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The Rescue of Fannie Mae and Freddie Mac-Module B: Senior Preferred Stock Purchase Agreements[1]

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Yale Program on Financial Stability Case Study
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Abstract

On September 6, 2008, as part of a four-part government intervention, the Federal Housing Finance Agency (FHFA) took into conservatorship the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), two government-sponsored enterprises (GSEs) that dominated the US secondary mortgage market. Concurrently, the FHFA, as conservator, entered into Senior Preferred Stock Purchase Agreements (SPSPAs) with Treasury, under which Treasury committed to provide funding to ensure the GSEs' positive net worth. In return, Treasury received senior preferred stock and a warrant to purchase 79.9% of the GSEs' common stock. The SPSPAs have been amended three times, which has placed additional restrictions and obligations on the GSEs. This case finds that the agreements accomplished their emergency goal of maintaining a positive net worth for both GSEs. However, the third amendment's variable dividend formula, which was implemented in 2013, has been debated by academics and challenged by shareholders. As of this case's publication, the SPSPAs are still in effect, and Fannie Mae and Freddie Mac remain in conservatorship.

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[1] This case study is one of seven Yale Program on Financial Stability (YPFS) case studies that examine in detail the various elements of the government's rescue of the GSEs:

- "The Rescue of Fannie Mae and Freddie Mac – Module A: The Conservatorships" by Daniel Thompson and Rosalind Z. Wiggins.
- "The Rescue of Fannie Mae and Freddie Mac – Module B: The Senior Preferred Stock Purchase Agreements (SPSPAs)" by Daniel Thompson.
- "The Rescue of Fannie Mae and Freddie Mac – Module C: GSE Credit Facility" by Emily Vergara.
- "The Rescue of Fannie Mae and Freddie Mac – Module D: Treasury's GSE MBS Purchase Program" by Michael Zanger-Tishler and Rosalind Z. Wiggins.
- "The Rescue of Fannie Mae and Freddie Mac – Module E: The Housing and Economic Recovery Act of 2008" by Daniel Thompson.
- "The Rescue of Fannie Mae and Freddie Mac – Module F: The Federal Reserve's Large-Scale Asset Purchase (LSAP) Program" by Daniel Thompson and Adam Kulam.
- "The Rescue of Fannie Mae and Freddie Mac – Module Z: Overview" by Rosalind Z. Wiggins, Benjamin Henken, Adam Kulam, Daniel Thompson, and Andrew Metrick.

Cases are available from the *Journal of Financial Crises* at https://elischolar.library.yale.edu/journal-of-financial-crises/.

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Keywords: Fannie Mae, FHFA, Freddie Mac, GSEs, housing crisis, liquidity, secondary mortgage market, senior preferred stock purchase agreement, SPSPA, Treasury

Senior Preferred Stock Purchase Agreements (SPSPAs)

At a Glance

Summary of Key Terms	
Purpose: To maintain a positive net worth for the housing GSEs and to allow them to continue supporting the secondary mortgage market.	
Announcement Date	September 7, 2008
Operational Date	September 7, 2008
Expiration Date	Indefinite (Not announced)
Amendments	May 6, 2009 December 24, 2009 August 17, 2012
Legal Authority	HERA §1117
Funding Commitment	\$100 billion per GSE (subsequently raised to \$200 billion per GSE, and was effectively unlimited from 2010-2012)
Cumulative Draws	Fannie Mae- \$116.1 billion Freddie Mac-\$71.3 billion
Aggregate Dividends Paid (as of 3rd quarter 2017)	\$275.89 billion
Participants	US Department of the Treasury (as Financier) The Federal Housing Finance Agency (FHFA; as GSE conservator)

On July 30, 2008, the government passed the Housing and Economic Recovery Act, which, among other things, formed the Federal Housing Finance Agency (FHFA) as a new regulator for the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) and certain other government-sponsored enterprises (GSEs), enhanced supervision authority over the GSEs, and provided Treasury with emergency authority to invest in the GSEs if needed. In connection with taking the GSEs into conservatorships on September 7, 2008, the FHFA and Treasury announced the Senior Preferred Stock Purchase Agreements (SPSPAs). The FHFA entered into substantially the same agreement with the Treasury on each firm's behalf as conservator.

The primary purpose of the SPSPAs was to ensure that Fannie Mae and Freddie Mac maintained a positive net worth. Treasury at first committed under the SPSPAs to provide up to \$100 billion to each firm. This was later increased to up to \$200 billion per firm, then increased again in December 2009 to provide unlimited funding for 2010-2012 pursuant to a formula (Jester et al. 2018, 14-15). Beginning in 2013, the amount of available funding reverted to what was available at the end of 2012 (Jester et al. 2018, 14-15).

As conservator of the GSEs, the FHFA could request draws from Treasury under the SPSPAs to offset any losses in a quarter. The SPSPAs also established limits for the GSEs' debt and portfolios.

In return for its funding commitment, Treasury received \$1 billion in GSE (nonvoting) Variable Liquidation Preference Senior Preferred Stock (superior to all other stock) along with a warrant to purchase up to 79.9% of the GSEs' common stock. The SPSPAs obligated the respective GSE to pay a quarterly dividend equal to 10% (or 12% if delinquent) of the preferred stock's Liquidation Preference, and a Periodic Commitment Fee, but Treasury waived, and then suspended, this fee. Amounts drawn by a GSE were added to the

Liquidation Preference, as were any unpaid dividends and Periodic Commitment Fees that became due. In the event one of the GSEs were liquidated, Treasury would be entitled to receive the full amount of the Liquidation Preference.

The SPSPAs were amended three times from 2008 to 2012. The first (May 2009) and second (December 2009) amendments adjusted the GSEs' debt and portfolio limits. The third amendment (2012) changed dividend payments from a fixed rate to a variable net sweep of GSE profits. The third amendment also mandated that the GSEs decrease their capital reserves by $600 million each year, beginning at $3 billion in 2013, until they reached zero in 2018.

The GSEs returned to profitability in 2012. Between 2008 and 2012, they drew a combined $187 billion under the SPSPAs to maintain solvency (CBO 2016, 1). As of September 30, 2016, there remained a combined $259 billion of Treasury assistance authorized but not drawn available under the SPSPAs (CBO 2016, 1). The GSEs had paid to Treasury approximately a combined $250 billion in dividends through September 2016 (CBO 2016, 1). As of that date, the combined liquidation preferences for the SPS stood at approximately $190 billion (CBO 2016, 1). The warrant has not been exercised.

Summary Evaluation

The SPSPAs were essential to maintaining the GSEs' positive net worth throughout the crisis, and thus enabling the firms to continue to support the secondary mortgage market. This was a key factor in stabilizing the financial system, since by 2008, the private secondary market had all but collapsed (FCIC 2011). Despite this success, the variable dividend formula implemented by the third amendment has generated controversy and has led to shareholder lawsuits, but as of this case's writing, courts have upheld it.

Although several proposals on how to transition the GSEs from conservatorship have been floated, none have been successful (CBO 2016, 6-7). As of the date of publication, the firms remain in conservatorships, and the SPSPAs remain in effect. However, except for some limited summary information (see the discussion under "Outcomes"), this case focuses on the period from 2008 to 2013.

Senior Preferred Stock Purchase Agreement: United States Context	
GDP (SAAR, Nominal GDP in LCU converted to USD)	\$14,681.5 billion in 2007 \$14,559.5 billion in 2008 \$14,628.02 billion in 2009
GDP per capita (SAAR, Nominal GDP in LCU converted to USD)	\$47,976 in 2007 \$48,383 in 2008 \$47,100 in 2009
Sovereign credit rating (5-year senior debt)	As of Q4 2007/2008/2009: Fitch: AAA Moody's: Aaa S&P: AAA
Size of banking system	\$9,231.7 billion in total assets in 2007 \$9,938.3 billion in total assets in 2008 \$9,789.07 billion in total assets in 2009
Size of banking system as a percentage of GDP	62.9% in 2007 68.3% in 2008 66.9% in 2009
Size of banking system assets as a percentage of financial system assets	29.0% in 2007 30.5% in 2008 30.3% in 2009
5-bank concentration of banking system	43.9% of total banking assets in 2007 44.9% of total banking assets in 2008 44.3% of total banking assets in 2009
Foreign involvement in banking system	22% of total banking assets in 2007 18% of total banking assets in 2008 19% of total banking assets in 2009
Government ownership of banking system	0% of banks owned by the state in 2008 0% of banks owned by the state in 2009
Existence of deposit insurance	100% insurance on deposits up to \$100,000 in 2007 100% insurance on deposits up to \$250,000 in 2008 100% insurance on deposits up to \$250,000 in 2009
Sources: Bloomberg, World Bank Global Financial Development Database, Federal Deposit Insurance Corporation.	

