Fannie Mae & Freddie Mac, Guilty

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ABSTRACT

This capstone explores the history of the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Association (Freddie Mac), describes their role in triggering the collapse of the US housing finance system in 2008, and offers three recommendations for improving the long-term health and stability of these companies. The two key systemic deficiencies that positioned Fannie and Freddie for failure are (1) dangerously low capital reserve holdings and (2) reckless lending practices in the mid-2000s. The political world has scrutinized the US housing finance system over the past few years, and many public figures have come forward with plans for reform. However, Fannie and Freddie could achieve most of these political goals by a process of internal reform without the need for sweeping policy changes. My recommendations are to (1) increase capital reserves, (2) decrease portfolio risk by raising lending standards, and (3) reexamine bad debt policy. Each of these recommendations will help improve long-term stability for the GSEs, the industry, and the economy as a whole.

EXECUTIVE SUMMARY

As part of the New Deal, President Franklin Roosevelt founded Fannie Mae in 1938. Tasked with growing and supporting the home finance industry and improving home ownership in the US, this peculiar new entity has grown over the years to dominate the secondary mortgage industry and become one of the largest single entities in the US economy. Its business is in the purchase and sale of home loans, an area known as the secondary mortgage industry. While it began as an agency of the federal government, it has since been removed from the budget and become a private firm. Nonetheless, its charter, which was written by Congress, codifies a distinctly public mission.

In 1968, President Lyndon Johnson formed a competitor company named Freddie Mac in order to inject competition into and thereby strengthen the US home finance system. These two government-sponsored enterprises (GSEs) operated as private companies until 2008 when reckless lending practices and scandal played a substantial role in triggering the late-2000s financial crisis in the wake of the subprime mortgage bubble. An Act of Congress directed a total $400 billion to a bailout package which put Fannie and Freddie under the conservatorship of the US government. Today, executive power over these companies lies with the public once again.

The reasons for their collapse were systemic, and efforts to reform the GSEs have thus far been unsuccessful given the nature and severity of their organizational flaws. Because of their enormous size and their major role in the US financial system, their future is linked to the health of the economy as a whole. Therefore, utmost care must be exercised in implementing changes.

In this memorandum, I identify the two most important factors that led to the collapse of Fannie and Freddy. Number one, they have significantly lower capital reserve requirements than other private companies in the industry. Number two, their portfolios are ridden with high-risk subprime loans. First, I recommend that they begin to accumulate and maintain larger reserves of capital in order to prevent future liquidity crises such as the events of 2008. Second, I recommend that the GSEs immediately cease lending to subprime borrowers. This means raising personal credit score minimums for all new originations and requiring every borrower to supply proof of employment and income. My third recommendation is to reexamine bad debt policy at both companies. Each of these recommendations will help improve long-term stability for the GSEs, the industry, and the economy.

BACKGROUND

During the Great Depression, President Franklin Roosevelt founded an agency of the federal government known as the Federal National

Mortgage Association (Fannie Mae) as part of the New Deal. With the mandate to increase levels of home ownership, Fannie Mae began supporting banks by providing funding for individual mortgages in order to make housing affordable for more people.

This practice created a secondary mortgage market, which incentivized lenders to issue more loans for housing. Meanwhile, as a means of raising capital, the agency would invest in funds and mortgages as well. It was required to devote a portion of its time to affordable housing. Fannie's business was to purchase thousands of bank loans, which it combined into much larger bundles – known as mortgage-backed securities – and resold these to third-party investors.[1] Fannie would guarantee the securities in exchange for a guarantee fee. In other words, investors pay a charge for the assurance that if any of the individual mortgage-holders in their bundle fail to make payments, then Fannie would cover the balance and ensure that they are paid in full. As a federal agency, all of Fannie's obligations were backed by the full faith and credit of the US government.

In creating a secondary market, this agency served as an important link between many other investors – including foreign investors, funds, and large banks – and the American home mortgage market. Whereas large international banks and foreign governments would never sell a mortgage

[1] DiVenti, Theresa R. Fannie Mae and Freddie Mac: Past, Present, and Future. *Cityscape,* Vol. 11, Number 3. 2009.

directly to a lower-income family here in the US they would be willing to do business with Fannie Mae. On the other side of the secondary market, primary lenders used Fannie to maintain liquidity in their portfolios, and so the GSE's role was to increase banking activity and inject demand for mortgages into the market. By purchasing scores of mortgages from banks, it became a crucial source of capital that allowed banks to maintain a large volume of transactions.

In 1954, the Federal National Mortgage Association Charter Act amended The National Housing Act and split the ownership of Fannie Mae between the government and private shareholders. The mixed-ownership agency continued to receive government funding until 1968, when President Lyndon Johnson converted it into an entirely publicly-held corporation in order to strip its debt and funding requirements from the federal budget. This is how the world's most unusual company came into existence. Its day-to-day operations look exactly like any other entity in the private sector. At the same time, however, it has an overtly public mission and inescapable ties to the US government. Until Fannie, the world had never seen an entity such as this.

Two entities with distinct purposes were created by the 1968 Amendment, Fannie Mae and its off-chute, the Government National Mortgage Association (Ginnie Mae), which remained a part of the government and focused on mortgages for veterans and farmers.

Officially, Ginnie Mae loans are backed by the full faith and credit of the US. Contrarily, the certificates on which Fannie Mae loans are printed are emblazoned with the words "This security is not backed by the US Government." This label is a symbol and reminder of the 1968 separation from the state, and it is also the subject of widespread controversy and debate about our country's home finance infrastructure.

