A Strategy to Promote Affordable Housing for All Americans

By Recapitalizing Fannie Mae and Freddie Mac

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Executive Summary

From 1938 to the financial crisis of 2008-2009, the Federal National Mortgage Association (Fannie Mae), joined in 1970 by the Federal Home Loan Mortgage Corporation (Freddie Mac), supported steady, strong increases in homeownership and access to affordable housing for millions of Americans. The share of American households owning their own home increased from less than 43% in 1940 to more than 69% in 2005, at which time Fannie and Freddie owned or guaranteed about one-half of an estimated $12 trillion in U.S. mortgages. In recent decades, Fannie and Freddie also undertook targeted efforts to expand affordable rental housing for moderate-income households. All of these activities were disrupted severely from 2007 on by the sharp drop in both housing prices and the value of many mortgage-backed securities (MBS) held by the two enterprises. In September 2008, the Federal Housing Finance Agency placed them under conservatorship, and the U.S. Treasury has to provide financial assistance to both companies which ultimately totaled $187 billion.

Since then, Fannie and Freddie have operated under direct government control and supervision. While both enterprises have restored their profitability since 2013 and repaid the government and taxpayers $239.1 billion, the Treasury holds warrants for 79.9% of the stock in both enterprises and continues to claim or "sweep" all of their profits into its own accounts. This policy limits their ability to promote home ownership, which declined over the last decade from 69.1% to 63.7%. The government's current approach also limits sharply Fannie and Freddie's capacity, as directed under the Housing the Economic Recovery Act of 2008 (HERA), to expand access to affordable rental housing or home ownership by low-income households through their Housing Trust Fund (HTF) and Capital Magnet Fund (CMF).

This study presents a strategy for ending the current conservatorship and majority government ownership of Fannie and Freddie in a way that will enable them, once again, to effectively promote greater homeownership by average Americans and greater access to affordable housing by low-income households. This strategy includes regulation of both enterprises to prevent a recurrence of their effective insolvency in 2008 and the associated bailouts, including 4.0% capital reserves, regular financial monitoring, examinations and risk assessments by the Federal Housing Finance Agency (FHFA), as dictated by HERA. Notably, an internal Treasury analysis in 2011 recommended capital requirements, consistent with the Basel III accords, of 3.0% to 4.0%. In addition, the President should name a substantial share of the boards of both enterprises, to act as public interest directors. The strategy has four basic elements to ensure that Fannie and Freddie can rebuild the capital required to responsibly carry out their basic missions, absorb losses from future housing downturns, and expand their efforts to support access to affordable housing for all households:

- In recognition of Fannie and Freddie's repayments to the Treasury of $239 billion, some $50 billion more than they received in bailout payments, the Treasury would write off any remaining balance owed by the enterprises under the "Preferred Stock Purchase Agreements" (PSPAs).

- The Treasury also would end its quarterly claim or "sweep" of the profits earned by Fannie and Freddie, so their future retained earnings can be used to build their capital reserves.

- Fannie and Freddie also should raise roughly $100 billion in additional capital through several rounds of new common stock sales into the market.

- The Treasury should transfer its warrants for 79.9% of Fannie and Freddie's current common shares to the HTF and the CMF, which could sell the shares in a series of secondary stock offerings and use the proceeds, estimated at $100 billion, to endow their efforts to expand access to affordable housing for even very low-income households.

Under this strategy, Fannie and Freddie could once again ensure the liquidity and stability of U.S. housing markets, under prudent financial constraints and less exposure to the risks of mortgage defaults. The strategy would dilute the common shares holdings of current private investors from 20% to 10%, while increasing their value as Fannie and Freddie restore and claim their profitability. Finally, the strategy would establish very substantial support through the HTF and CPM for state programs that increase access to affordable rental housing by very low-income American and affordable home ownership by low-to-moderate income households.

A valuation analysis of this recapitalization strategy confirmed that this strategy could deliver an additional $99.4 billion in warrant value for future affordable-housing programs. It also confirmed that Fannie and Freddie could achieve 4.0% capital reserves (Tier 1 capital) of some $180 billion through the combination of the public offerings of new common stock and their retained earnings from 2016 to 2020.

We also estimated the impact of this recapitalization strategy on the mission of the HTF and CMF to access by low-income households to affordable housing. Under HERA, the HTF and CMF are to be funded by Fannie and Freddie paying in 4.2 basis points (0.042%) of their new business, with 65% of the funds go to the HFT and 35% to the CMF. HERA also directs that no more than 10% of HTF's funds can go for the administrative costs of the HFT and the state programs it supports. It further directs that 90% of the remaining funds(after administrative costs) go to support state programs for affordable rental housing for very low-income households, and 10% go to support state programs for homeownership by low-income households

We compared the impact of our strategy on the activities of the HFT and CPM, using the $99.4 billion of warrant value for affordable housing, to the current requirements under HERA:

- Under our strategy, the HFT could provide $2.6 billion per year for state affordable rental housing programs, or $51.7 billion over 20 years, as compared to $196 million per year and $3.9 billion over 20 years under current arrangements. This would represent a 12-fold increase compared to current HTF support for state housing programs. (Table 1, below)

- Based on the average leverage ratio of current federal support for state housing programs, in which state public and private sources provide $4.86 for every $1 in federal funds, HTF support would produce $15.1 billion in additional spending for low-income rental housing per year under our strategy, compared to $1.1 billion under current arrangements. Taking account of this leverage, it represents a more than 14-fold increase.

- HTF support under our strategy should produce an additional 44,485 affordable rental units per year for very low-income households under our strategy, including 17,672 more units for African-American and Hispanic households, as compared to 3,471 additional units per year under current arrangements, including 1,379 for minority households.

- The 10% of HTF funds for state and local programs promoting homeownership by low-income households would increase such homeownership by 15,596 such households per year under our strategy, including 3,327 African-American and 2,359 Hispanic households per year. Under current arrangements, HFT funds increase low-income homeownership by roughly 1,217 households per year, including 260 African-American and 184 Hispanic households. This also represents a 12-fold increase compared to current HTF support.

Similarly, the reach of the CMF would be much greater under our recapitalization plan than under current arrangements.

- Under our strategy, the CMF could provide state grants totaling $1.74 billion per year, compared to $132 million per year under its current arrangements. This represents a more than 12-fold increase compared to current CMF state grants. (Table 2, below)

- Applying the estimated leverage ratio of 12:1 for community development non-profits, CMF support for their housing programs should produce 189,866 additional housing units per year for very low-income households under our plan, including 175,855 additional rental units and 14,010 additional owner-occupied homes. The CMF's current funding should help produce 14,391 additional housing units per year, including 13,329 additional rental units and 1,062 owner-occupied housing for low-income households. Again, this represents an increase of more than 12-fold.

- Under the recapitalization plan, the housing projects supported by CMF funding would employ an additional 8,792 full-time construction workers and 152,272 seasonal construction workers per year, as compared to 666 full-time construction workers and 11,541 seasonal workers under the CMF's current funding arrangements.

Seven years after the federal government rescued Fannie Mae and Freddie Mac and placed both companies into government conservatorship with majority government ownership, the two enterprises have generally recovered and, given the ability to build adequate capital reserves, they can now stand on their own. The recapitalization strategy outlined and analyzed in this study would restore their independent operations, and on terms which would expand U.S. mortgage markets. Under this recapitalization plan, Fannie and Freddie also should be able to withstand the next sharp downturn in U.S. housing markets. Finally, the plan provides the resources to vastly expand the stock of affordable housing for all Americans, including for those households with very-low or even extremely-low incomes.

The recapitalization of Fannie Mae and Freddie Mac would help millions of Americans deal more effectively with the difficult challenges created by the recent housing crisis and its aftermath. We urge the Obama administration and Congress to carefully consider this strategy.

A Strategy to Promote Affordable Housing for All Americans
By Recapitalizing Fannie Mae and Freddie Mac

Robert Shapiro and Elaine Kamarck[1]

"There are far-reaching problems still with us for which democracy must find solutions if it is to consider itself successful. For example, many millions of Americans still live in habitations which not only fail to provide the physical benefits of modern civilization but breed disease and impair the health of future generations. The menace exists not only in the slum areas of the very large cities, but in many smaller cities as well. It exists on tens of thousands of farms, in varying degrees, in every part of the country."

President Franklin D. Roosevelt, State of the Union Message, January 6, 1937

I. Introduction and Summary

Since 1938, the Federal National Mortgage Association or Fannie Mae has developed and operated numerous programs and arrangements that have vastly broadened access by average Americans to home mortgages. With incomes rising steadily from the late 1930s on, the share of households that took advantage of those mortgages and purchased their own homes increased sharply. In 1940, less than 43% of American households owned their own homes; that share reached 55% in 1950 and nearly 62% in 1960.[2] More recently, home ownership generally has stabilized, reaching about 63% in 1970, when Congress created the Federal Home Loan Mortgage Corporation or Freddie Mac to compete with Fannie Mae. By 1980, over 64% of households were homeowners, and in 1990, the share was comparable. Homeownership increased again in the 1990s and beyond, reaching more than 67% in 2000 and more than 69% in 2005.[3]

Throughout those decades, Fannie Mae and then Freddie Mac promoted rising home ownership by borrowing funds from private investors and using those funds to buy or guarantee mortgages issued by banks and thrifts. In this way, the two government-sponsored but privately-owned enterprises created a robust secondary market for mortgages, especially conventional fixed-interest rate mortgages for households with prime or relatively low-risk credit status. This secondary market allowed mortgage originators to extend more mortgage credit. Fannie and Freddie also consolidated many of the mortgages they bought into "mortgage-backed securities" (MBS), which they either sold to other financial institutions or investors, or retained in their own portfolios.

As is now well-known, private mortgage banks in the last housing boom expanded or extended their business into subprime or relatively high-risk borrowers, providing mortgages

[1] We want to thank the Potomac Coalition for its support for this research, and we also thank Siddhartha Aneja of Sonecon and Grace Wallack for their excellent research assistance. The view and analysis expressed here are solely those of the authors.
[2] U.S. Census Bureau (2015-A).
[3] U.S. Census Bureau (2015-B).

which typically had adjustable interest rates and little or no down payments. Fannie, Freddie, and many leading investment banks packaged those mortgages in MBS and then sold them to financial institutions and other investors; and those securities became the epicenter of the 2008-2009 financial crisis. When the crisis broke, Fannie and Freddie owned or guaranteed about half of the $12 trillion U.S. mortgage market, including MBS based on higher-risk mortgages; and the sharply deteriorating housing values and mortgage markets produced vast, unsustainable losses for which Fannie and Freddie were inadequately capitalized and unprepared. As a result, on September 7, 2008, the Federal Housing Finance Agency (FHFA) was forced to place Fannie and Freddie in conservatorship, to dismiss their senior officers, and to work with the Treasury Department to provide new financing in the conservatorship. In exchange, the Treasury received new senior preferred stock and common stock warrants covering 79.9% of the shares of both institutions.

Fannie and Freddie continued to operate under the conservatorship to support housing markets and gradually work through their financial problems. They tightened underwriting standards and managed their large credit losses incurred in the financial crisis; they also pursued recoveries from financial institutions that had improperly sold the two enterprises mortgages and MBS. With the housing market's recovery in 2012 and 2013, Fannie and Freddie finally restored their profitability and have since repaid the Treasury a total of $239.1 billion on the $187.0 billion in financial support provided by the government. In those terms, their payments to Treasury are equivalent to a nearly $50 billion gain for taxpayers, relative to the Treasury's direct payments to Fannie and Freddie.[4]

The continuing policy question is how Fannie and Freddie can once again best promote broad home ownership. From the first quarter of 2005 to the first quarter of 2015, homeownership rates fell from 69.1% to 63.7%, the sharpest decline on record. Yet, the FHFA's continuing conservatorship of Fannie and Freddie, Treasury's ownership of 79.9% of their common stock through the warrants, and Treasury's quarterly net worth "sweep" of all of their profits sharply limit their capacity to support growing levels of home ownership. The conservatorship and profit sweeps also effectively negate their new mandate under the Housing and Economic Recovery Act of 2008 (HERA) to promote access to affordable housing by low-income households through the operations of their Housing Trust Fund (HTF) and Capital Magnet Fund (CMF).

This study presents a strategy to enable Fannie and Freddie once again to fulfill both their traditional mission of promoting middle-class homeownership and their more recent mission of expanding access to affordable housing for low-income Americans. The essential steps of this recapitalization strategy include: 1) Treasury ends its quarterly "sweep" of Fannie and Freddie's net worth, so both companies can rebuild their capital, restore reasonable value to their stock, and raise additional capital; 2) Fannie and Freddie issue four rounds of new common stock totaling $100 billion, to secure a majority of their 4.0% Core or Tier 1 capital reserves; and 3) the Treasury transfers its warrants for Fannie and Freddie's common stock to the HTF and the CMF, they sell the stock into the market in three secondary offerings and use the proceeds of nearly $100 billion

[4] These payments, totaling $50 billion more than the principal infusions provided by the Treasury, do not take account of the provision in the preferred stock purchase agreement directing Fannie and Freddie to also pay the Treasury 10% annual cash dividends or 12% annual stock dividends, even when the enterprises were effectively insolvent.

to expand access to affordable housing by low-income households.[5] In addition, 4) the Treasury would retain over $50 billion already collected in dividend payments on top of the principal repaid by Fannie and Freddie, and deem the outstanding senior preferred stock to be fully paid off. By declaring the outstanding senior preferred stock to be paid off, the Treasury would increase the value of its common stock warrants by $24 billion to fund the HTF and CMF.

Under this strategy, Fannie and Freddie once again would provide substantial liquidity and stability to the housing markets, as they did before the crisis, but this time under stricter regulation, more conservative balance sheets, and the use of certain unsecured securities to shift the risk of mortgage defaults to private investors.[6] The strategy would dilute the current common stock in Fannie and Freddie held today by outside investors, from their current 20.1% of outstanding shares to a more *pro forma* 10.6%. But as Fannie and Freddie grow and become more profitable, the value of each share should rise, and the shareholders would likely receive healthy dividends.