I. Overview

Background

Through 2007 and 2008, as the housing market experienced an unprecedented correction, two government-sponsored enterprises (GSEs), the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), continued to buy and guarantee loans, which provided the secondary mortgage market with much-needed liquidity (FCIC 2011, 309-10). This was a critical role in stabilizing the market, since by 2008, the private secondary market had all but collapsed. By the fourth quarter of 2007, the GSEs had increased their share of purchases of mortgage originations to 75%, nearly twice their 2006 level (FCIC 2011, 312). For 2007, as mortgage defaults mounted and market prices of mortgage-linked securities fell, the GSEs reported annual net losses of $2.1 billion for Fannie Mae (first since 1985) and $3.1 billion for Freddie Mac (first ever) (OFHEO 2008, 10–11). The contracting mortgage market and the GSEs' recognized instability also made it difficult for the two companies to raise capital (FCIC 2011, 314–315).

By September 2008, when the government intervened, the two GSEs' outstanding guaranteed mortgage-backed securities (MBS) and debt totaled more than $5 trillion, and they had capital of only 2% (FCIC 2011, 312). Recognizing Fannie Mae's and Freddie Mac's importance to the contracted mortgage market, federal officials aimed to preserve GSE operations, particularly since many investors believed that the GSEs were backed by an implicit guarantee from the federal government (FCIC 2011, 316). Officials understood that the GSEs' insolvency would have geo-economic repercussions, since foreign institutions (mostly central banks) held $1 trillion in GSE debt and MBS (Paulson 2010).

Fannie Mae's and Freddie Mac's worsening health increased decades-old concerns that their regulators, the Office of Federal Housing Enterprise Oversight (OFHEO) and the Department of Housing and Urban Development (HUD), might not be able to properly stabilize the GSEs; the regulators had no authority to increase the firms' capital requirements (FCIC 2011, 309). Congress passed the Housing and Economic Recovery Act (HERA) on July 30, 2008, which created a new GSE regulator, the Federal Housing Finance Agency (FHFA), with enhanced supervisory authorities, and enabled it to take control of Fannie Mae and Freddie Mac, if necessary (HERA 2008). Section 1117 of the bill also gave Treasury emergency powers, expiring on December 31, 2009, to "purchase any obligations and other securities issued by [Fannie Mae and Freddie Mac]" (HERA 2008).

Program Description

On September 6, 2008, the FHFA took the GSEs under conservatorship as part of a four-part program designed to stabilize Fannie Mae and Freddie Mac.[4] The Senior Preferred Stock Purchase Agreements (SPSPAs) were entered into the next day. Although Fannie Mae and Freddie Mac each signed a separate agreement with Treasury (with the FHFA acting on behalf of the GSEs as conservator), the agreements were substantially the same, and so we discuss them as one herein. Figure 1 depicts the overall timeline of the SPSPAs.

Figure 1: SPSPAs Key Program Features Timeline

Date	Name	GSEs	Treasury[1]
09/07/2008, 09/26/2008	Warrant & Amended and Restated SPSPA	**Draws:** Quarterly draws count against commitment and increase Liquidation Preference of senior preferred stock **Dividends**: Pay 10% on senior preferred stock Liquidation Preference (quarterly) **Periodic Commitment Fee**: To begin March 31, 2011 (Amount never set) **Portfolio Limitation:** Capped at $850 billion, with 10% reductions annually (to begin 2010) **Debt Limitations**: 110% of GSE debt in June 30, 2008	**Stock Received:** 1 million shares of senior preferred stock (liquidation value of $1 billion) **Warrant Received:** Warrant to purchase 79.9% of Common Stock for a nominal price (original exercise price of $0.00001) **Commitment**: $100 billion
05/06/2009	First Amendment	**Portfolio Limitation**: Raised to $900 billion with 10% reductions annually (to begin 2010) **Debt Limitation:** 120% of current portfolio	**Commitment:** $200 billion
12/24/2009	Second Amendment	N/A	**Commitment:** Unlimited for 2010, 2011, 2012; return to $200 billion commitment in 2013
08/17/2012	Third Amendment	**Dividend**: Variable; all net income less capital reserves to Treasury **Periodic Commitment Fee:** Suspended **Portfolio**: 15% reductions annually (not below $250 billion) **Capital Reserves:** Capped at $3 billion (2013); decreased annually by $600M until reaching zero	

Note: If the above topics were not amended, assume that they remained unchanged.
[1] Terms are denoted per GSE.

[4] See Thompson and Wiggins (2021) for more discussion of the conservatorship. See also Vergara (2021) for discussion of the Credit Facility and Zanger-Tishler and Wiggins (2021) for discussion of the GSE Purchase Program, the other components of the rescue plan. Wiggins et al. (2021) discusses the overall intervention effort.

The SPSPAs were established pursuant to Treasury's authority under HERA. The agreement was structured as a sale from the GSE to the Treasury of certain Variable Liquidation Preference Senior Preferred Stock (SPS) and a warrant, with the SPS representing an in-kind payment of an Initial Commitment Fee for Treasury's commitment (the Commitment) to provide funds to the GSE from time to time in amounts needed to offset any losses that it incurred (Treasury/Fannie 2008). Treasury's original commitment was for up to $100 billion for each GSE (Treasury/Fannie 2008).

If the FHFA, as conservator, concluded that a GSE's net worth for any quarter was less than zero, it could request a draw under the SPSPAs equal to the GSE's net deficit (Treasury/Fannie 2008). Treasury would pay the amount requested within 60 days of such a request, provided that the amount requested and all previous draws did not equal or exceed the maximum amount that Treasury was then committed to provide (Maximum Amount). If the amount requested and previous draws exceeded the Maximum Amount, Treasury would provide such lesser amount that was available.

The FHFA was given three different timing windows to request a draw: (1) the FHFA could request a draw every quarter, (2) the FHFA could request an immediate draw if it decided to take the GSEs into receivership, and (3) the FHFA could request an immediate draw if it decided to liquidate the firms (Fannie 2008a). In the latter case, the FHFA would calculate the draw based on the GSEs' liquidation date balance sheet (Fannie 2008a). The draws allowed the GSEs to maintain a positive net worth every calendar quarter, allowing them to fulfill senior and subordinated debt obligations and to continue to guarantee their MBS throughout the crisis (FHFA 2010).

In exchange for its funding commitment, each GSE issued to Treasury (1) 1,000,000 shares of SPS with an initial Liquidation Preference[5] of $1,000 per share ($1 billion aggregate Liquidation Preference) and (2) a warrant to purchase common stock representing 79.9% of the common stock of the GSE on a fully diluted basis for $0.00001 per share. The GSEs also agreed to adhere to certain obligations and restrictions contained in the SPSA agreement (Treasury/Fannie 2008).

(1) Senior Preferred Stock. The SPS was senior to all other common and preferred stock, but junior to senior and subordinated debt (Frame et al. 2015). The SPS was perpetual and thus had no specified date of maturity (Jester et al. 2018). Per Treasury's initial purchase, the Liquidation Preference of the SPS was set to $1,000 per share (Fannie 2008a). As discussed herein and noted in Figure 2, three factors could increase the initial aggregate Liquidation Preference of $1 billion: (1) the amount of any draws paid by Treasury to the GSE, (2) accrued but unpaid dividends, and (3) any Periodic Commitment Fees that the GSE chose to pay by adding them to the Liquidation Preference (Treasury/Fannie 2008; Fannie 2008a). Draws from Treasury under the SPSPAs constituted the main source of increase of the Liquidation Preference over time.

[5] Terms used herein and not defined herein refer to the defined terms as used in the SPSPA.

The GSEs could pay down the Liquidation Preference but not below the initial value of $1,000 per share while the Commitment was in force (Fannie 2008a). Upon the voluntary or involuntary dissolution, liquidation, or winding up of a GSE, Treasury would be entitled to receive from the assets of the GSE available for distribution to stockholders, before any payment or distribution could be made on the common stock or any other class or series of stock of the GSE ranking junior to the SPS upon liquidation, the Liquidation Preference plus any dividends accrued pro rata for the current period (Fannie 2008a). Upon termination of the Commitment, the GSE could voluntarily pay down the Liquidation Preference in whole or in part (Fannie 2008a).

As of July 2017, Fannie Mae's Liquidation Preference was valued at $117.1 billion, and Freddie Mac's was valued at $72.3 billion (Fannie 2017; Freddie 2017).

Figure 2: Fees and Accumulations Under the SPSPAs (in billions of USD)

	Fannie Mae	Freddie Mac
Unpaid Dividends	0	0
Unpaid Periodic Commitment Fees	-	-
Cumulative Draws	$116.1[1]	$71.3[1]
Original Aggregate Liquidation Preference	$1	$1
Total Aggregate Liquidation Preference	$117.1	$72.3
	$189.4	

[1] *As of third quarter 2017.*
Sources: Fannie 2008a; Freddie 2017; Fannie 2017.