In 1970, the government created the Federal Home Loan Mortgage Corporation (known as Freddie Mac) to compete with Fannie, thus strengthening the secondary mortgage industry. Beginning around 1980, Fannie and Freddie leveraged these unique advantages in order to grow into two of the largest companies in history. "By the beginning of the 21st century, almost half of all the mortgages in America were made through Fannie and Freddie."[2] Then by 2010, between Fannie, Freddie, and the lending activity of government agencies that explicitly provide mortgage loans to individuals, the government had its hand in approximately 90% of home loans. For all intents and purposes, the secondary mortgage market is a state-run monopoly.[3]

Although there is no explicit government guarantee behind its loans, because Fannie Mae (1) is historically connected to the government, and (2) plays a crucial part in the greater economy, most investors

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[2] Self-Fulfilling Prophecy: The Bailout of Fannie and Freddie. *NPR Planet Money Podcast Blog*. 20 March 2011. [Available on World Wide Web] http://www.npr.org/blogs/money/2011/03/29/134863767/self-fulfilling-prophecy-the-bailout-of-fannie-and-freddie.

[3] Self-Fulfilling Prophecy

understand that the US will not allow Fannie Mae to fail and default on its loans. In other words, there is a deeply-rooted implicit guarantee of Fannie Mae's business practices by the government.

This support gives Fannie Mae an advantage over other businesses, for example it has to pay less than its competitors to borrow money. It is easier for Fannie Mae to acquire capital in order to achieve its business goals and satisfy its budget. A second advantage sets Fannie Mae apart. The government allows it to hold less than half of the minimum capital reserves most banks and other entities are required to hold. Capital reserves are meant to protect lenders from a situation where too many customers demand a withdrawal at once. The ability to redirect funds from this reserve to other operations means that Fannie is more risky but simultaneously more profitable than its competitors.

The 2008 Financial Crisis

For more than 60 years, home loans were a traditionally stable business. Fannie Mae, and later Freddie Mac, did the job that was set forth for them with mixed success. It is not clear that they increased levels of home ownership and made housing more affordable for Americans. To the contrary, the largest effect of their practices was to lower the interest rates for mortgages across the board.[4] Around the mid-2000s, however,

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[4] Princeton University Press: Interview with Matthew Richardson. [Available on World Wide Web] http://press.princeton.edu/releases/m9400.html.

lenders developed a taste for the infamous subprime mortgage. This product did away with much of the requirements of a traditional 30-year fixed-rate loan; for example documentation of income and employment, and a standard 10-20% down payment.

During the subprime mortgage bubble, as it is now known, lenders made a habit of issuing mortgages to borrowers who would historically have been considered unqualified. Unqualified borrowers present greater risk of repayment to the bank. However when Fannie purchased the mortgage each individual risk dissolved into a much larger pool of securities and the problem was swept under the rug.

Subprime lenders began competing for Fannie/Freddie customers. At this time, acquiring a Fannie/Freddie loan was a somewhat complicated process and involved lengthy paperwork. Meanwhile, however, applying for a loan from a subprime lender was often simply a matter of showing up at a bank and signing some forms. And as the new lending practices spread like wildfire during 2004-2006, they began to affect Fannie and Freddie's bottom line. Their combined market capitalization among new originations declined from approximately 70% in 2003 to 40% in 2006.[5]

This is when the private structure of the GSEs began to cause fundamental problems. Their shareholders responded to their falling

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[5] Reforming America's Housing and Finance Market: A Report to Congress. Depts. of the Treasury and Housing and Urban Development. February 2011. Pg 19.

stock prices, and Fannie and Freddie's executive team listened. The companies began to accept loans that were connected to riskier customers and investing in subprime-mortgage-backed securities.[6] This meant lowering credit score requirements, accepting some customers without proof of income, and reducing down payments for others. This practice changed the nature of Fannie and Freddie's business. Their charters, which were designed by Congress, direct them to serve a public mission. However, as private entities, profit-maximization naturally became a competing priority. In 2005, the entities purchased a record $124.3 billion in subprime mortgages. This number was $109.6 billion in 2006 and $59.3 billion in 2007.[7]

The risk that is attached to these loans corresponds to the likelihood that the borrower will stop paying his/her obligations. Soon after the 2004-2006 period of lax lending requirements, more and more customers began to enter delinquency. Remember that Fannie and Freddie's business was to repackage large bundles of individual mortgages into securities. In the event an individual mortgage-holder failed to pay on time, the GSEs were prepared to cover the difference to ensure their customers were paid. However, as the number of delinquencies rises, this puts pressure on Fannie and Freddie – especially because of their relatively low capital reserves.

[6] Self-Fulfilling Prophecy
[7] Inside Mortgage Finance (via NPR): Chart: Fannie and Freddie Purchases of Subprime Mortgages. [See Appendix 4]

During this period, "strong lobbying by Fannie and Freddie was sufficient to offset the warnings of many public officials that the dominance of the GSEs was unwise."[8] Nonetheless, the financial world's eyes finally opened to the true dangers of subprime loans in around mid-2008. As investors began to comprehend the seriousness of their peril, the housing market crashed. Seemingly overnight, both Fannie and Freddie essentially went out of business. Fannie's stock price decreased from a high of $29.74 for the quarter ended June 30 2008 to $2.03 for the quarter ended December 31 that same year.[9] Freddie Mac's share price dropped from a high of $32.31 to 1.83 during the same period.[10]

Between the two of them, Fannie and Freddie owed investors approximately $5.2 trillion – which then rivaled the entire $6.3 trillion US public debt.[11] Their low capital reserve requirements meant that they had a mere $83 billion to support their obligations and were severely over-leveraged.[12] These figures were the ingredients for disaster.