To test this recapitalization proposal, we conducted a standard valuation analysis. It showed that Fannie and Freddie should have Tier 1 capital of at least $180 billion by 2020, equal to 4.0% of their projected assets in that year: In addition to the $100 billion the enterprises would raise through new stock offerings, they could retain $80 billion from their earnings in 2016 to 2020. The analysis also estimated that the price of Fannie and Freddie stock would rise from about $2.20 per share today, a level badly depressed by the Treasury's sweep of their annual profits, to $10.34 per share in 2016, $12.51 per share in 2018 and $15.14 per share in 2020. This strategy, therefore, can reestablish Fannie and Freddie as independent enterprises actively and profitably promoting broad homeownership. Variations of the approach should produce similar results, so long as they retain the basic elements described above.

This approach also would generate substantial new resources for the HTF and CPM to advance their missions of ensuring greater access to affordable housing by moderate and low-income families. Following the current funding allocation, the HTF would receive 65% of an estimated $99.4 billion raised through the secondary stock offerings and distribute those funds over 20 years as block grants to state and local public programs providing affordable housing to low-income households, primarily rental housing. Under this allocation, the CMF would receive the remaining 35% of the $99.4 billion, which it would distribute over 20 years to non-profit community development organizations for their affordable housing efforts. The interest earned on those funds could provide continuing resources for the HTF and CMF beyond the initial 20 years.

This plan would provide meaningful housing assistance, far beyond current law, to millions of low-income families and at no additional cost to U.S. taxpayers. Under current law, the HTF and CMF are funded by payments of 4.2 basis points of all new business conducted by Fannie and Freddie. This provision would be expected to generate an estimated $245 million per year or some $4.9 billion over 20 years for the HTF under current law. HERA states that up to 10% of that funding can be used for administrative purposes by the HTF and the state and local programs it supports, leaving $220 million per year in HTF funding for state affordable housing programs, or

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[5] Alternatively, the Treasury could exercise the warrants and sell the shares into the market in secondary stock offerings, and use the roughly $100 billion to endow the HTF and the CMF.

[6] The plan assumes that the Fannie and Freddie fee to guarantee mortgages remains roughly 65 basis points.

$4.4 billion over 20 years. Under the capitalization plan, HTF funding for state affordable housing programs would raise to $3.2 billion per year and nearly $65 billion over 20 years. Table 1, below, contrasts these alternative projections.

To review, the recapitalization plan would dedicate the proceeds from the government's secondary stock offerings of Fannie and Freddie stock to the HTF (65%) and the CMF (35%). Assuming the maximum 10% administrative costs – and those costs could and should be considerably less -- this approach would provide $2.9 billion per year for the HTF, and $58.1 billion over 20 years. HERA stipulates that 90% of HTF funding go to support state and local programs for affordable rental housing for low-income households., with the remainder for home ownership programs Our strategy, therefore, would provide$2.6 billion per year for affordable rental housing programs, compared to $196 million under current arrangements. (Table 1, below)

Moreover, based on the federal-state HOME housing program, we can expect that for every $1 provided by the HTF, state affordable housing programs will provide, on average, $4.86 in public and private funding. Using this leverage ratio, we estimate that the recapitalization strategy would generate $15.1 billion per year for affordable rental housing programs for low-income households, compared to $1.1 billion under current arrangements. These funding levels would produce some 44,485 additional affordable rental units per year for low-income Americans, compared to 3,471 units under current arrangements. The remaining 10% of HTF funding would go to state home ownership programs for low-income households. The recapitalization plan would generate HTF funding for those programs of $323 million per year, compared to $24 million under current law. Based on the leverage ratio from the HOME program, HTF funding under our plan should support affordable first-time home ownership for some 15,596 low-income households per year, compared to 1,217 households per year under current arrangements.

Table 1: HTF Funding and Its Effects on Affordable Housing for Low-Income Households, Under Current Arrangements and the Recapitalization Plan for Fannie Mae and Freddie Mac

	20 Year Total		Annual	
	Current	**Recapitalization**	**Current**	**Recapitalization**
Total HTF spending	*$4.9 billion*	*$64.6* billion	*$245 million*	*$3.2 billion*
HTF Funding for Housing	$4.4 billion	$58.1 billion	$220 million	$2.9 billion
HTF Rental Funding	$3.9 billion	$51.7 billion	$196 million	$2.6 billion
Average Leverage ratio	4.86:1	4.86:1	4.86:1	4.86:1
Total Rental Spending	$23.0 billion	$302.8 billion	$1.1 billion	$15.1 billion
Number of Rental Units	69,416	889,700	3,471	44,485
African-American	18,040	231,214	902	11,561
Hispanic	9,536	122,226	477	6,111
HTF Home Ownership Funding	$490 million	$6.5 billion	$24 million	$323 million
Increase in Home Ownership	24,337	311,921	1,217	15,596
African-American	5,191	66,532	260	3,327
Hispanic	3,681	47,181	184	2,359

The benefits of the recapitalization plan are also evident in their effects on access to affordable housing by minority households. Under its current arrangements, HTF's support for affordable rental housing should help an estimated 902 low-income African- American households and 477 low-income Hispanic households per year, and, over 20 years, 18,040 African American households and 9,536 Hispanic households. (Table 1, above) By recapitalizing Fannie and Freddie, the HTF should be able to support access to affordable rental housing for some 11,561 low-income African-American households per year and 6,111 low-income Hispanic households per year. Over 20 years, therefore, recapitalizing Fannie and Freddie could produce 231,214 additional, affordable rental units for African-American households and 122,226 additional units for Hispanic households. Similarly, under its current funding, the HTF's first-time homeownership program can help 260 low-income African-American households and 184 low-income Hispanic households per year. Under the recapitalization strategy, the HTF should be able to help 3,327 low-income African-American households become homeowners, per year, along with 2,359 low-income Hispanic households. Over 20 years, therefore, the recapitalization of Fannie and Freddie would enable the HTF to support affordable, first-time home ownership for 66,532 low-income African-American households and 47,181 low-income Hispanic households.

As noted, the current arrangement also would generate an estimated $132 million per year for the CMF, or $2.64 billion over 20 years. By contrast, the recapitalization of Fannie and Freddie could generate $1.74 billion per year for the CMF and nearly $35 billion over 20 years. (Table 2)

Table 2: CMF Funding and Its Effects on Affordable Housing for Low-Income Households, Under Current Arrangements and the Recapitalization Plan for Fannie Mae and Freddie Mac

	20 Year Total		Annual	
	Current	**Recapitalization**	**Current**	**Recapitalization**
Total CMF Spending	*$2.64 billion*	*$34.8 billion*	*$132 million*	*$1.74 billion*
Average Leverage Ratio	12:01	12:01	12:01	12:01
Affordable Homes Financed	287,812	3,797,312	14,391	189,866
Owner-Occupied Homes	21,238	280,207	1,062	14,010
Rental Units	266,574	3,517,105	13,329	175,855
CMF Award Per-Home	$11,000	$11,000	$11,000	$11,000
Average Cost Per home	$140,000	$140,000	$140,000	$140,000
New Construction Jobs	13,327	175,827	666	8,791
Seasonal Construction Jobs	230,825	3,045,441	11,541	152,272
Development Projects	7,996	105,496	400	5,275
Assistance to Homebuyers	4,442	58,609	222	2,930

As a result, while the current arrangements would support the financing of 1,062 additional homes owned and occupied by low-income households, and 13,329 additional rental units per year for low-income households, the recapitalization strategy could support financing for 14,010 additional homes and 175,855 additional rental units, per year, for low-income households. (Table

2, above) Moreover, this activity would support 8,791 new, full-time construction jobs and 152,272 additional seasonal construction jobs, per year, compared to 666 full-time construction jobs and 11,541 seasonal jobs under the current arrangements.

Like most U.S. homeowners and lenders, Fannie Mae and Freddie Mac have finally moved beyond the enormous losses they suffered during the 2008-2009 crisis, and in most respects repaid the Treasury for its bailout assistance. Furthermore, HERA has addressed many of the two companies' shortcomings which drew broad, legitimate criticism, including their inadequate capitalization and extensive lobbying operations. Fannie and Freddie are now subject to monitoring, targeted examinations, and risk assessments by the FHFA. Under the FHFA's direction, Fannie and Freddie are committed to maintaining 4.0% capital reserves. Further, both enterprises have implemented programs to transfer much of their credit risk to private investors: FHFA reports that the two companies have transferred "a significant amount" of the credit risk on nearly 50% of their mortgage acquisitions, and which, according to the FHFA, account for nearly 90% of the loans comprising most of their underlying credit risk.[7]

In this context, the government should end its current conservatorship of Fannie and Freddie and return them to private ownership and normal operations, given that those operations will be regulated more strictly and capitalized more conservatively. A recapitalization program along the terms proposed here would enable the two enterprises to meet their traditional responsibilities for promoting broad home ownership and to carry out their more recent mandate of supporting greater access to affordable rental housing and homeownership for low-income Americans.

II. The History of Fannie Mae and Freddie Mac

The Great Depression took a terrible toll on America, reflected dramatically in the numbers of unemployed and the numbers of people who lost their homes. By 1933, the unemployment rate reached 25%; and by 1934, nearly one-half of all mortgages were delinquent and two million Americans were homeless.[8] For President Franklin D. Roosevelt, fixing the housing market would not only help keep Americans in their homes, it also would boost employment. In 1934, Congress created the Federal Housing Administration (FHA) to federally-insure home mortgages issued by FHA-approved lenders; and today, the FHA is the largest mortgage insurer in the world. Four years later, Congress created the Federal National Mortgage Association (Fannie Mae) to promote greater home ownership.[9] Established originally as a government agency, Fannie Mae was authorized to buy and sell FHA-approved mortgages from private lenders, creating a secondary mortgage market that enables private mortgage lenders to fund more mortgages.[10] In 1946, Congress authorized Fannie to also purchase mortgages backed by the Veteran Administration (VA); and in 1954, Congress transformed Fannie Mae from a government agency to a public–private partnership, and one exempt from most state and local taxes.

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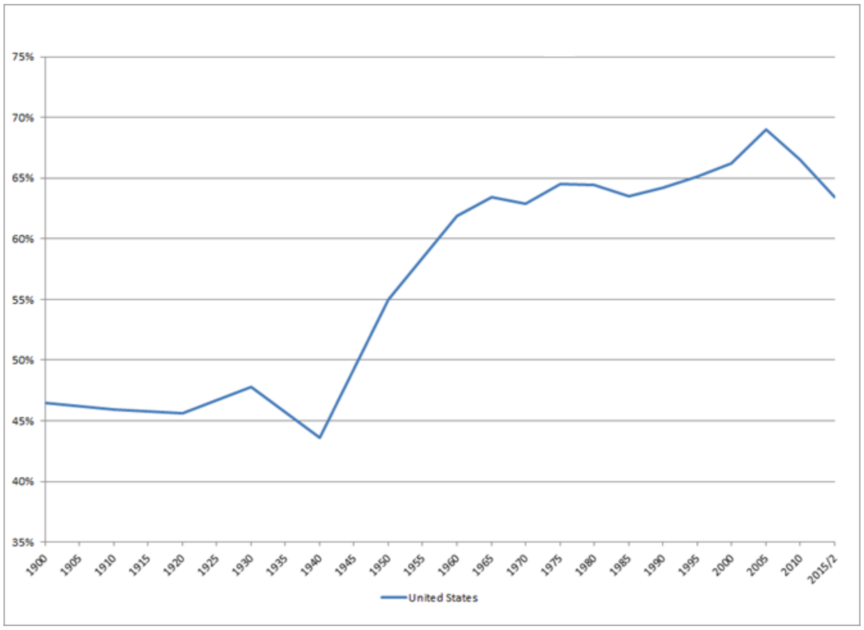
[7] Federal Housing Finance Agency (2015).
[8] Wheelock, David C. (2008)
[9] Federal Housing Authority Office of the Inspector General (2015-A).
[10] Government Accountability Office (2009).

Moreover, in 1968, the Housing and Urban Development (HUD) Act divided Fannie into a government-sponsored private corporation and a second, government-owned operation called the Government National Mortgage Association (Ginnie Mae). This split removed Fannie from the federal budget, and from the early 1970s, Fannie Mae began to purchase conventional mortgages that met certain standards, including those not backed by the FHA. For its part, Ginnie Mae has remained a government agency within HUD that guarantees government-backed loans from the FHA, the VA, the Public and Indian Housing Agency, and Rural Development home loans, all backed by the full faith and credit of the U.S. government. To further its mission of supporting affordable housing, Ginnie Mae issued the first mortgage-backed security (MBS) in 1970, and continues to guarantee payments on MBS that pool government-guaranteed loans.

Over this period and through the 1950s and 1960s, the number of mortgages Fannie Mae purchased increased substantially, [11] and home ownership rates rose sharply. (Figure 1, below)

Figure 1: Homeownership Rates in the United States, 1900-Present[12]



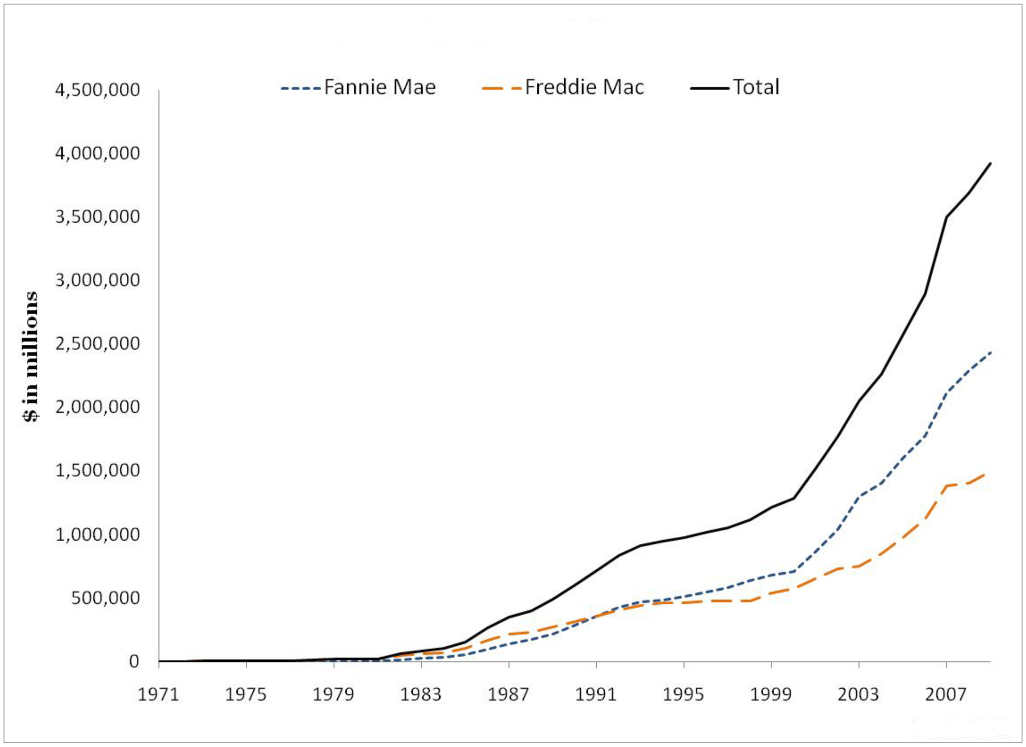
The 1968 Act also authorized HUD to oversee Fannie Mae, including authority to require that Fannie use a certain share of its mortgage purchases to help serve low and moderate-income households. This was the first time that Fannie Mae's mission included explicit, affordable housing targets for low and moderate-income households. Under this authority, the Secretary of HUD required that at least 30% of Fannie Mae's mortgage purchases serve low and moderate-income households, and at least 30% serve those living in central cities.[13] HUD later raised those targets to 42% in 1997 and up to 50% in 2001.

