own balance sheets. In order to create a market for mortgages, in the 1970s “securitizers,” which can be banks themselves but were more frequently investment banks, took pools of mortgages, had the pools of mortgages rated and then sold the pools of mortgages (or portions of them). The large pools of mortgages, would, in principle, yield an average yield for the quality of mortgage in the pool. In practice, they were sliced up with different slices offering differing risks or default, depending on who got paid first in the event of default. These more complicated offerings were known as Collateralized Debt Obligations (CDOs).

Banks’ Incentives and the role of the Community Reinvestment Act

The originators and servicers of the mortgages were the banks and mortgage brokers. There were two problems that led to the banks issuing a lot of mortgages with excessive risks. First, the effort to lower mortgage underwriting standards was led by the US Department of Housing and Urban Development (HUD). It published its “National Homeownership Strategy” in 1994

¹¹ See Calomiris (2008a) for an elaboration.

in which it called for “financing strategies, fueled by the creativity and resources of the public and private sectors, to help homeowners that lack cash to buy a home or to make the payments.”¹² One of the principal means through which this policy was implemented was through a change in the enforcement of the Community Reinvestment Act. This Act was originally passed in 1977, but weakly enforced prior to 1995. New regulations phased in between 1995 and 1997 called for banks to use “flexible or innovative standards” to address credit needs of low and moderate income (LMI) borrowers; and banks would be evaluated on outcomes of their lending, i.e., quotas, not on efforts to reach the of low and moderate income community. Failure to comply meant that banks could not participate in mergers or acquisitions. So banks and mortgage brokers developed many innovative products. Notably they lowered down payment requirements below the traditional 20 percent minimum, and allowed loans to borrowers with little or no credit history or documented source of income. And Fannie and Freddie, under their affordable housing mandate, modified their rules so they could buy these innovative instruments. Professor Hossain (2004) writes that the rule change

“can be thought of as a shift of emphasis from procedural equity to equity in outcome. In that, it is not sufficient for lenders to prove elaborate community lending efforts directed towards borrowers in the community, but an evenhanded distribution of loans across low and moderate income and non- low and moderate income areas and borrowers.”

Studies have documented that bank lending standards fell after this rule change.¹³ For example, much lower down payments were accepted, and it had the desired effect of widening home ownership.

Thus, banks did not come up with the idea of looser underwriting standards and slip these past regulators. Rather, in order to meet the objective of broadening home ownership and providing credit to underserved areas, banks were compelled by the regulators to lower mortgage standards. The real problem is that once bank regulators initiated changes in enforcing the Community Reinvestment Act to require banks to lower underwriting standards, they could hardly oppose similar loans to better qualified borrowers. Then the relaxed standards spread to the wider mortgage market, including to speculative borrowers and borrowers who wanted to trade up to bigger homes. The key point here is not merely that low and moderate income earners received loans that they could not afford. While that may be true to some extent, it can not account for the large number of sub-prime and alt-A mortgages that plague the housing market today. Between 2001 and 2006, the share of mortgages made up of conventional mortgages fell from 57 percent to 33 percent.¹⁴ The contagion of poorly underwritten mortgages spread well beyond the low and moderate income community groups.

Faced with this regulatory regime, the banks figured out how to make money on the risky mortgages. The banks and mortgage brokers reaped significant fees from the mortgages and then sold them to securitizers. So the risks of default were borne by those who purchased the pools of mortgages from the securitizers, while the loan originators got the fees. Securitization

¹² Quoted in Wallison (2008).

¹³ See Demyanyk and van Hemert (2008) and England (2002).

¹⁴ Wallison (2008).

was designed to address the adverse selection problem that prevented resale of mortgages. Instead we got a “moral hazard” problem as the loan originators collected fees on badly underwritten mortgages without bearing the risks. The banks did keep some of the mortgages for themselves, and on these mortgages they bore the risks.¹⁵ Calomiris (2008) argues that the rate of default on mortgages held by banks is lower than the rate of default on mortgages the banks sold to the secondary market, including the GSEs, so a modest adverse selection problem remained.

