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The Rescue of Fannie Mae and Freddie Mac - Module Z: Overview

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Abstract

In September 2008, as the financial crisis that had begun the previous year escalated, the U.S. government appointed conservators for two Government-Sponsored Enterprises (GSEs), the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), that dominated the secondary mortgage market and were among the largest participants in the global capital markets. The conservatorships were the hallmark of a multi-part rescue plan intended to save the firms from insolvency and a disorderly collapse and required the combined and coordinated efforts of several government agencies and instrumentalities. Ultimately, the government invested $191.5 billion into the firms and deployed a range of tools to stabilize them; it was one of the largest interventions undertaken by the government during the crisis and significant for being one of the few nonbank rescues that occurred.

This paper looks at the rescue in totality and the reasons underlying the government's key decisions on a combined basis. The efforts are generally thought to have been successful in that the firms continued to operate with government funding, continued to support the secondary mortgage market, and losses to their many debt and MBS security holders in the U.S. and abroad (which included many banks and other financial institutions) were avoided, although common and preferred shareholders did suffer losses. Yet, there has been substantial criticism of and legal challenge to some of the government's actions pursuant to the intervention. Ten years later the firms are still in conservatorship and the fundamental question of their troublesome hybrid structure has not been addressed.

Keywords: GSEs, Fannie Mae, Freddie Mac, conservatorship, credit facility, senior preferred stock, asset purchases, debt purchases, solvency, mortgage-backed securities, nonbank

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Contents

Introductory note: In analyzing the programs that are the focus of this survey, a color coded system is used to highlight particularly noteworthy design features. This system is as follows:

Color	**Meaning**
GREEN	A design feature that appears to have been particularly effective based on: a. empirical evidence; and/or b. a widely accepted consensus.
YELLOW	A design feature that is interesting and may be particularly effective or ineffective, but for which there is insufficient evidence for an evaluation.

I. Introduction

In September 2008, the U.S. government appointed conservators for two Government-Sponsored Enterprises (GSEs), the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), that dominated the secondary mortgage market. The conservatorships were part of a four-part rescue plan intended to save the firms from insolvency and a disorderly collapse. The firms had been severely battered by the downturn in the U.S. subprime mortgage market, and given their size and importance in the secondary mortgage market, their potential insolvencies threatened to destabilize the entire financial system and also risked disrupting the general economy. Ultimately, the government invested $191.5 billion in the firms and deployed a range of tools to stabilize them. It was one of the largest interventions undertaken by the government during the crisis and significant for being one of the few nonbank rescues that occurred. Ten years later, the firms are still in conservatorship.

The Yale Program on Financial Stability (YPFS) has written 7 case studies that examine in detail the various elements of the government's interventions.[5] In this overview case we review the government's actions on a combined basis and analyze how the rescue was conceived and executed in order to better understand how nonbank financial institutions in distress may be addressed. Although the GSEs embody unique characteristics that must be considered, we believe that the lessons learned through this analysis may also apply to other types of nonbanks as well. While this overview case may be read on its own, it is best read in connection with the other YPFS GSE cases, which provide additional detail with respect to each intervention utilized.

In the first part we review the background of the GSEs and what led to their weakened position, including the special nature of the GSE status and structure, and the effects of the mortgage crisis. We next consider the early steps taken by the government to support the

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[5] Thompson, Daniel and Rosalind Wiggins. 2019. "The Rescue of Fannie Mae and Freddie Mac, Module A: The Conservatorships."

Thompson, Daniel. 2019. "The Rescue of Fannie Mae and Freddie Mac, Module B: The Senior Preferred Stock Purchase Agreements (SPSPA)."

Vergara, Emily. 2019. "The Rescue of Fannie Mae and Freddie Mac, Module C: GSE Credit Facility."

Zanger-Tishler, Michael and Rosalind Wiggins. 2019. "The Rescue of Fannie Mae and Freddie Mac D: Treasury's GSE MBS Purchase Program."

Thompson, Daniel. 2019. "The Rescue of Fannie Mae and Freddie Mac, Module E: HERA."

Thompson, Daniel. 2019. "The Rescue of Fannie Mae and Freddie Mac, Module F: The Federal Reserve's Large Scale Asset Purchase (LSAP) Program."

Wiggins, Rosalind, Daniel Thompson, Benjamin Henken, and Andrew Metrick. 2019"The Rescue of Fannie Mae and Freddie Mac, Module Z: Overview."

firms during the spring and summer of 2008, and then address the conservatorships and related actions. Last, we discuss in detail the key decisions made by the government and highlight unique issues presented by GSEs.

II. Overview

Background

The Special Status of Government-Sponsored Enterprises (GSEs)

The Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) are large Government-Sponsored Enterprises (GSEs)[6], public-private corporations specially chartered by Congress to enhance the liquidity of the U.S. secondary mortgage market and thereby promote access to mortgage credit, particularly among low- and moderate-income households and neighborhoods.

The GSEs pursue their mission by buying mortgages conforming to their underwriting standards, guaranteeing payment of the underlying mortgages and packaging them into mortgage–backed securities (MBS), which they sell to investors or retain as investments. They also purchase private-label MBS (PLMBS), which invest in nonconforming mortgages, that they hold in their portfolios. Although not direct components of the U.S. government, they were often confused to have the backing of it due to a number of factors including: their housing mission, their government charter, their favorable treatment in various financial regulations, and the statutory $2.25 billion backup credit line that each had from the Treasury Department (CBO 2010). Their issuances are referred to as "agency securities and debt." (Frame et al. 2015).

The GSEs fund their operations by issuing debt and there has long existed an "implied government guarantee" of their debt and obligations, which helped them enjoy a robust market with their debt being widely held. A 1996 Government Accountability Office (GAO) report concluded that — "A major factor that enhances the enterprises' profitability is the financial market's perception that there exists an implied federal guarantee of their debt and other obligations (i.e., a perception that the federal government would act to ensure that the enterprises will always be able to meet their financial obligations on their debt and

[6] The GSEs are publicly traded and privately owned and governed by their shareholders but are required to satisfy certain government housing goals. The enterprises enjoy numerous advantageous because of their hybrid structure. "These statutory benefits include (1) exemption from state and local taxes, (2) a line of credit with the U.S. Treasury up to $2.25 billion, (3) eligibility of their debt to serve as collateral for public deposits, (4) eligibility of their securities for Federal Reserve open market purchases, (5) eligibility for their corporate securities to be purchased without limit by federally regulated financial institutions, (6) assignment of mortgage-related securities they have issued or guaranteed to the second-lowest credit risk category at depository institutions, and (7) exemption from the registration requirements of the Securities and Exchange Commission." (Jickling 2007).

MBS guarantees).” (GAO 1996). This implied guarantee reinforced the market perception that Fannie and Freddie were “too big to fail” and that the government would intervene to prevent their collapse. (Ibid, Jester et al. 2018). As a result, the GSEs were able to pursue a highly leveraged business model. By the end of 2007, they had $1.6 trillion in debt outstanding, and they owned and guaranteed $5.3 trillion in U.S. mortgage-related debt and securities, approximately half of the total outstanding, with capital of less than 2% of total assets (Geithner 2015, FCIC 2010; GSEs Monthly Volume Summaries). Of this amount, they held aggregate assets of $1.5 trillion in their portfolios, including more than $600 billion in nonprime mortgages and PLMBS (Jickling 2008, FCIC 2010, FCIC 2011). Many investors in GSE debt and MBS also used these securities as collateral in the short-term repo funding markets. Because of their perceived safety, the securities traditionally enjoyed rates that averaged only 7 and 8 basis points, respectively, above those on Treasuries. (Fleming et al. 2010).

The GSEs’ hybrid public-private structure carried with it certain weaknesses including a bifurcated regulatory regime, which many have interpreted as holding the mission of promoting home ownership, regulated by the Department of Housing and Urban Development (HUD), dominant to safety and soundness, regulated by the Office of Federal Housing Enterprise Oversight (OFHEO), a unit within HUD. (Frame et al. 2015). The enterprises were subject to very low risk-based capital standards (approximately 60% of what banks were required to maintain) and OFHEO was limited in its authority to increase the levels, which were set by law.[7] This permitted the firms to become highly leveraged. (FCIC 2010.). The regulator also had access to only a limited (and some commentators said ineffectual) resolution mechanism. See Kosar (2007) for a detailed discussion of the GSE structure.

Between 1990 and 2003 the percentage of outstanding residential mortgage debt owned or guaranteed by the GSEs grew from 25.7% to 46.3%. It then began to decline as nonconforming mortgage origination financed through private-label securitization increased. (Frame et al. 2015). However, as shown in Figure 1, the GSEs’ share of the mortgage market began to gradually increase again in 2005 after the firms began to purchase nonprime, Alt-A and subprime loans, as well as PLMBS, to hold in their portfolios. These types of loans were riskier than the conforming loans that composed their primary business and would be a destabilizing element for the firms. (FCIC 2010).

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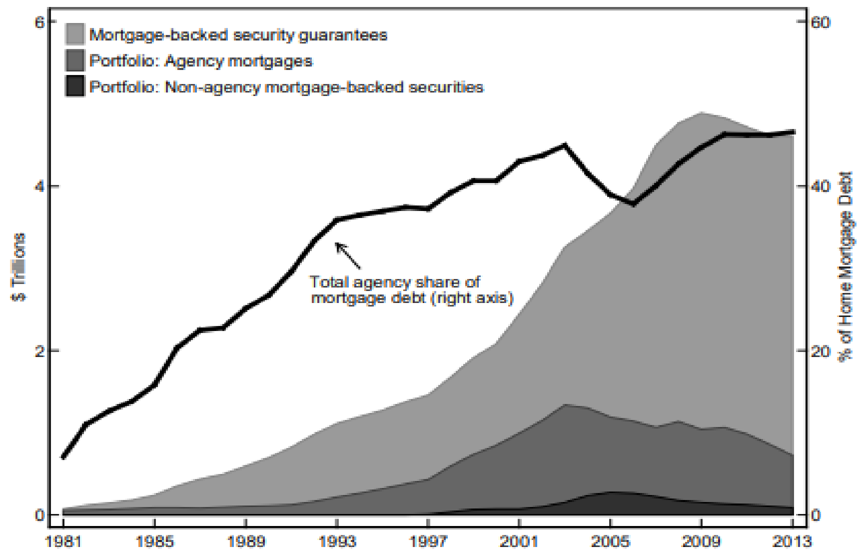
[7] “The minimum capital standards were set by law at 2.5 percent of on-balance sheet assets and 0.45 percent of off-balance sheet guarantees. The law also prescribed parameters for the GSEs’ risk-based capital. These specified the parameters under which credit risk and interest rate risk could be used to calculate the level of risk-based capital required for the two GSEs. The risk-based capital test generated values below the statutory minimums, which became the binding capital requirements on the two enterprises. As a result of the statutory prescriptions, the two GSEs operated with significant leverage: For Fannie Mae, the ratio of core capital to total assets plus MBS outstanding amounted to around 1.5 percent for year-end 2007; for Freddie Mac it was around 1.7 percent. By contrast, a commercial bank or thrift institution would be subject to capital requirements at least twice as high.” (FCIC 2010, footnotes omitted).

Figure 1: The Growing Role of Fannie Mae and Freddie Mac in the U.S. Mortgage Market

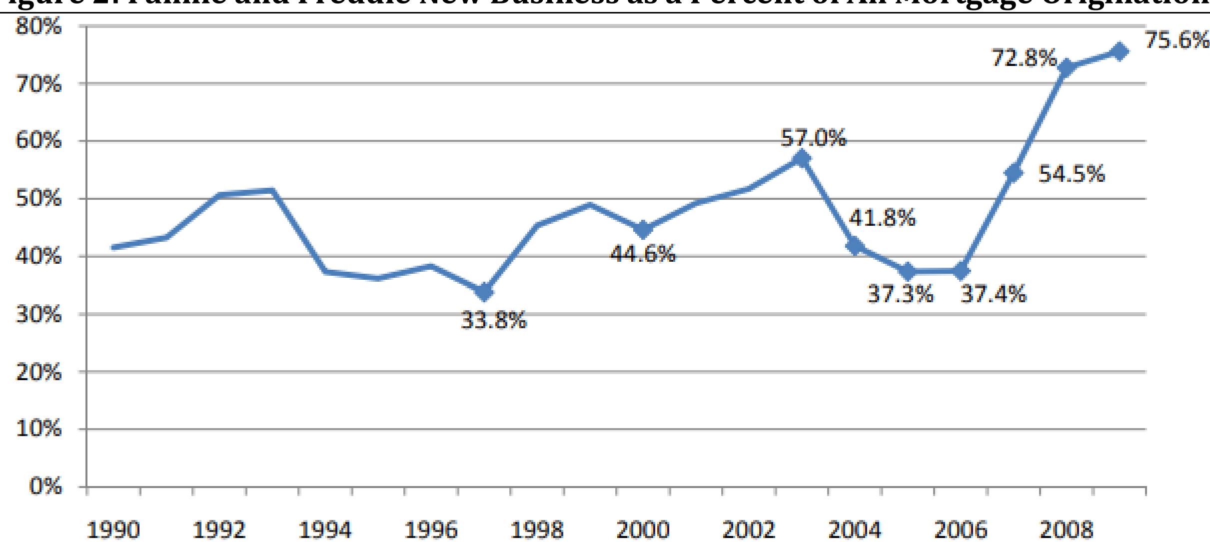


Source: *Frame et al. 2015*

The Mortgage Crisis

By mid-2007, U.S. housing prices had peaked from a decades-long run-up and had been declining for several quarters. Subprime mortgages were experiencing significant increases in defaults and foreclosures. As a result, nonconforming mortgage origination and private-label securitization evaporated, resulting in the GSEs purchasing an increased percentage of new mortgages. By 2007, the GSEs' new business volume as a percentage of new loans reached nearly 73%, almost double the approximately 37% it had been only a year earlier. (FCIC 2010).

Figure 2: Fannie and Freddie New Business as a Percent of All Mortgage Originations



Source: *FCIC 2010, pp. 14; FHFA*

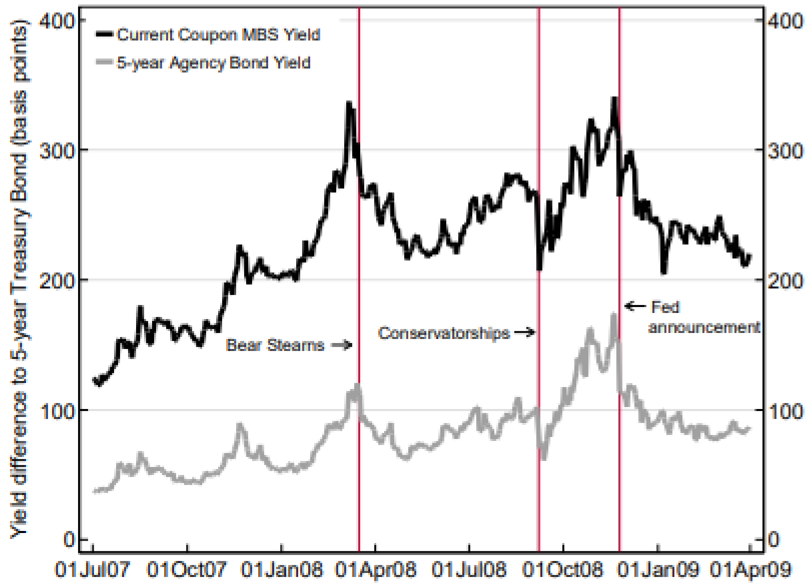
Amid the correction in housing prices and the rise in defaults, Fannie and Freddie began to post billion-dollar losses at the end of 2007. In March 2008, in the wake of Bear Stearns' near collapse, the company reported its 2007 end-of-year results and faced increased scrutiny about the risks underlying mortgage-related securities, their leverage, credit risk, and solvency. (FCIC 2010, FCIC 2011). Spreads on agency debt and agency MBS pledged in the repo market soared to the unprecedented levels of 55 and 62 basis points respectively, causing a severe tightening of credit for borrowers and increasing pressures to liquidate assets. (Fleming et al. 2010). In response to these developments, OFHEO, in consultation with Treasury, struck a deal with both GSEs to ensure they (1) would be able to provide continued support for the mortgage market, and also (2) would be capable of withstanding the deteriorating fundamentals in the market. In return for lowering the capital surcharges for each GSE (from 30% to 20%), OFHEO received a promise from both entities to raise new capital. (FCIC 2011). Although the entities were not legally bound to do so, Fannie Mae kept its promise and raised $7.4 billion in preferred stock, but Freddie Mac did not raise any additional capital. (Ibid.).

