Liquidation in All but Name:
The Case Against Shareholder Compensation

By Scott Susin

In 2008, at the height of the Financial Crisis, it seemed that Fannie Mae and Freddie Mac ("the Enterprises") might be the next dominoes to fall. At the time, Fannie and Freddie guaranteed and securitized over 60% of all mortgages. Their failure could have frozen the housing market and undermined the stability of the institutions and governments holding the trillions of dollars of securities they had issued. In response, Congress swiftly passed legislation strengthening their regulator, and granting it authority to take control of the Enterprises. Within months, the new regulator determined that the firms likely faced insolvency and a failure to cover their obligations, and exercised its takeover authority.[1] This prediction soon proved accurate, and the Enterprises recorded $258 billion in losses over the next several years. Their capital reserves covered less than a third of that amount. Ultimately, the federal government provided $191 billion in taxpayer funds to fill the gap.

Ever since the Enterprises were taken over by the government in 2008, there has been ongoing discussion about re-privatizing them. However, it wasn't until 2018 that both Enterprises had repaid their bailout and began to accumulate capital reserves. While they still lack sufficient capital for privatization, their profits are now large enough that full recapitalization is within sight, making this a good moment to review the path that brought us here.

This research brief begins that review by documenting the scale of the Enterprises' collapse. Specifically, it shows that their liquidation value at the time of the bailout was zero—both based on what was foreseeable in 2008 and in hindsight. This matters because any future privatization will raise the question of what shareholders should receive.

To treat shareholders fairly, and reduce the risk of future bailouts, they should receive the value the Enterprises would have had in a hypothetical 2008 liquidation. Fannie and Freddie's regulatory structure was modeled after bank regulation, where failed banks are usually placed into receivership and liquidated. While the Enterprises' vast scale and systematic importance to the financial system made liquidation impractical in 2008, it makes sense to treat shareholders as if the firms had been liquidated.

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[1] See FHFA's memo, *Proposed Appointment of the Federal Housing Finance Agency as Conservator for the Federal National Mortgage Association*, Christopher H Dickerson, September 5, 2008 and the equivalent memo for Freddie Mac (the *conservatorship memos*), available at https://elischolar.library.yale.edu/ypfs-documents/990/ and https://elischolar.library.yale.edu/ypfs-documents/4749/.

This is consistent with the closest precedents. The last time the federal government acquired several "too big to fail" institutions and managed them for an extended period of time was during the Savings and Loan crisis of the 1980s. For example, from 1984 to 1991, the government controlled Continental Illinois National Bank, the seventh largest bank in the country. Even though the government had nursed the bank back to health by the time it was privatized, shareholders received nothing.[2]

Shareholders are ultimately responsible for management decisions, and it was those decisions that destroyed more than the entire value of the firm. If they are bailed out despite their failure to curb excessive risk-taking, they will have no incentive to demand prudence in the future. Without a credible government commitment to prevent such rewards for recklessness, another financial crisis becomes more likely.

Losses Greater than All Previous Profits

One way to grasp the scale of Fannie and Freddie's collapse is to compare their financial crisis-era losses to their cumulative earnings since becoming private firms.[3] In 2007, just before the crisis, their total lifetime income, compounded at the 10-year Treasury rate, was $160 billion.[4] Using the rate for investment-grade corporate bonds yields a similar figure: $184 billion.[5] By contrast, their post-crisis losses totaled $258 billion—161% of all prior earnings.

[2] The discussion of bank bailouts in this paragraph and the one preceding follows Krimminger , Michael and Mark A. Calabria, "The Conservatorships of Fannie Mae and Freddie Mac: Actions Violate HERA and Established Insolvency Principles," Cato Working Paper No. 26, (2015).

[3] These calculations begin in 1971, the first year of earnings data published by FHFA. Fannie Mae became a private company in 1968 and Freddie Mac in 1970, so several years of earnings are missing, which should make little difference, since both firms were initially relatively small.

[4] This calculation assumes that each year's earnings had been invested in assets paying the rate on 10-year treasury bonds, implicitly adjusting them for inflation plus a modest return.

[5] The bond index is the ICE BofA US Corporate Index, available through the Federal Reserve Bank of St. Louis' FRED system.