Because they were the two largest players in the industry and two of the largest entities in the economy, their struggles resonated to the entire world. Their failure contributed heavily to the onset of a global

[8] Kling, Arnold. Freddie Mac and Fannie Mae: An Exit Strategy for the Taxpayer. CATO Institute Briefing Papers. 8 September 2008. Pg 4.
[9] Form 10-K: Federal National Mortgage Association. 2008.
[10] Form 10-K: Federal Home Loan Mortgage Company. 2008.
[11] Fannie Mae and Freddie Mac. *EconBrowser.* [Available on World Wide Web] http://www.econbrowser.com/archives/2008/07/fannie_mae_and.html.
[12] Cohan, Peter. Fannie and Freddie 60-to-1 leverage could drive $1 trillion bailout. *BloggingStocks.* 6 May 2008. [Available on World Wide Web] http://www.bloggingstocks.com/2008/05/06/fannie-and-freddie-60-to-1-leverage-could-drive-1-trillion-bail/

recessionary period that lasted for six fiscal quarters. That year, GDP fell in nearly every country, with some countries seeing over a 6% decline in the fourth quarter of 2008.[13]

The dilemma was now about who would pay for the mistakes the GSEs had made. Their reckless lending and investment practices had caused a problem so enormous that it shook the foundation of the entire US economy. The government had no formal obligation to rescue these two companies since there was no explicit guarantee of their loans, however, not taking action would have meant exacerbating the effects of an already catastrophic economic event. Faced with the decision between either lending Fannie and Freddie billions of taxpayer dollars and allowing the economy to teeter off the edge for the sake of teaching the GSEs a lesson, the government chose to bail them out. And so, "On Sep. 7, 2008, Fannie and Freddie were essentially nationalized: placed under the conservatorship of the Federal Housing Finance Agency (FHFA)."[14] Once again, Fannie became a state enterprise. The Treasury initially capped bailout funding at $100 billion per company, but in 2009 Tim Geithner doubled the limit to a combined $400 billion. Today, the two still owe more than $147 billion in outstanding bailout funds.

[13] Quarterly National Accounts. Organization for Economic Cooperation and Development. [Available on World Wide Web] http://stats.oecd.org/index.aspx?queryid=350.

[14] Government Bailouts. *ProPublica.* [Available on World Wide Web] http://www.propublica.org/special/government-bailouts.

Conservatorship

Now the government essentially owns Fannie/Freddie once again. The terms of the conservatorship specify that all "rights, titles, powers, and privileges" of the GSEs belong now to the FHFA.[15] So the question is, what should the US do with them? The past couple of years have been tumultuous, and many players have come onto the political stage to offer their solutions to repairing the shattered housing market.

The conservatorship has allowed the FHFA to maintain the GSEs foothold in the market. In fact, "their combined share of single-family mortgage purchases peaked at 81% in the second quarter of 2008 and stood at 73% for 2008 as a whole."[16] However, the secondary mortgage industry is drastically different today than pre-recession. The percent of serious delinquencies, compared to the total number of conventional single-family Fannie/Freddie loans, increased from 1% to 5.5% in the two years between January 2008 and January 2010.[17] Fannie and Freddie released statements in June 2010 expressing their intent to delist from the New York Stock Exchange.[18] Then, in February 2011, the Obama Administration rolled out a plan to reform housing finance in the

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15 Fannie Mae Corporate Governance Guidelines. *Federal National Mortgage Association.* 14 January, 2011.

16 DiVenti

17 Fannie Mae Monthly Summary, February 2010. [See Appendix 1]

18 Freddie Mac Notifies NYSE of Intention to Delist. *Federal Home Loan Mortgage Company Press Statement Archive.* 2010. [Available on World Wide Web] http://www.freddiemac.com/news/archives/corporate/2010/20100616_nyse.html.

US.[19] Developments such as these have led to many questioning Fannie and Freddie's place in the economy.

Page 19 of this report, entitled "Reforming America's Housing Finance Market," states the Administration's goals. "We should make sure opportunities are available for all Americans who have the credit history, financial capacity and desire to own a home have the opportunity to take that step."[20] Much of the analysis of this proposal has interpreted selections such as this to indicate that the Administration intends to find new means to reach the country's goals related to home ownership. In other words, they are paving the way to phase out Fannie and Freddie.

Some politicians and academics have recommended fully privatizing Fannie and Freddie. Their relationship with the US government, they argued, should be completely severed and all exceptions it granted should be rolled back. Others have recommended allowing Fannie and Freddie to fail if they are in trouble in the future. Only then, they argue, will the market be allowed to solve the problems in the mortgage system. The Obama Administration has taken some steps towards reforming the housing finance market. In a 2008 report, it outlined tentative plans to overhaul the entire system. A number of bills have been introduced in

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[19] Fridson, Martin. Obama Pushes Renting, Making It Easier To Whack Fannie And Freddie. *Forbes.com.* [Available on World Wide Web]. http://blogs.forbes.com/investor/2011/04/12/obama-pushes-renting-making-it-easier-to-whack-fannie-and-freddie/.

[20] Reforming America's Housing Finance Market: A Report to Congress. Depts. of the Treasury and Housing and Urban Development. February 2011. Pg 19.

committees in both the House and the Senate, and Timothy Geithner, Treasury Secretary, has testified before Congress. However, the Administration has yet to take action.

On the other hand "these discussions were predicated on the conditions that the GSEs were stable, well-managed, and economically viable institutions. It is unclear at what point in the future these conditions will again apply."[21] Indeed, in light of the late-2000s financial crisis, it is unreasonable to consider allowing these major players to dissolve entirely.

Moreover, given the critical role they play in the economy, it is unclear what could take its place and inject enough money into the market to ensure home ownership rates. Some have argued that nothing is needed to take their place and that the market will recover on its own. Others have come up with more complicated solutions, involving the formation of federal agencies that would support the industry in more creative ways.

These suggestions are impractical given the role Fannie and Freddie play in the economy. They are simply too large and influential, and market stability would be too impaired by sweeping overhaul. The GSEs would be better advised to focus on improving their business and ensuring long-term stability until structural reform is less burdensome. If the two

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[21] DiVenti

are able to solve internal problems and become well-managed companies that genuinely improve the state of the secondary mortgage market as a whole, then political interference will not be necessary.