Securitizers and the Ratings Agencies.

The pools of mortgages were rated regarding their riskiness by agencies such as Moodys, Standard and Poor and Fitch, known as Credit Rating Organizations (CROs). Unfortunately, the CROs, who have a responsibility to objectively evaluate the risks of the instruments they assess, had a conflict of interest. They had an incentive to undervalue the risk. These rating agencies became heavily dependent on the fees from rating mortgage pools. Securitizers were the ones who paid the ratings agencies, and repeat business for a CRO was dependent on good ratings. Moreover, securitizers routinely employed the practice known as “rating shopping.” A securitizer would ask a rating agency how the agency might hypothetically rate a pool of mortgages. If the rating were low, the securitizer would go to another rating agency. Caprio et al. (2008) argue that a critical failure in the system was the fact that the securitizers were the ones who paid the raters. For many of the CROs, the fees too strongly influenced their evaluations, and the result was a gross undervaluation of the riskiness of these pools of mortgages.

How to Meet an Affordable Housing Objective Most Efficiently

There is evidence that home ownership conveys some benefits to the community (what economists refer to as an externality) so there is reason for the government to encourage home ownership within limits.¹⁶ But this has to be done efficiently and in a manner that does not induce a financial crisis. The second key economic principle that was ignored is that simply mandating an objective onto firms and hoping that the market participants will not change their behavior in ways that are socially undesirable is a poor public policy choice. It is better to impact incentives most directly. Based on a theorem developed by Bhagwati and Ramaswami (1963), economists state the approach more generally as:-the most efficient way to achieve an objective not achieved by the market is to use the regulatory instrument that impacts the objective most directly, we say “at the relevant margin.” In this case, the objective not achieved by the market is wider home ownership for low and moderate income families. As implemented by the GSEs, mortgage standards were simply lowered for all. So speculators and wealthy individuals who wanted to trade up in a housing boom, could move into homes that they ordinarily would not qualify for. This obviously was not the objective of Congress and there is no evidence that *larger* home consumption conveys benefits to the wider community.¹⁷

¹⁵ The Lehman Brothers bankruptcy revealed that Lehman keep some of the riskiest tranches of the mortgage pools on its own books. It is not clear if Lehman keep these tranches in order to secure AAA ratings of the remaining mortgage pool or if it was willing to bear increased risk to obtain a higher return.

¹⁶ See Glaeser and Shapiro (2002).

¹⁷ See Glaeser and Shapiro (2002).

More importantly, the most efficient way to encourage home ownership is the way Australia has periodically done it: Australia has subsidized the down payment of first time low income home buyers (by 50% in their case).¹⁸ Banks in Australia do not change their standards, but with the larger down payments, many low and moderate income families, who could not qualify for mortgages without the down payment assistance, are able to qualify. This would put the cost of the program on the budget of the government, where the costs of the program would be transparent and subject to public scrutiny, rather than hidden in the costs of banks and private financial market participants. Many in Congress prefer to hide the cost of their programs (the problem is not limited to housing finance). Consequently, they avoid subsidies since they expose the costs of the program. But mandating a social objective onto private firms (in this case telling banks and Fannie and Freddie to lower their mortgage standards) and ignoring the adjustments that markets will inevitably make, can have much greater costs, as we are all painfully learning.