In 1970, Congress established the Federal Home Mortgage Corporation (Freddie Mac) to provide competition with Fannie in the secondary mortgage market; and in 1971, Freddie

[11] *Ibid.*
[12] U.S. Census Bureau (2015-A).
[13] Government Accountability Office (2009).

introduced the first MBS based on conventional mortgage loans.[14] Through the 1970s and 1980s, Fannie and Freddie were authorized to expand their reach into mortgages for two-to-four family units in 1978, adjustable rate mortgages in 1981, and other multifamily housing loans in 1983. By the end of 2000, Fannie and Freddie's combined portfolios of mortgages and MBS total some $2.3 trillion, equivalent to 44.2% of all U.S. household mortgage debt.[15] Moreover, the volume of Fannie and Freddie-backed MBS held by private investors reached $1.3 trillion by 2000 and then grew more than three-fold over the next decade, reaching close to $4 trillion by 2009.[16]

Figure 2: Outstanding Mortgage Backed Securities, Fannie Mae and Freddie Mac, 1970-2007



Affordable Housing Goals

As noted above, Fannie Mae and Freddie Mac have long had the mission of providing "ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return)" and promoting "access to mortgage credit throughout the Nation (including central cities, rural areas, and underserved areas)."[17] In 1992, however, Congress concluded that Fannie and Freddie were failing to meet their stated housing goals,[18] and HUD was not properly overseeing the two companies' financial activities and efforts to meet their affordable housing goals. In

[14] *Ibid.*
[15] Cochran, III, Jay and Catherine England (2001).
[16] Dynan, Karen and Ted Gayer (2011).
[17] U.S. Department of Housing and Urban Development (2001); and Federal National Mortgage Association Charter Act (2010).
[18] General Accountability Office (2009).

response, Congress further defined Fannie and Freddie's low and moderate- income housing targets and created an independent office inside HUD to monitor the companies.[19] The 1992 Act also amended Fannie and Freddie's charters, creating an "affirmative obligation to facilitate the financing of affordable housing for low-income and moderate-income families."

In 1995, HUD set the affordable housing goals noted earlier, regarding the share of Fannie and Freddie mortgage purchases targeted to low and moderate-income families, including goals of 42% for 1997 to 2000, 50% for 2001 to 2004, 52% in 2005, 53% in 2006, 55% in 2007, and 56% in 2008.[20] Low and moderate-income was defined as no more than the median income of a metropolitan area, with special provision that at least 20% of the housing units financed by Fannie and Freddie mortgage purchases go for families with incomes no greater than 60% of the area's median income.[21] These stipulations largely involved their purchases of mortgages for multi-unit housing designed to be rental units for low and moderate-income families. The GAO found that Fannie and Freddie met those goals until 2008,[22] and HUD reported that Fannie and Freddie together help finance nearly four million mortgages for housing units for low and moderate-income households.[23] However, other analysts have questioned HUD and the GAO, holding that Fannie and Freddie had little effect on the housing conditions of low and very low-income households.[24]

Data suggest that Fannie and Freddie's affordable housing targets generally have lagged the market, with conventional mortgage lenders serving relatively more low-income homebuyers than Fannie and Freddie,[25] although many of those conventional mortgages were subprime. However, Fannie and Freddie also expanded their purchases in the subprime mortgage sector, with their purchases of subprime MBS reaching $81 billion in 2003 and $176 billion in 2004.[26] Many of those subprime mortgages and MBS failed in 2008 and the years following, creating the crisis from which Fannie and Freddie are currently trying to extricate themselves.

It is also notable that despite these explicit public missions, as well as Fannie and Freddie's public guarantees, the President does not nominate any members of their boards as public interest directors, as is customary for the Federal Home Loan Banks and other GSEs. In 2003, the Bush administration proposed broad reforms for Fannie and Freddie, including shifting their oversight from the Office of Federal Housing Enterprise Oversight (OFHEO) in HUD to the Treasury Department. The proposal died in Congress, in part because the Treasury favored strict regulation, including specified capital reserves, and measure to mitigate risk. However, the Bush proposal did not heed the example of other GSEs and propose that public interest directors comprise as much as 40% of their boards. Instead, Fannie and Freddie's privately-named directors oversaw both enterprises as purely for-profit entities in the years leading up to the financial crisis. In the regulatory regime to accompany the recapitalization strategy, the President should be authorized to name a substantial minority of the boards as public interest directors.

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[19] *Ibid.*
[20] Weicher, John C. (2010).
[21] U.S. Department of Housing and Urban Development (2001).
[22] General Accountability Office (2009).
[23] U.S. Department of Housing and Urban Development (2008).
[24] Ambrose, Brent, and Thomas Thibodeau (2003); and Bostic and Gabriel (2005). .
[25] Weicher (2010).
[26] *Ibid*.

III. Fannie Mae and Freddie Mac in the Recent Financial Crisis

The way that Fannie Mae and Freddie Mac affect the nation's housing markets is not widely understood by the public and many policymakers. The two companies do not originate any mortgage loans; rather, they guarantee and purchase mortgage loans from primary lenders such as banks and credit unions, and they package many of loans they purchase into securities for outside investors to buy. In this way, they directly "support liquidity and stability in the secondary mortgage market, where existing mortgage-related assets are purchased and sold,"[27] and indirectly for the primary mortgage market as well. Generally, these activities are limited to mortgages that conform to certain standards, including an individual cap of $417,000 in 2015 and underwriting standards based on the borrower's credit risk.[28]

These activities generate substantial revenues, and they produce substantial profits when conducted properly. In 2005, Fannie and Freddie purchased 5,933,142 home mortgages with a total face value of more than $1 trillion from primary lenders, and bundled them together as mortgage-backed securities (MBS).[29] These activities often are closely-tied: In a process called lender swap, Fannie and Freddie purchase a package of conforming mortgages from a primary lender and pay the lender with MBS, which the lender can either hold as an investment or sell to other investors. In other cases, they purchase conforming mortgages from the primary lenders for cash, using their "cash-window." In both cases, they may retain the mortgages in their asset portfolio or securitize them as MBS for sale to global investors.[30]

Fannie and Freddie also guarantee the MBS they issue against the risk that homeowners will fail to make timely payments on their mortgages, in exchange for a monthly fee from the purchasers of the guaranteed MBS. In 2014, for example, the fee for new loans was 58 basis points (bps), an increase of seven bps from 2013.[31] While Fannie and Freddie's guarantees are not backed by the "full faith and credit" of the U.S. government, most investors believe in an implicit government guarantee based on the government's presumed unwillingness to let Fannie and Freddie default on those guarantees, which played out in 2008-2009. This implicit guarantee has made the MBS guaranteed by Fannie and Freddie extremely safe securities.[32]

Fannie and Freddie also generate revenues and profits from their assets, which include individual mortgages, MBS which they issued, MBS issued by others, and other fixed-income instruments. Fannie and Freddie often purchase these balance-sheet assets with cash raised from issuing their own debt. This practice, much like the guarantees they issue, is profitable under most economic conditions but deeply compromising if, as happened in 2007-2010, housing prices plummet and the economy enters a serious recession.[33]

A number of factors made Fannie and Freddie vulnerable to their recent crisis. Some analysts argue that the favorable borrowing rates generated by their implicit government guarantee

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[27] Federal National Mortgage Association (2015-A).
[28] Frame, W. Scott, Andreas Fuster, Joseph Tract and James Vickery. (2015).
[29] U.S. Department of Housing and Development (2008), Table 14a-2005 and Table 14b-2005.
[30] Federal National Mortgage Association (2013).
[31] Federal Housing Finance Agency (2015-B).
[32] Frame *et al.* (2015).
[33] *Ibid.*

encouraged them to over-expand their market position, including riskier mortgages.[34] Further, in the early-2000s, Fannie and Freddie executives had been concerned about losing market position to less regulated "private-label securities" (PLS) that often bundled high-interest-rate mortgages that did not meet traditional standards. In fact, new "analytic techniques" adopted by the ratings agencies and many institutional investors quickly (and unwisely) deemed as safe such high-yielding instruments.[35] Nevertheless, from 2003 to 2006, the percentage of MBS originating from private vendors nearly tripled, from about 20% to nearly 60%; and over the same period, the combined income of Fannie and Freddie declined by half.

Despite these intense market pressures, Fannie and Freddie avoided direct purchases of or guarantees for sub-prime mortgages held by lower-income households. However, their portfolio came to include some riskier, non-traditional mortgages, or "Alt-A mortgages," entering this riskier territory in an indirect way by purchasing blocks of PLS. In 2005, for example, Fannie and Freddie purchased more than $200 billion of PLS.[36] In so doing, both companies quickly expanded their profits. At the time, Alan Greenspan noted that he was "unable to find any credible purpose for the huge balance sheet built by Fannie and Freddie other than the creation of profit," and that such relatively risky investments could prove inconsistent with their "mission of providing primary mortgage market liquidity during a crisis."[37]

Once home prices began to decline in 2007, mortgages defaults rose sharply. The Federal Reserve Board reports that "serious delinquency rates" on mortgages, which had averaged 1.7% from 1979 to 2006, soared to 4.5% by June 2008. In the same month, the serious delinquency rate for subprime mortgages reached 21.0%.[38] As a result, many PLS held by Fannie and Freddie declined in value, despite their high "ratings." In 2008, the capital market divisions of Fannie and Freddie, which manage their investment activities in mortgage loans and mortgage-related securities, lost more than $57 billion.[39] The high foreclosure rates also forced Fannie and Freddie to assume explicit ownership of many single-family homes with mortgages they had guaranteed; and as the value of these homes feel sharply, the asset side of the balance sheets of both companies deteriorated further. [40]

These developments were further aggravated by Fannie and Freddie's use of extreme leverage, after many years of financing their expansion through debt issues rather than equity issues. Their official leverage ratios ranged from 23-to-1 to 38-to-1 for 2001 to 2007, rivaling Lehman Brothers and Bear Stearns; and economists at NYU have calculated that their "credit-based leverage ratio," which includes off-balance sheet guarantees, was about 70-to-1 over this period.[41] As a result, the decline in the value of their assets quickly overwhelmed their equity.

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[34] Lehnert, Andreas, Wayne Passmore, and Shane Sherlund (2006). See also, *Los Angeles Times* (2011).
[35] McCoy, Patricia A., Andrey D. Pavlov, and Susan M. Wachter (2009).
[36] Park, Kevin (2010)
[37] Hays, Kathleen (2005).
[38] Mayer, Christopher, Karen Pence, and Shane Sherlund (2008).
[39] Park (2010).
[40] *Ibid.*
[41] Acharya, Viral, Matthew Richardson, Stijn van Nieuwerburgh and Lawrence White (2011).

Ineffective regulation and oversight enabled and abetted these excesses and their associated vulnerabilities. Neither company had in place an adequate risk management system, despite the fact that the Office of Federal Housing Enterprise Oversight (OFHEO) had directed Fannie to do so in 2006. In 2009, the newly-established Federal Housing Finance Agency (FHFA) found that Fannie had failed to comply with OFHEO's 2006 directive, and reiterated that judgment in 2010 and again in 2011. Yet, the FHFA failed to take any additional steps to ensure compliance, and acknowledged in late 2011 that it lacked the capacity to effectively monitor and regulate Fannie and Freddie's activities.[42]

Similarly, the OFHEO had no authority to manage or change Fannie and Freddie's capital requirements or standards, which remained under the control of Congress and committees of jurisdiction that traditionally protected both enterprises from strict regulation.[43] Fannie and Freddie's extraordinarily low capital standards – 2.5% against the book value of their on-balance sheet assets, and 0.45% against their off-balance sheet guarantees -- allowed them to expand their profits during the housing boom but provided little buffer when the housing market tanked.[44]

The Housing and Economic Recovery Act (HERA)

As the housing market continued to sink in the summer of 2008, Congress passed the Housing and Economic Recovery Act (HERA) to protect Fannie and Freddie from collapse and help bolster the market. As noted above, the Act created the Federal Housing Finance Agency (FHFA) with significantly more authority than OFHEO. FHFA was authorized to set capital requirements, prudential management standards, and executive compensation for both enterprises. The FHFA also was granted conservatorship authority, so it could take over Fannie and Freddie and force them to reorganize and conserve their assets. HERA also gave the FHFA receivership authority, which empowers the agency, if necessary, to reorganize Fannie and Freddie and liquidate their assets.[45]

As the economic crisis deepened, investors began to question Fannie and Freddie's ongoing viability. HERA had given the Treasury Department new authority to support the market for Fannie and Freddie by directly purchasing their securities.[46] Treasury Secretary Henry Paulson considered this power to be a formidable signal of the government's commitment to the two enterprises, whether or not it was invoked: "If you've got a squirt-gun in your pocket, you may have to take it out. If you've got a bazooka and people know you've got it, you may not have to take it out."[47] In time, the Treasury invoked and acted on this authority.

HERA also strengthened Fannie and Freddie's commitment to affordable housing by established the Housing Trust Fund (HTF) and the Capital Magnet Fund (CMF) to support state programs providing housing assistance. The Act directed that the new trust funds be capitalized by payments of 4.2 basis points of all new business revenues (0.00042%) generated by Fannie and

[42] Federal Housing Finance Agency, Office of the Inspector General (2011).
[43] Stanton, Thomas (2009).
[44] Acharya *et al*. (2011).
[45] Reiss, David J. (2014).
[46] Independent Community Bankers of America (2008).
[47] Reddy, Sudeep (2008).