It should be noted that an international effort has been launched to update the Basel leverage, liquidity, and capital requirements in the light of the late-2000s recession. Although Fannie and Freddie are not currently required to comply with Basel given their unique position as GSEs, this update could serve as guidance for these financial items.

Core Issues

The GSEs were created to play an important role in the economy – they were meant to strengthen the secondary mortgage market and improve home ownership in the US. When Fannie was transformed into a public company and Freddie emerged to provide competition, although it was an unorthodox situation they seemed to embody everything that capitalism stands for. They set out to serve a public goal, and the profit-maximizing interests of the private sector would be the fire in the engine. In other words, the stage was set for a win-win-win arrangement between the GSEs, foreign investors, and the American public. Over the past few decades, private interests have eclipsed their public mission. By the mid-2000s, management made decisions that compromised long-term stability in favor of short-term profits. They followed the private sector down a dangerous path, in what I see as a departure from their original mission. Fannie and Freddie should not participate in risky business. Rather, their focus should be on long-term stability and anchoring the secondary mortgage industry. If the GSEs are to return to their original mission and play the role that they were created to serve, they need to address their core issues as they look ahead to the future.

In 2008, the FHFA performed an analysis of the GSEs and issued a report to congress that identified a number of central issues that must be addresses in the reformation of the industry. The most important are summarized as follows.[22]

(1) Addressing the operational, financial and risk-management weaknesses that led to failure
(2) Pricing mortgage products given current market uncertainties

Although these are not the only items listed in the report, they are the two that are most likely to respond to internal change rather than an overhaul of the entire US home finance system. Moreover, if they are addressed effectively, it will lead to a resurgence of the industry and greater health of the overall economy. Taking this into consideration, I have formulated two recommendations for the GSEs that roughly correspond to both of the aforementioned weaknesses. My third recommendation concerns the matter of bad debt. It is crucial that Fannie and Freddie reexamine their bad debt policy in light of recent

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changes. Doing so will ensure that they have an accurate understanding of their financial position as they look ahead to the future.

My recommendations aim to address the core issues identified in the FHFA report. However, they are *not* meant to achieve the goals outlined by the Obama Administrations in its reform plan concerning the housing finance system. The Administration seeks to minimize the role of the GSEs and look for new ways to achieve home ownership in the US. The goals are reproduced below for reference.[23]

(1) Pave the way for a robust private mortgage market by reducing government support for housing finance and winding down Fannie Mae and Freddie Mac on a responsible timeline.
(2) Address fundamental flaws in the mortgage market to protect borrowers, help ensure transparency for investors, and increase the role of private capital.
(3) Target the government's vital support for affordable housing in a more effective and transparent manner.

As I explained in the previous section of this memorandum, I disagree that political interference is necessary. Sweeping overhaul of the US home finance system will inject even more instability to an economy that is still recovering from the events of 2008. My recommendations will instead focus on improving the inner workings of Fannie and Freddie

[23] Reforming America's Housing Finance Market

from a business standpoint. If the GSEs can achieve stability without interference from Washington, then they can fulfill their mission and stay in business.

Recommendations

My first recommendation is to increase capital reserves at both institutions. Fannie and Freddie were appallingly over-leveraged in 2008, and this was largely responsible for their inability to meet their debt obligations. Indeed, one of the reasons that they were taken down by the subprime mortgage crisis was that their combined total assets to capital ratio was 60:1.[24] By comparison, the average bank in 2007 had a ratio of 30:1, and these banks were considered pathologically overleveraged.[25] In this sense, Fannie and Freddie were, by design, entirely unprepared for any sort of financial hardship – much less a global crisis. Although a highly leveraged institution may appear stable, it is sensitive to the slightest signs of trouble. In other words, Fannie and Freddie were equipped to operate during the height of the subprime mortgage bubble, but as soon as investor confidence was shaken they had no hope of carrying on.

Just because Fannie and Freddie are by law allowed to carry less capital reserves than their non-GSE competitors in the industry does not mean

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[24] Cohan.

[25] *Gros, Daniel. Too Interconnected to Fail.* CEPS Commentary. 28 January 2010.

that it makes economic sense for them to do so. This practice makes them much more risky, so in order to bolster long-term stability they should aim for a 10:1 capital to obligations ratio. Increasing capital reserves will address the first problem the FHFA identified, listed above – specifically the financial and risk-management weaknesses of the GSEs. It will also buffer them from future capital issues and make them more stable in the long term.

My second recommendation is to eliminate much of the risk from Fannie and Freddie's portfolios. This will address the operational deficiencies that the FHFA identified, listed above. At the end of 2010, serious delinquency rates for non-credit enhanced loans were above 12% compared to below 0.5% as recently as 2006.[26] Clearly, the GSEs cannot afford to continue making investments of this nature. They should discontinue purchasing loans that do not require the standard 10-20% down payment, proof of employment and income, and a high credit score.

Additionally, they should implement a pricing scheme that better correlates fees with the risk assessed for the borrower. If a mortgage is assessed at high risk, then the borrower should be charged a high interest rate and vice-versa. This is the only way to ensure that Fannie and Freddie is properly compensated for and thus protected from the risk that does exist in their portfolios. This system will solve the pricing

[26] Fannie Mae Monthly Summary, February 2010. [See Appendix 1]

problem the FHFA identified in their report, listed above. And furthermore, they should cease investing in subprime funds and mortgages in their investment business. Instead of investing in these securities, they would be well-advised to pursue low-risk investments.