Asset managers

The pools of mortgages purchased in the private sector were purchased primarily by asset managers of mutual funds on behalf of their clients. Calomiris (2008) argues that the biggest problem in the private sector was that the asset managers of mutual funds had a conflict of interest between their own income and the interests of their clients (a “principal-agent problem”). If they had not bought the mortgages, dramatically fewer would have been issued—securitizers were supplying what was being demanded by asset managers. That is, the asset managers managed funds like mutual funds or pension funds, where these funds were constrained to invest in only very low risk financial instruments. If these mortgage pools were not rated AAA, the rules of the fund would have prohibited the asset managers from investing in them. With the large growth of the money supply in the five or six years prior to the crisis, large amounts of money poured into these mutual funds. The large growth in the US money supply was fueled by the large trade deficits which had to be financed by large capital inflows. The Federal Reserve accommodated this money supply growth (the real Federal funds rate was persistently negative to an extent not seen since the 1970s)—so the Fed must share in the blame for the crisis.¹⁹ There was a lot more money available for placement in AAA rated mortgage funds than there were actual AAA mortgage pools available (if the pools were properly rated). The asset managers were faced with a choice: (1) find pools of mortgages to buy at the rated quality required by the conditions of the mutual fund; or (2) return the money to the investors. If the asset managers returned the money to their clients, they would lose their bonuses and management fees, and put their huge salaries at risk. Rather than return the

¹⁸ The costs of such a targeted subsidy program for low and moderate income earners would have to be weighed against the benefits, and would likely justify a small subsidy program. See Bourassa and Yin (2006) for a comparison of the impacts of the US and Australian approaches. In 2008, however, the US implemented a program of interest free loans for first time home buyers (or buyers who have not owned a home in the past three years) for homes purchased between April 9, 2008 and July 1, 2009. The program allows a tax credit of up to \$7,500, which must be paid back interest free over a period up to 17 years.

¹⁹ Calomiris (2008) finds that money supply growth is a common feature to historical financial crises.

money, they held their noses and bought mortgage pools that they knew to be improperly rated.²⁰

The Homeowner: Why Tax Laws and Homeowner Options have contributed to the Crisis

The more equity a homeowner has in her home, the less likely she will want to walk away from a mortgage in a downturn in the housing market, and the more stable the housing market will be. Our laws, however, have induced a very low positive equity and now negative equity environment.

The right to refinance is rare in the commercial world, but state laws generally guarantee that right to homeowners without penalty. Moreover, home mortgage interest and home equity loan interest are deductible on federal income tax returns, while interest payments on car and consumer loans of all kinds are not deductible. (Since low and middle income earners pay little or no federal income tax, this does not make sense for the purpose of encouraging wider home ownership.) In this situation, it was rational for the homeowner to use a home equity loan rather than alternate financing for consumer expenditures. Combined with the gradual decline in lenders' requirements for home mortgages, the result was the so-called "cash-out" refinancing, through which homeowners treated their houses like savings accounts, drawing out funds to finance cars, boats and other consumer expenditures. By the end of 2006, 86 percent of home mortgage refinancing was cash out refinancing.²¹ Thus, with the collapse of the housing bubble, many homeowners found themselves with negative equity; and this was true not just for sub-prime mortgages, but for prime mortgages as well. In this situation, homeowners might prefer to default on the mortgage rather than make the payments.

The problem is exacerbated by additional government policies. In most states, mortgages are either "without recourse," meaning that a defaulting homeowner is not responsible for paying the difference between the value of the home and the principal amount of the mortgage, or else the law makes the process of enforcing the obligation so burdensome that lenders take no action. Thus, homeowners with negative equity are more likely to walk away from the mortgage given this regulatory protection, contributing to the problems of banks.

IV. The myth of deregulation—

Deregulation is unrelated to the instruments that are the problems. On the contrary, what deregulation that has occurred has contributed to the stabilization of the crisis.

There were numerous regulatory failures that led to the current financial crisis and there is a need for new regulations. The failure to give regulators normal bank supervisory authority in the case of the GSEs and giving bank regulators conflicted objectives under the Community Reinvestment Act where they are instructed to ignore poor mortgage underwriting standards

²⁰ One telling story is that of a rater, who had not been selected to rate the mortgage pool because he gave too risky a rating. The rater warned an asset manager not to buy the pool, but the asset manager replied: "we have to put our money somewhere." Cited in Calomiris (2008).