The SPS was to pay a quarterly dividend in arrears based on the dividend rate multiplied by the then Liquidation Preference. Treasury set the dividend rate at 10%, believing this fairly reflected market rates on comparable securities (Jester et al. 2018). If the GSE failed to pay a dividend on time, (1) the unpaid dividend would be added to and increase the Liquidation Preference, and (2) the dividend rate would rise to 12% and remain at that increased rate until the GSE paid all cumulative but unpaid dividends (including dividends added to the Liquidation Preference) (Fannie 2008a). With respect to dividends and distributions upon dissolution, liquidation, or winding up, the SPS ranked above the GSE's common stock, all other outstanding preferred stock, and all other capital stock to be issued.

The GSEs also were required to pay a Periodic Commitment Fee, accruing from January 1, 2010, and payable quarterly beginning March 31, 2010, to compensate Treasury for its ongoing commitment under the SPSPAs after December 31, 2009 (Treasury/Fannie 2008). The FHFA and Treasury—in consultation with the Fed—were to decide the amount of the Periodic Commitment Fee, which would be applicable for a five-year period (and reset every five years) (Treasury/Fannie 2008). Treasury could at its discretion waive the Periodic Commitment Fee at the beginning of the year based on adverse conditions in the mortgage market (Treasury/Fannie 2008). The GSE could at its discretion choose not to pay the

Periodic Commitment Fee in cash but have it added to the aggregate Liquidation Preference (Treasury/Fannie 2008). Treasury, however, waived the Commitment Fee for each quarter beginning in March 2010 until it suspended the fee in the third amendment. Since Treasury never collected a Commitment Fee, the dividend constituted the GSEs' sole cash transfer to Treasury. The quarterly dividend payments began to accrue on September 8, 2008, the day after the announcement of the SPSPAs (Fannie 2008a).

(2) The Warrants. In addition to the SPS, Treasury also immediately received from each firm a warrant to purchase up to 79.9% of the firms' common stock on a fully diluted basis. The warrant had a 20-year term with a nominal exercise price, initially $0.00001 per share (Fannie 2008b). As of this case's writing, Treasury has not exercised the warrant.

(3) Additional Guidelines and Restrictions. The SPSPAs required the GSEs and the FHFA to adhere to additional operational guidelines and restrictions, most importantly portfolio and debt limits. The SPSPAs set the GSE portfolio cap at $850 billion, which required a 10% annual reduction that began in 2010. However, the GSEs did not have to reduce their portfolio below $250 billion. The GSEs could not increase their debt levels to more than 110% of their debt on June 30, 2008, which was $859.9 billion for Fannie Mae and $956.5 billion for Freddie Mac (Fannie 2008c; Freddie 2009a).

Without Treasury's approval, the FHFA could not end the conservatorships, unless it moved the GSEs into receivership (Fannie 2008a). In addition to debt and portfolio limits, the SPSPAs required the GSEs to seek Treasury approval to: issue or purchase stock, pay any dividends (apart from those owed to Treasury), alter executive compensation, enter into new contracts, or consolidate or merge with another company. Without Treasury's approval, the GSEs could not sell, convey, or transfer any of its assets, except for dispositions for fair-market value:

- To a limited-life regulated entity;
- "In the ordinary course of business, consistent with past practice";
- During a liquidation of the GSE;
- Of cash (or equivalent) for cash (or equivalent); or
- To stay within the debt limit (Treasury/Fannie 2008).

The First Amendment. On May 6, 2009, in response to changes in the market, Treasury and the FHFA amended the SPSPA, raising Treasury's Commitment (and thus the Maximum Amount) from $100 billion to $200 billion per GSE (UST/Fannie 2009a). Treasury and the FHFA raised the GSEs' portfolio cap from $850 billion to $900 billion and derived the 10% reductions (to begin in 2010) from the $900 billion cap (for example, the cap would be $810 billion by end year 2010) (FHFA 2010). The amendment also raised the GSEs' debt ceiling to $1,080 billion in aggregate par value debt (FHFA 2010). The $1,080 debt cap was based on 120% of $900 billion, the GSEs' new portfolio cap. The debt cap decreased by 10% annually beginning in 2010, since its maximum value was calculated using 120% of the GSEs' portfolio cap (FHFA 2010).

The Second Amendment. The FHFA and Treasury amended the SPSPAs again on December 24, 2009, just as the Treasury GSE MBS Purchase Program and Treasury Credit Facility were expiring.[6] The December amendment increased Treasury's commitment to $200 billion plus any draws during 2010, 2011, and 2012, less any surplus amount that existed on December 31, 2012. In other words, Treasury would not count draws requested in 2010, 2011, and 2012 as part of its $200 billion commitment, effectively providing the GSEs with unlimited draws during these years (UST/Fannie 2009b).

The Third Amendment. The third amendment was entered into on August 17, 2012 (effective as of January 1, 2013). It increased the GSEs' portfolio cap reduction from 10% to 15% per year, but not below $250 billion (UST/Fannie 2012). The amendment also capped the GSEs' capital reserves at $3 billion (UST/Fannie 2013) and required reductions of $600 million annually until they reached zero by January 2018. At that point, the GSEs would depend on Treasury funds to cover their losses (UST/Fannie 2013). This reflected a "wind down" strategy favored by the Obama administration.

The third amendment also required Fannie Mae and Freddie Mac to submit an annual risk management plan to Treasury, including a detailed explanation of how each company planned to reduce its operations and curb taxpayer losses. The third amendment added a sixth exception to the GSE asset transfers (see previous page for the original five), allowing the GSEs to dispose of any assets that were valuated at $250 million or less without Treasury's approval (UST/Fannie 2013).

The third amendment also altered the SPSPA's dividend structure, replacing the 10% (or 12%, if delinquent) fixed dividend with a variable dividend (UST/Fannie 2012). This policy was enacted to protect the taxpayer and also to avoid the practice of the GSE borrowing from the SPSPAs to pay the dividend, which then increased the Liquidation Preference and future dividends (Thompson and Wiggins 2021). From January 1, 2013, until December 31, 2017, for any quarter, the variable dividend rate included the net worth amount from the previous quarter (if positive), less the maximum allowed capital reserve amount. Fannie Mae and Freddie Mac would not pay a dividend if their net worth fell below the capital threshold. From January 1, 2018, onward, the dividend would consist of the net worth amount, as the capital reserve amount would be zero (UST/Fannie 2012). In effect, the variable dividend rate and other terms adopted in the amendment limiting the firms' accumulation of capital reserves amounted to a quarterly net sweep of any GSE profits to Treasury.

December 2017 Letter Agreement. In December 2017, the Trump administration Treasury Department and the 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. Per the

[6] See Zanger-Tishler and Wiggins (2021) and Vergara (2021) for discussion of the Treasury GSE MBS Purchase Program and the Treasury Credit Facility, respectively, the additional components of the government's GSE intervention.

third amendment, the dividend payment would consist of any positive net worth less $3 billion, or the applicable capital reserve amount. It's not clear if this should be read as a definite shift from the prior administration's "wind down" strategy for the firms. The letter also mandated that $3 billion be added to the Liquidation Preference of the GSEs' SPS (UST/Fannie 2017). In addition, Treasury asserted that the $3 billion capital buffer depended on the GSEs' ability to continue paying dividends. According to a press release by Treasury, "any failure by Fannie Mae or Freddie Mac to declare and pay a full quarterly dividend will result in the automatic, immediate termination of its capital buffer" (UST/Fannie 2017).

Commenting on the letter agreement, the FHFA director argued that:

While it is apparent that a draw will be necessary for each Enterprise if tax legislation results in a reduction to the corporate tax rate, FHFA considers the $3 billion capital reserve sufficient to cover other fluctuations in income in the normal course of each Enterprise's business. We, therefore, contemplate that going forward Enterprise dividends will be declared and paid beyond the $3 billion capital reserve in the absence of exigent circumstances (Treasury 2017).

Termination of Commitment. Treasury and the FHFA could terminate the SPSPAs for three reasons. First, if the liquidation end date occurred and Treasury had supplied all the requested funds for the liquidation end date. Second, if the GSE repaid, defeased, or completed by another provision its mortgage guarantee obligations and debts. Third, if Treasury injected the full amount of its commitment into the GSEs (Treasury/Fannie 2008). The status of the FHFA's conservatorship would not affect the SPSPA, and the SPSPAs would continue even if the FHFA placed the GSEs into a receivership or "any other insolvency proceeding" (Treasury/Fannie 2008).

A GSE could pay down the Liquidation Preference in whole or in part, but only in cash. As shown in Figure 3, any such paydown would be first applied to offset any unpaid dividends, and then any unpaid Periodic Commitment Fees, that had been added to the Liquidation Preference. The GSE was required to pay down the Liquidation Preference (in the stated order) if it issued any shares of capital stock in exchange for cash while the SPS was outstanding. However, if the Commitment had not yet terminated, the Liquidation Preference could not be paid down below the initial $1 billion (Treasury/Fannie 2008). If the GSE paid down the Liquidation Preference to zero after termination of the Commitment, the SPS would be deemed to have been redeemed and no longer outstanding. As of this case's publication, however, the GSEs remain in conservatorship, the SPS remains outstanding, and the SPSPAs are still in effect.