Over the next few months, the GSEs struggled to balance two conflicting developments that they had experienced for almost a year: (i) increased campaigning for them to do more to support the mortgage market as private securitization fled, rates increased, and credit slowed, and (ii) greater public worry about their ability to withstand the worsening effects of the housing downturn without support from the government. (Paulson 2010, Geithner 2015, FCIC 2010). Increasing concern was voiced about the negative effects that a disorderly failure of a GSE would have given their substantial size and wide reach. (Ibid.). Foreign official institutions held approximately $1 trillion of agency debt and MBS and another $1 trillion was held by U.S. financial institutions, partly because regulations required banks to hold relatively little capital against holdings of GSE securities and debt. (Frame et al. 2015). The firms were also counter-parties on substantial amounts of derivatives, which they used primarily to offset their interest rate risk. (Ibid.).

On July 7, 2008, analysts at Lehman Brothers published a report speculating that Fannie and Freddie needed $75 billion in capital to address the effects of a new tax law and to remain viable and that they would be unlikely to be able to raise it. (Paulson 2010; Wingfield 2008). Amid this and other developments, such as the purchase of Countrywide Financial Corporation by Bank of America in June and the FDIC's takeover of IndyMac Bank F.S.B. in July, market participants questioned whether the government would intervene to support the giants. (Boyd 2008).

The common shares of both GSEs dropped by more than 16% before recovering somewhat. However, over the next two months, the firms suffered a liquidity crunch as creditors slowly withdrew. Fannie had difficulty raising sufficient funds in the repo markets even using its own securities as collateral. (FCIC 2011). Further, the yields on the firms' debt and MBS increased dramatically. (Paulson 2010, Lockhart Testimony 09/23/2008).

Figure 3: Yields on Fannie Mae Debt and MBS, July 2007 – March 2009



Source: ***Frame et al. 2015***

Given the circumstances, on July 13, 2008, the government took immediate action to provide backup liquidity to the firms and reassure the markets. (See "Early Government Actions' below). While these actions provided some modicum of assurance to the market, it was clear that a more substantial intervention by the administration was needed. By August, there was consensus among government experts that both firms were technically insolvent (or soon would be), even though the book value of their equity capital was positive and exceeded statutory minimums. (Paulson 2010; FCIC 2010; Frame et al. 2015).

Program Description

Early Government Actions Toward the GSEs

During the summer of 2008 and before the passage of the HERA, the administration used the authorities available to it to provide backup liquidity to the firms and to reassure the market that it was aware of the problems at the firms and was working to address them. The government's strategy in this early period was three-pronged: (1) support the firms' immediate needs, (2) work to assess their true financial condition, and (3) aggressively pursue the passage of additional authorities with respect to them.

Addressing the Immediate Needs of the GSEs and Reassuring the Market

On July 13, 2008, within a week of the Lehman Brothers' report and at Secretary Paulson's request, the Federal Reserve Board invoked section 13(13)[8] of the Federal Reserve Act to authorize the FRBNY to lend to the GSEs on a short-term basis if needed. (Federal Reserve PR 7/13/2008). The Fed was opening its discount window to the GSEs, providing a liquidity backstop if the market refused to lend to them. The loans would be in the form of promissory notes from the GSE, for periods not to exceed 90 days, in unspecified and uncapped amounts and secured by U.S. government (Treasuries) and federal agency securities (including their own), and at the primary credit rate. (Ibid., Fed Board Minutes 7/13/2008). (The Fed had historically considered GSE guaranteed MBS and securities issued by the GSEs to be "agency securities" that it would accept as collateral.)[9]

This discount window lending supplemented the Treasury's existing funding authority of $2.25 billion for each of the firms, which was considered inadequate given the size to which

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[8] Section 13(13) (Advances to individuals, partnerships, and corporations on direct obligations of the United States) provides: "Subject to such limitations, restrictions, and regulations as the Board of Governors of the Federal Reserve System may prescribe, any Federal reserve bank may make advances to any individual, partnership, or corporation on the promissory notes of such individual, partnership, or corporation secured by direct obligations of the United States or by any obligation which is a direct obligation of, or fully guaranteed as to principal and interest by any agency of the United States. Such advances shall be made for periods not exceeding 90 days and shall bear interest at rates fixed from time to time by the Federal reserve bank, subject to the review and determination of the Board of Governors of the Federal Reserve System." Federal Reserve Act of 1913 §13(13); 12 USC 347c, as amended. Notably, Section 13(13) allows for lending in any circumstance and does not require that "unusual and exigent circumstances" be found to exist as Section 13(3) does, which was used often by the Fed during the crisis. also see discussion at KDD 8.

[9] FRA Section 13(8)(a) (Advances to member banks on promissory notes) was amended in 1968 to broaden the definition of eligible collateral for advances to include certain securities. The section authorizes the Fed to lend to member banks against various collateral, including "such obligations as are eligible for purchase under Section 14(b) of this Act." Section 14(2)(b)(2) authorizes the Fed to buy and sell "*direct obligations of, and obligations fully guaranteed as to principal and interest by, any agency of the United States.*"

Fed Regulation 12 CFR 202.108 expounds on FRA Section 14(2)(b)(2) and lists the "agency obligations eligible as collateral for advances." These include Fannie and Freddie "notes, debentures and guaranteed certificates of participation [(i.e., MBS)]."

FRA Section 13(13) (Advances to individuals, partnerships, and corporations on direct obligations of the United States) uses wording almost identical to Section 14(2)(b)(2) with respect to collateral and provides that the Fed may make advances secured by "*any obligation which is a direct obligation of, or fully guaranteed as to principal and interest by, any agency of the United States.*"

further, according to former Board of Governors General Counsel Scott Alvarez, the Fed had long taken the view that Fannie and Freddie were agencies of the U.S. government and had for many years (since the 1970s) been conducting open market transactions (in small amounts) in mortgage securities guaranteed by Fannie and Freddie, as well as in their securities. (Alvarez 2019). The Fed's historical position regarding the status of Fannie and Freddie would have allowed the Fed to lend under section 13(13) against at least mortgage securities guaranteed by Fannie and Freddie, which were considered even more secure than shares of stock issued by the firms. (Ibid). In addition to the significant amounts of their own MBS that the GSEs held, they held Treasuries, which they could borrow against like any other company.

the balance sheet of the GSEs had grown. As of June 2008, this was $885.9 billion for Fannie, and $879.0 billion for Freddie. (Frame et al. 2015). The Fed's line of credit, however, was potentially limited only by the amount of eligible collateral that the firms could offer, which was substantial. As of June 2008, the firms collectively held over $700 billion in their own "mortgage-backed securities, $220.4 billion held by Fannie Mae and $490.2 billion held by Freddie Mac. (Ibid). Although the Fed line of credit was never used, announcing its availability was intended to assure the market that the firms would not run out of money and would be able to access the funding needed to stand behind their guarantees. (Alvarez 2019; Paulson 2010; Luhby 2008).

At this same time, Treasury and the Fed announced a three-part comprehensive plan to secure regulatory reforms so that the government could address the enterprises in a more substantial manner. The plan sought to (i) increase the GSEs' existing credit lines, (ii) grant the Treasury the authority to invest in the equity of the companies, and (iii) provide a new regulator and give the Fed a consulting role in setting capital requirements and other prudential standards. (Treasury 07/13/2008). The proposal required congressional action and was enacted as part of the Housing and Economic Recovery Act of 2008 (HERA) later that month. (PUBLIC LAW 110–289, 22 STAT. 2654).

The Securities and Exchange Commission (SEC) also acted to support the GSEs. For several weeks, the GSEs had been subject to circulating rumors and their stock had been under tremendous downward pressure. On July 15, 2008, to help stabilize the stock, the SEC issued an Emergency Order forbidding the naked short selling of Fannie Mae and Freddie Mac stock, as well as that of the primary dealers. (SEC 2008). Fannie and Freddie's stock rebounded in the short-run, rising to $13.40 and $9.18, respectively, after bottoming out at about $7 and $5 three days earlier, though would resume falling not long after when the firms announced poor 3rd quarter results.

Taken together, these Pre-HERA actions seemed to buy the firms and the government some time to aggressively pursue regulatory reform and the additional tools that might be required for the firms to survive. (Paulson 2010, Bernanke 2015, Jester et al. 2018).

Coordinated Financial Review of the GSEs

Because they were exempt from the securities laws, and had only recently begun to voluntarily register their stock with the SEC, the enterprises had no record of detailed public disclosure of the type that most companies with publicly traded securities and debt would have had.[10] They also were exempted from using GAAP accounting. Therefore, after it opened the discount window to the GSEs, the Fed faced the prospect of lending billions of dollars to entities that it did not regulate and which it knew comparatively little about.

[10] Fannie Mae registered its common stock with the SEC in December 2003, and Freddie Mac registered its own in July 2008. Before doing so, neither firm was required to file with the SEC. Even though they produced their own quarterly or annual materials, the financial review contain therein was not considered to be as rigorous as what would have been required by the SEC. As evidence, on its own website, Fannie Mae cautions "investors and others…not to rely on annual or quarterly financial information published prior to December 2004" (Fannie Mae website, "SEC Filings"; Freddie Mac website, "SEC Filings").

Further, the HERA had established the Fed in an advisor role to the FHFA. Thus, following its July 13, 2008, announcement about opening the discount window to the GSEs, the Fed, with the cooperation of the FHFA and a cadre of officials from several agencies – the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), and the Treasury – investigated the financial status of the GSEs (the "summer financial review") with BlackRock and Morgan Stanley acting as advisors to the Fed and Treasury, respectively.[11] (Jester et al. 2018, Lockhart 2010, FCIC 2011, Paulson 2010).

The Fed and participating agencies were not limited to the lax statutory formulas that characterized the OFHEO's oversight. (Jester et al. 2018). They measured the firms' solvency against the Fed's statistical models that were far more rigorous than what the firms and the OFHEO had been using, and applied capital standards similar to those that national banks were required to maintain.[12] The Fed and OCC team also tested the GSEs' capital under stress tests using various distress scenarios considered more comprehensive than those used by the OFEHO testing.[13]

The reviewers found several issues, including: inadequate loss reserves, questionable use of deferred tax credits, failure to write down guarantees from private mortgage insurers that had been downgraded, and dubious quality of capital. In August 2008, they reported that the GSEs were more financially unstable than previously suspected and that they were technically insolvent despite meeting the minimum statutory capital requirements that applied to them. (Jester et al. 2018, Frame et al. 2015; Paulson 2010). The reviewers estimated that the firms would need to raise approximately $60-70 billion in capital to survive, suggesting that both firms were already insolvent. (Lockhart 2008). By that time, however, there was consensus that it would be almost impossible for the firms to do so. (Paulson 2010).

The summer financial review would prove valuable in several ways as events unfolded. The information disclosed confidentially by it provided a more accurate account of the enterprises' situation than was previously available and would solidify the basis for the government's decision to place them into conservatorship, despite their continued ability

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[11] Reports on this review somewhat conflict as to when it actually took place, with some suggesting that it occurred immediately after the July 13th announcement (FCIC 2010) and others placing it in the first week in August after the passage of HERA (Jester et al. 2008). These two characterizations are not necessarily mutually exclusive and do not appear significant as the review or preparations for it could have begun in the 17-day period between the Fed's announcement and the passage of HERA on the 30th.

[12] Jester et al. 2018. Ironically, national banks were not required to hold capital against stressed losses, but the GSEs were. (Frame, Gerardi, and Willen, 2015).

[13] Jester et al. 2018. The OFHEO had applied risk-based capital stress tests in supervising the GSEs from 2002 to when they were taken into conservatorship; all had indicated that the GSEs were adequately capitalized. Although the tests were hailed as "state of the art" when introduced, they failed to detect the growing credit risks on the firms' books. Frame, Gerardi, and Willen (2015) discuss the tests and identify three weaknesses: (i) failure to update the mortgage default and prepayment forecasting model or introduce new variables despite changes to under-writing practices, (ii) use of a house price scenario far below the actual decline, and (iii) exclusion of any new business from the test, which limited its value for forecasting future impacts.

to meet the statutory capital requirements. (Paulson 2010, Fannie Midyear Letter). The results were also referred to in determining how much to fund the conservatorships. (Lockhart 2018).

Pursuing Additional Tools and Securing the Passage of HERA

Following the announcement of a comprehensive plan on July 13, Secretary Paulson, with the support of Chairman Bernanke and OFHEO Director James Lockhart, aggressively pursued reform legislation to create a new regulator and provide a more robust set of tools that could rescue the GSEs from insolvency.[14] Those efforts came to fruition with the passage of the HERA on July 30, 2008. HERA provided among other things: a new regulator, the FHFA, with more robust supervisory powers (including the ability to restrict capital distributions); unlimited authority for the Treasury to invest in the firms or lend to them through December 31, 2009 (largely at the Secretary's discretion on terms determined by him), which created a viable funded conservatorship option; the possibility of receivership; and a consultative role for the Fed. (FHFA HERA Summary). (Also see Thompson 2019E for more description of the changes that the HERA implemented.)

The Conservatorships and Associated Interventions

After considering the options available after the passage of the HERA, the government took both firms into conservatorship on September 7, 2008, as the cornerstone of a four-part rescue plan. Conservatorships managed by the FHFA was now a viable option because HERA granted the Treasury the authority to fund it. Although it was styled as a temporary measure that would provide a "time out" while allowing the government to take control of the companies and stabilize them, the conservatorships had no stated end date and are still in effect ten years later as of this writing. (Paulson 2010, Thompson 2019E).

Treasury oversaw the other three steps of the rescue plan, which were to: (i) enter into a Senior Preferred Stock Purchase Agreement (SPSPA) with each GSE, (ii) establish a new secured credit facility for each GSE, and (iii) commit to purchase GSE mortgage-backed securities.[15]

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[14] New GSE legislation had been a Bush Administration priority since as early as 2006 (Lockhart 2018). Initial reform efforts focused on "creat[ing] a stronger and more effective regulatory regime" for Fannie, Freddie, and the FHLBs; a bill reflecting these initiatives—the Federal Housing Finance Reform Act of 2007—passed the House of Representatives in May 2007 but never became law. (EOP 5/16/2007). When the crisis escalated in July 2008, the goal of enacting new legislation took on new urgency, and the scope of such a bill also increased. Secretary Paulson's July 2008 proposal—which ultimately became the Housing and Economic Recovery Act of 2008 (HERA)—contained many of the same provisions as the 2007 proposal, including the creation of a new Federal Housing Finance Agency (FHFA) with more authority to regulate the GSEs. It also requested emergency powers for Treasury to be able to fund the GSEs should they verge on insolvency or experience weak demand for their debt (Treasury PR 7/15/2008).

[15] See Thompson SPSPA 2019 for further details regarding the SPSPA; Vergara 2019 for the secured credit facility; and Zanger-Tishler and Wiggins 2019 for the GSE MBS purchase program. It should be noted that the commitment to purchase the GSE MBS was not explicitly included in the Treasury's earlier July announcement which mentioned a liquidity backstop, equity investments and regulatory reform. The

The conservatorships were consented to by the GSEs' boards and management, however, under HERA, the government would have been able to effectuate the conservatorships on an involuntary basis. (Thompson and Wiggins 2019). Earning the consent of the boards and management, however, minimized the possibility of lawsuits and a delay that might have impaired the conservatorships' effectiveness. While Fannie Mae and Freddie Mac faced different problems (e.g. Freddie Mac had a larger capital hole), the government decided to adopt the same approach toward them because the market largely saw them as the same (Thompson 2019A).

As explained in the Q&A issued by the FHFA: "The purpose of appointing the Conservator is to preserve and conserve the [Enterprises'] assets and property and to put the [Enterprises] in a sound and solvent condition. The goals of the conservatorship are to help restore confidence in [Fannie Mae and Freddie Mac], enhance [their] capacity to fulfill [their] mission, and mitigate the systemic risk that has contributed directly to the instability in the current market." (FHFA Q&A 2008).

As conservator, the FHFA assumed all powers of the firms' shareholders, board and management. It could govern the companies in any legal capacity consistent with the guidelines set forth in the HERA and, except in some limited cases, its actions as conservator were not subject to judicial review. (OIG 2015).[16] It immediately replaced the GSEs' boards of directors and CEOs, suspended voting rights, and froze dividends for common and preferred stockholders. (Ibid.).[17] The FHFA directed the GSEs to continue their key business operations and MBS securitizations without restriction. With the Treasury serving as a financial backstop, the FHFA also declared that the GSE capital limits were not binding during the conservatorship and then suspended them altogether, although it continued to monitor them (FHFA PR 11/17/2008). (See Thompson and Wiggins 2019 for further detailed discussion of the conservatorships.)

Treasury Funding: Senior Preferred Stock Purchase Agreements (SPSPAs)

The HERA provided that the Treasury could make unlimited investments in the GSEs' securities and/or debt, but only through December 31, 2009. HERA did not require that the company be in conservatorship as a prerequisite to such an investment, but Secretary Paulson and others at Treasury concluded that some form of government control over the firms was necessary to restore market confidence and protect the taxpayers' investment,

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conservatorships and additional three elements are sometimes spoken of as a 3-part plan with the new secured credit facility for each GSE and the commitment to purchase GSE mortgage-backed securities combined into a commitment to support the mortgage market. (Frame 2009).