Earnings, Losses, and Bailout Funds (millions of $)

Fannie Mae	
Losses (2007-2011)	(163,595)
Bailout Funds (2008-2011)	116,149
Cumulative earnings (as of 2007)	99,811
Freddie Mac	
Losses (2007-2011)	(94,057)
Bailout Funds (2008-2011)	71,317
Cumulative earnings (as of 2007)	59,791
Both Enterprises	
Losses (2007-2011)	(257,652)
Bailout Funds (2008-2011)	187,466
Cumulative earnings (as of 2007)	159,602

Source: Federal Housing Finance Agency 2023 Annual Report and author’s calculations.

Note: Cumulative earnings are the sum of earnings since 1971, assumed to be reinvested at the 10-year treasury bond rate.

Regulatory Capital Reserves (millions of $)

	2008	2007	2006
Fannie Mae			
Core Capital	(8,641)	45,373	41,950
Regulatory capital surplus (deficit)	(42,193)	13,446	12,591
Freddie Mac			
Core Capital	(13,174)	37,867	35,365
Regulatory capital surplus (deficit)	(41,374)	11,394	9,758
Both Enterprises			
Core Capital	(21,815)	83,240	77,315
Regulatory capital surplus (deficit)	(83,567)	24,840	22,349

Source: Federal Housing Finance Agency 2023 Annual Report.

Balance Sheet Measures Indicate Insolvency

A key measure of a financial institution's health is its regulatory capital, reserves held to absorb losses in bad times. Banks that fall below capital requirements can be taken over by regulators, and either liquidated or sold to new owners willing to recapitalize them. Fannie and Freddie, regulated under a similar framework, fell short by $84 billion in capital at the time of the bailout. In fact, both had *negative* regulatory capital.

By other measures, they looked even worse. Their combined shareholder equity, also called net worth, stood at -$57 billion. Net worth is the difference between a firm's assets and liabilities and represents what shareholders could expect in a liquidation. In 2008, liquidation would have left shareholders with nothing.

Fair value accounting, which adjusts for assets without clear market prices, put the net worth figure even lower: -$201 billion. Most of this shortfall reflected expected future losses from mortgage guarantees. In hindsight, these estimates proved roughly accurate. Losses on held securities were smaller than expected, but losses from mortgage guarantees were larger. Ultimately, the $201 billion estimate was close to the $144 billion in losses recorded over the following three years (on top of the $114 billion in losses over 2007–2008, prior to the fair value estimate).

Had a small community bank been in this position, its shareholders would have been wiped out. To understand why, consider a hypothetical sale: a buyer would have assumed $201 billion in net liabilities, faced an $84 billion capital shortfall, and could also expect regulatory demands for additional capital. In return, the buyer would have received future profits—optimistically valued at $103 billion, the Enterprises' combined market capitalization in late 2006. No rational investor would pay $285 billion in costs to acquire a firm worth $103 billion. Thanks to limited liability, shareholders lost only their investment, not billions more, which were covered by the taxpayers.

Selected Financial Statistics (millions of $)

	2008	2007	2006
Fannie Mae			
Fair value of net assets	(105,150)	35,799	43,699
Stockholders' equity (net worth less govt. funds)	(15,314)	44,011	41,506
Earnings	(58,707)	(2,050)	4,059
Market Capitalization	825	38,946	57,735
Freddie Mac			
Fair value of net assets	(95,600)	12,600	31,800
Stockholders' equity (net worth less govt. funds)	(41,374)	11,394	9,758
Earnings	(50,119)	(3,094)	2,327
Market Capitalization	473	22,018	44,896
Both Enterprises			
Fair value of net assets	(200,750)	48,399	75,499
Stockholders' equity (net worth less govt. funds)	(56,688)	55,405	51,264
Earnings	(108,826)	(5,144)	6,386
Market Capitalization	1,298	60,964	102,631