My third recommendation is to address the bad debt in the GSE's portfolios. Bad debt arises when either (a) an account is deemed uncollectible or (b) the cost of pursuing and collecting debt exceeds the amount of debt itself. Because of the reckless lending practices of the mid-2000s, delinquencies and bad debt rose significantly among Fannie and Freddie mortgage-holders. The companies should formulate a plan to immediately take stock of all their bad debt and review the collectability probability that they have assigned to each mortgage. Debt deemed 100% uncollectible should be expensed in the current period in accordance with GAAP. Further, any debt deemed doubtful but not necessarily uncollectible should be transferred to the *Doubtful Debt Reserve* account until it is either deemed collectible or expensed as bad debt. In light of the recent changes at the GSEs, it is important to revisit this issue in order to ensure that bad debt policy is properly implemented. This will provide assurance that Fannie and Freddie have complete and accurate information about their financial position.

These practices will reduce the risk within Fannie and Freddie's portfolios and protect them from future financial crises. These recommendations are so desirable because they (1) will position the GSEs for long-term stability, (2) enable Fannie and Freddie to follow their original missions, (3) avoid the need for costly and politically undesirable governmental overhaul of the home finance system, and (4) address the main issues identified in the 2008 FHFA report.

References

Cohan, Peter. Fannie and Freddie 60-to-1 leverage could drive $1 trillion bailout. *BloggingStocks*. 6 May 2008. [Available on World Wide Web] http://www.bloggingstocks.com/2008/05/06/fannie-and-freddie-60-to-1-leverage-could-drive-1-trillion-bail/.

Fannie Mae and Freddie Mac. EconBrowser. [Available on World Wide Web] http://www.econbrowser.com/archives/2008/07/fannie_mae_and.html.

Fannie Mae Corporate Governance Guidelines. Federal National Mortgage Association. 14 January, 2011.

Fannie Mae Monthly Summary: February 2010.

Form 10-K: Federal National Mortgage Association. 2008.

Form 10-K: Federal Home Loan Mortgage Company. 2008.

Freddie Mac Notifies NYSE of Intention to Delist. Federal Home Loan Mortgage Company Press Statement Archive. 2010. [Available on World Wide Web] http://www.freddiemac.com/news/archives/corporate/2010/20100616_nyse.html.

Fridson, Martin. Obama Pushes Renting, Making It Easier To Whack Fannie And Freddie. Forbes.com. [Available on World Wide Web]. http://blogs.forbes.com/investor/2011/04/12/obama-pushes-renting-making-it-easier-to-whack-fannie-and-freddie/.

Government Bailouts. ProPublica. [Available on World Wide Web] http://www.propublica.org/special/government-bailouts.

Gros, Daniel. Too Interconnected to Fail. CEPS Commentary. 28 January 2010.

Inside Mortgage Finance (via NPR): Chart: Fannie and Freddie Purchases of Subprime Mortgages.

Kling, Arnold. Freddie Mac and Fannie Mae: An Exit Strategy for the Taxpayer. CATO Institute Briefing Papers. 8 September 2008. Pg 4.

Princeton University Press: Interview with Matthew Richardson. [Available on World Wide Web] http://press.princeton.edu/releases/m9400.html.

Quarterly National Accounts. Organization for Economic Cooperation and Development. [Available on World Wide Web] http://stats.oecd.org/index.aspx?queryid=350.

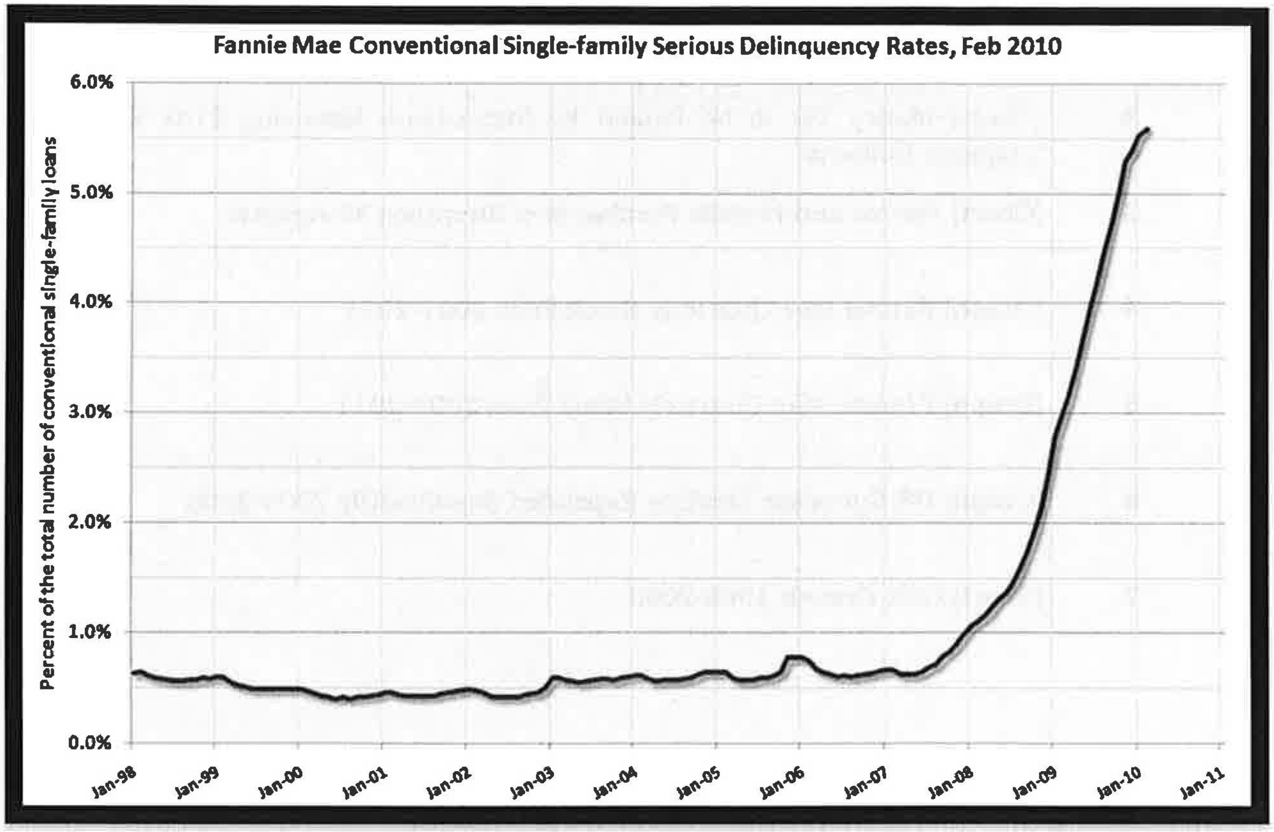
Reforming America's Housing Finance Market: A Report to Congress. Depts. of the Treasury and Housing and Urban Development. February 2011. Pg 19.