²¹ Joint Center for Housing Studies (2008, 37).

top the list. I discuss one additional perverse regulation below and Calomiris (2008) discusses others. But contrary to the allegations by non-specialists, there are no actual acts of deregulation that contributed to the crisis. Paraphrasing Charles Calomiris we know the following:

The instruments that are the problems in the current crisis are sub-prime lending and securitization. Securitization was available for banks, investment banks and other financial institutions since the 1970s. Sub-prime lending was facilitated by regulation changes in the mid-1990s as a means of extending home ownership to low and moderate income households. There is no connection whatsoever securitization or sub-prime lending and financial deregulation of the past three decades. Financial deregulation in the past three decades consisted of the removal of interest rate ceilings, allowing greater consolidation through the relaxation of branching restrictions and allowing commercial banks to enter underwriting and insurance and other financial activities.

On the Contrary—Deregulation and Globalization have helped Stabilize the Crisis

The 1999 Gramm-Leach-Bliley act repealed part of the 1933 Glass-Steagal Act and thereby allowed commercial banks and investment banks to merge. But this merger capability has helped to stabilize the financial markets rather than contribute to it. In the 2008 financial crisis, deregulation allowed Bear Stearns and Merrill Lynch to be acquired by J.P. Morgan²² and Bank of America and allowed Goldman Sachs and Morgan Stanley to convert to bank holding companies and help shore up their positions.

Moreover, deregulation, consolidation and globalization of the banking system has permitted the banks to recapitalize to a far greater extent than in previous crises. That is, financial crises periodically occur throughout the world. There were 100 in the world in the past 30 years alone. The two most serious in the US were the Great Depression and the crisis of 1989. What has been common to past crises has been that banks have been unable to raise capital largely because potential investors are uncertain about how deep the problems are with the bank seeking to recapitalize. What has been different about the current US crisis is that banks have been able to recapitalize to some nontrivial extent. For example, in the S&L crisis, bank recapitalization averaged about \$3 billion per year in 1989-1991.²³ In the year ending September 2008 banks raised \$434 billion in new capital.²⁴ What explains this unprecedented ability to raise capital in a financial crisis? Calomiris and others argue that deregulation, consolidation and globalization contributed to substantial profits in the banks in the past 15 years and left banks in a stronger position at the start of the crisis so they could more credibly argue they would survive the crisis and thereby attract investors. Moreover, many analysts have noted that regional concentration of banks contributed to US financial crises in the past, as regional banks are vulnerable to regional shocks (Bernanke and Lown, 1991). With consolidation and deregulation of interstate branching, however, banks are less vulnerable to

²² The Bear Stearns-J.P Morgan merger was facilitated by a \$30 billion government subsidized loan. Jaffe and Perlow (2008).

²³ Federal Reserve data cited in Bernanke and Lown (1991, 239).

²⁴ For details of which financial institutions raised capital and how much, see Calomiris (2008, 106).

regional shocks. As a further benefit, globalization of banking has allowed banks to access credit from sovereign wealth funds and other international sources.²⁵

The SEC Rule Change in 2004—or why international coordination of regulation does not necessarily lead to improved regulation.