Freddie, with 65% of those funds for the HTF and 35% for the CMF. While the funds were not capitalized before the FHFA placed Fannie and Freddie in conservatorship, Congress expected that the funds would receive about $500 million per year.

Under HERA, the HTF is administered by the Department of Housing and Urban Development (HUD) and provides block grants to state agencies that support the stock of affordable housing and broad access to it, including help with rent or mortgage refinancing, and property purchases, construction and demolition.[48] Every state is guaranteed a minimum grant of $3 million per year, with the overall funding distribution based on each state's quantity of affordable rental housing. HERA also directs that no more than 10% of grants go to support homeownership, reserving at least 90% for support for affordable rental housing. HERA further stipulates that 75% of funding go to assist families with incomes below the poverty line or families with incomes of less than 30% of local median income, and the remaining 25% go to programs assisting families with less than 50% of the local median income.

The second trust fund created under HERA, the CMF, is administered by the Community Development Financial Institutions Fund and the Department of the Treasury. The CMF focuses its support on competitive grants to Community Development Financial Institutions (CDFI) and other not-for-profit organizations that promote affordable housing and other economic development activities. At least 70% of funding for any grantee must go to support affordable housing, and grantees are required to leverage their CMF award with at least ten times the award amount from other outside sources, and complete their projects within five years.[49]

The Conservatorship of Fannie Mae and Freddie Mac

On September 6, 2008, the newly-minted FHFA placed Fannie Mae and Freddie Mac into conservatorship. In August, Fannie Mae had reported $41.2 billion in total equity and Freddie Mac reported $12.9 billion, levels exceeding their capital requirements; but the values they attributed to their assets were badly outdated. An analysis by the Federal Reserve Bank of New York found that if those assets were treated in the way that banks value their assets, Fannie Mae's net book value would have been $20.6 billion, and Freddie Mac would have fallen into negative equity. Moreover, the fair market value of the assets of both entities was considerably less than their book value; and these concerns, combined with the bleak outlook for housing markets, convinced the FHFA to take such drastic action.[50]

As a conservator, the FHFA is responsible for restoring Fannie and Freddie to solvent conditions while preserving their assets and maintaining their public mission. To these ends, the agency directed the two enterprises to suspend dividends to their shareholders and funding for the two trust funds, which in case had not yet received any funds. [51] The agency also replaced the CEOs and directors of both Fannie Mae and Freddie Mac,[52] and barred both companies from

[48] Projects funded by the HTF must be completed in five years and must remain affordable for at least 30 years.
[49] Community Development Financial Institutions Fund (2014).
[50] Frame *et al*. (2015).
[51] *Ibid.*
[52] David Moffet replaced Fannie Mae CEO David Mudd, and Herbert Allison replaced Freddie Mac DEC Richard Syron. *Washington Post* (2015).

lobbying the government.[53] Under the conservatorship agreement, the Treasury Department also agreed to provide liquidity for the continued operations of both companies in exchange for preferred stock with annual 10% cash dividends or 12% stock dividends. Under these Preferred Stock Purchase Agreements (PSPAs), the Treasury committed to provide up to $100 billion I financing, later amended to $200 billion and then to an unlimited amount. Under the PSPAs, in exchange for these commitments, the Treasury received $1 billion in preferred stock from each enterprise and warrants for 79.9% of their common stock.[54] In addition, the FHFA agreed to withhold dividends for any other shareholders, including private preferred shareholders, unless the Treasury directed otherwise.[55] Finally, Fannie and Freddie were directed to reduce their retained portfolios by 10% per year until each retained no more than $250 billion.[56]

In August 2012, the Treasury amended its agreement with the FHFA, so the Treasury could begin immediately to sweep all of the two companies' quarterly profits to the Treasury.[57] Under this new provision, the Treasury each month claims the net worth of Fannie and Freddie above a gradually-declining "net worth buffer."[58] The amendment's stated goal is to wind down Fannie and Freddie's operations.[59] The result is that Fannie and Freddie will have zero net worth, with their assets equal to their liabilities, and zero shareholder equity, by 2018. Unsurprisingly, the share prices of both enterprises, which had fallen when the FHFA and Treasury determined to withhold dividends, fell considerably more with the amendment's adoption.

The result of all this, as some analysts have described it, is that the federal government effectively owns Fannie and Freddie without having legally nationalized them. While these arrangements may be acceptable during a conservatorship intended to restore the two enterprises to safe and solvent conditions, they are not acceptable as a long term state of affairs, especially since they leave taxpayers at risk in the next housing downturn. In particular, the Treasury's quarterly sweeps of Fannie and Freddie's profits have denied the two enterprises the ability to rebuild capital through their retained earnings, aggravating the risks to taxpayers.

With the improving housing market, the financial condition of Fannie and Freddie began to turn around in 2012. The two enterprise, which had lost more than $200 billion from 2008 to 2011, earned $28 billion in 2012, $132 billion in 2013, and $22 billion in 2014.[60] (Their huge 2013 profits mainly reflected a one-time adjustment to their deferred tax assets.) The federal government is the only beneficiary of this recent success, since the profits are swept by the Treasury, and private shareholders cannot collect dividends.[61] In response, private shareholders have brought lawsuits charging the FHFA with violating their legal rights to share in Fannie and

[53] Labaton, Stephen and Edmund. Andrews (2008).
[54] Reiss (2014).
[55] Federal Housing Authority Office of the Inspector General (2015).
[56] Smith, Stacy V. (2015).
[57] Light, Joe (2015).
[58] Federal Housing Authority Office of the Inspector General (2013).
[59] *Ibid.*
[60] Federal Housing Authority Office of the Inspector General (2015).
[61] Both common and preferred shares of Fannie and Freddie are traded over-the-counter (OTC). See MacLennan, Alexander (2014).

Freddie's profits and with a failure to comply with HERA.[62] Should those shareholders be successful and Treasury has to walk back the August 2012 amended agreement with FHFA, the Treasury could face demands to return to Fannie and Freddie the $131 difference between what it received under the net worth sweep and what it would have received under the original provision for a 10% cash dividend.

IV. The Current State of American Housing

Housing is a major force in most economic recoveries. The Federal Reserve usually cuts interest rates during recessions; and since housing construction and home purchases are highly interest-rate sensitive, rising demand in the housing sector is often the leading factor in the economy's recovery. Following the 1974-1975 and 1981-1982 recessions, for example, housing construction added a full %age-point to GDP growth; and after the 2001 recession, housing-related sectors provided nearly 40% of all new, private-sector job creation.[63] The recovery from the 2007-2009 recession, however, has been different. As then-Federal Reserve Board chair Ben Bernanke noted in a 2012 address to the Economic Club of New York,

> Previous recoveries have often been associated with a vigorous rebound in housing, as rising incomes and confidence and, often, a decline in mortgage interest rates led to sharp increases in the demand for homes. But the housing bubble and its aftermath have made this episode quite different.[64]

In mid-2015, eight years after the onset of the housing crisis, construction remains at least 20% below pre-crisis levels.[65]

The government has applied a range of measures to stimulate the housing sector, with only limited success. In 2009, Congress enacted the Home Affordable Modification Program (HAMP), which uses TARP funds to reward mortgage lenders that restructure the mortgages of strapped homeowners, so they have to pay no more than 31% of their monthly gross incomes.[66] Similarly, the Home Affordable Refinance Program (HARP) encourage lenders to help homeowners refinance their mortgages when those mortgages are "under water" by exceeding the market value of the homes. Both programs are limited to mortgages backed by Fannie or Freddie. Since their establishment, HAMP has helped some 1.5 million homeowners, and HARP has assisted more than 3 million more.[67] Congress also appropriated $80 million dollars in 2010 for the Capital Magnet Fund (CMF), which along with the HTF had remained unfunded. By the end of 2012, the CMF had supported 265 projects affecting nearly 7,000 households. Congress also enacted initiatives to support the home rental market, including measures to facilitate the rehabilitation of publically and privately owned affordable housing units and incentives for rental owners to maintain affordable rents.[68]

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[62] Vardi, Nathan (2014).
[63] Weinberg, John (2013).
[64] Bernanke, Ben (2012).
[65] Hartman, Mitchell (2015).
[66] Federal Housing Finance Agency Public Affairs (2014).
[67] Goodman, Laurie, Jun Zhu, and Taz George (2015).
[68] Fernald (2015).

Nevertheless, the current housing recovery has been exceptionally slow. While housing debt has fallen sharply, high housing debt still burdens many individuals and communities. Zillow, the online real estate media company, reported that in the first quarter of 2012, more than 31% of mortgaged homeowners had negative equity; by the first quarter of 2015, more than 15% of mortgaged homeowners (some 7.9 million households) were still "under water," and an additional 18% had less than 20% equity.[69] Such low or negative equity often keeps homeowners who otherwise would move from doing so. It also promotes higher saving by those homeowners, which in turn dampens their consumption and leaves them vulnerable to serious hardship if an outside shock occurs, such as the loss of a job or a serious illness or injury.

At the same time, banks have imposed more stringent requirements on mortgage borrowers, including higher credit scores, less outside debt, larger down payments, and more documentation. These stricter conditions have especially affected first-time homebuyers. Recently, the government has tried to ease those conditions. In December 2014, the director of the FHFA, Melvin Watt, directed Fannie and Freddie to support mortgages with down payments as low as 3%;[70] and in January 2015, the FHFA announced that the Federal Housing Authority (FHA) would lower the insurance payment for FHA-insured mortgages by a half %age point.[71] Housing credit conditions have begun to ease, but access to mortgages remains much lower than before the housing crisis.[72]

Nationwide, housing prices bottomed out in 2011 and since then have nearly recovered to their pre-recession levels. From 2008 to through 2010, a glut of houses on the market , including foreclosed houses, depressed housing prices; but more recently, the supply of houses, relative to demand, is more in line with historical averages. A study by the Federal Reserve Bank of Dallas, for example, found a six months' supply of single-family homes for sale, and the price-to-rent ratio used to gauge whether homes are properly valued is back in line with its historical averages.[73] Within the nationwide housing recovery, however, housing prices in some cities, such as Las Vegas and Phoenix, remain more than 25% below their pre-crisis levels.[74]

Housing construction also remains depressed. Construction of single-family housing started to increase in 2012, but at its current rate of growth (14.7% per year), single-family home construction will not return to its 2007 levels for several years.[75] Construction on multi-family housing such as apartment and condominium complexes has been relatively stronger, suggesting an income-based shift from single-family dwellings to apartments. In 2011, the annual rate of single-family homes was negative, but multi-family home construction grew 56%. While the growth rate of multi-family home construction has not yet the high levels seen in 2011, the number of multifamily home starts has continued to increase; and in 2014, those home starts grew 14%.[76]

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[69] Gudell, Svenja (2015).
[70] Christie, Les (2014).
[71] Harney, Kenneth R. (2015).
[72] Anderson, Jaime (2015).
[73] Duca, John (2014).
[74] Gavekal Capital (2015).
[75] U.S. Census Bureau (2015-C).
[76] Dietz, Robert (2015).

Construction employment also remains well below its 2007 levels.[77] From March 2007 to January 2011, the number of people working in home construction declined by some 30%, from 7.7 million to 5.4 million position. Today, 6.3 million people are employed in home construction, or still more than 18% fewer jobs than in March 2007. If overall economic conditions continue to improve, as expected, increases in construction employment should continue.[78]

All told, home ownership rates have declined sharply. That rate has fallen fairly steadily from a peak rate of 69.4% in the second quarter of 2004, to 63.9 % in the fourth quarter of 2014, a decline of 7.9%.[79] There also are considerable regional differences in these rates. In the fourth quarter of 2014, homeownership was highest in the Midwest, with a rate of 68.3 %, followed by households in the South at 65.5%. Households in the Northeast and West had substantially lower ownership rates at 61.9% and 58.6%, respectively.[80]

The largest declines in home ownership have occurred among younger and minority households, both of which began with relatively low rates. From the first quarter of 2008 to the fourth quarter of 2014, homeownership rates fell 12.1% among households headed by people under 35 years old and by 11.8% among those headed by people 35-to-44 years old, compared to declines of 6.0% and 5.7% for households headed by people 45-to-54 and 55-to-64 years old, respectively.[81] Similarly, from the first quarter of 2010 to the fourth quarter of 2014, the home ownership rate for households headed by non-Hispanic whites declined by less than 3%, from 74.5% to 72.3%.[82] By contrast, the rate for households headed by African-Americans fell by 7.7 percent, declining from 45.6% at the end of 2010 to 42.1% at the end of 2014; and homeownership rates for households headed by Hispanics fell 8.2%, down from 48.5% to 44.5% over the same years.

The challenges also are evident in the rental market. The Joint Center for Housing Studies at Harvard University found that from 2010 to 2014, demand for rental housing increased by an average of 900,000 unit per year, the highest sustained rate on record. [83] The rising demand for rental housing, a development closely tied to falling home ownership rates, is also evident in falling rental vacancy rates: From 2005 to 2008, rental vacancy rates averaged 9.8% and peaked in the third quarter of 2009 at 11.1%.[84] In 2014, these rates averaged 7.6%, a 22.5% decline from the average for 2005 to 2008, and reached a low of 7.0% in the fourth quarter of 2014, a 36.9% drop from its 2009 peak. Moreover, older and higher-income households, groups with high rates of homeownership, account for a disproportionate share of this recent rental growth. Households headed by people age 55 and over comprise one-quarter of all renters while accounting for 42% of all rental growth from 2004 to 2014. Similarly, households in the top income quartile contributed 20% of all rental growth over this period while comprising 11 % of all renters.[85]

[77] Hartman, Mitchell (2015).
[78] Dietz (2015).
[79] U.S. Census Bureau (2015-D).
[80] *Ibid*, at Table 5.
[81] *Ibid*, at Table 6.
[82] *Ibid*, at Table 7.
[83] Fernald (2015).
[84] U.S. Census Bureau (2015-D). Table 1.
[85] Fernald (2015).