Figure 3: Repayment Priority Following Termination of Treasury's Commitment

	Repayment Priority
Unpaid Dividends	1
Unpaid Periodic Commitment Fees	2
Cumulative Draws	3
Original Aggregate Liquidation Preference	4

Source: Fannie 2008a.

Outcomes

Following the conservatorship announcement on September 7, 2008, market demand for GSE debt seemed to increase (Federal Open Market Committee 2008). However, the GSEs' common stock fell to about $1 (from approximately $60 per share the previous year). Preferred shares did not fare much better (Frame et al. 2015). In addition to the issuance of senior preferred stock to Treasury, the FHFA's decision to freeze private equity likely contributed to the downturn in stock prices (FHFA 2017).

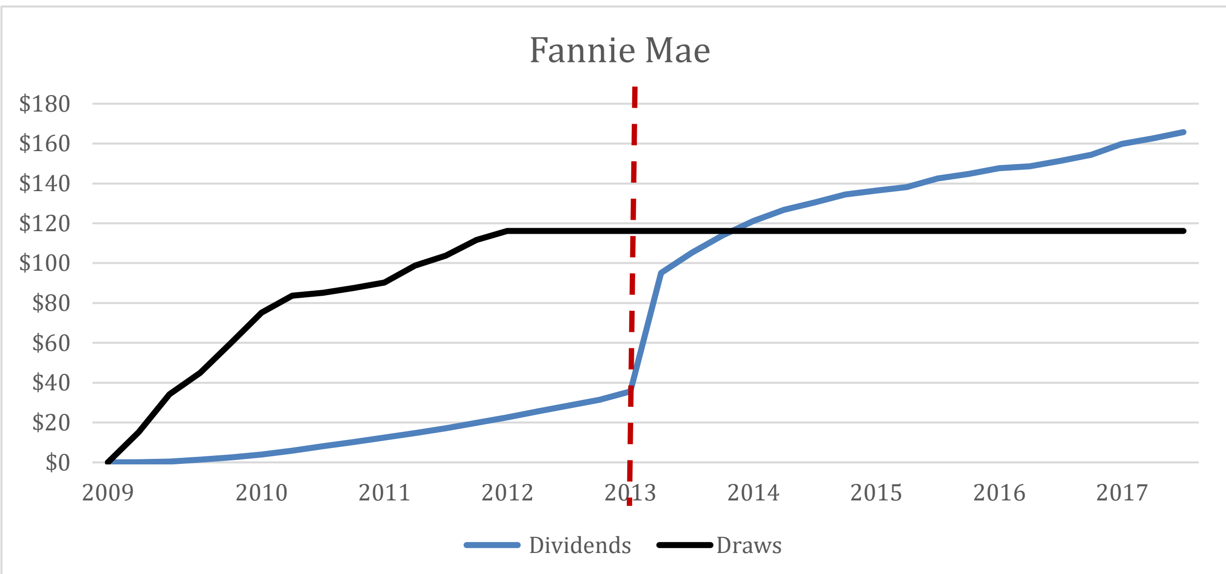
Mortgage yields also fell for a brief period. The Monday following the intervention (September 8), the rate on Fannie Mae's five-year debt and its mortgage-backed securities (MBS) dropped about 30 and 50 basis points, respectively (using five-year Treasury bond yields as the spread). More broadly, mortgage rates fell by 50 basis points. Following Lehman Brothers' collapse on September 15, however, mortgage rates rose and quickly exceeded levels that Fannie Mae and Freddie Mac had experienced prior to the conservatorship (Frame et al. 2015).

From 2008 through third quarter 2017, Fannie Mae drew an aggregate $116.15 billion under the SPSPA, while Freddie Mac drew an aggregate $71.34 billion, requesting only quarterly draws. The largest draws occurred during the first year of the conservatorship. Fannie Mae drew a peak sum of $19 billion in first quarter 2009, while Freddie Mac drew a peak sum of $30.8 billion in fourth quarter 2009. The GSEs have not requested a draw since first quarter 2012 (see Appendix A). After Treasury expanded its funding cap in December 2009, Fannie Mae had $124.8 billion and Freddie Mac had $149.3 billion in commitment available from Treasury, which amount remains available as of this case's publication (despite draws received in 2010-2012) because of the nature of the adjusted formula for accounting for draws adopted with the second amendment (Appendix A).

Treasury and the FHFA passed the third amendment under more stabilized conditions for the housing market and for the GSEs. In 2012, Fannie Mae and Freddie Mac posted annual profits (after paying dividends to Treasury) for the first time since 2007. When the GSEs became profitable in 2012, they reevaluated their deferred tax assets, which only increased profits further. Tax reevaluation enabled the GSEs to realize record-breaking profits in 2013, with Fannie Mae realizing $58.7 billion in the first quarter and Freddie Mac netting $30.4 billion in the third quarter (Frame et al. 2015).

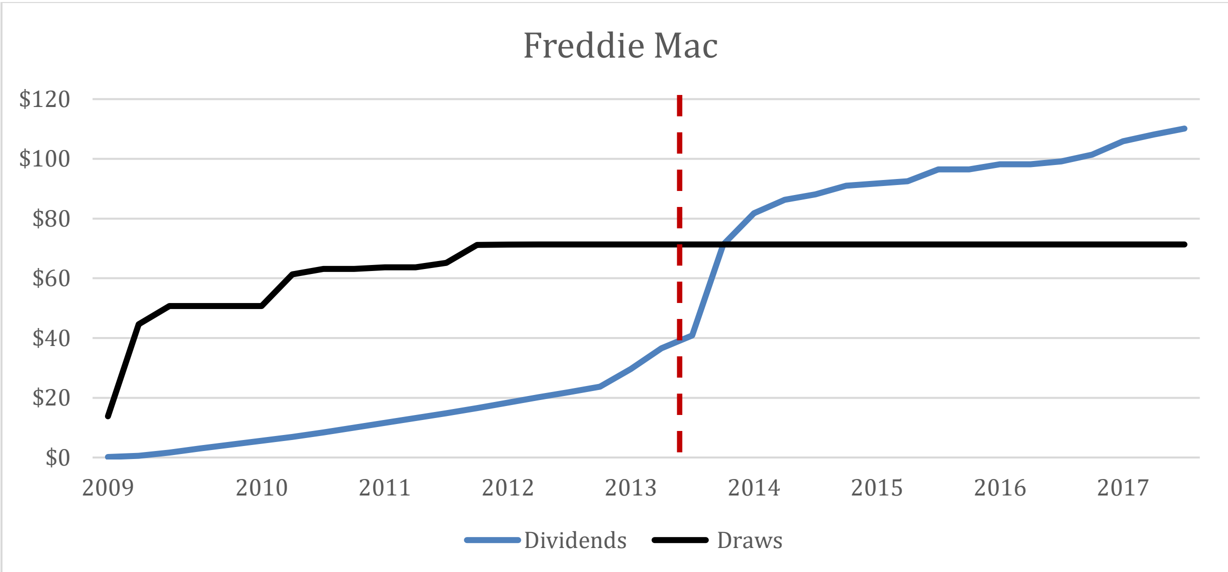
From 2008 to 2012, Fannie Mae and Freddie Mac paid an aggregate $23.75 and $31.43 billion in dividends, respectively, as shown in Figures 4 and 5. From first quarter 2013 to third quarter 2017, Fannie Mae and Freddie Mac paid $86.39 billion and $134.31 billion in dividends, respectively. Through third quarter 2017, Fannie Mae and Freddie Mac have paid an aggregate $276.8 billion to Treasury dividends and have received $187.5 billion in draws, which have increased the combined Liquidation Preference to $189.5 billion (Fannie 2017; Freddie 2017). As of July 2017, Fannie Mae's Liquidation Preference stood at $117.1 billion and Freddie Mac's Liquidation Preference stood at $71.3 billion.(Fannie 2017; Freddie 2017).

Figure 4: Fannie Mae Aggregate Dividends and Draws (in billions of USD)



Source: FHFA 2019

Figure 5: Freddie Mac Aggregate Dividends and Draws (in billions of USD)



Notes: Timeline: from September 2008 until September 2017. Red denotes enactment of new variable dividend formula.
Source: FHFA 2019

The GSEs never exceeded their established portfolio caps or debt ceilings. Fannie Mae's peak portfolio was $817.8 billion in June 2010 (Fannie 2010). Freddie Mac's peak portfolio was $867.1 billion in March 2009 (Freddie 2009b). Fannie Mae came closest to the debt ceiling in November 2008, with $885.6 billion (Fannie 2008c). Freddie Mac held a peak debt of $932.4 billion in March 2009 (Freddie 2009b). Per the third amendment, capital reserves were to be decreased by $600 billion pursuant to a schedule, and were anticipated to reach zero in January 2018 (FHFA OIG 2013).

In December 2017, the Trump administration Treasury Department and the 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's not clear if this should be read as a definite 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 (UST/Fannie 2017; Thompson 2021).