The SEC rule change in 2004 that changed how the SEC figured the net capital requirements is now seen as a significant mistake. Some journalists have mistakenly called this deregulation.²⁶ What these journalists fail to note is that this rule change was the antithesis of deregulation; rather it was the imposition of internationally coordinated regulatory standards—rules known as the “Basel Rules.” The Basel Committee rules were the consequence of years of work by the central bankers of the world and are based on the belief that a common set of global banking standards would result in more efficient use of capital and a more stable global financial system. The Basel rules call for banks to have capital reserves of eight percent on a risk weighted basis. Commercial loans had a risk weight of 100, so had to be backed by 8 percent capital in reserve. But AAA rated securities (like the securitized mortgage pools), had a substantially lower risk weight of 20 percent, so banks only had to have 1.6 percent capital in reserve to back investments in AAA rated securities. Basel I rules were replaced with Basel II rules in 2007, which allow for more use of internal bank models in the assessment of risk, something which we would all question today; but rules for residential mortgages did not change.) As I have explained, all those responsible for assessing the risks earned large fees from underestimating the risk and the investment banks ended up leveraging themselves far too highly. Swiss authorities are now raising the minimum capital requirements above those allowed under the Basel Rules. The SEC rule change was one of the regulatory failures that contributed to the financial crisis. But rather than a deregulation problem, this is a cautionary tale against agreement to internationally coordinated regulatory standards. If they substitute for prudential regulation, they could be a lot worse.

V. Lessons and Reforms

In Tarr (2009) I focus on solution to the financial crisis in the short term. Here I focus on the long term issues.

1. We need to fix regulation that provides perverse incentives that induce financial crises. This will take political will to correct the political failures.

Pressure on Fannie and Freddie to lower mortgage standards and pressure on banks under the Community Reinvestment Act are at the top of the list of perverse regulations. The home mortgage deduction on federal income taxes and related state homeowner regulations have also contributed to the crisis, but are of lesser importance as the primary cause. To address many of the most important problems, it will take political will and economic sophistication from

²⁵ See Calomiris (2008, 47-55) for details.

²⁶ See Stephen Labaton (2008), “Agency’s ‘04 Rule Lets Banks Pile Up Debt,” New York Times, October 2.

Congress that has been lacking in the past. We are now paying the price for the failure of Congress to regulate Fannie Mae and Freddie Mac and from regulation inducing banks to lower mortgage standards.

2. Large financial institutions can not be treated as too big to fail. It is necessary to take a financial institution that cannot survive without substantial and continued infusion of public funds into receivership.

Safety net subsidies must be limited for proper incentives. In order to reduce the likelihood that the next new financial instrument that is misunderstood induces a financial crisis, we must allow large financial institutions to fail. Financial institutions have mismanaged risk on a grand scale. It is crucial that they internalize the risks.²⁷ Caprio et al. (2008) have noted that the incentives for managers in many financial institutions are not properly aligned with the long run risks. For financial institutions to internalize the risks of large losses and to align their compensation structures for their managers with the risk, they have to bear the costs of their losses.²⁸ This is not possible without the possibility of bankruptcy or takeover by the government. Thus, bailouts should be avoided.

Receivership does not mean chaos. In receivership, the financial institution need not fall into disarray. The FDIC could take receivership of a large bank, defend the customer assets, change the management, wipe out the stockholders' equity entirely, and a share of the bondholders claims, continue the operation of the institution in receivership, and eventually sell or reissue the company to private ownership, leaving the bondholders with the residual. This is how one of the largest bank failures in history – Washington Mutual – was handled so seamlessly in 2008 that it was almost unnoticed.

Need to extend federal takeover authority. One problem is that the FDIC has authority to takeover a financially threatened depository bank, but it lacks that authority for non-bank financial institutions, such as the investment banks and companies like AIG. Fed Chairman Bernanke (2009) has argued that a federal agency should have comparable authority to the FDIC to takeover non-bank financial institutions, and had such power existed in September 2008, the AIG outcome would have been much better.

Resolution of the Lehman Brothers bankruptcy shows fear of systemic financial market failure for a central player in the counterparty transactions is grossly exaggerated-- Not Too Big to Fail. Although the FDIC routinely takes regional banks into receivership,²⁹ many are afraid to apply the same strategy with large financial institutions. It has been alleged that the failure of a key player in the counterparty operations could cause systemic failure of the financial system (e.g., Jaffe and Perlow, 2008). What has been most worrisome is the credit default swaps (CDS), whereby one party buys insurance (or “protection”) from another party against default by a third party, in return for an insurance premium. Presumably the fear is that financial institutions that prudently purchased insurance

²⁷ See Kane (2009) for an elaboration of this view

²⁸ In Tarr (2009) I argue that this is a superior strategy to bailouts for the economic recovery.