To meet the rising demand for rental units, owners and developers have converted owner-occupied homes to single-family rental units and increased construction of new multifamily rental properties. From 2004 to 2014, the number of households living in single-family rental units increased by 3.2 million, accounting for nearly one-half of the growth in rental households over that period.[86] However, the increases in the stock of rental housing have not kept up with demand, especially for moderate-income households. In 2013, the median rent for units in new multi-family housing was $1,290 per-month, a level that exceeds the standard measure of 30% of gross income for an estimated two-thirds of renting households.[87] Moreover, average rents have been rising much faster than overall inflation, nationally and especially in cities such as San Francisco, San Jose, Denver, and Honolulu, where average rents have been rising at rates exceeding 10% per year. In 2014, nearly one-half of all renters were forced to spend more than 30% of their incomes on rent, and rent claimed more than half of the income of more than one-quarter of renters.[88]

Current Obstacles to Homeownership and Affordable Rental Housing

As much of the data described above suggest, the country's current housing problems disproportionately affect relatively lower-income people and households. These challenges are especially severe for households headed by people without college degrees: A recent study from the Brookings Institution found that the incomes of households headed by younger high school graduates – people who were 25-to-29 years old in 2001 – rose just $2,000 as they aged from 2002 to 2013, compared to gains of nearly $20,000 by households headed by people of comparable ages with college degrees.[89] Furthermore, a 2008 study found that the wealth of moderate-income homeowners, on average, depends much more heavily on rising home values than the wealth of higher-income homeowners. In that context, the Federal Reserve Board reports that the housing equity of homeowners in the highest income decile declined by 4.4% from 2010 to 2013, compared to an 11.0% decline for homeowners with below-median incomes.[90] Further, as of March 2015, the mortgages (and mortgage holders) for 15% of homes worth less than $200,000 were underwater – that is, carried negative equity -- compared to 6% of homes worth more than $200,000.[91] And homeowners carrying subprime mortgages – principally people with modest incomes – are not even eligible for the new federal loan modification programs.[92]

In this environment, most moderate income households have very limited access to mortgage credit. Many banks now apply credit standards that are considerably more stringent than required for Fannie or Freddie mortgage purchases or guarantees. A recent study from the Urban Institute found that total "credit risk" for new mortgages, which includes borrower risk and "product risk," (for example, that the house will wash away in a flood or be condemned for ground pollution) has fallen by two-thirds, compared to 2006 when mortgage money was widely available,

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[86] *Ibid.*
[87] *Ibid.*
[88] *Ibid.*
[89] Shapiro, Robert J. (2015).
[90] Bricker, Jesse, Lisa Dettling, Alice Henriques, Joanne Hsu, Kevin Moore, John Sabelhaus, Jeffrey Thompson and Richard Windle (2014).
[91] Light (2015).
[92] *Ibid.*

and by one-half compared to the more typical conditions of 2001, before subprime lending became common.[93] The authors further estimated that if mortgage credit were as available in 2009 to 2013 as it was in 2001, some four million additional households could be homeowners today.

These burdens on moderate-income households trying to purchase a home, especially for minority households, come on top of the challenges those households have long faced in securing mortgages. A 1986 study found that the likelihood of being rejected for a mortgage in Boston was 5.5-to-8.2 percentage-points greater for minority households than for white households, all else being equal.[94] Similarly, a 1994 study from the Federal Reserve Bank of Cleveland found that homeowners in lower-income neighborhoods had more difficulty securing home-improvement loans than their counterparts in higher-income neighborhoods, controlling for income and other characteristics associated with mortgage denial.[95] Further, a 2004 study concluded that persistent gaps in home ownership rates between African-Americans and whites and between Hispanics and non-Hispanic whites cannot be explained by household income, family status, education, and health status.[96]

Further, the wealth of minority households, like lower-income households, is highly dependent on rising home values. A 2008 HUD study found that among higher-income households, before the housing crash, the non-housing wealth of whites grew 8.8 times faster the non-housing wealth of African-Americans, while the home equity wealth of whites grew 1.3 times faster than the home equity wealth of African-Americans.[97] Another study found that from 2009 to 2011, prices nearly stabilized for houses owned by an average white homeowner, while those owned by the average African-American homeowner fell 6%.[98] African-American households also were more likely to hold toxic sub-prime mortgages, after controlling for income, because they were more likely to be targeted by predatory lending practices.[99] In this context, the Urban Institute study of credit conditions in 2009 to 2013, compared to 2001, found that under the credit conditions of 2001, the number of new mortgages secured by whites in 2013 would have been 45% greater, compared to increases of 60% for Hispanics and 100% for African-Americans.[100]

The current conditions of the housing market disproportionately burden moderate and low income households in other ways. Affordable housing for those households is not as profitable to build and operate as luxury apartments, even with federal subsidies such as the Low Income Housing Tax Credit (LHITC). The Harvard Joint Center for Housing Studies Urban Institute reports that over the last decade, the supply of affordable housing for "extremely low-income" households earning less than 30% of the local median earnings fell from 70 units for every 100 households to 34 units per-100 households, and the supply of affordable housing for "very low-income" households earning less than 50% of local median earnings is only 58 units for every 100

[93] Goodman *et al*. (2015).
[94] Munnell, Alicia, Geoffrey Tootell, Lynn Browne and James McEneaney (1996)..
[95] Avery, Robert, Patricia Beeson and mark Sniderman (1994).
[96] Gabriel, Stuart and Stuart Rosenthal (2004).
[97] Boehm, Thomas and Alan Schlottmann (2008).
[98] Burd-Sharp, Sarah, and Rebecca Rasch (2015).
[99] *Ibid.* Bank of America and Wells Fargo paid $355 million and $234 million, respectively, to settle with the Department of Justice over their alleged discriminatory housing practices. See Allen, Freddie (2015).
[100] Goodman *et al*. (2015).

households.[101] In addition, the supply of affordable units for extremely low and very low income households is expected to continue to fall over the next five years.[102]

Lacking access to affordable housing has many adverse consequences for lower-income families and their communities. Households forced to spend a disproportionate share of their incomes on housing are more vulnerable to a financial shock such as illness and more likely to become homeless. Many such households also are forced to scrimp on basic necessities such as food, clothing, transportation, and health care. Empirical evidence shows that individuals with access to secure housing have better health outcomes. Studies from the Center for Disease Control (CDC) have found that adults with such "insecure housing" are nearly 28 %age-points more likely to forgo medical visits for reasons of cost, and more than 16 %age-points more likely to experience mental distress. In addition, children in such environments have worse school attendance and educational and mental health outcomes."[103]

The Current Condition of Fannie Mae and Freddie Mac

Fannie Mae and Freddie Mac have remained critical to the mortgage industry and the financial sector even in their conservatorship, especially since more private firms have become reluctant to assume a "first-loss position" in which they absorb the initial losses from a delinquent or foreclosed mortgage. With the Government National Mortgage Association (Ginny Mae), Fannie and Freddie guaranteed more than 90% of all conforming, single-family mortgages originating in 2014. At the end of 2014, Fannie held some $3.25 trillion in assets,[104] and Freddie held more than $1.9 trillion.[105] Under the terms of their conservatorship and the Treasury Department's "preferred stock purchase agreements," however, Fannie, Freddie and Ginny Mae are directed to further reduce the size of their retained mortgage portfolios. As a result, they all have found other ways to generate profits, including charging banks higher fees for their mortgage guarantees, which in turn raises the cost and price of mortgages.[106]

Notwithstanding their lack of reserve capital tied to the profit-sweep arrangement with the Treasury Department, Fannie and Freddie appear to be reasonably strong. Fannie Mae reports that it earned more than $14 billion net income in 2014; and by the end of that year, Fannie had paid $142.5 billion to the Treasury, which is $26.3 billion more than it received in direct bailout payments from the Treasury. One reason is that less than 1.9% of Fannie-backed mortgages are in serious delinquency, roughly one-third the rate at the height of the housing and economic crisis.[107] Similarly, Freddie Mac guaranteed $255.3 billion of new single-family mortgages in

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[101] Fernald (2015).
[102] *Ibid.*
[103] A 2001 study found that students growing up in crowded households complete 0.24 less schooling than their counterparts in uncrowded households, and a 2013 study found that students who moved two or more times in their fourth to eighth grades were 37 %age points more likely to be depressed as young adults, after controlling for early family risk, prior academic achievement, social and emotional maturity, child abuse and neglect, grade retention, and special education status. See Herbers, Janette E., Arthur J. Reynolds, and Chin-Chih Chen (2013).
[104] Federal National Mortgage Association (2015).
[105] *Ibid.*
[106] Sreeja, V.N. (2013)
[107] Federal National Mortgage Association (2011).

2014, and reported nearly $8 billion in profits. All told, Freddie has paid the Treasury $96.5 billion or $25.2 billion more than in bailouts, and the rate of serious delinquencies for Freddie-back mortgages also has fallen to 1.9%.[108]

In 2013, Fannie and Freddie also began to offer new, unsecured debt products, called Connecticut Avenue Securities (CAS) and Structured Agency Credit Risk (STACR). Unlike traditional guaranteed MBS, these new products shift the risk of mortgage defaults to the investors. The investors purchase an interest in a reference pool of mortgages, and the payments they receive are based on the performance of the mortgages in that reference pool. Generally, investors earn a coupon rate higher than traditional mortgage-backed securities, since they assume additional risk; but if a sufficient number of those mortgages default, the investors lose money. These new securities shield Fannie and Freddie from bearing all of the losses associated with mortgage defaults, and reveal the true price of credit risk in the housing market.[109]

Fannie and Freddie also have undertaken new initiatives to stimulate housing for moderate and lower-income households. In December 2014, FHFA Director Watt announced that homeowners with sound credit can qualify for Fannie and Freddie conforming mortgages with down payments as modest as 3%.[110] Further, Fannie inaugurated the “Home Path Ready Buyer” program in April 2015 which offers first-time homeowners with a Fannie-backed mortgage a 3% rebate if they enroll in a home-owning education course.[111] In the same month. Fannie and Freddie announced a new program for the Chicago metropolitan area that offers a discounted rate on foreclosed properties to qualified not-for-profit organizations that rehabilitate the properties for affordable housing.[112]

V. Reforms to Recapitalize Fannie Mae and Freddie Mac and Promote Broad Access to Affordable Housing and Home Ownership

For decades, Fannie Mae and Freddie Mac have been the government’s main vehicles for promoting home ownership and broad access to affordable housing. Since their insolvency and bailouts in the 2008-2009 housing and financial crisis, and the conservatorship which followed, policymakers have debated whether Fannie and Freddie should reclaim their traditional role and, if so, how they should be reorganized them to best achieve their goals without risking another taxpayer bailout if financial and housing markets stumble badly again. Yet, most recent proposals for reforming Fannie and Freddie would not foster higher home ownership and greater access to affordable housing.

Proposals in Congress and by Outside Analysts

The strongest proposal has come from Senators Tim Johnson and Mike Crapo, based on an earlier proposal from Senators Mark Warner and Bob Corker and approved by the Senate Banking

[108] Federal Loan Home Mortgage Corporation (2015).
[109] Lee, Pamela and Bing Bae (2014).
[110] Swanson, Brena (2014).
[111] Lane, Ben (2015).
[112] Podmolik, Mary Ellen (2015).

Committee on May 15, 2015.[113] If enacted, the bill will replace Fannie, Freddie and the FHFA with a new regulatory agency to foster greater stability in the housing markets, called the Federal Mortgage Insurance Corporation (FMIC). Similar to the Federal Deposit Insurance Corporation, the FMIC would avert a reprise of the 2008-2009 financial meltdown by insuring and guaranteeing the value of failing MBS after private investors absorb the first 10% of their losses.[114] The bill also would preserve the HTF and the CMF with their current funding arrangements to stimulate production of affordable housing in underserved communities, and create the new Market Access Fund (MAF) to provide grants to private enterprises or organizations developing new ways of increasing homeownership in those communities.[115]

Unfortunately, the proposal has certain critical flaws. First, it would take an already complex system and make it more convoluted by distributing the roles of Fannie and Freddie among several different public and private entities. For example, primary lenders could no longer sell individual mortgages to a government-sponsored enterprise capable of securitizing those mortgages but, instead, would have to sell their mortgages to "Approved Aggregators" that would deliver a package of mortgages to a single "Securitization Platform" for all FMIC-backed MBS. Moreover, the bill would raise mortgage costs and thereby dampen homeownership.[116] Barclays estimates that mortgage rates would increase by between 0.2 percentage points and 0.8 percentage points, and a study from the Harvard Joint Center for Housing Studies forecast that mortgage rates could rise by as much as 1.5 percentage points.[117] A 1.5 percentage-point increase would raise the monthly payments on a 30-year, $300,000 mortgage by $215; and even a 0.5 percentage-point increase would raise those monthly payments by $70.[118] Such rate increases would weaken the housing market's already less than robust conditions, including sluggish construction activity, tight credit, and low homeownership rates.

Moreover, the housing market's current problems, on top of the recent housing crisis, have disproportionately affected lower-income and minority communities. Yet, the Johnson-Crapo legislation fails to provide any targets for increasing affordable housing or means of accountability in those efforts, even as the higher mortgage rates implicit in the legislation would disproportionately disadvantage those same communities. At this time, however, the bill appears to be stalled, since lack of sufficient support has persuaded the Senate Banking Committee to not bring the bill to the Senate floor for a vote.

The other major proposal in Congress, the "Protecting American Taxpayers and Homeowners (PATH) Act, would be an even more problematic way to promote broader access to affordable housing. The legislation would phase out Fannie Mae and Freddie Mac over five years and limit the federal government's involvement in affordable housing to regulation of the securities market.[119] Industry analysts such as Mark Zandi, chief economist at Moody's Analytics also

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[113] Seidman, Ellen (2015).
[114] Hoskins, Sean (2014.
[115] Finkle, Victora and Donna Borak (2014).
[116] Hoskins (2014).
[117] Timiraos, Nick (2014).
[118] Calculated using the Zillow mortgage calculator and assuming a fixed interest rate of 3.98 %, the average 30 year fixed mortgage rate in June 2015.
[119] *Washington Post* Editorial Board (2013).

argue that the PATH Act would seriously impair general access to conventional, 30-year fixed-rate mortgages: On their own, private lenders are much less willing to assume substantial interest rate risk and thus, on their own would be much less willing to invest in mortgages with long time horizons.[120] Nevertheless, the House Financial Services Committee approved the PATH proposal in July 2013. Most observers, however, believe that the proposal will never become law; and so like the Johnson-Crapo bill in the Senate, the Financial Services Committee has never reported the bill to the floor of the House.