On September 30, 2019, the FHFA and Treasury announced that they had amended the SPSPAs to permit GSEs to retain additional earnings in excess of the $3 billion capital reserves permitted under the third amendment. The letter agreement would permit Fannie Mae and Freddie Mac to maintain capital reserves of $25 billion and $20 billion, respectively. To compensate Treasury for the dividends that it would have received absent these amendments, the liquidation preferences for the SPS will gradually increase by the amount of the additional capital reserves until the liquidation preferences increase by $22 billion for Fannie Mae and $17 billion for Freddie Mac (FHFA 2019).

On November 18, 2020, the FHFA announced a final rule setting forth new capital requirements for the GSEs (2020 Enterprise Capital Rule) and on January 2021, the Treasury and the FHFA announced that they had further amended the SPSPAs to allow the GSEs to continue to accumulate reserves until they had satisfied the requirements of the rule (FHFA 2020; FHFA 2021b). Based on their assets as of June 30, 2020, the firms would have been required to hold $283 billion in unadjusted total capital (Passy 2021).

Since the beginning of the conservatorship and the SPSPA, many individuals and entities, mainly shareholders, have sought damages from the FHFA. Several of these cases are still unresolved (see discussion at "Evaluation" and accompanying footnotes). The conservatorship and the SPSPAs are still in effect.

II. Key Design Decisions

1. The passage of the Housing and Economic Recovery Act (HERA) on July 30, 2008, provided the legal authority to establish the SPSPA.

The government passed HERA to enhance resolution and funding alternatives with respect to the GSEs in light of their severely weakened condition, their critical role in the stability of the mortgage and housing markets, and the stresses then impacting those markets. Prior to the passage of HERA, the OFHEO (the former GSE regulator) had no viable way to fund a conservatorship intervention, which rendered its conservatorship authority ineffective. HERA created a new regulator, the FHFA, and provided it with expanded authority over the GSEs. The new law also allowed Treasury to fund Fannie Mae and Freddie Mac for an emergency period (expiring December 31, 2009), thus ensuring their solvency. These emergency powers enabled Treasury to enter into the SPSPA, the MBS purchase program, and the credit facility. See Vergara (2021) and Zanger-Tishler and Wiggins (2021) for more information on the MBS purchase program and credit facility, respectively.

2. The SPSPAs constituted one part of a four-part rescue plan for Fannie Mae and Freddie Mac.

On September 7, 2008, the Treasury and FHFA announced a four-part intervention to stabilize the GSEs and maintain their solvency, consisting of (1) taking the firms into conservatorships, (2) entering into the SPSPA, (3) establishing the Credit Facility, and (4) launching the GSE MBS purchase program. Each component of the rescue plan was designed to address a particular set of constraints confronting the two GSEs. The SPSPAs were central to maintaining the solvency of the two firms, as it assured their positive net worth even with the likelihood of continued losses.

3. Treasury structured the SPSPAs as "keepwell" agreements, allowing them to continue to fund the GSEs after December 31, 2009.

As stated in HERA, Treasury's emergency powers included "purchas[ing] any obligations and other securities issued by [Fannie Mae and Freddie Mac]" (Housing and Economic Recovery

Act 2008). These powers were unlimited as to amount but expired on December 31, 2009. The government could have funded the GSEs through continued purchases of debt or securities, similar to Treasury's GSE MBS program, which purchased $225 billion of agency MBS ($220.8 billion face value) before expiring on December 31, 2009. (See Zanger-Tishler and Wiggins 2021). Yet no matter how large any such purchases might have been, they also would have had to cease as of December 31, 2009, leaving the GSEs with an uncertain future.

The government sought to avoid this result, but no one could predict just how long the conservatorships would last or how much funding would be needed. Therefore, the FHFA and Treasury aimed to structure a funding mechanism that complied with HERA's limitations and had maximum duration so that it would provide for the GSEs' funding needs after December 31, 2009, should the conservatorships last that long (Jester et al. 2018).

Designing the SPSPAs in the form of a "keep well"—an agreement typically entered into by a parent company wanting to guarantee the solvency of a subsidiary—allowed the FHFA and Treasury to fulfill these criteria. Instead of requiring continued purchases of any obligations or securities, the keep well agreement provided for a onetime sale of 1 million shares of SPS—with an initial Liquidation Preference of $1,000 per share—from each GSE to Treasury.[7] In return, Treasury agreed to fund the GSEs through draws, with each draw increasing the aggregate Liquidation Preference, which would have to be paid to Treasury under certain circumstances.

The variable Liquidation Preference of the SPS and its accompanying dividend formula were central to the SPSPA's funding mechanism. In return for this commitment (among other considerations), the GSEs paid Treasury a 10% dividend (12% if delinquent) based on the previous quarter's Liquidation Preference through 2012 (Fannie 2008a). Additional draws increased the Liquidation Preference, and the Treasury's investment in the GSEs' senior preferred stock. This avoided the need for additional purchases. By relying on an increasing Liquidity Preference, the SPSPAs facilitated continued funding of the GSEs and maintenance of their solvency even after December 31, 2009, without running afoul of HERA's limitations (Jester et al. 2018).

4. **The GSEs set the SPS senior to all other common and preferred stock, but junior to senior and subordinated debt.**

Despite the absence of an explicit government guarantee, GSE MBS and debt had historically been viewed as safe based on an implied guarantee, that is, the assumption that the US government would back these securities in the event of a crisis (FCIC 2011, 316). As a result, and because of the size and global presence of the GSEs, it was thought that the failure to honor these obligations, in particular senior debt, could undermine investor confidence and even trigger a global credit crisis (Jester et al. 2018).

Setting the SPS senior to all other stock but junior to all debt achieved the goal of protecting the GSEs' creditors. Frame et al., among others, however, have questioned the government's

[7] It is worth noting that during the crisis, the government often received preferred shares for its capital injections, for example, American International Group and the bank investments under TARP.

decision to protect not only senior debt but also subordinated debt. They suggest that haircutting these creditors, for example, might have promoted good market discipline, "signaling that [subordinated] debt is indeed risky" and "curbing moral hazard in similar institutions going forward" (Frame et al. 2015).

When asked about this in an interview with the Yale Program on Financial Stability, former OFHEO Director James Lockhart, III suggested that the government knowingly accepted the risk of perpetuating moral hazard in light of the far greater risks involved with wiping out these creditors (Lockhart 2018). Treasury and FHFA legal counsel were convinced that imposing losses on junior creditors, which would have been consistent with market discipline, might not be possible in isolation. More specifically, they advised that doing so might also trigger "a cross-default on senior debt and [potentially even GSE] mortgage-backed securities." Rescuing the GSEs on such terms would have risked triggering the exact kind of systemic crisis that the government intervened to prevent (Lockhart 2018).

Despite the perceived unfeasibility of imposing losses on creditors, the government saw the need to provide some level of protection for the taxpayers' investment. That being the case, the GSEs placed the SPS senior to all other common and preferred stock. Shareholders hotly contested this arrangement, as it caused them to lose almost all of the value of their investment. In anticipation of such losses, Treasury asked banking regulators to look into potential consequences for banks holding large quantities of preferred shares. Banking regulators conducted a review and concluded that no systemic consequences would arise from losses borne by these banks (Lockhart 2018). A number of smaller banks, however, were significantly affected, and 15 failures and two distressed mergers of small banks either directly or indirectly resulted from the takeover (Lockhart 2018; Rice and Rose 2016).

5. The SPSPAs carried a 10% dividend and a penalty if delinquent.

Jester et al., who took part in designing the SPSPA, say the dividend rate was chosen "based on a review of the market for similar securities" (Jester et al. 2018). If a GSE failed to pay a dividend on time, the rate reset to 12% until all overdue dividends were paid in full.

6. Treasury originally capped funding under the SPSPAs at $100 billion per GSE.

Given the absence of consensus on the GSE's funding needs, Treasury had asked for and received under HERA authority to fund the GSEs in an unlimited amount through December 31, 2009, subject only to the federal debt ceiling, which the law had raised by $800 billion to accommodate the rescue (HERA Section 3083, Jester et al. 2018, 4, 9). In designing the SPSPA, the Treasury sought to provide funding for each GSE that was large enough to "eliminate any reasonable concern." However, there was concern about setting the amount too high (doing so might signal that the problems were larger than they really were), and legal counsel advised against making an unlimited commitment (Jester et al. 2018, 9-10). Thus, officials settled on $100 billion per GSE, as this amount exceeded most market projections of their losses at the time (Jester et al. 2018, 9-10). Even if $100 billion per GSE proved to be inadequate, Treasury believed the incoming administration could amend the SPSPAs to raise the cap, if needed (Jester et al. 2018, 9-10).