²⁹ 32 banks were taken into receivership by the FDIC between January 1 and May 1, 2009.

against default, might not be paid, resulting in insolvency of several financial institutions. This has led to recommendations to limit the size of banks, even if their market share would not result in monopoly power, since they are allegedly “too big to fail.”³⁰

As a case in point, there were widespread allegations in the press, sometimes by respected analysts,³¹ that the Lehman Brothers bankruptcy caused major problems. With \$600 billion in assets, when Lehman Brothers filed for bankruptcy on September 15, 2008, it was six times larger than the WorldCom bankruptcy, the previous largest bankruptcy in U.S. history. And Lehman was a key central player in the counterparty operations. It was an intermediary in over \$500 billion of credit default swaps (CDS),³² both offering “protection” to buyers of CDS in the event of a default of another company, and buying protection itself in hedging operations regarding third party defaults. Plus there were \$72 billion in CDS written on the possibility of a Lehman default itself.

However, the official financial supervisors of the U.S., France, U.K., Canada, Germany, Japan and Switzerland investigated the impact on financial markets of the Lehman Brothers bankruptcy, as well as the impact of the financial failures of Fannie Mae, Freddie Mac and Landsbanki Islands. It will likely be surprising to many that they concluded that these “credit events were managed in an orderly fashion, with no major operational disruptions or liquidity problems.”³³ All the credit default swaps involving Lehman were resolved on their original terms by the Depository Trust and Clearing Corporation (DTCC) within one month of the Lehman bankruptcy. A reason for the difference between the fear of systemic failure and the reality of Lehman Brothers is that the DTCC and its subsidiaries “are ‘central counterparties’ guaranteeing that most trades outstanding at the time of a bankruptcy of a member firm like Lehman are settled on the original terms”^{34, 35}.

3. Regulate and financial institution against excessive risk taking if its debts are government guaranteed, either implicitly or explicitly.

I have emphasized this for Fannie Mae and Freddie Mac,³⁶ but if the government is going to extend the safety net even partially to large private banks, investment banks or insurance companies, they will need greater regulation. I have argued that on economic grounds, large financial institutions are not too big to fail. The first best public policy is to allow them to fail. But possibly due to a shared belief system in their importance, as argued by Johnson (2009), or other reasons, many large financial institutions received substantial bailout subsidies. Large

³⁰ See, for example, Johnson (2009).

³¹ See, for example, Krugman (2009a).

³² This was comprised of gross positions of \$329 billion in CDS on mortgage backed securities and \$190 billion in gross positions on CDS on U.S. government securities. See Depository Trust and Clearing Corporation (2008, pp. 2-3).

³³ See Senior Supervisory Group (2009, 2). The U.S. was represented in the report by the Board of Governors of the Federal Reserve, the Federal Reserve Bank of New York, the Securities and Exchange Commission and the Comptroller of the Currency.

³⁴ See DTCC (2008, 2).

³⁵ See Tarr (2009) for further details on the resolution of the Lehman Brothers bankruptcy.

³⁶ See Jaffee (2008) for further analysis of Fannie and Freddie reform.

financial institutions are likely to anticipate this in the future and take excessive risks, gambling on a taxpayer bailout if things go bad. This moral hazard problem must be controlled.