A scholar at the American Enterprise Institute (AEI), the conservative research organization, has proposed that Congress downsize but not eliminate the role of Fannie and Freddie. The study urges Congress to codify the definition of prime mortgages, lower the ceiling on conforming loans, and so limit Fannie and Freddie to such conforming loans of prime mortgages and reduce their investment portfolios.[121] The author also would end purchases of MBS by the Federal Reserve and force private investors in MBS to absorb their initial losses, and believes that once all of these measures take effect, private investors and institutions will supplant most or all of Fannie and Freddie's operations. The strategy could provide a more orderly transition than the PATH bill to a purely private-sector housing finance system; it also would raise mortgage rates, reduce the viability of 30-year, fixed-rate mortgages, and significantly reduce access to affordable housing for lower-income and minority communities.

A professor at the Robert Smith School of Business at the University of Maryland, Dr. Clifford Rossi, has proposed a very different approach which would allow Fannie and Freddie to operate much as they did before the crisis.[122] First, the conservatorship of Fannie and Freddie would have to end, which would require that the Treasury stop claiming all of Fannie and Freddie's profits so they can build up their capital reserves to least 4%. Rossi's study also argues that Fannie and Freddie's retained portfolios should be reduced and the compensation of their senior executives should be curbed. He believes that all of these measures, taken together and on top of the Dodd-Frank financial system reforms, would sharply reduce the risk that taxpayers ever again will have to bail out Fannie and Freddie – especially since he claims that a 4% capital buffer would have covered Fannie and Freddie's losses during the crisis, without any bailout.[123] Four percent capital reserves also is consistent with Basel III standards and greater than or equal to the 3.0% to 4.0% levels recommended in an internal Treasury Department memorandum from January 2011 that considered the recapitalization of Fannie and Freddie.[124]

We agree that the best strategy for promoting broad home ownership and access to affordable housing, including for lower-income and minority households, entails recapitalizing Fannie Mae and Freddie Mac. Further, such recapitalization, together with prudent capital requirements, strict regulation by the FHFA, a reduced retained portfolio of mortgage assets and MBS, and greater use of risk-sharing transactions that shift mortgage credit risk to private

[120] Zandi, Mark and Christian deRitas (2011).
[121] Pollock, Alex J. (2013).
[122] Rossi, Clifford (2014).
[123] *Ibid*.
[124] U.S. Department of the Treasury (2011).

investors, should preclude future taxpayer bailouts of Fannie and Freddie under virtually any crisis scenario.

Our Strategy to Promote Affordable Housing by Recapitalizing Fannie Mae and Freddie Mac

We agree that the best approach for promoting affordable housing involves the recapitalization of Fannie Mae and Freddie Mac on terms which also generously fund the Housing Trust Fund (HTF) and the Capital Magnet Fund (CMF) established by HERA. This can be achieved, first, by the Treasury ending its sweep of Fannie and Freddie's quarterly profits, so both enterprises can build capital and restore reasonable value to their outstanding stock, and second by the Treasury transferring the government's warrants for 79.9% of the common shares of both enterprises to the HTF and CPM, which could then sell the stock in secondary offerings to fund their affordable housing activities.

This approach also assumes that given Fannie and Freddie's payments to the Treasury thus far of $239 billion, covering their $187 billion in capital injections plus $52 billion in dividends to the Treasury, the Treasury will deem that Fannie and Freddie have met their obligations under the 2009 Senior Preferred Stock Purchase Agreement (PSPA). That agreement required that Fannie and Freddie fully repay the funds provided by taxpayers to bail them out, plus an annual 10% cash dividend or 12% stock dividend. The reduction of any remaining balance owed to the Treasury would largely accrue to the Treasury's stock warrants, which in turn would increase the resources of the affordable housing funds that will receive the stock due under those warrants. We also assume that the Treasury and the FHFA will permit Fannie and Freddie to raise additional capital by issuing stock, as regulators have required other firms that received taxpayer assistance during the financial crisis to do, in order to meet prudent capital requirements. When the conservatorship ends, the President or FHFA should appoint 40% of Fannie and Freddie's boards of directors, as the President had done for many years.

The analysis of this strategy begins with a preliminary valuation of Fannie and Freddie. Using standard methods for corporate valuation, the combined assets of the two enterprises should reach $4.67 trillion in 2020, assuming the above conditions and the current path of their business activities and fees for their guarantees. The analysis also assumes that Fannie and Freddie will maintain 4.0% capital reserves, or $4 of equity capital and retained earnings for every $100 of assets. This implies that Fannie and Freddie will need $187 billion in capital reserves by 2020, to be raised by retained earnings and new capital raised from investors.

We modeled out this capitalization scenario. It assumes, again, that the Treasury will end its net-profits sweep in the current fiscal year (FY 2015), and Fannie and Freddie will raise $100 billion through four rounds of new public stock offerings of $25 billion each, to help establish their 4.0 % capital reserves. It further posits that the government will exercise its warrants for 79.9 % of the current common stock of Fannie and Freddie, distribute those shares to the HTF (65 %) and the CMF (35 %), and that the HTF and the CPM will sell those shares to the public in three rounds of secondary stock offerings. Those secondary stock sales should raise an estimated $99 billion to endow the activities of the HTF and CMF.

Those estimates also rest on projections of the value of Fannie and Freddie common stock, once the Treasury stops sweeping or claiming all of their profits. Under current conditions with that profit sweep, the 20.1 % of their stock held by private investors is valued at about $2.20 per share. Once Fannie and Freddie can retain their profits and return to normal operations, the value per share is projected to rise to $10.34 (2016), $11.38 (2017), $12.51 (2018), $13.76 (2019) and $15.14 (2020). The new stock offerings also will reduce the ownership stake of those current investors, from their 20% stake today to 16% in 2017), 13% in 2018, 12% in 2019, and 10% in 2020.[125] Finally, private investors who held preferred shares before the conservatorship, now designated as junior preferred stock, would retain those shares; and their dividends would resume when the recapitalization is complete.

The strategy, in short, would return Fannie and Freddie to independent financial health. They would regain the capacity to carry out their traditional missions of providing liquidity and stability to U.S. housing markets, as they did before the 2008-2009 crisis, but this time under stricter regulation, more conservative balance sheets, and the use of the unsecured "Connecticut Avenue Securities" (CAS) and "Structured Agency Credit Risk" (SARC) securities that shift the risk of mortgage defaults to the investors. This strategy must be carried out in ways that do not ultimately increase costs to homeowners. As noted, its terms would dilute the common stock in Fannie and Freddie currently held by private investors, but it also would ensure that the two enterprises once again become valuable and profitable entities that pay healthy dividends to those shareholders. This strategy also would reward American taxpayers for their rescue of Fannie and Freddie: All told, the government would receive some $240 billion for its investment in Fannie and Freddie, including the profit sweeps, and the recapitalized enterprises could aggressively support broad access to affordable housing.

Fannie Mae and Freddie Mac have long-term markets that will allow them to pay dividends to their stockholders once the enterprises reach their appropriate capital levels. Accordingly, they should be able to raise the necessary capital at a modest discount to fair value, even if the reformed enterprises have limited opportunities for growth beyond the mortgage financing market. While there is no direct precedent for this plan in terms of its size, the AIG recapitalization demonstrates that a very large capital raise for a financial institution and its orderly exit from government majority ownership is viable. There also are important precedents in the several too-big-to-fail banks forced to raise capital from the markets to repay TARP assistance from the government, and the General Motors and Chrysler bankruptcies in which the government monetized its investments in the two auto companies by selling into the market the stock it has received in exchange for its assistance.

The basis features of the strategy are summarized in Table 3, below.

[125] The four IPOs also assume a discount in their pricing that would narrow as Fannie and Freddie's financial conditions improve: $9.67 per share for the 2017 offering, $11.89 per share for the 2018 offering, $13.63 per share for the 2019 offering, and the projected market price of $15.14 per share (no discount) for the 2020 offering.

Table 3: Basic Features of the Strategy to Recapitalize Fannie Mae and Freddie Mac

What happens to profits earned by Fannie and Freddie?	The Treasury stops its sweep of those profits, so Fannie and Freddie can retain them.
What happens to balance from the Preferred Senior Stock Agreement (PSSA)?	The balance is written down to zero, so Fannie and Freddie are deemed to have met the payments requirements of the PSSA.
What happens to Fannie and Freddie's junior preferred stock?	There is no conversion of that stock, and their dividends resume with the recapitalization.
Capital from primary offerings to recapitalize Fannie & Freddie	$100.0 billion
Capital from the government's secondary offerings to fund the affordable housing trust funds	$99.38 billion

Support for Affordable Housing under the Recapitalization of Fannie Mae and Freddie Mac

Under this strategy, the government would transfer its warrants for 79.9% of Fannie and Freddie's current stock to the use the funds raised from the secondary stock offerings to capitalize the Housing Trust Fund (HTF) and the Capital Magnet Fund (CMF), which would offer them as secondary stock offerings to fund their operations. As established in HERA, 65% of those resources would go to the HTF and 35% to the CMF; and under our proposal, the secondary stock offerings would raise $99.4 billion to capitalize the trust funds. (Table 2, above) Using the 65%-35% allocation, this strategy should provide $64.6 billion for the HTF and $34.8 billion to the CMF. This substantial funding could be distributed by Fannie and Freddie to the two trust funds over a 20-year period, and the income earned from the $99.4 billion in resources could be used to fund for their operations beyond this initial 20-year period.

As noted earlier, these resources would be used to support state affordable housing programs. Forty-seven states and the District of Columbia – all states except Alaska, Mississippi and Wyoming -- have housing programs based on state trust funds to support access to housing by lower-income households.[126] In most cases, these trust funds hold dedicated long-term funding, although some state trust funds depend on annually-appropriated funds provided through the state's budgetary process. State housing trust funds support a variety of activities, including but not limited to new housing construction, the acquisition and/or rehabilitation of existing housing units, retrofitting housing with green technologies, and assistance with down payments. About half of these state housing trusts direct their funds to government programs supporting access to rental housing or homeownership, and the other half distribute funds through a competitive grant process to non-profit organizations supporting such access. In most cases, the funds from state housing trusts are leveraged with private funds, federal funds, bank loans, foundation support and other sources of funding. In 2011, these leverage ratios ranged from 1:4 to 1:22.[127]

[126] Center for Community Change (2013).
[127] *Ibid.*

The National Impact – The Housing Trust Fund

Under the capitalization proposal presented here, as noted, the HTF would receive $64.6 billion over 20 years, or $3.2 billion per year. We assume that 10% of this funding goes for administrative support at both the federal and state levels, the maximum amount allowed under HERA, leaving $2.91 billion per year to support state programs for affordable housing. HERA also stipulates that at least 90% of HTF non-administrative funds go to support state programs for access to affordable rental housing, and no more than 10% be used to support homeownership programs. For our estimates, we allocate the full 10% of available funding for homeownership program, so that 80% of total HTF funds would go to support state programs for affordable rental housing.

To estimate the effects of this funding, we distribute HTF's annual funds across the states. The HTF allocates its funds among the states based on the availability of rental housing for extremely low-income and very-low income households and the demand in each state by those households for affordable housing. Using this formula, the National Low Income Housing Coalition has calculated the amount every state would receive for each $5 billion in federal funding.[128] We will use the same ratios for each state to calculate the funds that each state would receive from the HTF under our capitalization scenario.

These calculations are based on evaluations by the Department of Housing and Urban Development (HUD) of its HOME Investments Partnerships Program. The HOME program provides block grants to state and municipal governments to support their efforts "to increase homeownership and affordable housing opportunities for low and very low-income Americans."[129] The activities eligible for HOME funding include, but are not limited to, housing construction, rental assistance, housing rehabilitation and site acquisition. While the HTF and the HOME program have certain similarities, their differences justify the funding of both programs. To begin, the primary goal of the HOME program is to increase homeownership while the HTF focuses mainly on supporting affordable rental housing. In addition, the HOME program is not required to serve "extremely low-income households" with incomes of less than 30% of the area median, while 75% of HTF funds must go to help such severely constrained households.[130] However, since both programs target the housing needs of underserved populations, the average costs and expenses for a given activity should be similar for both programs.

Table 4, below, presents the projected allocation of HTF funding by state under the recapitalization proposal, annually and over 20 years.

[128] National Low Income Housing Coalition (2015).
[129] U.S. Department of Housing and Urban Development (2015).
[130] *Ibid.*

Table 4: Total and Annual HTF Funding, By State, under the Recapitalization Strategy

	Total (20 Years)	Annual Average
Total	*$64,596,350,000*	*$3,229,817,500*
Alabama	$668,867,132	$33,443,357
Alaska	$145,681,288	$7,284,064
Arizona	$1,010,901,461	$50,545,073
Arkansas	$406,640,813	$20,332,041
California	$11,166,787,442	$558,339,372
Colorado	$962,763,296	$48,138,165
Connecticut	$824,682,771	$41,234,139
Delaware	$148,214,876	$7,410,744
District of Columbia	$229,289,680	$11,464,484
Florida	$3,377,272,300	$168,863,615
Georgia	$1,535,354,099	$76,767,705
Hawaii	$348,368,298	$17,418,415
Idaho	$191,285,865	$9,564,293
Illinois	$3,017,502,857	$150,875,143
Indiana	$1,066,640,389	$53,332,019
Iowa	$426,909,514	$21,345,476
Kansas	$409,174,401	$20,458,720
Kentucky	$705,604,153	$35,280,208
Louisiana	$723,339,266	$36,166,963
Maine	$205,220,597	$10,261,030
Maryland	$889,289,255	$44,464,463
Massachusetts	$1,754,509,428	$87,725,471
Michigan	$1,867,254,077	$93,362,704
Minnesota	$986,832,379	$49,341,619
Mississippi	$397,773,257	$19,888,663
Missouri	$1,046,371,688	$52,318,584
Montana	$139,347,319	$6,967,366
Nebraska	$263,493,113	$13,174,656
Nevada	$572,590,802	$28,629,540
New Hampshire	$192,552,659	$9,627,633
New Jersey	$2,109,211,695	$105,460,585
New Mexico	$278,694,638	$13,934,732
New York	$7,049,707,557	$352,485,378
North Carolina	$1,418,809,068	$70,940,453

North Dakota	$88,675,567	$4,433,778
Ohio	$2,233,357,488	$111,667,874
Oklahoma	$485,182,030	$24,259,101
Oregon	$920,959,100	$46,047,955
Pennsylvania	$2,384,105,952	$119,205,298
Rhode Island	$276,161,051	$13,808,053
South Carolina	$634,663,699	$31,733,185
South Dakota	$91,209,154	$4,560,458
Tennessee	$933,627,039	$46,681,352
Texas	$3,636,965,031	$181,848,252
Utah	$298,963,339	$14,948,167
Vermont	$92,475,948	$4,623,797
Virginia	$1,256,659,460	$62,832,973
Washington	$1,444,144,944	$72,207,247
West Virginia	$262,226,319	$13,111,316
Wisconsin	$1,121,112,523	$56,055,626
Wyoming	$51,938,546	$2,596,927

Ninety percent of HTF non-administrative funding is allocated to rental housing, or $2.58 billion per year and $51.66 billion over 20 years. Further, a March 2015 HUD report on the HOME program found that state governments, on average, leveraged $4.86 from other funding sources for every $1.00 in federal funds for rental-related activities.[131] Applying this leverage ratio to HTF's funding for rental activities, we estimate that our recapitalization strategy should support $15.1 billion per year in state efforts to ensure access to affordable rental housing. ($2.58 billion x 5.86 = $15.14.) Using the HOME five-year average cost per rental unit for the states, plus the District of Columbia, we can also estimate the number of rental units that the projected HTF funding should support. Nationwide, we estimate that under our recapitalization strategy, HTF funding would support an average of 44,485 additional affordable rental units per year, or 889,700 additional rental units over 20 years. (See Table 5, below) Our strategy, therefore, would alleviate approximately 20% of the current shortage of affordable housing for extremely low-income American households.[132]

[131] U.S. Department of Housing and Urban Development (2015-B).
[132] Bolton, Megan (2013).