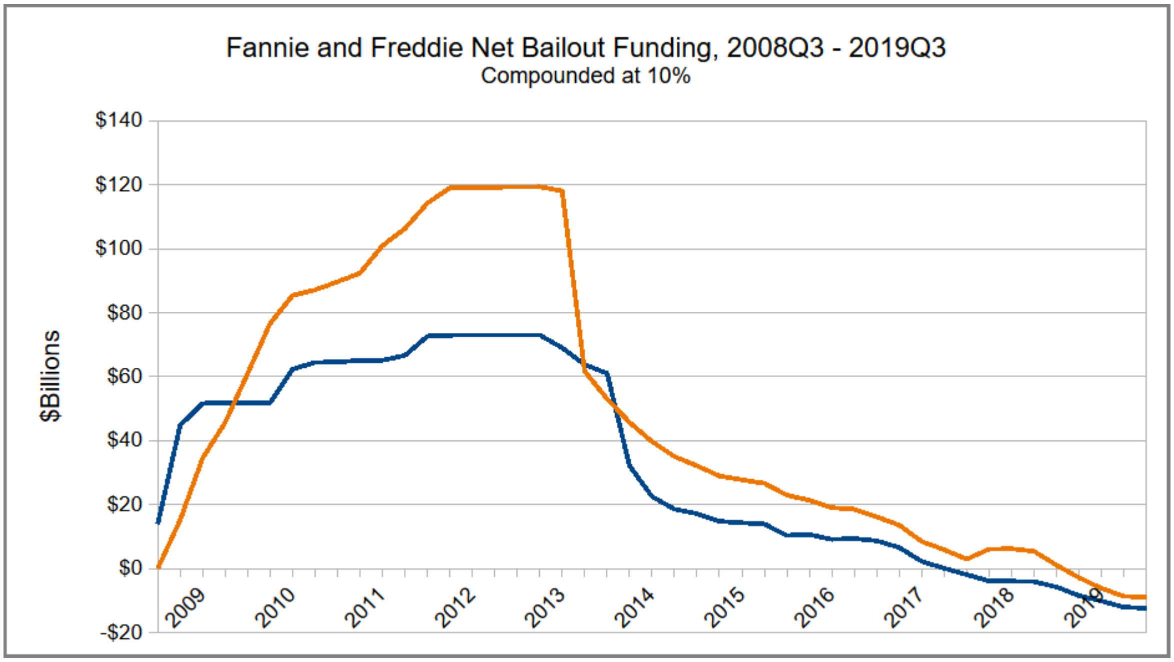
Source: Federal Housing Finance Agency 2023 Annual Report.

It took a decade to repay the bailout

The figure below shows the Enterprises' debt to the federal government over time. Most bailout funds were drawn between 2008 and 2011. Although Fannie and Freddie began making payments immediately, they were initially smaller than the 10% interest accruing on the debt, as specified in their agreement with the government.[6] Not until 2013 did they begin repaying the principal. Freddie Mac received $72 billion and repaid it over nine years (2008 Q3–2017 Q2). Fannie Mae received $120 billion, repaid over ten years (2008 Q4–2018 Q4).

Notably, the $191 billion bailout far exceeded the Enterprises' pre-crisis (2006) combined market capitalization of $100 billion. In effect, the government paid nearly twice what the firms were worth before their troubles began.

[6] The Senior Preferred Stock Purchase Agreements. See: https://www.fhfa.gov/conservatorship/senior-preferred-stock-purchase-agreements. In addition, I use the 10% figure because it is the midpoint of the range the Congressional Budget Office assumes that investors in the Enterprises will require. See Congressional Budget Office, *Effects of Recapitalizing Fannie Mae and Freddie Mac Through Administrative Actions*, August 2020.



Source: Federal Housing Finance Administration (FHFA) data.

Shareholders Should Receive the Enterprises' Liquidation Value

As we've seen, the Enterprises were insolvent in 2008. This was not a short-term liquidity crunch that could be resolved with bridge loans. Their capital reserves had been exhausted and shareholder equity (i.e., liquidation value) was deeply negative. Additional losses also appeared likely in the near future. The bailout funds they received far exceeded their pre-crisis market capitalization. In theory, they could have raised new capital by issuing shares, but no investors were willing to buy.[7] Many experts argue that under these circumstances, regulators were required by statute to place the firms into receivership and liquidate them.[8]

Instead, regulators, fearing the economic damage of allowing the mortgage giants to fail, chose to waive capital requirements, take over the Enterprises, and restore their profitability. Some large shareholders now argue they should regain ownership of the Enterprises, now that they are financially healthy. But their shares were worthless when the government stepped in to rescue two terminally ill institutions. They should receive what those firms were worth at the time: nothing.

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7 Again, see FHFA's *conservatorship memos*.

8 For example, see Krimminger , Michael and Mark A. Calabria, "The Conservatorships of Fannie Mae and Freddie Mac: Actions Violate HERA and Established Insolvency Principles," Cato Working Paper No. 26, (2015).