[16] However, shareholders have been permitted to bring lawsuits charging that the FHFA acted inappropriately in agreeing to the Third Amendment to the SPSPAs granting Treasury the "net profit sweep" in lieu of the previous 10% dividend. See also Thompson 2019B, page 16 and related footnotes.

[17] The GSEs' stock continued to trade, however, and the FHFA assured shareholders that they would be able to access their stocks at market price after the FHFA unfroze them (FHFA PR 09/23/2008). As of this writing, the FHFA has not unfrozen the GSEs' dividends or reinstated their voting rights.

which was anticipated to be significant. (Paulson 2010, Jester et al. 2018). Without Treasury funding, Frame et al. claim that receivership would have been best. (Frame et al. 2015).

In structuring the government's funding, a "keep well" agreement was decided on. In a keep well agreement, a parent company generally agrees to provide a subsidiary with the capital required to ensure its positive net worth. Keep well agreements enabled the Treasury to maintain the GSEs' positive net worth regardless of their future losses, even if occurring after December 31, 2009 – when HERA's funding authority was set to expire. (Jester et al. 2018). Pursuant to the SPSPAs, the Treasury committed to invest up to $100 billion in each GSE – as needed – to prevent its net worth from becoming negative. In exchange for this commitment, the Treasury received (i) one million (1,000,000) shares of senior preferred stock, with an initial liquidation preference equal to $1,000 per share, amounting to one billion dollars ($1,000,000,000) in aggregate liquidation preference, and (ii) a warrant to purchase common stock of each GSE representing 79.9% ownership on a fully-diluted basis at the nominal price of one-thousandth of a cent per share.[18] The warrants, which have not been exercised, were required to ensure that the taxpayers shared in any upside from the recovery of both firms should they return to profitability. (Jester et al. 2018). Both GSEs also had to adhere to additional obligations and restrictions included in the SPSPA.[19] (See Thompson 2019 for further discussion of the details regarding the SPSPAs).

The senior preferred stock issued to Treasury rank senior to all other common and preferred stock. Any draws of additional funding under the SPSPAs increased the Treasury's liquidation preference. As such, if one of the GSEs were liquidated, the Treasury would be entitled to receive the full amount of its investment in the GSEs, as well as accumulated but unpaid dividends (which were set at a rate of 10% of the liquidation preference if paid in cash and at 12% if paid in stock) and unpaid commitments fees.[20]

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[18] The government did not pay cash for the securities. The transaction was denominated as a sale from the GSE (Seller) to the Treasury (Purchaser) with the preferred stock representing in kind payment of an Initial Commitment Fee. (SPSPAA Sec. 3.1.). The agreements also provided for a Periodic Commitment Fee, but Treasury waived and then later suspended this fee. (Ibid. Sec. 3.2, Thompson SPSPA case).

[19] From time to time these restrictions included limitations on the GSE's portfolio and mandatory reduction thereof, limitations on debt, and capital accumulation. The firms also had to inform Treasury of certain major decisions, and in some circumstances seek its prior approval regarding: ending the conservatorships, executive compensation, certain transfers or sales of assets, declaring dividends, and mergers and acquisitions. See Thompson 2019 for further details on the SPSPA terms over time.

[20] At the end of 2018, including the initial $1 billion of liquidation preference, the "liquidation preference" relating to the Fannie Mae preferred stock was $123.8 billion and of Freddie Mac preferred stock, was $75.6 billion (GSEs 2018 10-Ks). In a liquidation, however, both GSEs may be unable to repay the liquidation preference. Fannie said in its most recent annual report that it was "unlikely" that common and other preferred shareholders would receive anything in a liquidation. Freddie said that its ability to repay the liquidation preference of the senior preferred stock is "limited and we will not be able to do so for the foreseeable future, if at all." (Freddie Mac 2017 10-K, p. 178).

Treasury's maximum commitment to each GSE has been raised twice in response to growing concerns about whether it would be enough to cover the needs of the firms. On May 6, 2009, the enactment of a First Amendment to the SPSPAs doubled Treasury's commitment to $200 billion per GSE. Then, on December 24, 2009, the parties agreed to a Second Amendment, effectively giving each GSE access to unlimited funding – as needed – from 2010 to 2012. During this period, additional draws of funding did not count toward the $200 billion funding limit, but instead raised the cap by an equal amount. As such, at the end of 2012, Treasury's maximum commitment to each GSE reverted to a set limit of (i) $200 billion plus (ii) the amount each firm had drawn from 2010 to 2012 (but less any existing capital surplus directly attributable to these draws).[21]

In August 2012, the SPSPAs were amended for a third time (the Third Amendment), specifically to cap the GSEs' capital reserves and to require annual reductions until the they reached zero in January 2018, at which point the GSEs would solely depend on Treasury to cover their losses. This reflected a "wind down" strategy favored by the Obama Administration. The Third Amendment also replaced the fixed rate dividend with a variable dividend, which effectively swept any of the GSEs' quarterly net profits to Treasury, but which also meant that Treasury would not receive a dividend in any quarter that there was a loss. The change became controversial in 2012 when Fannie Mae and Freddie Mac posted annual profits (after paying dividends to Treasury) for the first time since 2007.[22]

Other Liquidity

In addition to the conservatorships and the SPSPA, Treasury created the GSE Credit Facility, which was designed to provide collateralized short-term funding to the GSEs as needed. Evidence suggests that the facility was intended to replace the discount window, which the Fed had made available to the firms on a temporary basis in July,[23] and had no

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[21] Fannie Mae, for example, drew $40.9 billion under the SPSPA from 2010 to 2012 and at the end of this period had a net worth of $7.2 billion. Beginning in January 2013, its new funding limit was calculated to be $200 billion + $40.9 billion - $7.2 billion = $233.7 billion, of which $117.6 billion it had not yet drawn. As of this time and pursuant to this formula, Treasury's aggregate commitment for both GSEs was fixed at $445.5 billion – $233.7 billion for Fannie Mae and $211.8 billion for Freddie Mac – of which a total of $257.2 billion remained available to both firms.

[22] In December 2017, the Trump Treasury and FHFA entered into a letter agreement that raised the maximum capital reserve amount for each firm from zero (as mandated by the Third Amendment) to $3 billion indefinitely, beginning in January 2018 permitting the firms to again retain earnings. It is not clear if this should be read as a shift from the prior administration's "wind down" strategy for the firms. The letter further stipulated that $3 billion be added to the liquidation preference of the preferred stock. (Thompson 2019).

[23] According to Chairman Bernanke, the Fed was reluctant to make a long-term commitment to the firms, and only agreed to lend to them on the condition that such an arrangement would be "temporary" (Bernanke 2015; Paulson 2010). By providing a temporary backstop, the discount window was supposed to support market confidence in Fannie and Freddie while the Treasury pursued (among other things) the congressional authority to fund them on a long-term basis, if necessary. Based on the agreement in July, once the Treasury received the authority do so, it presumably intended on funding a potential GSE intervention on its own, for example, by increasing its credit lines with each GSE as it had announced. Though no explicit statement has been made to confirm this, the Fed did amend its July 13, 2008, meeting minutes to this effect, updating its decision to

limit on its funding commitment (Paulson 2010). The facility was never used by either firm and expired on December 31, 2009. (See Vergara 2019 for more discussion of the GSE Credit Facility).

In addition to the elements hinted at in July, the government also implemented a fourth element to its rescue plan. Also in September, the Treasury began to purchase GSE MBS in the open market and would invest a combined $225 billion through December 31, 2009, when its authority to invest in these securities expired. (See Zanger-Tishler and Wiggins 2019 for more discussion of the Treasury GSE MBS Purchase Plan Program).

Large Scale Asset Purchase (LSAP) Program – November 2008

While Treasury's commitments to the GSEs had effectively guaranteed their solvency, agency debt and MBS spreads remained high and the housing market continued to face severe stresses. These factors, along with a dramatic reduction of the federal funds rate by November 2008, which limited the Fed's ability to continue to rely upon traditional monetary policy tools, led the Federal Reserve to announce what became known as the Large-Scale Asset Purchase (LSAP) Program. (Thompson 2019). Under the LSAP Program the Fed would purchase $172 billion in agency debt and $1.25 trillion in agency MBS through March 2010.[24]

Outcomes

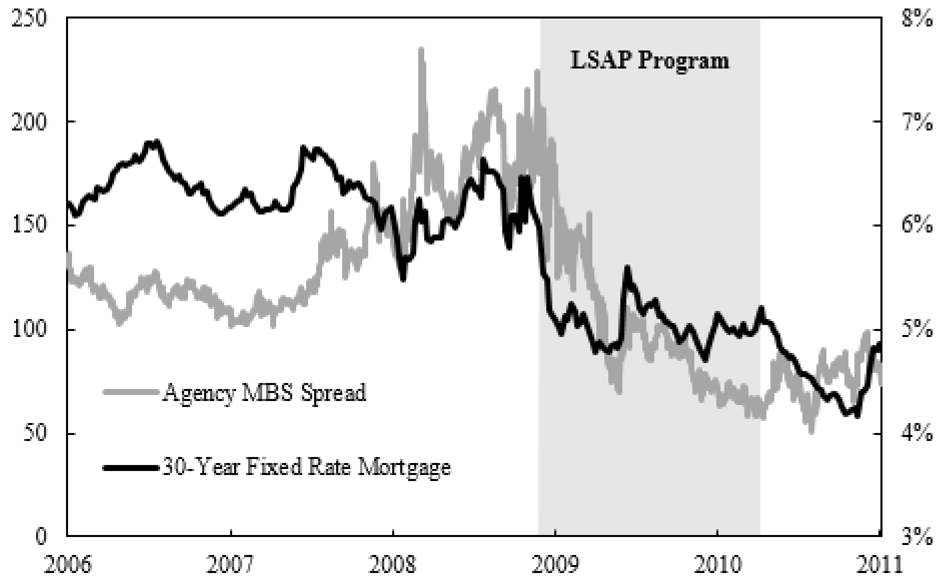
The announcement of the conservatorships on September 7, 2008, and the FHFA's pledge to protect bondholders seems to have increased confidence in the GSEs as evidenced by falling agency MBS yields and increased market demand for GSE debt in the days that followed, at least prior to the collapse of Lehman Brothers on September 15. (Lockhart Testimony 9/23/2008; Frame et al. 2015; FHFA PR 09/23/2008; FOMC Minutes 09/16/2008). Although mortgage yields also fell for a brief period, they rose dramatically following Lehman's failure. (Ibid.). The Treasury's GSE MBS Purchase Program did not seem to have much of an impact on moderating these rates. However, the Fed's LSAP Program, which it commenced in November and in which it would eventually invest more than $1 trillion, is considered to have helped moderate mortgage rates over its tenure to

temporarily lend to the GSEs with a notice that they had been placed into conservatorship on September 7, 2008, potentially indicating that because of the intervention, the arrangement had become obsolete.

[24] The Fed purchased debt issued by Fannie Mae, Freddie Mac, and the Federal Home Loan Banks (FHLBs), 11 banks that use mortgages as collateral to lend to institutions, mainly commercial banks and thrifts and MBS issued by Fannie Mae, Freddie Mac, and the Government National Mortgage Association (Ginnie Mae), a government-owned entity that also operated in the secondary mortgage market. In both cases, the overwhelming majority of the purchases were securities issued by the GSEs. (Thompson 2019 provides more detailed discussion regarding the LSAP Program).

2010. As Figure 5 shows, the announcement of the LSAP Program coincided with immediate declines in mortgage rates and agency MBS spreads.

Figure 5: Agency MBS Spreads (Left), Mortgage Rates (Right), and the LSAP Program



Note: *Agency MBS spreads measure the 30-year Fannie Mae MBS current coupon rate less 10-year Treasuries and is shown in basis points.*
Source: ***Bloomberg Finance LP; Freddie Mac Primary Mortgage Market Survey via FRED***

By early 2009, after trading at more than $60 per share as late as October 2007, the common stock of both GSEs had fallen to below $1 per share (Frame et. al 2015). The GSEs continued to report losses for nearly four years after the September 2008 intervention, mainly due to continued mortgage defaults and to the effects of falling housing prices on their MBS businesses and portfolios. As a result, they repeatedly needed to draw funds under the SPSPAs. (Thompson and Wiggins 2019). As shown in Figure 6, initial draws by the two firms greatly exceeded estimates of their capital needs during the summer of 2008. By the end of 2012, the government had invested $116.1 billion in Fannie Mae and $71.3 billion in Freddie Mac for a total investment of $187.5 billion.

Figure 6: Estimates of GSEs' Capital Needs Compared to Actual Draws/Commitments

Source	Amount ($ Billions)	Date
Lehman Brothers Report	$75	July 2008
Federal Reserve/OCC/Morgan Stanley (Summer Financial Review	$60-70	August 2008
Government's Initial Commitment	Up to $200	September 2008
Combined Draws by Fannie and Freddie through date	$110	November 2009
Combined Draws by Fannie and Freddie through date	$187.5	First quarter 2012

Source: ***Thompson and Wiggins 2019; Jester et al. 2018; Fannie Mae 2017 10-K, p. 37; Freddie Mac 2017 10-K, p.2***

By the time they returned to profitability in 2012, the GSEs had been stabilized. In fourth-quarter 2017, unrelated to the initial rescue, the GSEs requested their first draws in nearly five years, accepting an additional $4 billion from Treasury and bringing total combined draws to $191.5 billion. The firms attributed the quarter's losses to accounting changes effectuated by the Tax Cuts and Jobs Act of 2017, and as of this writing, have not requested additional funding since.

Figure 7: Dividends Paid, Capital Draws, and Liquidation Preference under the SPSPA

	Fannie Mae	Freddie Mac	Total
Dividends Paid			
2008-2012	31.4	23.8	55.2
2013-2018	144.3	92.8	237.1
Total	175.8	116.6	292.3
Capital Draws			
2008-2012	116.1	71.3	187.5
2013-2018	3.7	0.3	4.0
Total	119.8	71.6	191.5
Liquidation Preference			
Original (upon executing the SPSPA)	1.0	1.0	2.0
Through 2018	123.8	75.6	199.5

Source: *FHFA; Freddie Mac 2018 10-K, pp. 2 and 289; Fannie Mae 2018 10-K, pp. 3*

As shown in Figure 7, the firms have paid a combined $292.3 billon to Treasury in dividends, with $237.1 billion of this being paid since 2012. Thus far, the government's investment in the two firms has netted a positive return of $100.8 billion. Frame et al. note, however, that a cash accounting profit should not be mistaken for proof that the government was fairly compensated, as "the Treasury took on enormous risk when rescuing the two firms" (Frame et al. 2015). Based on this logic, and by taking into account risks as well as time-weighted returns, a recent analysis estimated that the real "fair value" cost to Treasury was more than $300 billion (Lucas 2018).

During the conservatorship, the GSEs' balance sheets have changed dramatically as shown in Figure 8 and Appendix A. Their portfolios and debt have shrunk significantly (Fannie's more so than Freddie's), while the volume of their MBS guarantees has increased steadily given the significant role that the firms continue to play in the secondary market.

Figure 8: Changes in Certain Key Indicators During Conservatorship (as of year-end)

$ billions	Fannie Mae			Freddie Mac		
Year	**Portfolio**	**MBS/Guarantees**	**Debt**	**Portfolio**	**MBS/Guarantees**	**Debt**
2008	787.3	2,611.4	883.1	804.8	1,827.2	870.3

2010	788.8	2,695.7	793.9	696.9	1,731.6	728.2
2012	633.1	2,741.3	621.8	557.5	1,585.5	552.5
2014	413.3	2,803.6	464.5	408.4	1,663.2	454.0
2016	272.4	2,913.9	328.8	298.4	1,849.2	356.7
2018	179.2	3,142.5	232.5	218.1	2,084.0	255.7

Source: ***GSEs 10-Ks for years listed***

Since 2008, GSE shareholders have filed several lawsuits challenging the government's indefinite suspension of GSE equity and its sweep of the GSEs' profits pursuant to the Third Amendment in 2012. As of this writing, two lawsuits are still pending, and the firms continue to operate under conservatorship and the amended SPSPAs.