Table 5: Estimated Impact of HTF Funding on Affordable Rental Housing and Home Ownership, Including Minority Impacts, Annually and Over 20 Years

	Total (20 Years)	Annual Average
Total HTF spending	*$64,596,350,000*	$3,229,817,500
HTF Funding for Housing	$58,136,715,000	$2,906,835,750
HTF Rental Funding	$51,677,080,000	$2,583,854,000
Average Leverage Ratio	4.86:1	4.86:1
Total Rental Spending	$302,827,688,800	$15,141,384,440
New Affordable Rental Units	889,700	44,485
African-American	231,214	11,561
Hispanic	122,226	6,111
HTF Home Ownership Funds	$6,459,635,000	$322,981,750
Increase in Home Ownership	311,921	15,596
African-American	66,532	3,327
Hispanic	47,181	2,359

We also can estimate the impact of this HTF funding on minority access to affordable rental housing, assuming that HTF-supported housing is distributed in a similar way as units under the HOME program. With this assumption, African-Americans should occupy 26.0% of the additional low-income rental units linked to HTF funding, and Hispanics would occupy 13.7% of those units. This would mean 231,214 new units for African-American households over 20 years, and 122,226 new units for Hispanic households. (Table 5, above) These minority allocations under the HJTF could be substantially higher, however, because HTF targets its resources more strictly to extremely low and very low-income households than the HOME program.[133]

As noted earlier, 10% of HTF's non-administrative funding is allocated to affordable home ownership for low-income households. Under the HOME program's average cost to support new home ownership, the projected funding by the HTF under our recapitalization strategy should support an estimated 15,596 new housing units for low-income households per year, and 311,921 units over 20 years. (Table 6, below). Earlier, we noted that a recent Urban Institute study found that mortgage credit became so tight in the wake of the 2008-2009 crisis, that some four million additional households would be homeowners today if mortgage credit had been as available from 2009 to 2013 as it was in 2001.[134] In that context, these gains in home ownership would equal 7.8 % of those 4 million missing homeowners. Furthermore, based on demographic data on demand for affordable homes, African-American households would account for 21% of those new home-owning households, and Hispanic households would account for some 15%. Over 20 years, the

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[133] Bolton, Megan and Elina Brave (2012). "
[134] Goodman *et al* (2015).

HTF's capitalization should support new homeownership for 66,532 African-American households and 47,181 Hispanic households.

Table 6: Estimated Impact of HTF Funding on Affordable Rental Housing and Home Ownership, Including Minority Impacts, Annually and Over 20 Years

	Total (20 Years)	Annual Average
Total HTF spending	*$64,596,350,000*	$3,229,817,500
HTF Funding for Housing	$58,136,715,000	$2,906,835,750
HTF Rental Funding	$51,677,080,000	$2,583,854,000
Average Leverage Ratio	4.86:1	4.86:1
Total Rental Spending	$302,827,688,800	$15,141,384,440
New Affordable Rental Units	889,700	44,485
African-American	231,214	11,561
Hispanic	122,226	6,111
HTF Home Ownership Funds	$6,459,635,000	$322,981,750
Increase in Home Ownership	311,921	15,596
African-American	66,532	3,327
Hispanic	47,181	2,359

The impact of the recapitalization proposal presented here on access to affordable housing for low-income Americans perhaps can be best illustrated by comparing the results with the current arrangements. HERA directs that the equivalent of 4.2 basis points of new Fannie and Freddie business be directed to the HTF. We estimate that this funding arrangement for the HTF would produce about $220 million per year and $4.41 billion over 20 years (Table 7, below), as compared to $2.9 billion per year and $58.1 billion over 20 years under the proposal analyzed here. Assuming again an average leverage ratio of 4:86 by state programs with those funds, the HFT's current funding arrangements would support annual spending on affordable rental housing of $1.15 billion per year and $23.0 billion over 20 years, compared to $15.1 billion per year and $302.8 billion over 20 years. Based on projected demand, we estimate that African-American households would occupy 902 of those new affordable rental units per year and Hispanic households would occupy 477 of the units, compared to 11,561 units per year for African-American households and 6,111 units for Hispanic households under our capitalization strategy.

Finally, since HERA directs that up to 10% of HTF funding should go to state affordable home ownership programs, the HTF's current funding arrangements would enable 1,217 low-income households to become first-time homeowners per year, including 260 African-American households and 184 Hispanic households. (Table 7, below) By contrast, under the recapitalization plan, the HTF would support state programs enabling 15,596 low-income households per year to become first time homeowners, including 3,327 African-American households and 2,359 Hispanic households.

Table 7: Estimated Impact of the HTF under Current Funding Arrangements

	Total (20 Years)	Annual Average
Total HTF spending	*$4,895,986,258*	*$244,799,312.90*
HTF Funding for Housing	$4,406,387,633	$220,319,381.65
HTF Rental Funding	$3,916,789,007	$195,839,450.35
Average Leverage Ratio	1:4.86	1:4.86
Total Rental Spending	$22,952,383,579	$1,147,619,178.95
New Affordable Rental Units	69,416	3,471
African-American	18,040	902
Hispanic	9,536	477
HTF Home Ownership Funds	$489,598,626	$24,479,931.29
Increase in Home Ownership	24,337	1,217
African-American	5,191	260
Hispanic	3,681	184

The National Impact – The Capital Magnet Fund

As noted, 35% of the revenues generated by the secondary stock offerings of Fannie and Freddie shares under our recapitalization program would go to the Capital Magnet Fund (CMF), which provides grants to non-profit community development organizations for their affordable housing programs. In 2011, Congress appropriated $80 million for the CMF, and the Department of the Treasury issued a report in 2014 analyzing the results.[135] The Treasury found that these non-profits sharply leveraged their CMF funding, generating $12 in private and other public funding for every $1 awarded by the CMF. As a result, every $11,000 in CMF funds used for housing construction or rehabilitation produced, on average, one additional affordable home (at an average cost of $140,000).[136]

We apply those Treasury findings to estimate the effects on affordable housing from the additional funding for the CMF arising from our recapitalization plan. All told, Fannie and Freddie's recapitalization would provide $34.8 billion for the CMF over 20 years. (HERA direct Fannie and Freddie to provide a total of $2.67 billion to support the activities of the CMF.) Assuming that the new funding would be distributed evenly over 20 years, the recapitalization strategy would enable the CMF to distribute $1.7 billion per year to community development non-profit organizations.

Given the high leverage achieved in the CMF's initial grants, this increased level of funding for the CMF would have significant effects on access to affordable housing through community

[135] Community Development Financial Institutions Fund (2014).
[136] *Ibid.*

development programs, including for first-time homeowners. We estimate that full funding of the CMF would produce an additional 175,855 affordable rental units per year for low-income households, and increase home ownership by 14,010 households per year. (See Table 8, below) Over 20 years, CMF funding should produce an additional 3,517,105 affordable rental units, or housing for 58.6% of the roughly six million low-income households currently considered to be "severely burdened" by their rental payments. Over 20 years, this increased funding for the CMF would also enable or 280,207 low-income households to become first-time homeowners. Those gains in home ownership are equivalent to 7.1% of the estimated 4 million "missing homeowners" unable to secure mortgages from 2009 to 2013 because of the unusually strict credit conditions; and all told, the CMF and HTF would offset almost 15% of those missing homeowners.

The Treasury Department's analysis of the initial operations of the CMF also found that the projects funded by its initial $80 million appropriation supported substantial numbers of new full-time and seasonal construction jobs.[137] Based on these initial employment effects, we estimate that full funding of the CMF under our recapitalization plan could produce an additional 8,791 full-time construction jobs per year, plus an additional 152,272 seasonal construction jobs per year. (Table 8, below) Over 20 years, the capitalization of the CMF under our strategy could ultimately produce an additional 175,827 full-time construction jobs, plus 3,045,441 additional seasonal jobs.

Table 8: Impact of CMF Funding on Access to Affordable Housing and Associated Construction Industry Jobs, under the Recapitalization of Fannie Mae and Freddie Mac

	Total (20 Years)	Annual Average
Total CMF Spending	*$34,782,650,000*	*$1,739,132,500*
Average Leverage ratio	1:12.01	1:12.01
Affordable Homes Financed	3,797,312	189,866
Owner-Occupied Homes Financed	280,207	14,010
Rental Units Financed	3,517,105	175,855
CMF Award Per-Home	$11,000	$11,000
Average Cost Per home	$140,000	$140,000
New, Full-Time Construction Jobs	175,827	8,791
Additional Seasonal Construction Jobs	3,045,441	152,272
Development & Preservation Projects	105,496	5,275
Assistance to Homebuyers	58,609	2,930

While the HTF is a block grant program for the states, with specified funding criteria that can be used to project the distribution of those block grants state by state, the CMF provides grants to non-profit entities, many of them nationally based, making a similar effort to project the distribution of CMF grants by state problematic.

[137] Community Development Financial Institutions Fund (2014).

VI. State Case Studies of the Impact of the Capitalized Housing Trust Fund

Based on our estimated distribution of HTF block grants by state under our recapitalization plan, we can also project the use and impact of those funds in particular states. Here, we examine these effects in California, Illinois, Maryland, New York, and North Carolina.

California

In 1985, the state government of California created the California Housing Trust Fund (CHTF) to expand and upgrade the supply of such affordable rental housing, but did not create a funding mechanism to support it.[138] Thirty years later, California has the nation's largest scarcity of affordable rental units, with an estimated 1.54 million households with very low or extremely low incomes lacking any affordable housing options.[139] California also leads the country in homelessness, overcrowded households, and households "severely burdened" by rent payments (rent equals half or more of a household's monthly income).[140] Under our recapitalization proposal, California would receive more HTF funds than any other state, based on size and unmet demand for affordable housing: The State would receive $503.5 million per year from the HTF, after administrative costs, or $10.1 billion over 20 years. (Table 9, below) With 90% of that funding going to affordable rental housing, and the state's reported leverage ratio of 3.92:1, those HTF grants would increase spending on affordable rental housing in California by $2.2 billion per year. This funding could support 4,681 new affordable rental units each year, including 1,858 new units for low-income Hispanic households and 295 new units for African-American households.

Table 9: Projected Impact of the Housing Trust Fund on Affordable Housing in California

	Total (20 Years)	Annual Average
Total HTF spending	$11,166,787,442	$558,339,372
HTF Funding for Housing	$10,050,108,698	$502,505,435
HTF Rental Funding	$8,933,429,954	$446,671,498
Average Leverage Ratio	1:3.92	1:3.92
Total Rental Spending	$43,952,475,372	$2,197,623,769
New Affordable Rental Units	93,620	4,681
African-American	5,898	295
Hispanic	37,167	1,858
HTF Home Ownership Funds	$1,116,678,744	$55,833,937
Increase in Home Ownership	19,432	972
African-American	486	24
Hispanic	10,804	540

[138] Center for Community Change. (2013).
[139] California Housing Partnership Coalition (2015). "
[140] *Ibid.*

This HTF funding for California also would enable an additional 972 low-income California households per year become first-time homeowners, including 540 Hispanic households and 24 African-American households. (Table 9, above) Over 20 years, the program should enable an estimated 19,432 low-income California households become first-time homebuyers.

Illinois

Illinois also has a serious shortage of affordable rental housing for low-income households.[141] The state established the Illinois Affordable Housing Trust Fund in 1989 to address this shortage;[142] but today, rent still presents a "serious burden" for 76% of all extremely low-income Illinois households, or some 403,000 households.[143] The fully capitalized HTF under our plan would provide Illinois with an estimated $135.8 million per year, after administrative costs, or $2.72 billion over 20 years. (Table 10, below) Under HERA, 90% of this funding would go to rental housing; and given the state's leverage ratio of 2:96 with HOME program projects, we estimate that HTF grants would lead to $478.0 million in additional annual spending on affordable rental housing. This funding could support 2,224 new affordable rental units each year, including 696 new affordable units for African-American households and 56 new rental units for Hispanic households.

Table 10: Projected Impact of the Housing Trust Fund on Affordable Housing in Illinois

	Total (20 Years)	Annual Average
Total HTF spending	$3,017,502,857	$150,875,143
HTF Funding for Housing	$2,715,752,571	$135,787,629
HTF Rental Funding	$2,414,002,286	$120,700,114
Average Leverage Ratio	1:2.96	1:2.96
Total Rental Spending	$9,559,449,051	$477,972,453
New Affordable Rental Units	44,488	2,224
African-American	13,925	696
Hispanic	1,112	56
HTF Home Ownership Funds	$301,750,286	$15,087,514
Increase in Home Ownership	8,681	434
African-American	886	44
Hispanic	738	37

HTF funding for Illinois under the recapitalization plan also should enable 434 low-income Illinois households per year to become first-time homeowners, including 44 African-American

[141] Ault, Mindy, Lisa Sturtevant, and Janet Viveiros (2015).
[142] Illinois Housing Development Authority (2015).
[143] Bolton, Megan, Elina Brave, Emily Miller, Sheila Crowley, and Ellen Errico (2015); and Ault *et al*. (2015).

households and 37 Hispanic households. Over 20 years, the program should help 8,681 low-income Illinois households become first-time homebuyers.