7. **The SPSPAs capped the GSEs' portfolios at $850 billion (later increased to $900 billion) and then mandated gradual portfolio reduction.**

   Defaults on subprime and Alt-A mortgages in Fannie Mae's and Freddie Mac's mortgage portfolios had contributed to the GSEs' losses during the crisis (FCIC 2011). The SPSPAs initially limited the portfolio cap for each GSE to $850 billion, and later raised it $900 billion, because officials recognized that the GSEs needed to continue purchasing loans in order to keep the secondary mortgage market from collapsing (Treasury 2008b). Secretary of the Treasury Henry M. Paulson, Jr., argued that the portfolio cap would "promote stability in the secondary mortgage market and lower the cost of funding, [since] the GSEs will modestly increase their MBS portfolios through the end of 2009" (Treasury 2008b). After the GSEs had supported the market through the most severe period of the crisis, the SPSPAs were amended to require the GSEs to begin to wind down their portfolios to reduce systemic risk (Treasury 2008b). Paulson commented on this change—"In 2010 [GSE] portfolios will begin to be gradually reduced at the rate of 10 percent per year, largely through natural run off, eventually stabilizing at a lower, less risky size" (Treasury 2008b).

8. **The SPSPAs capped the GSEs' debt at 110% of their precrisis debt, then raised the debt limit to 120% of their portfolios, mandating a gradual reduction to begin in 2010.**

   Under the SPSPA, the GSEs could not increase their debt levels to more than 110% of their debt on June 30, 2008. The first amendment, passed on May 6, 2009, raised the debt limit to 120% of the portfolio cap. Operating in conjunction with a mandatory decrease of the portfolio, the debt cap decreased by 10% annually beginning in 2010 (UST/Fannie 2009a). The third amendment accelerated the decrease from 10% to 15% (UST/Fannie 2012).

   Treasury and the FHFA recognized that the GSEs required adequate leverage to purchase and hold mortgages in their portfolios. Since the GSEs were obligated to reduce their portfolios, the FHFA limited outstanding debt as a percentage of the GSE's portfolio.

9. **In addition to the caps on debt and portfolios, the SPSPAs required the GSEs to abide by certain covenants restricting their operations.**

   Without Treasury's approval, the GSEs and the FHFA, as conservator, could not:

   1) Pay dividends on any class of stock other than the Senior Preferred Stock,

   2) Issue common or preferred stock,

   3) Enter into a contract with any affiliate of Treasury,

   4) End the conservatorship, unless the FHFA moved the GSEs into receivership,

5) Sell, convey, or transfer any of its assets, unless the transaction constituted "the ordinary course of business,"

6) Merge with another entity,

7) Avoid compliance with SEC deadlines for 10-K, 8-K, and other reports, or

8) Enter into new executive compensation arrangements (UST/Fannie 2009a).

10. The SPSPAs included a Periodic Commitment Fee, but Treasury initially waived and then suspended it.

Under the SPSPA, the GSEs were required to pay a quarterly Periodic Commitment Fee, accruing from January 1, 2010, and payable quarterly beginning March 31, 2010, to compensate Treasury for its ongoing commitment (UST/Fannie 2009a). The FHFA and Treasury, in consultation with the Federal Reserve, were to decide the amount of the Periodic Commitment Fee, which would be applicable for a five-year period (and reset every five years) (UST/Fannie 2009a). Treasury could, in its discretion, waive the Periodic Commitment Fee in 2010 and at the beginning of each subsequent quarter based on adverse conditions in the mortgage market (UST/Fannie 2009a). The GSE could, at its discretion, choose not to pay the Periodic Commitment Fee but have it added to the aggregate Liquidation Preference (UST/Fannie 2009a). Since the GSEs continued to post losses into 2012, Treasury waived the commitment fee for each quarter beginning in March 2010 until it suspended the fee with the third amendment (UST/Fannie 2012).

11. The third amendment, which was entered into on August 17, 2012, switched dividend payments from a fixed rate to a variable rate.

The FHFA identified two factors in its decision to implement a variable dividend. For one, this approach, which provided the GSEs and Treasury with more flexibility, eliminated the need for the GSEs to borrow from Treasury to pay dividends, a practice that increased the Liquidation Preference, and by extension, future dividend payments under the SPSPAs (FHFA 2012). FHFA director Edward DeMarco argued that the new approach increased market confidence (FHFA 2012). Secondly, the FHFA asserted that Fannie Mae's and Freddie Mac's earnings would be "used to benefit taxpayers," as taxpayer money had sustained the GSEs (FHFA 2012).

This new formula was not without risk to Treasury; dividends became dependent on the GSEs being profitable. If the GSEs did not realize profits, they did not pay the dividend. This was the case for Freddie Mac in fourth quarter 2015 and second quarter 2016 (see Appendix B).

The variable dividend was also part of a larger initiative that aimed to build a new infrastructure for the secondary mortgage market in contemplation of a significant shrinking of the GSEs' operations and role. An additional significant factor was the required reduction of the GSEs' capital reserves (Thompson and Wiggins 2021).

12. While the third amendment required a reduction in the GSEs' capital reserves to zero, the December 2017 letter agreement raised the capital reserves to $3 billion for an indefinite period of time.

The third amendment also capped the GSEs capital reserves at $3 billion (beginning in 2013) and required reductions of $600 million annually until they reached zero in January 2018. At that point, the GSEs would depend solely on Treasury funds to cover any losses (UST/Fannie 2012). The reduction in GSE capital reserves in 2012 seemed to align with the Obama administration's interest in shrinking the GSEs' operations and their role in the secondary mortgage market but also might have complicated any plan to have them exit from conservatorship (Thompson and Wiggins 2021).

By 2017, the administration had changed, and the FHFA and GSEs sought amendments to the SPSPA. By letter agreement dated December 21, 2017, Treasury and the FHFA agreed to raise the maximum capital reserve amount from zero to $3 billion indefinitely, beginning in January 2018 (UST/Fannie 2017). The amendment was intended to permit the GSEs "to maintain a limited capital buffer in an amount that should be sufficient to cover income fluctuations in the normal course of business" (UST/Fannie 2017). It is unlikely that the change was instituted to help the GSEs prepare for exiting the conservatorship, since the letter agreement mandated that the GSEs also increase the Liquidation Preference of their respective SPS by $3 billion, which the firms have to pay down before exiting the SPSPAs (UST/Fannie 2017). Treasury also asserted that the GSEs could maintain a $3 billion capital buffer only for as long as they continued to pay dividends (UST/Fannie 2017). (Also see "Outcomes" for discussion of later amendments to the SPSPA.)

13. To protect the taxpayers' investment, Treasury received a warrant to purchase up to 79.9% of GSE stock at any point during the warrant's 20-year lifetime.

In addition to the purchase of SPS, Treasury also received under the SPSPAs (among other considerations) a warrant to purchase up to 79.9% of the common stock of each GSE for a nominal amount at any point during the warrant's 20-year term, offering taxpayers significant upside in the event the GSEs were restored to viability (Treasury 2008a).

A maximum of 79.9% of all shares was chosen in consideration of an accounting rule that would require the federal government to take the GSEs onto its balance sheet if it acquired a stake in them of 80% or more. Jester et al. (2018) have insisted that, absent this rule, the authors, who served as financial regulators and designed the SPSPAs during the crisis, would have sought to give taxpayers full ownership of the GSEs. The authors opted for warrants to purchase only 79.9% of all shares, however, because they believed that the risk of "adding trillions of GSE debt and guarantees to the federal balance sheet" far outweighed any potential benefit of owning an additional 20% of shares (Jester et al. 2018).

14. Treasury and the FHFA operated the SPSPAs with transparency to reassure GSE bondholders, the market, and American taxpayers.

The FHFA and Treasury circulated press releases and detailed reports as part of their transparency policies. Treasury and the FHFA announced amendments to the SPSA when agreed to even though they might take months to become effective, allowing the market to adjust to the announced changes before they were instituted. For example, most components of the third amendment—executed in August 2012—did not take effect until first quarter 2013. Treasury and the FHFA also made copies of each amendment easily accessible via their websites (FHFA 2021a).

Treasury and FHFA officials underscored the importance of protecting taxpayers in their reports and public statements. During Treasury's announcement of the GSE intervention, Treasury and Secretary Paulson stressed that protecting the taxpayer remained one of Treasury's chief priorities (Treasury 2008a; 2008b). In February 2010, Edward DeMarco, then acting director of the FHFA, wrote a letter to Congress acknowledging that taxpayer funds kept Fannie Mae and Freddie Mac operating (DeMarco 2010). DeMarco also pledged to outline how the FHFA had limited, and would limit, GSE losses (DeMarco 2010). DeMarco later argued that the third amendment was enacted mostly to protect taxpayers (FHFA 2012).

III. Evaluation

The SPSPAs were crucial to maintaining the GSEs' positive net worth throughout the crisis and while in conservatorship. The system of draws that Treasury and the FHFA created under the SPSPA, which could extend beyond December 31, 2009, guaranteed that the firms remained solvent. Despite this success, the variable dividend formula in the third amendment has generated controversy within the academic community, with shareholders, and in other corners.