Self-Fulfilling Prophecy: The Bailout of Fannie and Freddie. NPR Planet Money Podcast Blog. 20 March 2011. [Available on World Wide Web] http://www.npr.org/blogs/money/2011/03/29/134863767/self-fulfilling-prophecy-the-bailout-of-fannie-and-freddie.

Appendices

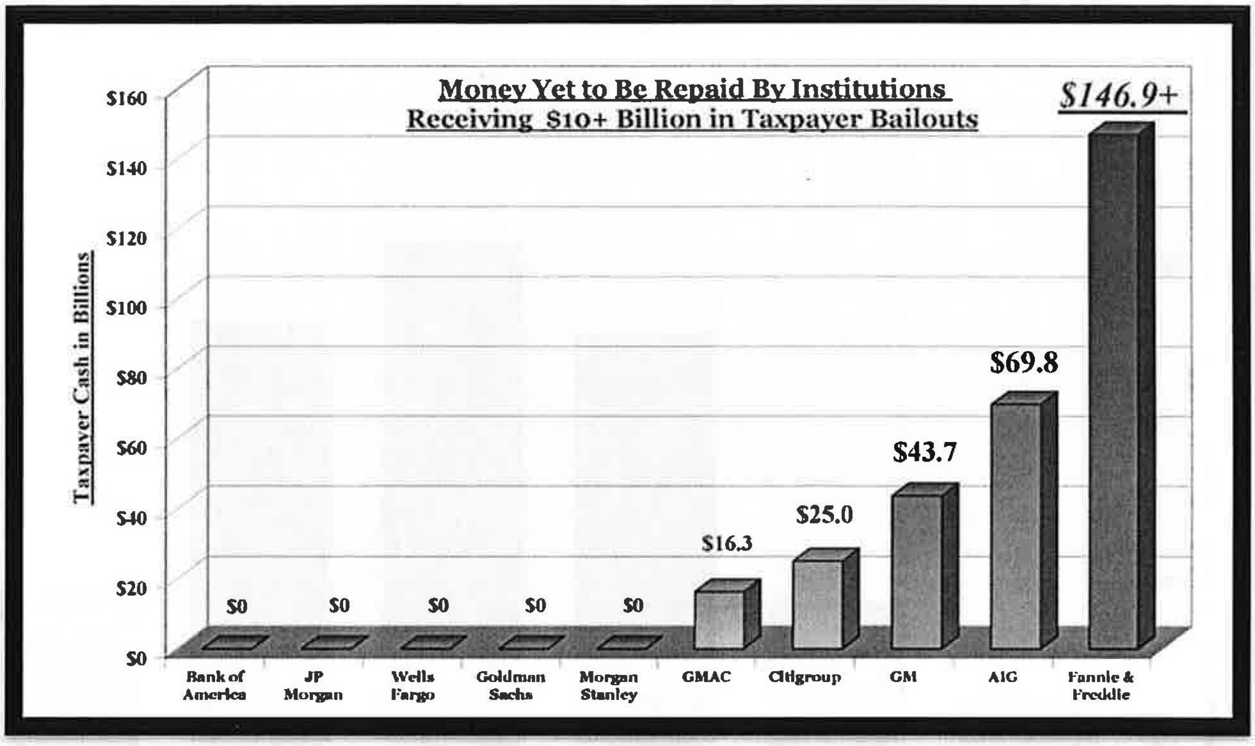
1. [Graph] Fannie Mae Conventional Single-Family Mortgages Serious Delinquency Rates, Feb 2010
2. [Chart] Money Yet to be Repaid by Institutions Receiving $10+ Billion in Taxpayer Bailouts
3. [Chart] Fannie and Freddie Purchases of Subprime Mortgages
4. [Graph] Fannie Mae Quarterly Stock Price 2001-2011
5. [Graph] Freddie Mac Quarterly Stock Price 2001-2011
6. [Graph] US Subprime Lending Expanded Significantly 2004-2006
7. [Chart] GSE Growth 1980-2003