Regulators are likely to be misinformed in the future regarding the riskiness of a large financial institution. Geithner is proposing extensive new regulation of financial institutions, with tougher capital requirements to assure that the financial crisis is not repeated. Recent history suggests, however, that we should be cautious in assuming that regulators will have sufficient information and judgment in new financial instruments to be aware of when a financial institution is at increased risk and needs an additional capital infusion. The Federal Deposit Insurance Corporation Improvement Act of 1991 gave the FDIC substantially greater powers of supervision to assure that the S&L crisis did not happen again. Under the expanded powers of this act, examiners from the Comptroller of the Currency were inside Citigroup full time for years supervising its operations. Despite these broad supervisory powers, in late 2008, the federal government stepped in to shore up Citigroup by guaranteeing several hundred billion dollars of Citigroup assets.³⁷

Use the market to inform regulators. Hart and Zingales (2009) have proposed the use of the price of credit default swaps as a trigger mechanism to provide information to a regulator. When the price of a credit default swap on a financial institution rises, reflecting the market's assessment that default is more likely, the regulator would require that the institution raise additional equity until the price of the credit default swap falls back to an acceptable level. If the financial institution fails to do so in an acceptable period of time, the regulator would take over, acting as the receiver as in a FDIC takeover. In this manner, risk taking by the institution and taxpayer liabilities would be limited. For this proposal to work, however, it is essential that the government be willing to takeover large financial institutions.³⁸

4. Modest subsidies for wider home ownership that are in the federal budget should be considered more seriously. Wider home ownership is a desirable social objective. Market mandates, such as requiring changes in bank lending standards are usually inefficient and involve unintended adverse consequences.

It is naïve economics to believe that we can simply impose a mandate on private firms and assume that the cost increases or risk increases of the mandate will have no adverse consequences. Although large subsidies would be a problem, a modest program along the lines of the Australian approach to the affordable housing problem would be more efficient. With no economic rationale, tax policies of the federal government subsidize the mortgage payments of well to do income earners, while denying subsidies to low and moderate income earners (who get little or no tax break from the mortgage deduction).

5. Require loan originators to be well capitalized and bear some of the risks of the mortgages they underwrite.

³⁷ See Wallison (2009, 2).

³⁸ Similarly, several studies (see Fan et al., 2002) have suggested that a minimum subordinated debt requirement would help the problem. Instead of banks receiving all their capital from deposits and equity financing, banks would be required to issue some bonds to finance their lending. The market price of these bonds would provide a market measure of the riskiness of the banks.

It is necessary to address the moral hazard problem that has plagued the sector originating mortgages. As Pinto (2008) has explained, it would be useful to introduce regulation to require loan originators to hold some percentage of the risk on any loan they originate and to be well capitalized against possible default on these loans. Rather than requiring this, ironically, existing regulations discourage it (Calomiris, 2008, 33).

6. Reference to rating of Credit Rating Organizations should be removed from official documents.

For Credit Rating Organizations (CROs), references to their ratings should be removed from all SEC and bank regulations, including Basel II. Government rules that rely on Credit Rating Organizations ratings, reduce investor due diligence, and reduce the accountability of government regulators and supervisors. By outsourcing due diligence to CROs, regulators shift the blame for ratings mistakes away from themselves. Moreover, since the use of bank models for risk assessment is now thoroughly discredited, Basel II will need to be reworked.³⁹

7. It would be a mistake to turn back the clock on deregulation—either in the financial sector or elsewhere.

It is important to fix the regulatory failures in the financial sector. But deregulation in the financial sector has helped stabilize the crisis not contribute to it, and deregulation in the economy more generally has been a key element in the growth of the US economy in the past 20 years. This includes deregulation of: long distance telephone and data services (do you remember high priced long distance rates and can we imagine an internet with the old constrained regulatory regime); trucking (would Amazon.com be competitive without trucking deregulation?); brokerage fees (remember when you paid \$200 to \$300 to buy 100 shares of stock and now pay \$9.95); and airline deregulation (which has dramatically cut airline fares).

³⁹ See Caprio et al., (2008, 39-45) for an elaboration of the points in the preceding two paragraphs and additional suggestions for reforms.

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