III. Key Decision Decisions

1. What factors influenced the government's determination to intervene?

U.S. government intervention has never been predicated on saving every institution that might fail, but on addressing those whose failure could jeopardize the stability of the financial system. (FCIC 2010). When the government has intervened, it has typically referred to the potential risks that an institution's failure could have on the economy or on the stability of the financial system. (Ibid.) In this case, Fed and Treasury policymakers believed that the potential failure of the GSEs posed an unacceptable systemic risk to the financial system and chose to intervene.[25]

In deciding to intervene in summer 2008, there were at least three factors cited by the government to support its conclusion: (i) the sheer size of the GSEs' liabilities, (ii) their central role in the housing market, and (iii) their close alignment with the government. Jester et al. (2018) state ー "For one thing, GSE securities were embedded throughout the global financial system. At the same time, keeping the mortgage finance market functioning as smoothly as possible was a necessary element of our larger effort to revive the damaged economy." Much of this inquiry will be the same for a GSE as for any other nonbank, however, given the GSEs' special status, there were some unique issues and concerns that had to be considered; we discuss these factors in Key Design Decision 12 (KDD 12) below.

[25] As early as March 2007 when testifying before Congress on regulatory reform for the GSEs, Bob Steele of Treasury also cited the potential for systemic risk—"As Treasury has noted previously, the combination of three key features of Fannie Mae's and Freddie Mac's retained mortgage portfolios warrant the attention of policymakers: (1) the size of the retained mortgage portfolios of Fannie Mae and Freddie Mac – $1.4 trillion as of year-end 2006; (2) the lack of effective market discipline; and (3) the interconnectivity between the GSEs' mortgage investment activities and the other key players in our nation's financial system (both insured depository institutions and derivative counterparties). The combination of these three factors causes the GSEs to present the potential for systemic risk to our financial system and the global economy." (Steele 2007).

First, the GSEs were giants – they were among the biggest players in the global capital markets, and the likelihood was great that a disorderly failure of such a large institution would have had a negative impact on the financial system and possibly even the wider economy. (Jester et al. 2018, FCIC 2010, Paulson 2010). The GSEs had $1.7 trillion in debt outstanding, and it was widely held, both at home and abroad, as noted by Jester et al. Given their size and weakened state by summer 2008, it was unlikely that a private rescue would be possible. (Paulson 2010). Thus, the government determined to intervene. (Ibid.).

A second reason why the government decided that the GSEs posed a systemic risk to the financial system was that their failure would have greatly increased the likelihood of additional decline in the housing market. They were significant participants in the secondary mortgage market. Beginning in mid-2007, private securitization had begun to evaporate dramatically. By spring 2008, there were few if any viable participants in the secondary mortgage market besides the GSEs.[26] By September 2008, the firms would buy 80% percent of all new mortgages. Given their size and dominance, the overwhelming sentiment by market commentators and government officials was that the GSEs were critical to prevent the mortgage market from collapsing, which was essential to containing the crisis. (Jester et al. 2018). Given this situation, the GSEs had to be maintained as going concerns to continue their mission of providing a secondary mortgage market. Overall, they were responsible for over $5 trillion in outstanding mortgage-related securities and debt, or about half of the $11 trillion in home mortgages outstanding, and about the same as the amount of publicly-held federal debt (Jester et al. 2018). Their failure, or any significant disturbance in their ability to buy mortgages, would have sent panic through the mortgage and housing markets, significant sectors of the economy, and ones that many, if not most, financial institutions participated in. A freezing of mortgage credit could have led to a widespread devaluation of real-estate-related assets that could have impacted every bank and financial institution that held them, weakening them further. (FCIC 2010, Jester et al. 2018). Since the housing correction was the instigating factor of the crisis, policymakers early on determined that containing it required fixing housing and by mid-2008, there was a consensus that the GSEs were the instrument needed to do this. (FCIC 2010, Jester et al. 2018, Paulson 2010).

A third factor influencing the government's decision to rescue the GSEs was its close association with it. As noted above, their status as GSEs conveyed special benefits including an implied guarantee of their securities and debt. (See Jickling 2008 for further discussion.) These connections were significant and included not only the structural benefits inherent in their congressional charter, but also a continuous pattern of favorable treatment of GSE debt and securities by the government and its encouragement of investors to buy them. (Reiss 2011) So strong were these ties that many parties were confused about their status as separate, private companies. Both Chairman Bernanke and Secretary Paulson recounted

[26] FCIC 2010. See also Frame et al. 2015 regarding the GSEs mission significance and other matters validating the government intervention. ("Summing up, Fannie Mae and Freddie Mac were too large and interconnected to be allowed to fail, especially in September 2008 given the deteriorating conditions in the US housing and financial markets and the central role of these two firms in the mortgage finance infrastructure.")

receiving calls from foreign officials asking them to confirm that the government would stand behind the GSEs. (Bernanke 2015, Paulson 2010). Moreover, there was some risk that a default by one of the GSEs would potentially raise questions about the creditworthiness of the U.S. government itself, possibly disrupting the market for Treasuries. (Frame et. al 2015). In light of such an environment, government officials concluded that they had no choice but to stand behind the firms or risk the government's own credibility. (Paulson 2012, Jester et al. 2018).

2. What was the government's purpose for intervening?

Since the housing correction was the instigating factor of the crisis, and came to pose a systemic risk to the financial system, policymakers determined early on that containing the crisis required fixing housing and by mid-2008, there was a consensus that the GSEs were the instrument needed to do this. (FCIC 2010, Jester et al. 2018, Paulson 2010).

By mid-2007, U.S. housing prices had peaked from a decades-long run-up and had been declining for several quarters. Subprime mortgages were experiencing significant increases in defaults and foreclosures. As a result, nonconforming mortgage origination and private-label securitization evaporated, resulting in the GSEs purchasing an increased percentage of new mortgages. By 2007, the GSEs' new business volume as a percentage of new loans reached nearly 73%, almost double the approximately 37% it had been only a year earlier. (FCIC 2010). Due to these developments, the role of the GSEs in maintaining the mortgage credit cycle was significant.

However, at the end of 2007, amid the correction in housing prices and the rise in defaults, Fannie and Freddie began to post billion-dollar losses. Concerns about their financial health worsened in March 2008, with the near demise of Bear Stearns, which resulted in part from mortgage-related matters. (FCIC 2010, FCIC 2011). Spreads on agency debt and agency MBS pledged in the repo market soared to unprecedented levels causing a severe tightening of credit for borrowers. (Fleming et al. 2010).

Given their size and importance in the secondary mortgage market and their broad participation in the global capital markets, the potential insolvencies of the GSEs threatened not only to destabilize the entire financial system but also risked disrupting the general economy, and the capital markets. The government intervened to stabilize the firms so that they could support the correcting housing market and avoid these further negative developments. (FCIC 2010, Jester et al. 2018, Paulson 2010).

3. What legal authority supported the government's intervention?

There were several legal bases for the government's rescue of the GSEs. A significant number of the authorities utilized were included in the Federal Housing Finance Regulatory Reform Act of 2008, which was enacted in July 2008 as part of the HERA (§§1101-1314) and amended the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (12 U.S.C. 4518). The law created the FHFA as the GSEs' new regulator with significantly increased authorities, including for example, the authority to adjust minimum and risk-based capital standards, use cease and desist authority, withhold executive compensation and remove company officers. The FHFA was also given the power to review and approve the GSEs' new products, which had previously been the authority of HUD. (12 U.S.C. 4501, Pub. L. 110-289, div. A, July 30, 2008, 122 Stat. 2659).

Based on the severity of the GSEs' undercapitalization, the FHFA had new authority to restrict their capital distributions, force them to change their leadership, or—in the most severe cases of undercapitalization—place them in a conservatorship or, in a change from previous law, even a receivership (12 U.S.C. 4501, Pub. L. 110-289). After enacting a conservatorship, the FHFA could stabilize Fannie Mae and Freddie Mac by any means necessary and could access funds from the Treasury if needed.

Prior to the passage of HERA, the Treasury had authority to provide funding up to $2.25 billion to each GSE. (FNMA Charter 2018, FHLMC Charter 2010). However, this authority was considered inadequate as the crisis and the financial condition of the firms worsened, given the size to which the firms' balance sheets had grown. The Treasury decided early on that it would seek additional authorities in greater amounts so as to have the means to stabilize the firms if needed. Section 1117 of the HERA, provided Treasury temporary authority "to purchase any obligations and other securities issued by the [GSEs] under any section of this Act, on such terms and conditions as the Secretary may determine and in such amounts as the Secretary may determine." Exercise of such authority, which expired on December 31, 2009, required determination by the Secretary that the intended actions were necessary to: (i) provide stability to the financial markets; (ii) prevent disruptions in the availability of mortgage finance; and (iii) protect the taxpayer (Ibid. §(a)(4)). This authority was relied upon for the SPSPA, the Treasury MBS Purchase Program, and the GSE Credit Facility.

The Federal Reserve relied on Section 13(13) of the Federal Reserve Act in July 2008 when it made the discount window available to the GSEs. Section 13(13), unlike Section 13(3), which the Fed invoked for many of its crisis-fighting programs, does not require a finding that an emergency exists:

> Subject to such limitations, restrictions and regulations as the Board of Governors of the Federal Reserve System may prescribe, any Federal reserve bank may make advances to any individual, partnership or corporation on the promissory notes of such individual, partnership or corporation secured by direct obligations of the United States or by any obligation which is a direct obligation of, or fully guaranteed as to principal and interest by, any agency of the United States.[27]

Under HERA, the FHFA Director was required to consult with the Fed before exercising some of its new powers, and specifically before deciding to place a GSE in

[27]See footnote 9.

conservatorship.[28] The Director was also required to share information relating to the GSEs' "capital, asset and liabilities, financial condition, and risk management practices", as well as other "information related to financial market stability." These provisions, as well as the lending authority under the Federal Reserve Act, provided the basis for the Fed's participation in the Summer Financial Review and concurrence with the conservatorships.

Pursuant to Section 12(k)(2) of the Securities Exchange Act of 1934, the SEC in appropriate circumstances may "issue summarily an order to alter, supplement, suspend, or impose requirements or restrictions with respect to matters or actions subject to regulation by the Commission."[29] In July 2008 the SEC exercised this authority to, in light of the "unusual and extraordinary circumstances," issue an order prohibiting naked short selling of the stock of specified financial institutions, including the GSEs. (See SEC Rel. No. 58166). It later prohibited all such short sales.

4. What was the government's initial strategy?

Once the government determined to intervene in the GSEs' situation, it had to decide the main purpose and strategy of its intervention. With limited tools available prior to the passage of the HERA (See KDD 3 below), the government's initial strategy was to provide reassurance to the market by providing a liquidity backstop, monitoring and evaluating their financial position, and seeking regulatory reform that would provide the tools necessary for a more long-term solution.[30] (Paulson 2010, Jester et al. 2018).

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[28] Section 1118 provides in part:

"(A)…The Director also shall consult with the Chairman regarding any decision to place a regulated entity into conservatorship or receivership.

(B) To facilitate the consultative process, the Director shall share information with the Board of Governors of the Federal Reserve System on a regular, periodic basis as determined by the Director and the Board regarding the capital, asset and liabilities, financial condition, and risk management practices of the regulated entities as well as any information related to financial market stability."

[29] Section 12(k)(2) (A) provides: "The Commission, in an emergency, may by order summarily take such action to alter, supplement, suspend, or impose requirements or restrictions with respect to any matter or action subject to regulation by the Commission or a self-regulatory organization under this title, as the Commission determines is necessary in the public interest and for the protection of investors-

(i) to maintain or restore fair and orderly securities markets (other than markets in exempted securities); or

(ii) to ensure prompt, accurate, and safe clearance and settlement of transactions in securities (other than exempted securities)."

[30] In this paper, early actions toward the GSEs are considered to be those occurring in July and August 2008, prior to when the firms were placed into conservatorship. We consider these actions to be the first major and concerted steps taken to respond specifically to the threat of a GSE default or insolvency. Given their centrality to the mortgage market, the GSEs had been a primary focus of policymakers for quite some time, and had been the subject of a number of measures (e.g. requirements to raise capital and advisements to curtail dividends). Earlier actions like these, however, seem to have had the primary aims of (i) supporting the mortgage market and (ii) bracing the firms for an extended and serious downturn. In short, these actions

5. What tools did the government have available?

Prior to the passage of the HERA in July 2008, there existed a strong consensus among government officials that the tools available to the government to address the continued deterioration of the GSEs and prevent their collapse were insufficient to the task.

The OFHEO had the authority to put the firms into conservatorship, but without a viable funding option this was a nonstarter. The GSEs had standing lines of credit with the Treasury, but given their small size – only $2.25 billion per firm – the credit lines were unlikely to make a dent in their needs should the market refuse to lend to them. The Federal Reserve, however, could lend to the enterprises on a collateralized basis in its role as lender of last resort. The SEC also had the ability to prohibit naked short-selling of the enterprises' stock, which it did.

There was no authority for the government to invest in the firms. The government did have, however, its powers of moral suasion and regulatory initiative, which it would use to seek new authorities. By spring 2008, Secretary Paulson, Director Lockhart and Chairman Bernanke were designing a plan for comprehensive new legislation that, if adopted, would provide the additional tools needed to address the continued deterioration of the GSEs and prevent their collapse.

6. What additional tools did the government seek to acquire?

The plan for comprehensive new legislation that would provide the needed additional tools became the HERA, which was enacted on July 30, 2008. The HERA provided tools that filled the gaps identified by policymakers: (i) a stronger regulator to replace the OFHEO, which would have the authority to address weaknesses early, including capital requirements, and would exert control over the GSEs' housing mission (ii) authority for Treasury to fund and invest in the firms, which provided a means for a viable conservatorship, and (iii) a receivership option. (Weiss 2008). (See Figure 7 for a description of the authorities utilized by the government, including those authorized by HERA, See Thompson 2018 for further discussion of the HERA.)

The government's request for funding under HERA was carefully calibrated and took into consideration a number of factors including: market expectations for the GSEs' capital needs, information from the summer financial review, including estimates and knowledge about less-rigid accounting practices, and evidence regarding the likelihood of further losses. (Jester et al. 2018, Lockhart 2018). Even considering these factors, there was no way of knowing how much funding the firms would actually need or for how long. Asking for a specific amount of funding authority risked signaling that the size of the problem was known. Requesting an outsized amount compared to expectations could have spooked the market. Requesting too small an amount risked that it might not have been enough and could have falsely signaled that the problem was smaller than originally thought. (Jester et

reflected the government's hope of preventing a larger crisis—both in housing and at the GSEs—rather than a direct attempt to respond to one at both firms, as we see in July and August 2008.

al. 2018, Geithner and Metrick 2018). The government considered asking for a blank check (i.e., authority not constrained by the debt ceiling), but thought that Congress was unlikely to grant a totally unlimited authority. (Paulson 2010, Jester et al. 2018).

For these reasons, a compromise proposal was reached. (Paulson 2010, Jester et al. 2018). Section 1117 of the HERA authorized the Treasury to invest unlimited amounts in the securities and debt of the GSEs, if necessary, to maintain stability of the markets, but only through December 31, 2009, a date chosen to give the incoming administration some room to adjust before having to act further if needed. This design – authority unlimited as to amount but limited as to time – made the bill palatable to legislators. It also acknowledged that the true scope of what might be needed to stabilize the GSEs was unknown (Paulson 2010). Although no amount was stated, there was some indication of the magnitude possible through the HERA in that concurrent with its passage, the federal debt ceiling was expanded by $800 billion to accommodate any emergency financing (Ibid). Collectively, these actions sent a strong message to the market that the government now could, and was prepared to take extraordinary actions to shore up the GSEs rather than allow them to fail in a disorderly manner. (See also KDD 9B discussing similar issues in determining the amounts applied in the intervention.)

Although the government's role in supporting housing and the structure of Fannie and Freddie had been debated for years, HERA did not address the fundamental question of the "inherent conflict and flawed business model embedded in the GSE structure." Because of the urgency of the situation, policymakers decided that "meaningful GSE reform would have to wait." Trying to address such a lingering and contentious issue during a crisis might have resulted in no bill being passed. (Jester et al. 2018, Paulson 2010). Instead, the government fashioned a "time out" that would keep the firms operating but which avoided this larger question and its political pitfalls (Ibid.)

7. How did the government implement its initial strategy?

On July 13, 2008, the Fed announced that it would utilize its Section 13(13) authority to make its discount window immediately available to the firms, providing liquidity if needed. Further, the Fed, Treasury and OFHEO collectively announced a 3-part plan to pursue regulatory reform that would enable the government to address the enterprises in a more substantial manner. The plan sought to (i) increase the GSEs' existing credit lines, (ii) grant the Treasury the authority to invest in the equity of the companies, and (iii) provide a new regulator and give the Fed a consulting role in setting capital requirements and other prudential standards. (Treasury PR 7/13/2008). At the same time, the SEC announced a prohibition on short-selling of the GSEs' stock, which had been under pressure.

Because of their quasi-governmental status, the firms were not required to adhere to financial practices common to other public companies, such as filing quarterly and annual financial reports with the SEC. (See footnote 11). Thus, information regarding the GSEs' finances was limited and not directly available to the Treasury or the Fed – the agencies capable of providing provide any emergency assistance – but instead resided with the OFHEO, their regulator. In part to compensate for this lacking, the Federal Reserve and Treasury undertook the summer financial review discussed above beginning at page eight.