Appendix 1



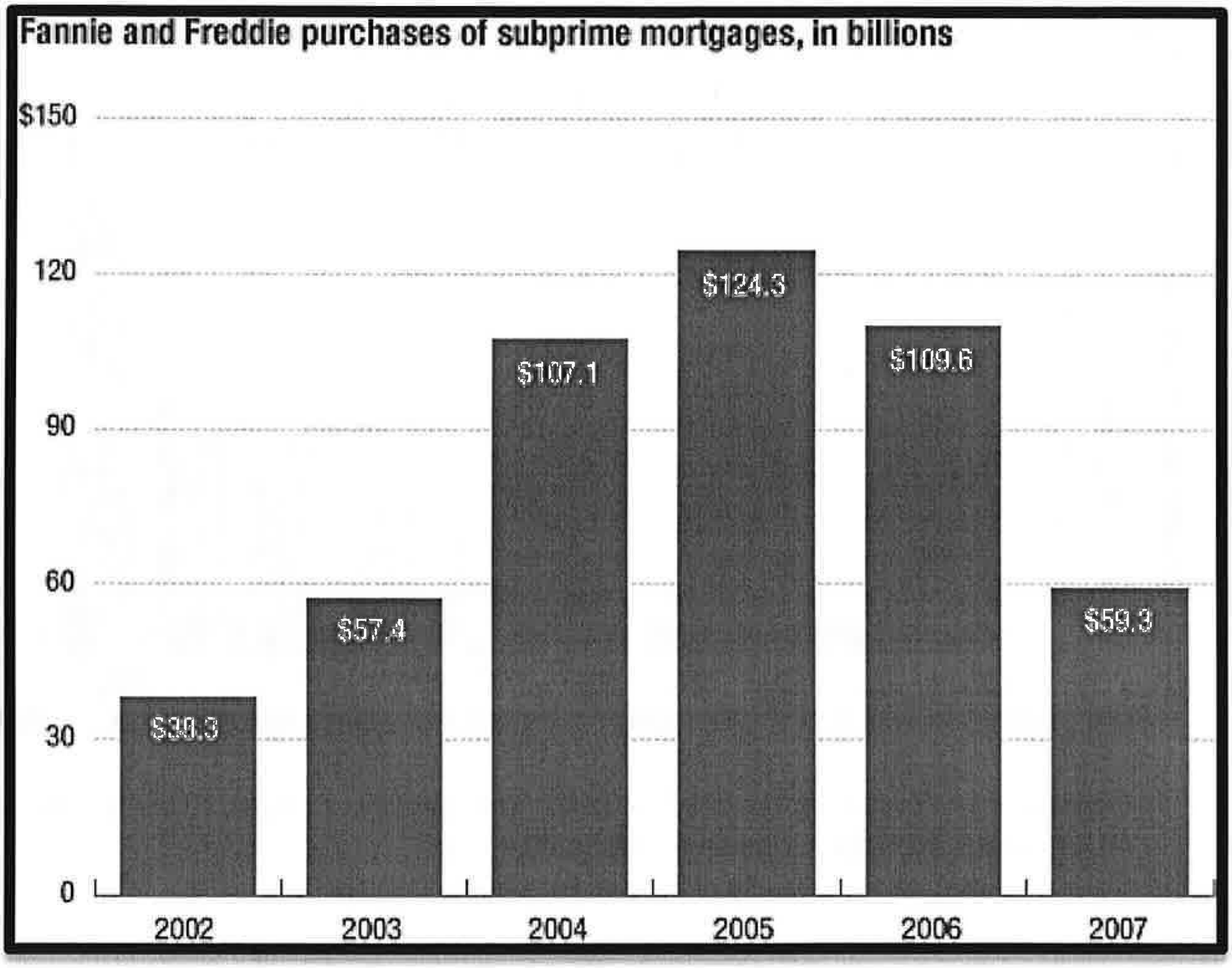
- Source: Fannie Mae Monthly Summary, February 2010

Appendix 2



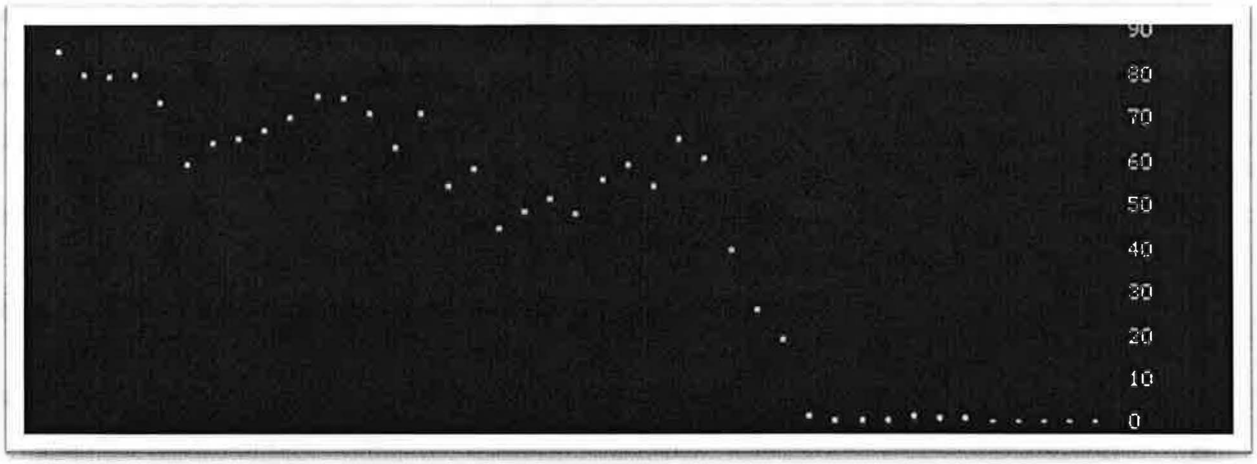
- Source: US Treasury 04/26/10 TARP Transaction Report; FHFA's Capital Disclosures Under Conservatorship (Q4-09)