Scholars are divided over the legality of the variable dividend formula in the third amendment. Solomon and Zaring (2015) argue that the new dividend formula, which redirected all net earnings to Treasury, violates aspects of corporate and administrative law. They claim that Treasury and the FHFA surmounted the normal administrative hurdles faced by shareholders when the government agencies instituted the variable dividend formula. They also assert that the government's decision to conduct a net sweep of profits constituted a violation of interest, as the FHFA and Treasury—the architects of the dividend formula—also oversaw the GSEs. These scholars question the extent to which government agencies can enact emergency measures that circumvent standard corporate and administrative legal proceedings (Solomon and Zaring 2015).

Frame et al. (2015) acknowledge that from 2008 through third quarter 2014, the GSEs have paid more to Treasury in dividends ($275.9 billion) than they have received in draws ($187.5 billion). Nonetheless, they contend that a comparison of nominal cash flows between the GSEs and Treasury does not mean that the GSEs have repaid Treasury, and by extension, the taxpayers. Instead, Frame et al. (2015) highlight that Treasury assumed a substantial risk with the intervention and is owed a risk premium. They note that Treasury's guarantee to maintain the GSEs' solvency lowered the GSEs' funding costs, thus increasing their profits. They also note that Treasury never collected a commitment fee, which would have reduced the GSEs' profits (Frame et al. 2015).

Wall (2014) makes a stronger case than Frame. Wall argues that Treasury, not the common stockholders, faced higher risks. Shareholders could lose only their investment, which was purchased on the secondary market. Treasury, on the other hand, could lose an unlimited amount.

The claim that the taxpayers and Treasury have been fully repaid for their support of Fannie Mae and Freddie Mac is based on an accounting calculation that does not withstand economic analysis. The claim that Treasury's commitment has been fully repaid attributes no dividend payments to Treasury starting in 2012, attributes no value to the government guarantee to absorb whatever losses arose in the preconservatorship book of business, and arguably reflects Treasury setting too low of a dividend rate on its senior preferred stock. Moreover, the profits that are being used to pay the dividends did not arise from the contributions of private shareholders but rather entirely reflect risks borne by the Treasury and taxpayers (Wall 2014).

The new dividend formula also engendered a substantial backlash from shareholders, resulting in several lawsuits. These lawsuits argue, among other things, that Treasury knew that the GSEs were going to become profitable around 2012 and changed the agreements to sweep profits (Light 2017).[8] Four US Courts of Appeals have dismissed shareholder suits on this issue, and on February 20, 2018, the US Supreme Court declined to review the case from the D.C Circuit.[9]

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[8] The lawsuits allege a number of claims, including, "among other things, that the net worth sweep constituted a taking without just compensation in violation of the Fifth Amendment of the US Constitution; exceeded the FHFA's statutory authority under HERA; was arbitrary and capricious in violation of the Administrative Procedure Act (APA); breached various provisions of the plaintiffs' stock certificate contracts; and constituted breaches of implied covenants of good faith and fair dealing under common law" (Carpenter 2018).
[9] The D.C. Circuit case was the original consolidated lawsuit. There have also been cases decided by the Sixth and Seventh Circuits. The Fifth Circuit case was decided in July 2018 after the Supreme Court declined to review the D.C. Circuit's decision. Shareholders have also attempted to have their issues addressed in any housing reform legislation that might be passed by Congress (Carpenter 2018).

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V. Key Program Documents

Summary of Program

Factsheet: Treasury Preferred Stock Purchase Agreement (Treasury 2008a) – *Explains the basic agreement, the amount of capital that Treasury could inject, and ways to alter the agreement.*
https://ypfs.som.yale.edu/library/fact-sheet-treasury-senior-preferred-stock-purchase-agreement.

FAQ: Treasury Preferred Stock Purchase Agreement – Explains the basic agreement, the reasons why Treasury pledged up to $100 billion, why Treasury received $1 billion in Senior Preferred Stock, and how the SPSPAs could continue after Treasury's emergency powers expired on December 31, 2009.
https://ypfs.som.yale.edu/node/3444.

Mortgage Market Note 10-1 (FHFA 2010) – *Outlines the four components of the GSE intervention and their functions.*

https://ypfs.som.yale.edu/library/fhfa-mortgage-market-note-10-1-us-treasury-support-fannie-mae-and-freddie-mac.

Implementation Documents

Amended and Restated Senior Preferred Stock Purchase Agreement: Fannie Mae (Treasury/Fannie 2008) – Outlines Treasury's $100 billion commitment to Fannie Mae. Also describes the warrant to purchase 79.9% of Fannie's stock and dividend payments. https://ypfs.som.yale.edu/library/document/amended-and-restated-senior-preferred-stock-purchase-agreement.

Amended and Restated Senior Preferred Stock Purchase Agreement: Freddie Mac – Outlines Treasury's $100 billion commitment to Freddie Mac. Also describes the warrant to purchase 79.9% of Fannie's stock and dividend payments.
https://ypfs.som.yale.edu/node/4427.

Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement: Fannie Mae (UST/Fannie 2009) – Raises the funding cap from $100 billion to $200 billion. Also raises Fannie Mae's portfolio cap from $850 billion to $900 billion and bases the 10% reductions on the $900 billion cap. Increases Fannie Mae's debt ceiling to $1,080 billion.
https://ypfs.som.yale.edu/library/document/first-amendment-amended-and-restated-senior-preferred-stock-purchase-agreement.

Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement: Freddie Mac (UST/Fannie 2009a) – Raises the funding cap from $100 billion to $200 billion. Also raises Freddie Mac's portfolio cap from $850 billion to $900 billion and bases the 10% reductions on the $900 billion cap. Increases Freddie Mac's debt ceiling to $1,080 billion.
https://ypfs.som.yale.edu/node/4426.

Fannie Mae Preferred Stock Certificate – Outlines basic tenets of the program, including dividend payment schedule, commitment fees, pay on Liquidation Preference, and the initial purchase of $1 billion in Senior Preferred Stock from Fannie Mae to Treasury.
https://ypfs.som.yale.edu/library/fannie-mae-preferred-stock-certificate.

Freddie Mac Preferred Stock Certificate – Outlines basic tenets of the program, including dividend payment schedule, commitment fees, pay on Liquidation Preference, and the initial purchase of $1 billion in Senior Preferred Stock from Freddie Mac to Treasury.
https://ypfs.som.yale.edu/node/4428.

Housing and Economic Recovery Act of 2008 (HERA §1117) – *Legally authorizes Treasury and the FHFA to establish the SPSPA.*
https://ypfs.som.yale.edu/library/housing-and-economic-recovery-act-2008.

Second Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement: Fannie (UST/Fannie 2009b) – Increases Treasury's funding cap to $200 billion less aggregate draws plus a new formula, which included all net worth deficits from 2010 through 2012 minus any surplus that would exist on December 31, 2012. Pushes

commitment fee start date back to January 1, 2011.
https://ypfs.som.yale.edu/library/second-amendment-amended-and-restated-senior-preferred-stock-purchase-agreement.

Second Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement: Freddie – Increases Treasury's funding cap to $200 billion less aggregate draws plus a new formula, which included all net worth deficits from 2010 through 2012 minus any surplus that would exist on December 31, 2012. Pushes commitment fee start date back to January 1, 2011.
https://ypfs.som.yale.edu/library/second-amendment-amended-and-restated-senior-preferred-stock-purchase-agreement-freddie.

Third Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement: Fannie (UST/Fannie 2012) – Amendment that authorizes Treasury to receive all future dividend payments from the GSEs; annually lowers the GSEs' capital reserves to zero.
https://ypfs.som.yale.edu/library/document/third-amendment-amended-and-restated-senior-preferred-stock-purchase-agreement.

Third Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement: Freddie – Amendment that authorizes Treasury to receive all future dividend payments from the GSEs; annually lowers the GSEs' capital reserves to zero.
https://ypfs.som.yale.edu/library/third-amendment-amended-and-restated-senior-preferred-stock-purchase-agreement-freddie-mac.

Legal/Regulatory Guidance

Opinion on Federal Obligation to SPSPAs – *Opinion finding that GSE debtholders can sue Treasury if Treasury fails to provide a requested draw.*
https://ypfs.som.yale.edu/library/opinion-federal-obligation-spspa.

Press Releases/Announcements

Changes to Fannie Mae and Freddie Mac Preferred Stock Purchase Agreements (FHFA 2012) – *Announces the third amendment and provides the rationale for the amendment.*
https://ypfs.som.yale.edu/library/changes-fannie-mae-and-freddie-mac-preferred-stock-purchase-agreements.

Meeting the Challenges of the Financial Crisis – *Lockhart's speech outlines what the FHFA, Treasury, and the Fed did in the first six months of conservatorship.*
https://ypfs.som.yale.edu/library/meeting-challenges-financial-crisis.