The review was considered to be much more rigorous than those conducted by the OFHEO. It applied stricter standards, incorporated input from other agencies, and used stress tests different from those used by the OFHEO to estimate the GSE's capital during potential market disturbances (Jester et al. 2018, Frame, Gerardi and Willen 2015).

8. How did the government decide on the specific terms of its initial intervention?

Government officials recognized that they did not have all the tools that they would likely need to stabilize the GSEs. However, the market was quickly losing faith in the firms' ability to weather the decline in housing without government assistance, and the possibility of a failed GSE auction had increased. Therefore, with the July 13, 2008 announcement, the government took actions to address the immediate needs of the GSEs and to provide reassurance to the markets using the limited tools available to it. (Jester et al. 2018).

In making its discount window available to the GSEs, the Fed provided the firms with a liquidity backstop should the funding markets retreat from them further. The Fed was strategic in deciding to utilize its FRA Section 13(13) authority instead of Section 13(3). (Alverez 2019). For one reason, it did not want to publicize the thought that Fannie and Freddie were in the same trouble as Bear Stearns. Such signaling would have been unavoidable had it utilized Section13(3) with its "unusual and exigent" requirement. Relying on Section 13(13) permitted the Fed to lend to the GSEs without making a specific finding because of the firms' large holdings of Treasuries and their own securities, which were eligible collateral under Section 13(13). The Fed hoped that its announcement would signal that the firms would not run out of money and that the part of the mortgage market that they were responsible for, a very large part at this point in July 2008, would continue to operate. (Ibid.).

In total, announcing the comprehensive plan for legislative reform signaled that the government was on the case, that it understood that the enterprises likely would need capital in addition to liquidity, and that overall, it was prepared to take significant action to stabilize the firms, subject to Congress giving it the tools. The plan was designed to (i) allow the GSEs to continue operating in support of the housing and mortgage markets, and (ii) assure that the firms had adequate capital to continue their business and reduce systemic risk. (Jester et al. 2018).

9. Did the government's strategy change over time?

Once the HERA passed, the government moved quickly to assess what additional steps it should take to stabilize the GSEs. Earlier efforts had focused on supporting market confidence in the firms (e.g. urging them to raise capital and providing a liquidity backstop) and assuring their continued support of the secondary mortgage market (e.g. increasing their portfolio limits) while officials attempted to secure additional remedial tools. The summer financial review, however, led officials to realize that the nature and extent of their problems were far greater than previously known; both firms were technically insolvent, or soon would be. This point marked a change in the overall strategy for addressing the two firms. Attention shifted from working to assess whether and how soon an intervention might be needed to determining how best to take the firms under immediate government control. A number of considerations informed talks during the ensuing few weeks, but above all, officials recognized the need to keep the firms solvent so that they could continue operating in the mortgage market and prevent a further escalation of the crisis. Thus, on September 7, 2008, the FHFA placed the two firms in conservatorship (Paulson 2010, Jester et al. 2018). For a detailed discussion of the conservatorship decision, see KDD 9A below.

While the conservatorships effectively guaranteed the GSEs' solvency, agency and debt MBS spread spreads remained high and the housing market continued to face severe stresses. In November 2008, the Federal Reserve announced the LSAP Program, which, by aiming to purchase up to $100 billion in GSE debt and $500 billion in GSE MBS, was specifically designed to drive down mortgage rates at a faster pace that was occurring. (Federal Reserve PR 11/25/2008). (See Thompson 2019F for detailed discussion of the LSAP Program.)

In late 2008 and early 2009, Treasury and FHFA unveiled initiatives to assist struggling homeowners, several of which involved the GSEs. The Home Affordable Refinance Program (HARP), for example, allowed GSE borrowers (individuals with mortgages owned or guaranteed by Fannie or Freddie) to refinance their mortgages and benefit from lower prevailing interest rates. Fannie and Freddie also let other homeowners refinanced through a "streamlined process." (FHFA 2009 Report to Congress).

While the government increased its funding limits under the SPSPAs over time and amended several other terms (see KDD 9B and Footnote 8), a change in strategy for the GSEs did not occur until 2012, at which point it was largely accepted that the firms had been stabilized and that the crisis was over. The Third Amendment that was adopted that year affected the controversial dividend sweep and was undertaken to reflect the Obama administration's "wind-down" view of the future of the firms. (Thompson and Wiggins 2019). Beginning in 2017, the strategic focus of the conservatorships was further adjusted to reflect the view of the Trump Administration.[31]

10. How did the government implement its amended strategy?

Once the HERA passed, within a short period, on September 7, 2008, the government placed both enterprises into conservatorships overseen by its new regulator the FHFA.

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[31] The Trump Administration has publicized its desire to end the conservatorships, but thus far, few concrete solutions have been proposed. (1) In December 2017, the Treasury and the FHFA agreed to a letter agreement with each GSE allowing them to hold $3 billion in capital, whereas previously they were permitted to hold none. The goal was to give Fannie and Freddie a small capital buffer capable of withstanding losses arising from normal market "fluctuations," and the measure was considered by some to be a sign of the administration's preference to return the firms to the market in some form. (FHFA 12/21/2017; Thompson 2019B). 2) Six months later, in June 2018, the administration published a brief proposal calling for an end to the conservatorship, and calling for a secondary mortgage market where Fannie and Freddie operated on a smaller scale and with an explicit, "fully paid-for," and "on-budget" partial government guarantee (White House Report, June 2018). (3) In December 2018, the administration nominated Mark Calabria to be the next FHFA director, who, along with other administration officials, increasingly called for the privatization of the two firms. (4) In March 2019, the administration doubled down on its commitment to end the conservatorships and promised to propose concrete steps to do so. (Guerin and Lane 2019).

The conservatorships replaced the boards and CEOs of the firms and effectively gave control over them to the FHFA. As conservator, the FHFA entered into a Senior Preferred Stock Purchase Agreement (SPSPA) with the Treasury on behalf of each firm providing that the Treasury would invest initially up to $100 billion into each firm as needed to insure its solvency.

In addition to the conservatorships and the SPSPAs, Treasury created the GSE Credit Facility, which was designed to provide collateralized short-term funding to the GSEs as needed. The facility was never used by either firm and expired on December 31, 2009. (See Vergara 2019 for more discussion of the GSE Credit Facility). The Treasury also announced the GSE MBS Purchase Program and began to purchase MBS in the open market that September, buying a combined $225 billion through December 31, 2009 when this authority expired. (See Zanger-Tishler and Wiggins 2019 for more discussion of the Treasury GSE MBS purchase plan.).

While the September actions to stabilize the GSEs guaranteed their solvency, they did not result in lower mortgage rates and the housing market continued in turmoil. These factors, along with a dramatic reduction of the federal funds rate to the zero bound by November 2008, led the Federal Reserve to announce the LSAP Program. (Thompson 2019). Under the LSAP Program, the Fed would purchase $172 billion in agency debt and $1.25 trillion in agency MBS through March 2010, which would moderate mortgage rates whereas prior GSE stabilization efforts had not.

11. How did the government determine the specifics of its amended intervention?

A. The Conservatorship Decision

Several options were considered by the government before it decided to take Fannie and Freddie into conservatorship. Consideration was given to (i) which mechanisms would best address the firms' liquidity problems and solvency issues, (ii) how a solution would impact shareholders, creditors and bondholders, (iii) how it might be perceived by the market, and (iv) what level of control the conservator would be able to establish over the firms. (Paulson 2010, Jester et al 2018). Also, of paramount importance, was whether the firms would be available to continue to pursue their mission of maintaining the mortgage market. (Jester et al. 2018, Paulson 2010). Fannie and Freddie's status as GSEs limited the available resolution options and imposed constraints on others. Below, we discuss options that were considered but not chosen by the government.

Direct Guarantee of GSE Debt and MBS

The GSEs benefitted from an implied guarantee from the government and there were early calls for the government to "harden the guarantee," to "make it explicit".32 One such call

[32] (Jester et al 2018, Boyd 2008). Guarantees of debt can be powerful tools in a crisis and many governments used them during the GFC. One of the benefits of a guarantee is that is permits broad assurance to be anchored by a much smaller amount of funding. For example, in September 2008, to stem a run on prime money market funds, the Treasury guaranteed approximately $3.2 trillion of money market fund accounts based on the Exchange Stabilization Fund, which at the time had a balance of approximately $50 billion in assets. (Treasury

came from William Dudley, Executive Vice President of the FRBNY. In March 2008, as Bear Stearns struggled and amid calls for the GSEs' capital surcharge to be lowered and for them to raise new capital, Dudley strongly suggested to Treasury Undersecretary Robert Steel that the government should "harden substantially" the implicit government guarantee of Fannie and Freddie. (Norton 03/16/2008, FCIC 2011). Steel was reluctant to do so. However, despite his reluctance, the Treasury developed stand-by wording that it could use to ask Congress to approve such a guarantee which could be "executed swiftly." (Norton 03/16/2008).

Steel's reluctance was in part based on the fact that the GSEs' had a combined $5.3 trillion in MBS guarantees and debt outstanding, which was equal to the amount of publicly held federal debt. (Norton 03/16/2008). Explicitly standing behind liabilities of such size was politically unpalatable while the country sunk into a crisis and the debate over the fate of the GSEs continued. (Jester et al. 2018, Paulson 2010).

Further, providing a guarantee would have required that a plethora of decisions be made regarding which creditors to protect, under what terms, and for how long. (Jester 2018 et al.). Moreover, depending on its terms, a guarantee might not have been effective at addressing all of the issues posed by the GSEs. For example, a guarantee of outstanding GSE debt and securities would not necessarily have ensured that investors would have continued to purchase new GSE debt unless such a guarantee was also extended to new issuances, which would have further increased the government's balance sheet. Although solving these problems may have been possible at the time, (similar issues were addressed only months later when the Treasury guaranteed money market mutual fund balances) for these and other reasons, policymakers chose a different route, developing a way to instead "effectively [emphasis added] [guarantee] their debt and mortgage-backed securities." (Frame et al. 2009). "The [SPSPAs] effectively made explicit the previously implicit government guarantee of the GSEs and provided the reassurance long-term investors needed." (Jester et al. 2018).

Merely guaranteeing the GSE debt and MBS also might not have provided the government the level of control over the entity that it would have needed to be able to utilize it to pursue the GSEs' mission – to maintain the flow of mortgages and to moderate rates. A guarantee, for example, would have left the company under the control of the existing board and management and preserved shareholder value.

"Unstructured" Nationalization

The definition of the term "nationalization" is fluid, unlike the definitions of "conservatorship" and "receivership." As used herein, nationalization refers to the

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PR 9/29/2008; COP Report 11/6/2009). Similarly, to address record high credit spreads, the FDIC guaranteed $345.8 billion in newly issued senior unsecured bank debt at the peak of the Debt Guarantee Program. Although the FDIC only collected $10.4 billion in fees and surcharges, it incurred only $153 million in losses on the debt guarantees. (FDIC website).

government gaining a controlling interest in a company such that it is empowered to make or influence critical decisions about how the company operates. It often involves a restructuring or resolution of the company. Nationalization can be accomplished in a variety of ways, but does not always denote a specific, prescribed administrative process, such as conservatorship or receivership (which are discussed later), or the FDIC bank resolution process, although such processes may be employed.[33]

The government could have nationalized the GSEs by making – via the Treasury – a substantial equity contribution, either by way of a memorandum of understanding (MOU) or stock purchase agreement that laid out the operative terms. This would have sent a clear message that the government was in control. However, operating the GSEs without the benefit of a known and predictable framework would have involved uncertainties and likely would have been messy. (Jester et al. 2018). Bankruptcy, for example, would not have been a viable solution, as the GSE charter prohibits its use. Moreover, various regulations and timelines regarding preservation of their charter would have needed to be followed (Treasury 2013). Given these restrictions, it is unclear if a bona fide unstructured nationalization would have been feasible.

The Bush Administration had mixed feelings about an intervention that might be seen as a nationalization. It was a tight rope to walk. Officials wanted to reassure the public that the government had the situation well in hand, while at the same time, they wanted to avoid taxpayers' fears of unlimited losses or accusations of government overreach. Some officials did not mind the connotation of the word. Dan Jester, an official in the Bush administration, wrote later that the Treasury team above all wanted to ensure that the government covered the GSEs' losses. But it was also "imperative to have the market believe this was a nationalization which put the government behind the GSE's while not shocking the political system and the public who would equate the size of the investment with losses and cost to the taxpayer" (Jester et al. 2018).

Indeed, to many observers, the GSEs were nationalized. The government took a 79.9% stake, management was replaced, and the conservator took substantial control over key management decisions. And to the extent there was a distinction at first, the government's decision in 2012 to have the GSEs pay all profits to the Treasury as dividends "effectively narrow[ed] the difference between conservatorship and nationalization," academics wrote later (Frame et al. 2015).

[33] The government's largest investment under TARP, the $185 billion invested to stabilize American International Group (AIG) was arguably a "nationalization". In exchange for its investments the government ended up controlling 79.9% of the firm's shares. It controlled AIG's Board and replaced its CEO, influenced its operations through a major restructuring before selling its shares and withdrawing from ownership of the much smaller, stabilized company. (SIGTARP 2012). Also, the government's assistance to General Motors has been called a "partial nationalization." The government lent the automaker its required funding when it could not raise needed amounts from the market, and in return, compelled the firm to make substantial operative changes and go through a Chapter 11 bankruptcy restructuring, and along the way converted its loans into a 50% equity stake.

Many viewed the initial announcement as a nationalization. “The new federal ‘conservatorship’ is a form of nationalization that puts regulators firmly in control,” the Wall Street Journal editorialized the next day, in supporting the government measure. (“Weekend at Henry's”). “We only wish Mr. Paulson had gone further and erased all private equity holders the way the feds do in a typical bank failure.”

As the market seems to have recognized, nationalization shares characteristics with other resolution processes, in that it involves impairment of shareholder interests and some degree of control over the company by the government. However, two significant differences are worth noting. First, in an unstructured nationalization, the Treasury itself would have been in control, rather than the FHFA as conservator. Second, the unstructured nationalization is unscripted and thus is subject to more uncertainty; the rules are not known ahead of time but are devised as the situation progresses. Thus, with more scripted processes available, such as conservatorship and receivership, the government opted for a more predictable process.

Naked Capital Injections

Chairman Bernanke and Director Lockhart had expected Treasury to make a capital investment after the passage of HERA; for example, the government could have purchased common stock. (Paulson 2010). Secretary Paulson, however, was adamant that the government would not invest in the firms without a plan in place to address their futures, and insisted on conservatorship after receivership was deemed not to be the best choice. (Paulson 2010, Jester et al. 2018).

Any capital injection would have needed to be substantial to have had the desired stabilizing effect. While making such an investment outside of conservatorship would not have limited the government’s ability to impose restrictions on the GSEs’ businesses, it would have left such questions to contract law and required the cooperation of the GSEs’ boards and management.[34] Even though it was overseen by the FHFA, not the Treasury, the conservatorship gave the government a defined (although untested) structure by which to control the companies, access their financial information, and appoint new boards and CEOs, all within the scope of HERA.

Receivership

Prior to passage of the HERA in July 2008, there was not a mechanism for the government to take the GSEs into receivership and wind them down. HERA permitted the GSEs’ new regulator, the FHFA, to place a GSE into receivership if certain conditions were met and included a claims procedure and other administrative guidelines, including provisions permitting the use of a “bad bank’. (Section 1367(a) (3). 12 U.S. Code 4617(a) (3)). Receivership was also required in certain circumstances — (i) if during the preceding 60

[34] The SPSPA placed several restrictions on the GSEs’ operations and gave Treasury the right to appoint directors in certain circumstances. However, it was the FHFA, as conservator, that ultimately did this and replaced management as well.

days the firm's assets have been less than its obligations, or (ii) it has not been paying its debts as they become due – two generally accepted definitions of insolvency.[35] Receivership under HERA closely mirrored the FDIC receivership process for failing banks, after which the GSE resolution framework had been modeled.[36]

Former Treasury Secretary Paulson originally favored receivership and persuaded Chairman Bernanke to side with his view. (Paulson 2010). However, after consultation with Director Lockhart and counsel it was decided that conservatorship would be best. Lockhart was concerned that the agency had not laid the groundwork necessary to justify a receivership, which required a higher threshold for action than conservatorship.[37] Meanwhile, conservatorship provided most of the benefits of nationalization while avoiding most of the uncertainties; like a nationalization, conservatorship was similarly a "takeover" of the organizations but posed fewer unknowns because it was conducted according to a prescribed set of rules. (Ibid, Jester et al. 2018).