Appendix 3



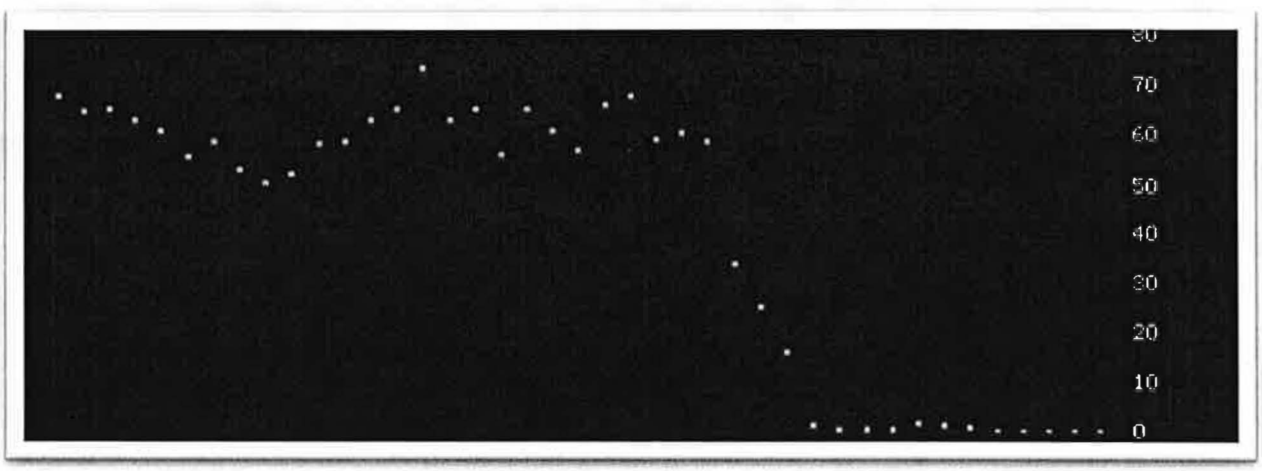
- Source: Inside Mortgage Finance
- Via: NPR

Appendix 4: Fannie Mae Stock Historical Price Data



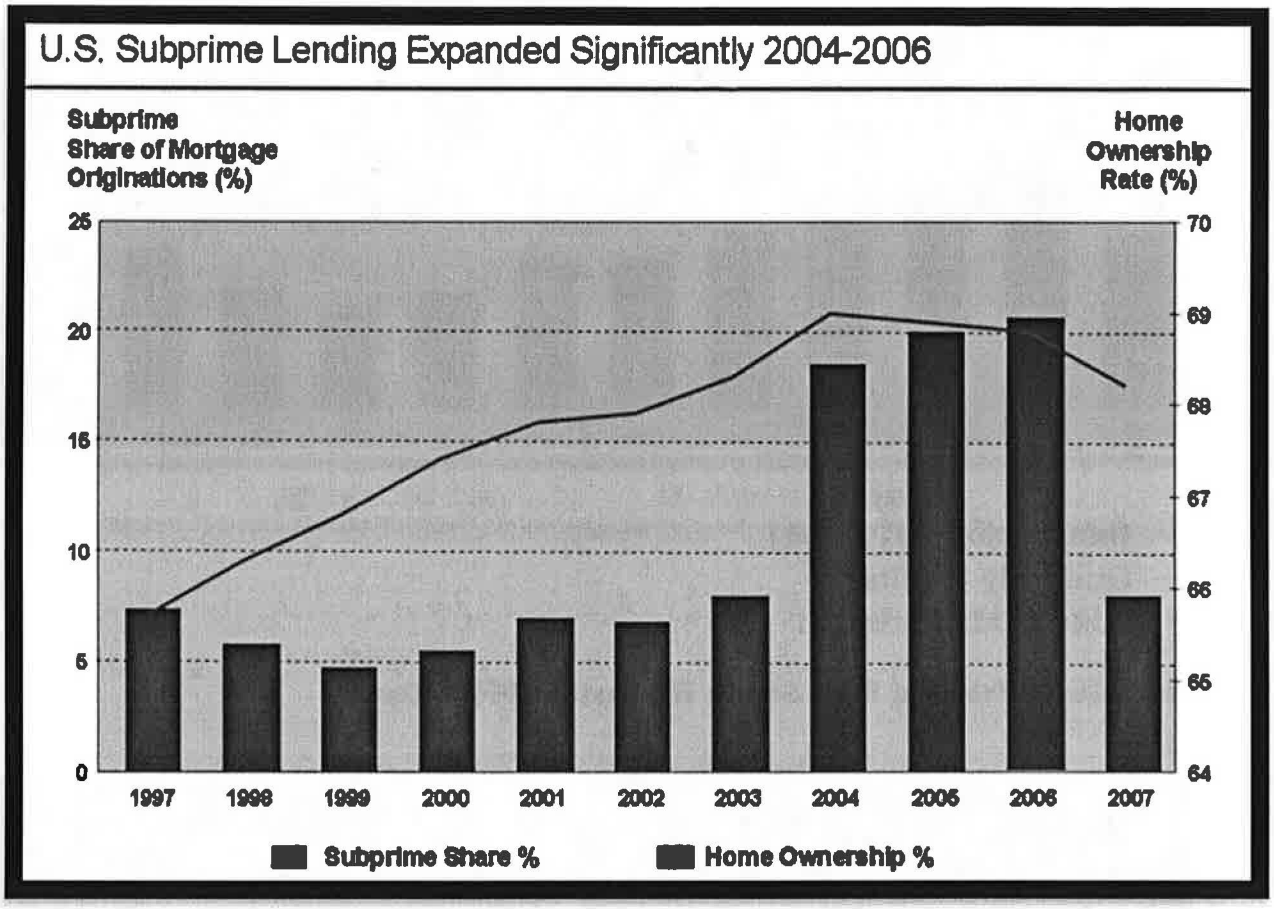
- Information 2011-2011
- Quarterly results
- Source: Marketwatch

Appendix 5: Freddie Mac Stock Historical Price Data



- Information 2011-2011
- Quarterly results
- Source: Marketwatch

Appendix 6



- Source: US Census Bureau; Harvard University – State of the nation's Housing Report 2008

Appendix 7

GSE Growth

Residential mortgages held and mortgage-backed securities outstanding, Fannie Mae and Freddie Mac, 1980-2003 ($billions)

Year	Fannie Mae		Freddie Mac		Total residential mortgage market
	Mortgage portfolio	MBS outstanding	Mortgage portfolio	MBS outstanding	
1980	$56	$0	$5	$17	$1,105
1990	114	288	22	316	2,907
2000	608	707	386	576	5,543
2002	801	1,030	590	749	6,842
2003	902	1,300	660	769	7,715

- Source: OFHEO, Federal Reserve, Freddie Mac