Statement by Secretary Henry M. Paulson, Jr., on Treasury and Federal Housing Finance Agency Action to Protect Financial Markets and Taxpayers – *Treasury press release that announces the four-part rescue plan for the GSEs, including the SPSPA.*
https://ypfs.som.yale.edu/library/statement-secretary-henry-m-paulson-jr-treasury-and-federal-housing-finance-agency-action-0.

Media Stories

The Fannie and Freddie Document Trove (Forbes 08/02/2017) – Pointed to newly released documents as proof that Treasury knew that GSEs were going to become profitable around 2012 and changed the agreement to sweep profits.
https://ypfs.som.yale.edu/library/fannie-freddie-document-treasure-trove.

Understanding the Fannie/Freddie Takeover (NPR 09/09/2008) – Generally outlines the media reaction and level of public understanding just after the government rescue (including the SPSPA) was enacted.
https://ypfs.som.yale.edu/node/4452.

US Foresaw Better Return in Seizing Fannie and Freddie Profits (NYT 07/23/2017) – Pointed to newly released documents as proof that Treasury knew that GSEs were going to become profitable around 2012 and changed the agreement to sweep profits.
https://ypfs.som.yale.edu/node/4451.

Key Academic Papers

After the Deal: Fannie, Freddie, and the Financial Crisis Aftermath (Davidoff Solomon and Zaring 2015) – *Explains the legal ramifications of the conservatorship, with particular emphasis on the third amendment*.
https://ypfs.som.yale.edu/node/3364.

The Rescue of Fannie Mae and Freddie Mac (Frame et al. 2015) – Comprehensive paper that addresses the causes of the conservatorship and evaluates the program's efficacy in the short run and the long run.
https://ypfs.som.yale.edu/node/3415.

Reports/Assessments

Analysis of the 2012 Amendments to the Senior Preferred Stock Purchase Agreements (FHFA OIG 2013) – *Evaluates the variable dividend payment and its potential implications for taxpayers, debtors, and the market.*
https://ypfs.som.yale.edu/node/3441.

GSEs and the Government's Role in Housing Finance: Issues for the 113th Congress – *Discusses various options of restructuring the government's intervention of the GSEs.*
https://ypfs.som.yale.edu/node/3422.

Housing Finance at a Glance: A Monthly Chartbook – *Includes annualized data on market indicators, GSE portfolio limits, mortgage originations, et cetera.*
https://ypfs.som.yale.edu/library/housing-finance-glance-monthly-chartbook.

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VI. Appendixes

Appendix A: Quarterly Draws on Treasury Commitments to Fannie Mae and Freddie Mac per the Senior Preferred Stock Purchase Agreement

Quarter	Freddie Mac				Fannie Mae			
	Reported GAAP Net Worth	Requested Draw	Draw Date	Cumulative Enterprise Draws[2]	Reported GAAP Net Worth	Requested Draw	Draw Date	Cumulative Enterprise Draws[2]
2008 Q3	-$13.700	$13.800	11/24/2008	$13.800	$9.400	$0.000	N/A	$0.000
2008 Q4	-30.600	30.800	3/31/2009	44.600	-15.200	15.200	3/31/2009	15.200
2009 Q1	-6.000	6.100	6/30/2009	50.700	-18.900	19.000	6/30/2009	34.200
2009 Q2	8.200	0.000	N/A	50.700	-10.600	10.700	9/30/2009	44.900
2009 Q3	10.400	0.000	N/A	50.700	-15.000	15.000	12/31/2009	59.900
2009 Q4	4.400	0.000	3/31/2010	50.700	-15.300	15.300	3/31/2010	75.200
2010 Q1	-10.500	10.600	6/30/2010	61.300	-8.400	8.400	6/30/2010	83.600
2010 Q2	-1.700	1.800	9/30/2010	63.100	-1.400	1.500	9/30/2010	85.100
2010 Q3	-0.100	0.100	12/31/2010	63.200	-2.400	2.500	12/31/2010	87.600
2010 Q4	-0.400	0.500	3/31/2011	63.700	-2.500	2.600	3/31/2011	90.200
2011 Q1	1.200	0.000	6/30/2011	63.700	-8.400	8.500	6/30/2011	98.700
2011 Q2	-1.478	1.479	9/30/2011	65.179	-5.087	5.087	9/30/2011	103.787
2011 Q3	-5.991	5.992	12/31/2011	71.171	-7.791	7.791	12/31/2011	111.578
2011 Q4	-0.146	0.146	3/31/2012	71.317	-4.571	4.571	3/31/2012	116.149
2012 Q1	-0.019	0.019	6/30/2012	71.336	0.268	0.000	N/A	116.149
2012 Q2	1.086	0.000	N/A	71.336	2.770	0.000	N/A	116.149
2012 Q3	4.906	0.000	N/A	71.336	2.411	0.000	N/A	116.149
2012 Q4	8.826	0.000	N/A	71.336	7.224	0.000	N/A	116.149
2017 Q2	2.586	0.000	N/A	71.336	3.717	0.000	N/A	116.149
Total Cumulative Draws by Both Enterprises				**$187.485**				

Notes:
1) Cumulative draws may not add up because of rounding.
2) Excludes the $1 billion Liquidation Preference from each GSE at the SPSPA's inception. The SPSPAs never recognized the initial $1 billion as a draw.
3) Red denotes peak draws.
Source: FHFA 2019.

Appendix B: Dividends on Senior Preferred Stock Received by Treasury (in billions of USD)

	Freddie Mac			Fannie Mae		
Quarter	Dividends Accrued	Date Paid	Cumulative Dividends Paid[2]	Dividends Accrued	Date Paid	Cumulative Dividends Paid[2]
2008 Q4	$0.167	12/31/2008	$0.173	$0.025	12/31/2008	$0.031
2009 Q1	0.370	3/31/2009	0.543	0.025	3/31/2009	0.056
2009 Q2	1.149	6/30/2009	1.692	0.409	6/30/2009	0.465
2009 Q3	1.294	9/30/2009	2.986	0.885	9/30/2009	1.350
2009 Q4	1.293	12/31/2009	4.278	1.150	12/31/2009	2.501
2010 Q1	1.293	3/31/2010	5.571	1.527	3/31/2010	4.028
2010 Q2	1.293	6/30/2010	6.863	1.909	6/30/2010	5.937
2010 Q3	1.560	9/30/2010	8.424	2.117	9/30/2010	8.055
2010 Q4	1.603	12/31/2010	10.027	2.153	12/31/2010	10.207
2011 Q1	1.605	3/31/2011	11.632	2.216	3/31/2011	12.424
2011 Q2	1.618	6/30/2011	13.249	2.281	6/30/2011	14.705
2011 Q3	1.618	9/30/2011	14.867	2.495	9/30/2011	17.199
2011 Q4	1.655	12/31/2011	16.522	2.621	12/31/2011	19.821
2012 Q1	1.808	3/31/2012	18.329	2.819	3/31/2012	22.639
2012 Q2	1.808	6/30/2012	20.137	2.931	6/30/2012	25.571
2012 Q3	1.808	9/28/2012	21.946	2.929	9/28/2012	28.499
2012 Q4	1.808	12/31/2012	23.754	2.929	12/31/2012	31.428
2013 Q1	5.826	3/29/2013	29.580	4.224	3/29/2013	35.652
2013 Q2	6.971	6/28/2013	36.552	59.368	6/28/2013	95.020
2013 Q3	4.357	9/30/2013	40.909	10.243	9/30/2013	105.263
2013 Q4	30.436	12/31/2013	71.345	8.617	12/31/2013	113.880
2014 Q1	10.435	3/31/2014	81.780	7.192	3/31/2014	121.072
2014 Q2	4.499	6/30/2014	86.279	5.692	6/30/2014	126.764
2014 Q3	1.890	9/30/2014	88.164	3.712	9/30/2014	130.469
2014 Q4	2.786	12/31/2014	90.955	3.999	12/31/2014	134.474
2015 Q1	0.851	3/31/2015	91.807	1.920	3/31/2015	136.394
2015 Q2	0.746	6/30/2015	92.552	1.796	6/30/2015	138.190
2015 Q3	3.913	9/30/2015	96.466	4.359	9/30/2015	142.549
2015 Q4	0.000	N/A	96.466	2.202	12/31/2015	144.751
2016 Q1	1.740	3/31/2016	98.206	2.859	3/31/2016	147.610
2016 Q2	0.000	N/A	98.206	0.919	6/30/2016	148.529
2016 Q3	0.933	9/30/2016	99.138	2.869	9/30/2016	151.398
2016 Q4	2.310	12/30/2016	101.448	2.976	12/30/2016	154.375
2017 Q1	4.476	3/31/2017	105.923	5.471	3/31/2017	159.846
2017 Q2	2.234	6/30/2017	108.158	2.779	6/30/2017	162.625
2017 Q3	1.986	TBD	110.144	3.117	TBD	165.742
Cumulative Dividends Paid by Both Enterprises[3]			$275,886			

Notes:
1) Units in billions of USD
2) Cumulative dividends paid may not add up because of rounding.
3) Red divides the original and variable dividend formulas.
Source: FHFA 2019.