Also, HERA's receivership authority was untested, and given that receivership is a wind-down process, which doesn't involve the injection of capital, there would have been a significant chance of losses for holders of debt and MBS. Such losses not only would have been likely to engender lawsuits, but also would have, in effect, breached the implied government guarantee, possibly causing a further disruption to the markets. (Jester et al. 2018)

Finally, given the tumultuous events in the market at the time, receivership might not have stabilized the GSEs, as resolving the companies via receivership did not guarantee their solvency and would have invoked untested timing issues due to the GSEs' special nature.[38]

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[35] In most cases under Section 1367(a) of HERA, appointment of a receiver is discretionary. (Sections 1367(a)(2)-(3)). However, appointment is mandatory if the FHFA determines in writing that "(i) the assets of the regulated entity are, and during the preceding 60 calendar days have been, less than the obligations of the regulated entity to its creditors and others; or "(ii) the regulated entity is not, and during the preceding 60 calendar days has not been, generally paying the debts of the regulated entity (other than debts that are the subject of a bona fide dispute) as such debts become due." (Section 1367(a)(4). 12 U.S. Code 4617(a) (4).)

[36] Perry (2017): The FDIC takes a bank into receivership, separates out the good assets from the bad, liquidates assets to pay creditors and then if possible sells the good parts to another bank. The FDIC is required to pursue the resolution option that it of least cost to the taxpayer", a provision not included in the HERA's regime for the GSEs.

[37] A finding of "critical undercapitalization" is a prerequisite to receivership and the FHFA had not moved to this point with either firm. See Thompson and Wiggins 2019 and Lockhart 2018 for further discussion of this point.

[38] Receivership is generally intended to liquidate, wind down or reorganize a firm (like Chapter 7 of the Bankruptcy Code), but only Congress can extinguish a GSE charter. Therefore, HERA requires that the FHFA create a new limited-life regulated entity ("LLRE") that would succeed to the congressional charter of the GSE in receivership. An IPO of the LLRE would have to be undertaken within two years after its organization, but such period could be extended for up to an additional 3 years. Therefore, once the GSE was put into a receivership, it would have to be wound up within 5 years. However, the very structure of the GSEs had been debated for years and Congress had yet to resolve the issue. A receivership would have begun with definitive

These issues could have conflicted with the government's need to utilize the GSEs to maintain support for the mortgage market, a situation that had no definitive timeline. Therefore, a conservatorship was chosen, which permitted the government to control the firms and avoided messy issues regarding their charters, allowing the firms to continue operating indefinitely. (See Ibid. for more discussion of the factors considered in rejecting receivership. See Thompson and Wiggins 2019 for an in-depth discussion of the conservatorships.)

B. Structuring the Treasury Funding

Providing Maximum Relief to Security and Bondholders

In designing how to fund the intervention, the Treasury specifically wanted to protect bondholders, many of whom were foreign and domestic financial institutions that had been encouraged by the U.S. government to buy GSE bonds and securities and/or who purchased such securities believing that they were supported by the "full faith and credit of the U.S. government." (Paulson 2010, Jester et al. 2018). The funding terms were designed to "provide comfort" to and minimize concern for these investors (Frame et al. 2015).

Under the terms of the SPSPA, the Treasury received Senior Preferred Stock in exchange for its funding commitment. The broad terms of the funding permitted the GSEs to draw amounts quarterly by showing only that they had run a loss for the quarter. They then could use the funds to offset any loss. The use of SPSPA funding was not limited to operating losses, they could also cover shortfalls on their bonds or debt.

Choosing senior preferred stock to be the vehicle for its investment had the effect of protecting all bondholders yet relegated the claims of preferred and common stockholders to last place, "effectively [wiping them] out. (Frame et al. 2015). (But see discussion at KDD 15.4). This decision achieved the paramount goal of providing maximum relief to senior debtholders. It also, however, generated criticism from preferred shareholders who believed that the government had arbitrarily narrowed the implied pre-crisis guarantee, and by contrast from others who believed that by failing to impose losses onto subordinated debtholders the government had extended its guarantee too broadly (Rice and Rose 2012; Ibid).

While some government officials later sympathized with preferred shareholders and their arguments, they ultimately concluded that ranking the government's investment senior to them was "essential to protecting taxpayers." (Jester et al. 2018). At the same time, former FHFA Director Lockhart has conceded that rescuing subordinated creditors resulted in a missed opportunity to enforce market discipline, yet underscores that this decision was made knowingly in order to avoid the far greater risk of a "cross-default" on senior debtholders, which could have undermined the entire intervention (Lockhart 2018).

timelines when there existed few definite answers to fundamental questions about the status and future of the GSEs.

There was initially some concern that choosing senior preferred stock might present a systemic risk due to the potential exposures of banks holding existing GSE preferred shares. Banking regulators were asked to assess these potential exposures and concluded that only a limited number of small institutions had holdings that were significant relative to their capital. A number of smaller banks, however, ultimately were significantly impacted; "fifteen failures and two distressed mergers of small banks either directly or indirectly resulted from the takeover." (Ibid; Rice and Rose 2012).

Increasing Market Confidence

In addition to the SPSPAs, which the GSEs could draw under quarterly, Treasury also created the GSE Credit Facility, which was designed to provide collateralized overnight funding to the GSEs as needed. Although the facility had no limit on its funding commitment, it expired on December 31, 2009, having gone unused. (See Vergara 2019 for more discussion of the GSE Credit Facility).

The Treasury also purchased new GSE MBS in the open market, buying a combined $225 billion through December 31, 2009, when its purchasing authority expired. The primary goal was to make a show of confidence and provide further support for the mortgage market more generally (i.e. to influence the availability of mortgage credit and drive down cost) (Treasury PR 9/7/2008). See Zanger-Tishler and Wiggins 2019 for more discussion of the Treasury GSE MBS purchase plan.

Continued Availability After December 31, 2009

The tools granted by HERA had limits that had to be adhered to. In particular, the law provided that Treasury's authority to lend or purchase securities ended on December 31, 2009 (Jester et al. 2018, 9). Yet, there was no way of knowing when the GSEs would be returned to stability with the ability to access the capital and funding markets. If funding had ended on December 31, 2009, and the firms were in an uncertain position, the rescue would have merely delayed the firms' difficulties, as market concerns would have likely resurfaced. To avoid this situation, the SPSPAs were specifically structured as "keep well" agreements to provide funding to the GSEs for as long as they needed, even past December 31, 2009, but without violating the terms set forth by HERA. (Jester et al. 2018). Under each SPSPA, the government's purchase of the preferred stock supported an ongoing commitment to provide additional funds (draws on the commitment) to the firms on a quarterly basis as requested in accordance with the terms of the agreement. Since the agreements had no stated termination dates, the firms had the ability to draw funds after December 31, 2009. (Ibid). Although this was an aggressive design (it could be argued that it circumvented Congress's intent), it received little criticism. (Ibid.).

Similar to the SPSPAs, the preferred stock did not have an expiration date. This was done so that parties would not have to worry about when the coverage ended. Given that the GSEs guarantee MBS with maturities up to 30 years, the regulators hoped to avoid a dumping of these securities as the "guarantee" was about to expire. (Jester et al. 2018). Presumably, how to end the support would be addressed when Congress ultimately decided the larger policy issue.

And the SPSPA had no expiration date given that it could not be anticipated how long the conservatorship would need to be maintained, or when the firms would regain access to the capital markets. Moreover, many of the outstanding securities and debt instruments were long-term instruments; not having an expiration date reaffirmed that the government was committing to the support the GSEs for what appeared to be a similar, although unspecified, extended period, and so the consequences of a looming expiration date were avoided. (Jester et al 2018).

Carefully Calibrated Funding Limit

In determining what size to make the commitments under the SPSPA the government wanted a number big enough to quash market concerns. (Ibid; Paulson 2010). Leaving the commitment amount unspecified (constrained only the $800 billion increase in the debt ceiling) was considered, but the Justice Department's Legal Counsel advised setting a cap. (Jester et al. 2018.) The initial commitment of $100 billion per firm was determined by reference to market expectations, the information from the summer financial review, and an intent to provide some coverage to the incoming administration. (Ibid). (Also see Figure 4).

Increases in the SPSPA authority were largely determined with reliance on similar criteria. Commitments under the SPSPA were extended twice. On May 6, 2009, in response to market changes, Treasury and the FHFA amended the SPSPA to raise Treasury's commitment from $100 billion to $200 billion per GSE. (Thompson 2019). As of December 31, 2009, the original date of termination of the Treasury's funding authority, the parties again amended the SPSPA, this time to provide for unlimited funding through 2012. (Ibid.) In both cases, the government wanted to send a message that it would continue to stand behind the firms as the mortgage market continued to recover. (Treasury PR 12/24/2009).

C. The LSAP Program Decision

The LSAP Program was deliberately designed to attack mortgage rates. In late 2008, the Federal Reserve was faced with credit, including mortgage lending, that remained unusually tight with high rates despite the government's efforts to stabilize the GSEs. Yet, its traditional monetary policy tool of lowering rates was unavailable to it as the federal funds rate was already at the zero bound. Therefore, it looked to nontraditional tools such as large-scale asset purchases. It deliberately decided to purchase GSE MBS rather than Treasuries because of the continued high spreads in mortgages and their fundamental role in the economy. (Thompson 2019).

12. How did the government protect the taxpayers?

The government required ownership in the GSEs in return for its investment. The preferred stock that the government purchased pursuant to the SPSPA paid a cash dividend of 10% and carried a penalty rate for late payment and customary fees. In 2012, the SPSPA was amended for a third time to provide that all profits of the entities be paid to Treasury. This Third Amendment has been very contested and is responsible for the overwhelming majority of dividend payments Treasury has received to date. In total, Treasury has received $175.8 billion in dividends from Fannie Mae and $116.6 billion from Freddie Mac, with $144.3 billion and $116.6 billon of these having been paid since the adoption of the Third Amendment.

Government officials were adamant that the government also receive equity interests in the firm so that taxpayers would participate in any upside potential that might result from the government's investment assistance. This was customary in private deals of a similar nature and was done in the form of a warrant to purchase 79.9% of each GSE's common stock. (Paulson 2010, Jester et al. 2018). The percentage of 79.9% was determined to avoid an accounting issue of having to consolidate the GSEs onto the government's books. (Jester et al. 2008). As of this writing, the government has not yet exercised this warrant.

The SPSPA also contained covenants that restricted the GSEs from making certain major decisions without the approval of the Treasury as long as the SPS was outstanding. These included issuing any stock, payment of dividends (except with respect to the SPS), sale or purchase of any major assets or divisions.

13. How did the government coordinate its actions?

During the crisis, it was important for government officials to utilize all available resources on an aggregate basis and to ensure that no potential tool was overlooked. Success depended on all hands being "on deck", and for parties to "think [outside] of the box." (Millstein 2018). Interagency efforts and consultations are found at every point of the GSE rescue. OFHEO and Treasury officials worked together with Fannie and Freddie executives early in the crisis, discussing potential ways to loosen requirements for the GSEs so that they could further support the mortgage market without compromising safety and soundness. (FCIC 2010). In July 2008, Federal Reserve and the SEC coordinated with the Treasury to signal to the markets that the government was "on the case," providing a funding facility and taking steps to relieve pressure on the GSEs' stock price. (Paulson 2010). Soon after, the Fed partnered with the OCC, FDIC, and the Treasury to conduct the summer financial review, utilizing the expertise of each agency and helping the government to home in on a strategy. (Jester et al. 2018).

The government also utilized its informal "convening authority." This informal authority of moral persuasion can take many forms and can be very powerful. (Geithner and Metrick 2018). Government authorities, for example, convinced the GSEs' boards and management to approve the conservatorships and to step aside peacefully, minimizing potential delay and legal challenge to the actions.

As shown in Appendix A (forthcoming), government agencies ultimately deployed a wide range of tools to stabilize the GSEs and the mortgage market while attempting to reassure investors. Tools utilized included, inter alia, restructuring (FHFA conservatorship), capital injections (Treasury SPSPAs), liquidity provision (Treasury GSE credit facility), and asset purchases (Treasury GSE MBS Program, Fed LSAP Program). Moreover, by committing to the solvency of the entities rather than only supporting their debt and securities, the government in effect "hardened the implied guarantee" with respect to all GSE operations and obligations. (Jester et al. 2018).

14. How did the government govern the rescue?

Prior to the conservatorships the focus on the GSEs was largely a cooperative effort between OFHEO, their regulator, and Treasury. Beginning in early 2007, OFHEO Chairman James Lockhart had significant contact with Bob Steel, of Treasury, when designing GSE regulatory reform legislation. (Steel 2007). Other government agencies were brought in at particular points, such as in July 2008, when a comprehensive plan involving the Fed and SEC was announced. (See KDD 12.)

Following institution of the conservatorships, the FHFA managed the firms in accordance with the regulatory guidelines and developed an internal infrastructure to assist with this. (See Thompson and Wiggins 2019A for a discussion). The agency also had to ensure that the firms conformed to certain requirements included in the Treasury's funding agreements, as discussed in detail in Thompson 2019B. Most significant of these was perhaps the controversial dividend sweep enacted in 2012 by the Third Amendment to the SPSPA. (Thompson 2019B).

How the GSEs were utilized in the broader crisis-fighting effort was mainly the purview of Treasury with Secretary Paulson as the main policymaker, and later Secretary Geithner. Treasury officials concurred with the FHFA's approach not to make significant operational changes upon institution of the conservatorships— "it would be premature to start making sweeping changes." (Jester et al. 2018). The primary objective pursued by the Treasury was to keep the GSEs operating to support the fragile mortgage credit market. However, from time to time, conflicts did occur between the Treasury's intent and the FHFA's interpretation of its mandate to "preserve and conserve the [Enterprises'] assets and property and to put the [Enterprises] in a sound and solvent condition." (FHFA Q&A 2008) (See KDD 12). On example is the differing positions regarding a principal reduction program proposed in 2012, which Treasury favored, but which the FHFA opposed. (See KDD 14.4). The strategic thrust of the conservatorships was also impacted by policy changes of different presidential administrations as time went on.

15. How did the government communicate the terms of the intervention?

Given the GSEs' central role in the mortgage market and the wide reach of their debt, financial markets were extremely sensitive to developments with the firms as the housing crisis wore on. As a result, it was often important for the government to clearly communicate a strategy for addressing the firms and to carefully present the terms of the interventions with respect to them.

July 2008: Early Actions Toward the GSEs

The importance of effective communication was especially evident in July 2008, when the GSEs came under tremendous pressure and the market began to more openly question their ability to survive the crisis. On July 13, in response to the GSEs' fast deterioration, several government entities (including Treasury, OFHEO, the Fed, and SEC) joined forces to announce a comprehensive plan to address the situation, stressing the firms' centrality to the U.S. housing market and affirming the need to keep them solvent and operating. A key component of this plan was to aggressively pursue new legislation to strengthen the GSEs' regulator and give Treasury the authority to rescue the firms (i.e. to purchase capital or debt securities from them), if necessary, resulting in the passage of the HERA on July 30, 2008. Lobbying Congress for new powers over the GSEs was a difficult task in its own right (several attempts at passing new GSE legislation had failed earlier that decade), but the challenge was compounded by the market's extreme sensitivity to their situation and the potential for new (and potentially negative) information to be revealed about them during congressional deliberations. On the one hand, in order to win emergency powers, government officials needed to convince Congress of the urgency and severity of the GSEs' situation. However, if government officials overstated the probability of a GSE failure, they risked damaging market confidence in the firms and triggering a run on them, with Treasury still lacking the power to arrest one. FHFA Director Lockhart compared the experience to "walking a tightrope:" officials needed to be firm on the need for additional powers but also had to ensure that their actions and statements did not needlessly spook investors. (Lockhart 2018). Testifying before Congress, Secretary Paulson positioned the measures as precautionary and downplayed the risk of a GSE failure, explaining how simply possessing vast emergency powers would reduce the likelihood of ever having to use them (Treasury PR 7/15/2008).

August 2008: Preparing for Intervention

Once the HERA passed and the summer financial review was completed, the government's strategy for the firms shifted from attempting to triage their condition to preparing for an immediate takeover. As the government changed its approach toward both firms, so too did it change the way it communicated its handling of the situation. Back in July, the government wanted to convince the market that it was up to the task of addressing the situation. As a result, it communicated its strategy (opening the discount window, conducting a financial review, and pursuing new legislation) and intent for the firms (to keep them alive and able to support the mortgage market) transparently. However, once the financial review revealed that a major intervention would soon be necessary, the government moved swiftly and discreetly to prepare to undertake one. For several weeks, government officials held internal discussions about how to intervene (e.g. conservatorship, receivership, or nationalization) and kept the conservatorship decision confidential as they scrambled to put together plans to implement it (Thompson and Wiggins 2019A). The secretive nature of this process allowed government officials to surprise the management and boards of both firms with takeover plans on September 6, 2008, resulting in the acquiescence of both GSEs that same day. Doing so likely helped to prevent "a protracted [legal] battle" and "a major market swing" that might have occurred had the media intensely covered the August deliberations and given the GSEs time to prepare for a takeover (Ibid).

September 2008: Announcing the Conservatorships and Associated Interventions

On September 7, 2008, Secretary Paulson and Director Lockhart announced a four-part rescue plan for Fannie and Freddie, consisting of the conservatorships, SPSPAs, GSE credit facility, and MBS Purchase Program. Treasury posted fact sheets for each of the plan's elements on its website, while FHFA published a detailed Q&A explaining how the conservatorships would function. As of this writing, FHFA still maintains an independent webpage discussing the history of the conservatorships and hosting key legal documents, speeches, fact sheets, and press releases related to the interventions.

Because Paulson and Lockhart led different government entities with unique roles in the GSE rescue and the broader crisis-fighting strategy, they touched upon different aspects and consequences of the intervention in their speeches announcing the measures. Lockhart gave a detailed defense of the decision to initiate the takeover and meticulously described the events leading up to the intervention, emphasizing the several warnings the FHFA had issued to both entities and outlining what the conservatorships would mean for their operations moving forward. Meanwhile, Paulson outlined Treasury's involvement in the measures and more generally attempted to restore confidence in the GSEs and calm financial markets in light of the unprecedented nature of the intervention. In particular, he sought to reassure the market that the dramatic measures did not portend a market meltdown, and that economic and financial fundamentals were no worse than what was already known: "nothing about our actions today in any way reflects a changed view of the housing correction or of the strength of other U.S. financial institutions" (Paulson Statement 9/7/2008). In addition, Paulson stressed how rescuing Fannie and Freddie was an essential step toward overcoming the housing correction. With their futures now secured, the GSEs could focus on their mission of maintaining liquidity and affordability in the mortgage market and help to drive the U.S. out of recession (Ibid).

During the Conservatorships

The FHFA took several steps to manage the conservatorships transparently. In so doing, it hoped to resolve many of the uncertainties surrounding this specific form of government control, and thus bolster public confidence in the two firms and accelerate the return of normal mortgage market conditions. (Thompson and Wiggins 2019A). Acting FHFA Director Edward Demarco, who succeeded Lockhart in 2009, supported transparency on the basis that Fannie and Freddie were entirely dependent on taxpayer funding. As such, taxpayers were entitled to know how the FHFA—in the role of conservator—was attempting to minimize losses suffered by the two firms and recoup the public's investment (Ibid).

During the conservatorships, the FHFA has published several different kinds of documents relating to the intervention, including (1) annual performance plans outlining its goals for Fannie and Freddie, (2) quarterly conservator's reports detailing the financial condition of both entities, and (3) annual scorecards summarizing its "duties and objectives" as conservator (Thompson and Wiggins 2019). The FHFA also releases annual examination results for the GSEs. (Ibid).

16. What was the government's exit strategy?

The GSE intervention purposefully did not include a definitive exit strategy. The conservatorships were enacted without a termination date, as were the primary funding arrangements under the SPSPA. (Jester, et. al. 2018). The intervention was designed to fight the crisis, not to achieve reform of the much criticized GSE structure. However, not including a definitive exit plan has resulted in an ongoing conservatorship 10 years later.

Despite this, Secretary Paulson and other former Treasury officials have defended their decisions regarding the lack of a definitive timeline for the conservatorship and intervention. (Paulson 2010; Jester et al 2018). These decisions were made in consideration of a number of factors. First, change to the GSEs' structure or mandate required Congressional action to amend its charter, action which still has not occurred after ten years. Second, it was not known how long the conservatorships would need to be in place, or how long it would be before the firms could access the capital markets. Not having an end date for the funding served to avoid market reactions at any such termination date and ensured stakeholders that the government would support the firms as long as needed. Moreover, because many of the GSEs' outstanding MBS and debt were long-term, it was seen by Treasury officials to be important to maintain consistent support for the operations and debtholders until action was taken to resolve the conservatorships. In the view of Treasury officials, the broader policy issues surrounding the future of the entities were ultimately up to Congress to decide. (Jester et al. 2018).

The unique structure of the GSEs with their underlying congressional charters made designing an exit strategy challenging. (See discussion at pages 2-3). Any end date would have triggered a certain timetable and in which a winding up would have had to occur. Moreover, since the congressional charter could not be transferred to any new entity, it would have to be transferred to a passive entity until Congress determined what to do with it. Treasury officials determined that these issues would add unnecessary uncertainty in the middle of a crisis and instead left it for Congress to decide the future of the entities. (Jester, et al. 2018). During the intervening 10 years, the presidential administration has changed (twice), and so has policy regarding the future of the firms. As of yet, neither the current administration nor Congress has articulated a clear strategy for moving forward.

17. Were there unique factors that influenced the government's actions?

Because of their special structure and status, GSEs have unique characteristics and expectations that may have significant impact on the decision to intervene when an entity is in distress. This status may also greatly impact the ability to intervene and how such is done because certain traditional tools may not be applicable.

1. GSEs are closely aligned with their governments.

Because GSEs are established by the government and instilled with certain special characteristics, they are from their origin more closely aligned and identified with the government than fully private corporations. A failure of a GSE, therefore, implicates the government, if only by association, and government actions relating to a GSE may reverberate in ways different from actions relating to a purely private company. Therefore, it is useful to examine these expectations and consider how actions taken, or inaction, might be perceived in light thereof.

The alignment of Fannie and Freddie with the government was particularly strong because of the implied government guarantee and other factors that created confusion and certain expectations by investors. (GAO 1996). The implied government guarantee was strong in the market and reinforced by the continued favorable treatment of GSE debt and securities under U.S. law, which often equated it with debt actually issued by the U.S. government, such as Treasury bills. (Ibid.) Moreover, for years, the government had reinforced these expectations in various ways, so much so that Stanton (2009) concluded that the government had an obligation to save the GSEs.

One example is that the government had encouraged many foreign sovereign wealth funds and central banks to buy agency debt and securities. And they had; by September 2008, they owned an aggregate $1 trillion in these securities. As a result, both Chairman Bernanke and Secretary Geithner reported that high-ranking counterparties from many countries had called them to request clarity and assurances that the government would stand behind the GSEs. (Paulson 2010, Bernanke 2009). Secretary Paulson and others felt that allowing international bondholders to suffer loses would undermine the creditworthiness of the U.S. government and could, by extension, trigger a run on the U.S. dollar (Paulson 2010, CBO 2010, Frame et al. 2015).

A similar situation existed with U.S. depository institutions and banks, which held another $1 trillion in agency debt and securities, more than 150% of the banks' Tier 1 capital and 11% of their total assets. The banks had been encouraged to buy these assets in part because of their favorable treatment under regulations.[39]

The prospect of any government action impairing the very securities that it had encouraged investors to buy would be a difficult situation under any circumstances. During the crisis, this prospect was considered particularly untenable: the expectations of government support were well-established, the investors were financial institutions at the core of the financial system, and the amounts they held were huge.[40] Yet, when making the announcement of the rescue plan on September 7, 2008, Secretary Paulson acknowledged that some domestic banks might experience losses in a magnitude that would reduce their regulatory capital below "well capitalized." The banks were encouraged to contact their primary federal regulator, which was "prepared to work with the affected institutions [sic] to develop capital restoration plans consistent with the capital regulations." (Treasury PR 9/7/2008).

2. GSEs are created to pursue public missions.

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[39] (Stanton 2009). See related discussion at page 23 Fannie and Freddie debt and securities enjoyed status almost equivalent to government debt, such as Treasuries. This made them eligible to satisfy bank capital requirements.

[40] As noted above, the funding arrangement shielded GSE bondholders but not holders of their preferred stock, forcing losses onto banks that had been encouraged to hold these securities and resulting in fifteen failures and two distressed mergers of them (Rice and Rose 2012). According to Rice and Rose, the decision to abandon preferred shareholders for the most part had been unexpected, as market participants had come to believe that the implied guarantee of the GSEs would cover not only their debt but also their preferred stock. Following the government takeover of Fannie and Freddie, the American Bankers Association (ABA) and Independent Community Bankers of America (ICBA) both pointed out the difficulties the arrangement presented for banks in possession of these securities, and the government adopted two measures intended to help them, including (1) easing tax rules for losses on these securities and (2) widening the availability of TARP funding for banks that were most affected (Ibid).

GSEs are established to carry out a public policy mission that the government has deemed important. Thus, when a GSE is in distress, consideration of the importance of the mission and how it is being impacted is required. The mission of Fannie and Freddie is "to provide stability, liquidity and affordability to the [U.S.] mortgage market." (FHFA Webpage). They do this by making a secondary mortgage market where they are a significant participant. During the GFC, this large and important sector of the economy not only was in distress, it was at the center of the crisis. An early consensus formed among policymakers and market participants that the GSEs were needed to stem the decline. (Paulson 2010; Geithner 2014). This was particularly true because of the size of the entities and the fact that private securitization had begun to evaporate, increasing the GSEs' importance.

How critical this aspect will be to the decisions of whether and how to intervene will depend on factors such as ─ How dominant the GSE is in its mission-related market, how its mission has been impacted by the factors stressing it, and how close the entity and its mission are to the epicenter of the crisis. In the case of the GSEs during the GFC, all of these factors were critical. However, these factors might have been perceived differently, and a different conclusion regarding intervention might have been reached, under different circumstances, such as: if the GSEs had played a much smaller role in the mortgage market, or if the crisis had been engendered by a correction to an industry less central to the economy or more divergent from the GSE's mission.

Even if a GSE has a mission of importance, other factors may complicate the decision to intervene and to what extent. Potential inquiries may include ─ Have there been developments that would permit the government to veer away from the mission or scale back its support of it in some way? Would other public or private entities be able to step in as substitute providers?[41] Would a limited response send an unintended policy message? How might a GSE's stakeholders react? Would assumptions be made about other areas of quasi-governmental activities? How disruptive or manageable would any such assumptions be? And would there be reasons why the timing of such changes would be particularly disruptive or potentially unacceptable? These kinds of inquiries may produce a range of possible interventions.

3. Participating government agencies had different mandates.

Despite the many examples of intergovernmental cooperation, it is important to note that conflict can arise when participating agencies are obliged to follow different mandates, as at times was the case during the conservatorships. Even after assuming the immense risk of funding the GSEs and guaranteeing their solvency, the Treasury exerted only limited control over them due to the way that responsibilities were divided under

[41] In addition to Fannie and Freddie, other government agencies and sponsored entities – including the FHLBs, Federal Housing Administration (FHA), Department of Veterans Affairs (VA), and Ginnie Mae – assumed far greater roles in the mortgage market as the housing correction ran its course. Their ability and capacity (or lack thereof) to compensate for the absence of the two GSEs presumably would have been discussed in response to this question.

conservatorship.[42] Control over the firms belonged to the FHFA, which in the role of conservator as designated by Congress, was charged with stabilizing them, continuing their operations, and ultimately returning them to "safety and soundness." This arrangement at times frustrated Treasury officials who viewed the department's enormous commitment to the firms as justification for wielding ultimate control over them, especially when the mission of the conservator came into conflict with broader efforts to stop the crisis. In 2012, for example, the Treasury requested that the GSEs further contribute to homeowner relief efforts by undertaking a principal reduction program similar to the Home Affordable Modification Program (HAMP); the FHFA, however, refused to allow them. (Geithner 2014; Lockhart 2018; Prior 2012).[43]

4. The GSEs' private shareholders remained in play.

The government chose an intervention – conservatorship – that gave it substantial control over the GSEs. This was important not only for purposes of using them to maintain their mission and to secure the taxpayers' investment, but also to send a clear message to the market that the government was in control. Although conservatorship did not provide total control as nationalization or receivership might have, as discussed above, the latter two options were not considered viable.

However, because the government received a warrant to purchase only 79.9% of the common stock of each GSE (which was done to avoid the consolidation of their liabilities onto the federal government's balance sheet), the shareholders' interests were not eliminated. Thus, the inherent conflict between the interests of private shareholders and the firms' public missions remained, and was now the responsibility of the FHFA to manage. As conservator, the FHFA was tasked with "maintaining normal business operations and restoring financial safety and soundness", which inevitably required making decisions that would favor some interests over others at times, as was the case before the conservatorships. For example, would the companies price mortgages low to support the market, or would they price them higher to replenish shareholder value? (Stanton 2009).

Inevitably, some of the firms' operating decisions under the conservatorships were later considered to have favored the entities' interests over their mission and to be inconsistent with the broader crisis-fighting policy goals pursued by the government at the time (i.e. to keep mortgages low-cost and available). Their failure to cooperate to the fullest with the government's broader crisis-fighting efforts has been heavily criticized by scholars[44] and

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[42] Secretary Geithner would later describe the situation thusly— "It was amazing how little actual authority we had over Fannie and Freddie, considering they were entirely dependent on Treasury's cash to stay alive." (Geithner 2018).

[43] In April 2016, the FHFA did unveil a principal reduction program. However, this occurred several years after the idea was initially floated (FHFA PR 4/14/2016).

[44] Frame et al. (2015) qualify their approval for the rescue by noting that the FHFA's focus on the financial health of the GSEs may have limited the overall mortgage supply and contributed to the market's slow recovery. They cite the FHFA's urging Fannie Mae and Freddie Mac to return defaulted mortgages to their

industry personnel[45] and has been directly attributed to the FHFA's strict focus as conservator on maintaining "business as usual" and returning the entities to their going-concern status.

In a future crisis, it might be useful to consider whether other decisions or preliminary discussions, for example, a clearer understanding between Treasury and the FHFA regarding the primacy of the crisis-fighting mission, might allow for a more coordinated and targeted strategy, at least in the near-term. And while a more targeted and coordinated strategy might engender criticism of the government, it might be a risk worth taking during a crisis.

5. GSEs can present heightened political challenges.

Like many GSEs, Fannie and Freddie were known to have strong political relationships. Congress remained responsible for elements of their organization (charter) and operations (housing guidelines) and they lobbied aggressively to maintain their advantages. (Frame et al. 2015). This being the case, actions taken to assist a GSE may be subject to greater review and input from Congress than actions involving a private company. The likelihood of this is amplified by their mission to promote important policy issues, about which Congress and special interest groups are likely to have strong opinions. Indeed, one of the first actions taken by the FHFA, as conservator, was to suspend lobbying by the GSEs.

IV. Evaluation

Frame et al. (2015) propose that an optimal intervention in the GSEs would have included the following elements:

1. Continue operations as going concern and core securitization and guarantee functions
2. Honor agency debt and MBS obligations (stand behind the guarantees)
3. The value of common and preferred equity would be wiped out reflecting their insolvent status
4. Manage the firms to provide flexibility for macroeconomic objectives, not just maximizing the value of their assets

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originators, which in turn lead originators to tighten underwriting standards. These actions helped reduce GSEs losses, but also shrank the supply of mortgage credit. "Because of tightened underwriting standards, the percentage of mortgages purchased by the GSEs with a Loan-to-Value ratio of 80% or less also increased from 76% to 89% from 2007 to 2009 (FHFA 2010 Congressional Report 6/13/2011). In addition, Sale (2009) found that the FHFA cut the GSEs' affordable housing goals to stabilize the market during the crisis.

[45] In contrast, the Mortgage Bankers Association (MBA), contended that the FHFA's stricter underwriting standards, particularly its decision to abolish preferential underwriting standards, made GSE more accessible for small lenders (MBA 2017).

5. Prompt long-term reform of GSE structure

The Federal Reserve authors conclude that the government's response successfully achieved objectives 1 through 3, had some success on number 4, and failed to achieve number 5. (Frame et al. 2015).

Given that Fannie and Freddie remained in operation, and that holders of their debt and MBS experienced no credit losses, the first two objectives appear to have been met. Former government officials have also attested that the intervention was instrumental to maintaining mortgage lending, minimizing systemic risks, and ultimately stabilizing the firms." (Geithner 2014; Jester et al. 2018; Paulson 2010).

However, it should be noted that the conservatorships were quite a challenge for the FHFA, which was creating itself as a new agency at the same time (Lockhart 2018). Moreover, the OIG found that the agency's oversight raised questions regarding sufficient manpower, effective control over the firms' operations, and conflicts with its regulatory role. (OIG 2015). As mentioned above, conflicts between the conservatorships and the Treasury's overall crisis-fighting plan have also been noted. (Geithner 2014). Additionally, recent OIG reports criticize the FHFA approval of executive compensation changes at the GSEs. (OIG 2019a, OIG 2019b).

With respect to number 3, the result is more tenuous than Frame's evaluation in 2015 would suggest. Although shareholders' equity interests were significantly diminished, they were not totally extinguished. After the firms returned to profitability in 2012, shareholders brought suit to protest the government's sweep of profits based on the Third Amendment. These disputes are still ongoing.

Frame et al. argue that the fourth objective was only partially achieved, largely because of the conflicts between the FHFA's responsibilities as conservator and certain of the government's crisis-fighting objectives, as discussed above. Theoretically, it is possible that an unstructured nationalization could have provided the government with more control because, unlike conservatorship it carried with it no set framework or specified objectives. However, one cannot be sure as nationalization also would have required creating an entirely new administrative structure during a still-escalating crisis. Perhaps as mentioned above greater congruity can be achieved by focused discussions and agreement between the parties on the primacy of fighting the crisis.

It should be noted, however, that ensuring funding for the GSEs and even purchasing their MBS on a relatively small scale through the GSE MBS Purchase Program did not succeed in moderating mortgage rates, which fell for a short time following the conservatorship announcement but rose again with the collapse of Lehman Brothers. It was only after the Fed introduced the LSAP Program in November 2008 that these rates began to stabilize.

Frame et al. conclude that the government failed on the fifth criterion set forth above — "Prompt long-term reform of GSE structure." The facts confirm their conclusion; ten years of conservatorship have not resulted in a restructuring of the GSEs. However, other government participants, such as Jester et al., do not see this as a failure. The GSEs' structural problems long pre-dated the crisis, yet no action had been taken to adequately address them. Faced with collapsing housing and mortgage markets, government officials strategically focused their efforts on stabilizing the firms and maintaining their vital role in the financial system, leaving the issue of how to affect long-term change of their troublesome structure for Congress, which chartered them. (Ibid, Treasury PR 9/7/2008). By 2009, the crisis had been diminished and the firms continued to operate in support of the mortgage market. When they returned to profitability in 2012, the main objective of containing their crisis had been achieved.

V. References

Alvarez, Scott, Emails to/from Rosalind Z. Wiggins dated June 10-13, 2019, unpublished.

Bernanke, Ben S. The Courage to Act: A Memoir of a Crisis and its Aftermath. WW Norton & Company, New York. 2015.

Berry, Kate. "GSE reform, CPFB underwriting rule are on collision course. American Banker. February 4, 2019. https://www.americanbanker.com/news/gse-reform-cfpb-underwriting-rule-are-on-collision-course

Board of Governors of the Federal Reserve System, Press Release: Board grants Federal Reserve Bank of New York the authority to lend to Fannie Mae and Freddie Mac should such lending prove necessary. July 13, 2008. https://www.federalreserve.gov/newsevents/pressreleases/other20080713a.htm

_________, Minutes. July 13, 2008. https://www.federalreserve.gov/newsevents/pressreleases/files/monetary20090311a1.pdf

_________, Minutes of the Federal Open Market Committee. September 16, 2008. https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20080916.pdf

_________, Press Release: Federal Reserve announces it will initiate a program to purchase the direct obligations of housing-related government-sponsored enterprises and mortgage-backed securities backed by Fannie Mae, Freddie Mac, and Ginnie Mae. November 25, 2008. https://www.federalreserve.gov/newsevents/pressreleases/monetary20081125b.htm

Boyd, Roddy. "The Midnight hour for Fannie and Freddie." CNN Money. July 11, 2008. https://money.cnn.com/2008/07/11/news/economy/fanniefreddie_bailout.fortune/index.htm?postversion=2008071120

Congressional Budget Office. "Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market. December 2010. https://www.cbo.gov/sites/default/files/111th-congress-2009-2010/reports/12-23-fanniefreddie.pdf

Congressional Oversight Panel, November Oversight Report. "Guarantees and Contingent Payments in TARP and Related Programs." November 6, 2009. https://fraser.stlouisfed.org/files/docs/historical/fct/cop_report_20091106.pdf

Executive Office of the President. "Statement of Administration Policy: H.R. 1427 – Federal Housing Finance Reform Act of 2007." May 16, 2007. https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/OMB/legislative/sap/110-1/hr1427sap-h.pdf

Federal Deposit Insurance Corporation, Website. https://www.fdic.gov/regulations/resources/tlgp/index.html

Federal Home Loan Mortgage Corporation Act, 12 U.S.C. §1451 *et seq.*, as amended through July 2010. http://www.freddiemac.com/governance/pdf/charter.pdf (FHLMC Charter 2010)

Federal Housing Finance Agency, Fact Sheet. "Questions and Answers on Conservatorship. September 7, 2008. https://www.treasury.gov/press-center/press-releases/Documents/fhfa_consrv_faq_090708hp1128.pdf

__________, Office of Inspector General. "FHFA's Conservatorships of Fannie Mae and Freddie Mac: A Long and Complicated Journey." White Paper: WPR-2015-002. March 25, 2015. (OIG 2015). https://www.fhfaoig.gov/Content/Files/WPR-2015-002_0.pdf

__________, "FHFA's Approval of Senior Executive Succession Planning at Fannie Mae Acted to Circumvent the Congressionally Mandated Cap on CEO Compensation." Evaluation Report: EVL-2019-001. March 26, 2019 (OIG 2019a). https://www.fhfaoig.gov/Content/Files/EVL-2019-001_0.pdf

__________, "FHFA's Approval of Senior Executive Succession Planning at Freddie Mac Acted to Circumvent the Congressionally Mandated Cap on CEO Compensation." Evaluation Report: EVL-2019-001. March 26, 2019 (OIG 2019b). https://www.fhfaoig.gov/Content/Files/EVL-2019-002.pdf

__________, Press Release: FHFA Releases 2008 Performance and Accountability Report. November 17, 2008. https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Releases-2008-Performance-and-Accountability-Report.aspx

__________, Press Release: FHFA Announces Principal Reduction Modification Program and Further Enhancements to NPL Sales Requirements. April 14, 2016. https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Announces-PRM-Program-and-Further-Enhancements-to-NPL-Sales-Reqts.aspx

__________, Report to Congress 2009. https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2009_AnnualReportToCongress_508.pdf

_________, Report to Congress 2010.
https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2010_AnnualReportToCongress_N508.pdf

_________. "Summary of the Housing and Economic Recovery Act of 2008."
https://web.archive.org/web/20170302201737/https://www.hud.gov/offices/cpd/about/conplan/foreclosure/pdf/housingeconrecovactsum.pdf

Federal National Mortgage Association Charter Act, 12 U.S.C. 1716 *et seq., as amended through May 24, 2018.* http://www.fanniemae.com/resources/file/aboutus/pdf/fm-amended-charter.pdf (FHMA Charter 2018).

Federal Reserve Act of 1913 §13(13); 12 USC 347c.

Financial Crisis Inquiry Commission, Preliminary Staff Report. "Governmental Rescues of "Too-Big-To-Fail" Financial Institutions." August 31, 2010.
https://fcic-static.law.stanford.edu/cdn_media/fcic-reports/2010-0831-Governmental-Rescues.pdf

_________, Final Report. 2011.
https://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_full.pdf

Frame, Scott W., Andreas Fuster, Joseph Tracy, James Vickery. "The Rescue of Fannie Mae and Freddie Mac." Federal Reserve Bank of New York Staff Reports. March 2015.
https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr719.pdf

_________, Kristopher Gerardi, and Paul S. Willen. "The Failure of Supervisory Stress Testing: Fannie Mae, Freddie Mac, and OFHEO." Federal Reserve Bank of Boston Working Paper, No. 15-4. March 2015.
https://www.bostonfed.org/publications/research-department-working-paper/2015/the-failure-of-supervisory-stress-testing-fannie-mae-freddie-mac-and-ofheo.aspx

Fleming, Michael J., Warren B. Hrung, and Franke M. Keane, "Repo Market Effects of the Term Securities Lending Facility, Federal Reserve Bank of New York Staff Reports, January 2010.
https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr426.pdf

Geithner, Timothy F., Stress Test: Reflections on Financial Crises. Crown, New York. 2015.

Geithner, Timothy and Andrew Metrick. "Ten Years after the Financial Crisis: A Conversation with Timothy Geithner." Yale Program on Financial Stability Working Paper, No. 2018-01.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3246017

Government Accountability Office. "FNMA and FHLMC: Benefits Derived from Federal Ties." March 25, 1996.
https://www.gao.gov/assets/90/85479.pdf

Guerin, Jessica and Ben Lane. "Trump officially calls for end to Fannie Mae, Freddie Mac conservatorship." HousingWire. March 27, 2019.
https://www.housingwire.com/articles/48584-trump-officially-calls-for-end-to-fannie-mae-freddie-mac-conservatorship

Horowitz, Carl. "Ruling in Perry Capital Appeal Shackles Fannie Mae/Freddie Mac Shareholders." National Legal and Policy Center. April 4, 2017. https://nlpc.org/2017/04/04/ruling-perry-capital-appeal-shackles-fannie-maefreddie-mac-shareholders/

Housing and Economic Recovery Act (HERA §1117), Public Law 110-289. July 30, 2008. https://www.fhfa.gov/Government/Documents/GPO_Authenticated%20HERA.pdf

Jester, Daniel, Comments at the "Responding to the Global Financial Crisis" conference, Hutchins Center at the Brookings Institute. September 13, 2018. https://www.brookings.edu/events/day-1-responding-to-the-global-financial-crisis/.

__________, Matthew Kabaker, Jeremiah Norton, and Lee Sachs. "Rescuing the Mortgage Giants." Preliminary Discussion Draft. September 11-12, 2018. https://som.yale.edu/sites/default/files/09%20GSEs%20II%209_10%20REV%20Prelim%20Disc%20Draft%202018.09.11%20%281%29.pdf

Jickling, Mark, "Government-Sponsored Enterprises (GSEs): Regulatory Reform Legislation in the 109th Congress," updated January 16, 2007. https://www.everycrsreport.com/files/20070116_RL32795_664677ceb6692d385159a713209737be8a465f89.pdf

__________. Fannie Mae and Freddie Mac in Conservatorship. Congressional Research Service. September 15, 2008. http://research.policyarchive.org/18785.pdf

King, Jr., Neil and Sharon Terlep. "GM Collapses into Government's Arms." Wall Street Journal. Updated June 2, 2009. https://www.wsj.com/articles/SB124385428627671889

Kosar, Kevin R. "Government-Sponsored Enterprises (GSEs): An Institutional Overview." Congressional Research Service. Updated April 23, 2007. https://fas.org/sgp/crs/misc/RS21663.pdf

Lockhart, James B., III, Testimony before the Senate Banking, Housing and Urban Affairs Committee. February 7, 2008. https://www.banking.senate.gov/imo/media/doc/LockhartPreparedTestimony2708.pdf

__________, Testimony before the Senate Banking, Housing and Urban Affairs Committee. September 23, 2008. https://www.banking.senate.gov/imo/media/doc/LOCKHARTStmt92308.pdf

__________, Interview with Yale Program on Financial Stability. 2018, unpublished.

Lucas, Deborah. "Measuring the Cost of Bailouts." Massachusetts Institute of Technology. http://gcfp.mit.edu/wp-content/uploads/2018/11/Lucas-Bailouts-Nov2018.pdf

Luhby, Tami. "U.S. plan to save Fannie and Freddie." CNN Money. Updated July 14, 2008. http://money.cnn.com/2008/07/13/news/economy/fannie_freddie_sunday/index.htm

Millstein, Jim. Interview with Yale Program on Financial Stability. 2018, unpublished.

Mortgage Bankers Association. "GSE Reform: Creating a Sustainable, More Vibrant Secondary Mortgage Market." 2017.
https://www.mba.org/Documents/Policy/17305_MBA_GSE_Reform_Paper.pdf

Mufson, Steven. "GM's New Escape Route: Partial Nationalization." Washington Post. April 28, 2009.
http://www.washingtonpost.com/wp-dyn/content/article/2009/04/27/AR2009042700872.html

Norton, Jeremiah email to Robert Steel, David Nason, Tony Ryan, and Neel Kashkari. Subject: "Re: GSEs," March 16, 2008. (Inclusive of Original Message).

Paulson, Henry M. On the Brink: Inside the Race to Stop the Collapse of the Global Financial System. Business Plus, New York. 2010.

Prior, Jon. "DeMarco denies 'ideological tilt' in principal reduction." HousingWire. May 1, 2012.
https://www.housingwire.com/articles/demarco-denies-ideological-tilt-principal-reduction

Reiss, David J. "The Federal Government's Implied Guarantee of Fannie Mae and Freddie Mac's Obligations: Uncle Sam Will Pick Up the Tab." Georgia Law Review, Vol. 42, p. 1019. 2008. Last revised September 12, 2011.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1010141

Rice, Tara and Jonathan Rose. "When Good Investments Go Bad: The Contraction in Community Bank Lending After the 2008 GSE Takeover." Board of Governors of the Federal Reserve System International Finance Discussion Papers, IFDP 1045. March 2012.
https://www.federalreserve.gov/pubs/ifdp/2012/1045/ifdp1045.pdf

Securities and Exchange Commission, Securities Exchange Act of 1934 Release No. 58166. July 15, 2008.
https://www.sec.gov/rules/other/2008/34-58166.pdf

Section 1367(a) (3). 12 U.S. Code 4617(a) (3).
https://www.govinfo.gov/content/pkg/USCODE-2011-title12/pdf/USCODE-2011-title12-chap46-subchapII-sec4617.pdf

Special Inspector General for the Troubled Asset Relief Program. "AIG Remains in TARP as TARP's Largest Investment." July 25, 2012.
https://www.sigtarp.gov/Audit%20Reports/AIG_Remains_in_TARP_Mini_Book.pdf

Stanton, Thomas H. "The Failure of Fannie Mae and Freddie Mac and the Future of Government Support for the Housing Finance System. Brooklyn Law School. March 27, 2009.
http://thomas-stanton.com/wp-content/uploads/2012/09/The-Failure-of-Fannie-Mae-and-Freddie-Mac.pdf

Steel, Robert K. "Testimony of Treasury Under Secretary Robert K. Steel Before the U.S. House Financial Services Committee on Government Sponsored Enterprise Reform." March 15, 2007. https://www.treasury.gov/press-center/press-releases/Pages/hp318.aspx

Thompson, Daniel. "The Rescue of Fannie Mae and Freddie Mac, Module B: The Senior Preferred Stock Purchase Agreements (SPSPA)." 2019.

Thompson, Daniel. "The Rescue of Fannie Mae and Freddie Mac, Module E: HERA." 2019.

Thompson, Daniel. "The Rescue of Fannie Mae and Freddie Mac, Module F: The Federal Reserve's Large Scale Asset Purchase (LSAP) Program." 2019.

Thompson, Daniel and Rosalind Wiggins. "The Rescue of Fannie Mae and Freddie Mac, Module A: The Conservatorships." 2019.

U.S. Department of the Treasury. "GM Timeline." December 9, 2013. https://www.treasury.gov/press-center/press-releases/Documents/GM%20Timeline.pdf

__________, Press Release: Paulson Announces GSE Initiatives. July 13, 2008. https://www.treasury.gov/press-center/press-releases/Pages/hp1079.aspx

__________, Press Release: Testimony by Secretary Henry M. Paulson, Jr. on GSE Initiatives before the Senate Banking Committee. July 15, 2008. https://www.treasury.gov/press-center/press-releases/Pages/hp1080.aspx

__________, Press Release: Statement by Secretary Henry M. Paulson, Jr. on Treasury and Federal Housing Finance Agency Action to Protect Financial Markets and Taxpayers. September 7, 2008. https://www.treasury.gov/press-center/press-releases/Pages/hp1129.aspx

__________, Press Release: Treasury Announces Temporary Guarantee Program for Money Market Funds. September 29, 2008. https://www.treasury.gov/press-center/press-releases/Pages/hp1161.aspx

__________, Press Release: Treasury Issues Update on Status of Support for Housing Programs. December 24, 2009. https://www.treasury.gov/press-center/press-releases/Pages/200912241534592 4543.aspx

__________, Press Release: Treasury Sells Final Shares of GM Common Stock. December 9, 2013. https://www.treasury.gov/press-center/press-releases/pages/jl2236.aspx

Vergara, Emily. "The Rescue of Fannie Mae and Freddie Mac, Module C: GSE Credit Facility." 2019.

"Weekend at Henry's." Wall Street Journal. September 8, 2008. https://www.wsj.com/articles/SB122083012951708369

Weiss, N. Eric. "Housing and Economic Recovery Act of 2008." Congressional Research Service. December 5, 2008. https://www.everycrsreport.com/files/20081205_RL34623_6d9c5bedb2a8b3803a554fd89a22947637acab27.pdf

Wingfield, Brian. "Rescuing Fannie and Freddie." Forbes. https://www.forbes.com/2008/07/13/fannie-freddie-rescue-biz-beltway-cx_bw_0713bizfannie.html#1412bc5f5da0

Zanger-Tishler, Michael and Rosalind Wiggins. "The Rescue of Fannie Mae and Freddie Mac D: Treasury's GSE MBS Purchase Program." 2019.