Maryland

Maryland also has a significant shortage of affordable housing for its low-income residents. The state created the Maryland Affordable Housing Trust (MAHT) in 1992 to provide housing assistance for households with very low or extremely low incomes; and since then, the MAFT has disbursed nearly $42.5 million.[144] Yet today, the state has only 38, affordable housing units for every 100 extremely low-income households.[145] The HTF under the recapitalization plan, therefore, should provide large tangible benefits for very low-income households in Maryland.

Under our recapitalization plan, the HFT would award Maryland block grants of $40.0 million per year after administrative costs for affordable housing for low-income households, or $800.4 million over 20 years. (Table 11, below) With 90% of this funding going to affordable rental housing, and the state's leverage ratio of 3:46 for affordable housing projects, we estimate that HTF support would produce $158.6 million per year in additional spending on affordable, low-income rental housing. This funding would produce 301 new affordable rental units per year, including 107 new affordable units for very low-income African-American and Hispanic households. HTF annual grants to Maryland also would enable 447 low-income households per year become first-time homeowners, including 147 African-American and Hispanic households. Over 20 years, the program would help 8,943 low-income Maryland households become first-time homebuyers.

Table 11: Projected Impact of the Housing Trust Fund on Affordable Housing in Maryland

	Total (20 Years)	Annual Average
Total HTF spending	$889,289,255	$44,464,463
HTF Funding for Housing	$800,360,330	$40,018,016
HTF Rental Funding	$711,431,404	$35,571,570
Average Leverage Ratio	1:3.46	1:3.46
Total Rental Spending	$3,172,984,062	$158,649,203
New Affordable Rental Units	6,026	301
African-American	2,103	105
Hispanic	36	2
HTF Home Ownership Funds	$88,928,926	$4,446,446
Increase in Home Ownership	8,943	447
African-American	2,594	130
Hispanic	340	17

144 Skinner, Raymond and Alice Pinderhughes (2014).
145 Ault *et al*. (2015).

New York

New York established the New York Low Income Housing Trust Fund in 1985 to build, convert and maintain affordable housing, and the state has appropriated $25 million to $40 million per year for that Fund.[146] Nevertheless, about 28 % of working New York State renters, or an estimated 794,000 households, are "severely burdened" by their rent obligations.[147] A well-funded national HTF, therefore, would provide significant benefits to low-income New York households.

Under our recapitalization strategy, the HFT would provide New York grants of $317.2 million per year, after administrative costs, for affordable low-income housing, or $6.3 billion over 20 years. (Table 12, below) With 90% of this funding going to rental housing and the state's leverage ratio of 1:2.37, we estimate that the HTF would support an additional $950.3 million per year in spending on affordable rental housing. This funding would produce 6,129 additional affordable rental units for low-income New Yorkers per year, including 932 additional units for African-American households and 392 additional units for Hispanic households. HTF funding for New York also would help 1,313 low-income households become first-time homeowners, every year, including 357 African-American and Hispanic households per year. Over 20 years, the program would help 26,266 low-income New York households become first-time homebuyers.

Table 12: Projected Impact of the Housing Trust Fund on Affordable Housing in New York

	Total (20 Years)	Annual Average
Total HTF spending	$7,049,707,557	$352,485,378
HTF Funding for Housing	$6,344,736,801	$317,236,840
HTF Rental Funding	$5,639,766,046	$281,988,302
Average Leverage Ratio	1:2.37	1:2.37
Total Rental Spending	$19,006,011,574	$950,300,579
New Affordable Rental Units	122,580	6,129
African-American	18,632	932
Hispanic	7,845	392
HTF Home Ownership Funds	$704,970,756	$35,248,538
Increase in Home Ownership	26,266	1,313
African-American	4,859	243
Hispanic	2,285	114

North Carolina

North Carolina established the North Carolina Housing Trust Fund in 1987; and over the past 25 years, the state legislature has appropriated $183 million and supported nearly $1 billion

146 "New York State Home and Community Renewal (2015).
147 Ault *et al.* (2015).

in construction and rehabilitation costs for some 29,500 housing units.[148] Despite these efforts, housing costs "severely burden" an estimated 78% of the state's extremely-low income households and 32% of very low-income households, totaling some 268,000 working households.[149] Additional support from the HTF could provide significant relief for those severely-burdened North Carolina households.

Under our recapitalization plan, North Carolina would receive HTF grants of $63.8 million per year for low-income affordable housing, after administrative costs, or nearly $1.3 billion over 20 years. (Table 13, below) With 90% of this funding going to rental housing and the state's leverage ratio of 1:3.49, these HTF grants would produce $254.8 million per year in additional spending on affordable low-income rental housing, and $5.1 billion over 20 years. This funding should produce 926 additional affordable rental units per year for low-income North Carolina households, including 480 new affordable units per year for low-income African-American and Hispanic households. The HTF's annual grants to North Carolina also would help 252 low-income households per year become first-time homeowners, including 141 African-American and Hispanic households. Over 20 years, the program would help 5,044 low-income North Carolina households become first-time homebuyers.

Table 13: Projected Impact of the Housing Trust Fund on Affordable Housing in North Carolina

	Total (20 Years)	Annual Average
Total HTF spending	$1,418,809,068	$70,940,453
HTF Funding for Housing	$1,276,928,161	$63,846,408
HTF Rental Funding	$1,135,047,254	$56,752,363
Average Leverage Ratio	1:3.49	1:3.49
Total Rental Spending	$5,096,362,172	$254,818,109
New Affordable Rental Units	18,525	926
African-American	9,059	453
Hispanic	537	27
HTF Home Ownership Funds	$141,880,907	$7,094,045
Increase in Home Ownership	5,044	252
African-American	2,477	124
Hispanic	343	17

VI. Conclusions

For more than 65 years, Fannie Mae and later Freddie Mac provided the financial foundations for a vast increase in private home ownership by average Americans. The share of U.S. households owning their own homes rose steadily from less than 43% in 1940 to 69.1% in

[148] North Carolina Housing Finance Agency (2014).
[149] Bolton, Megan (2013); Ault *et al*. (2015).

2005. This long record ended with the housing bust of 2007-2009 and the associated financial and economic crisis, which forced Fannie and Freddie to accept government conservatorship and 79.9% government ownership in September 2008, in return for bailout payments totaling $187.0 billion. Since then, the share of Americans owning their own homes has fallen to 63.7%. In addition, the ongoing, extremely tight conditions for housing credit have reduced access to affordable housing for millions of lower-income Americans. This study has presented a plan to address both of these problems by recapitalizing Fannie Mae and Freddie Mac, ending their government conservatorship and restoring their status as independent, government sponsored, private enterprises.

This recapitalization strategy has several elements. First, Fannie Mae and Freddie Mac could once again retain their own profits to rebuild their capital reserves. In recognition of their $239 billion in repayments to the Treasury, $50 billion more than the bailout payments they received, any remaining balance owed by Fannie and Freddie under its Preferred Senior Stock Agreement with the government would be forgiven. Further, the Treasury would end its quarterly claim or "sweep" of Fannie and Freddie's profits. In addition, the two enterprises would raise $100 billion in additional capital through several rounds of new common stock issues. Finally, the Treasury would transfer its current warrants for 79.9% of Fannie and Freddie's common shares to the Housing Trust Fund and the Capital Magnet Fund; and the trust funds would offer those shares in a series of secondary stock offerings and use the estimated $99.4 billion in proceeds to endow their programs to expand access to affordable housing by very low and extremely low income Americans.

We showed that this plan would enable Fannie and Freddie to establish 4.0 % Tier 1 capital reserves, the level now required of systemically important financial institutions. Under this strategy, Fannie and Freddie could once again carry out their traditional mission of supporting and expanding homeownership. Furthermore, the endowment of their Housing Trust Fund and Capital Magnet Fund would enable Fannie and Freddie to also substantially increase the activities of state affordable housing programs, thereby expanding access to affordable housing for millions of low income Americans.

For every household adversely affected by the recent housing crisis, we urge the Obama administration and the Congress to carefully consider this recapitalization strategy for Fannie Mae and Freddie Mac.

References

Acharya, Viral, Matthew Richardson, Stijn van Nieuwerburgh, and Lawrence White (2011). *Guaranteed to Fail: Fannie, Freddie, and the Debacle of Mortgage Finance.* Princeton University Press.

Allen, Freddie (June 30 2015). "For Black Homeowners, Great Recession has not Receded." National Newspaper Publishers Association. http://azinformant.com/for-black-homeowners-great-recession-has-not-receded/

Ambrose, Brent W. and Thomas G. Thibodeau (2003). "Have the GSE Affordable Housing Goals Increased the Supply of Mortgage Credit?" http://oldleeds.colorado.edu/asset/publication/ambrose2004mortgages.pdf

Anderson, Jaime (March 12 2015). "Just How Tight is Mortgage Credit, Anyway?" Zillow Real Estate Research. http://www.zillow.com/research/zillow-mortgage-access-index-9099/

Ault, Mindy, Lisa Sturtevant, and Janet Viveiros (2015). "An Annual Look at the Housing Affordability Challenges of America's Working Households." The Center for Housing Policy. http://www.nhc.org/Landscape2015_final.pdf

Avery, Robert, Patricia Beeson and Mark Sniderman (1994). "Underserved Mortgage Markets: Evidence from HDMA Data." Federal Reserve Bank of Cleveland. Working Paper 9421. https://ideas.repec.org/p/fip/fedcwp/9421.html

Bernanke, Ben (20 Nov. 2012). "The Economic Recovery and Economic Policy." Board of Governors of the Federal Reserve. http://www.federalreserve.gov/newsevents/speech/bernanke20121120a.htm

Boehm, Thomas and Alan Schlottmann (2008). "Wealth Accumulation and Home Ownership: Evidence for Low-Income Households." *Cityscape: A Journal of Policy Development and Research*, Vol. 8, Num. 2, pp. 225-256.

Bolton, Megan (2013). "America's Affordable Housing Shortage and How to End it." National Low Income Housing Coalition. http://nlihc.org/sites/default/files/HS_3-1.pdf

Bolton, Megan, Elina Brave, Emily Miller, Sheila Crowley, and Ellen Errico (2015). "Out of Reach 2015." National Low Income Housing Coalition. http://nlihc.org/sites/default/files/oor/OOR_2015_FULL.pdf

Bolton, Megan and Elina Brave (2012). "Who Lives in Federally Assisted Housing." National Low Income Housing Coalition. http://nlihc.org/sites/default/files/HousingSpotlight2-2.pdf.

Bostic, Raphael W. and Stuart A. Gabriel. (2005). "Do the GSEs Matter to Low-Income Housing Markets? An Assessment of the Effects of the GSE Loan Purchase Goals on California Housing Outcomes." *Journal of Urban Economics*, 2005.
http://www.rhsmith.umd.edu/files/Documents/Centers/CFP/2011/dothegsesmatter.pdf

Bricker, Jesse, Lisa J. Dettling, Alice Henriques, Joanne W. Hsu, Kevin B. Moore, John Sabelhaus, Jeffrey Thompson, and Richard A. Windle (2014). "Changes in US Family Finance from 2010 to 2013: Evidence from the Survey of Consumer Finances." *Federal Reserve Bulletin*, Vol. 100, Num. 4. http://www.federalreserve.gov/pubs/bulletin/2014/pdf/scf14.pdf

Brisson, Amy and Lindsay Duerr (2014). "Impact of Affordable Housing on Families and Communities: A Review of the Evidence Base." Enterprise Community Partners. https://s3.amazonaws.com/KSPProd/ERC_Upload/0093581.pdf

Burd-Sharp, Sarah, and Rebecca Rasch (2015). "Impact of the US Housing Crisis on the Racial Wealth Gap Across Generations." American Civil Liberties Union.
https://www.aclu.org/files/field_document/discrimlend_final.pdf

California Housing Partnership Coalition (2015). "Update on California's Affordable Housing Crisis: The Critical Role of Housing Access and Affordability in Reducing Poverty."
http://www.chpc.net/dnld/2015StatewideHousingNeedReportFINAL.pdf

Center for Community Change (2013). "The Status of State Housing Trust Funds from a 2011 Survey with Updates: A Toolkit for Advocates." Housing Trust Fund Project.
http://housingtrustfundproject.org/wp-content/uploads/2013/04/State-Housing-Trust-Fund-Survey-2011.pdf

Center for Community Change (2015). "State Housing Trust Funds."
http://housingtrustfundproject.org/housing-trust-funds/state-housing-trust-funds/

Christie, Les (Dec. 9, 2014). "The 3% Down Payment Mortgage Makes a Comeback." CNN Money. http://money.cnn.com/2014/12/08/real_estate/3-down-payment-mortgage/

Cochran, Jay, III and Catherine England (2001). , "Neither Fish Nor Fowl: An Overview of the Big-Three Government-Sponsored Enterprises in the U.S. Housing Finance Markets." Working papers in Regulatory Studies. Mercatus Center.
http://mercatus.org/sites/default/files/publication/MC_RSP_RP-FishNorFowl_011115.pdf

Community Development Financial Institutions Fund (2014). "Capital Magnet Fund: Interim Impact Assessment." http://www.cdfifund.gov/docs/2014/CMF/CMF_Impact_Assessment.pdf

Conley, Dalton (2001). "A Room with a View or a Room of One's Own? Housing and Social Stratification." *Sociological Forum*. Vol 16, No. 2, pp. 263-280.

Delevigne, Lawrence (Feb. 12, 2015). "Ackman: Fannie Best Trade...in Capital Markets." *CNBC*. http://www.cnbc.com/2015/02/12/ackman-fannie-best-tradein-capital-markets.html

Dietz, Robert (Jan. 14, 2015). "Good signs for Housing in 2015: A Positive Market for Housing will Boost the Wider Economy." *US News and World Report*. http://www.usnews.com/opinion/economic-intelligence/2015/01/14/housing-market-showing-signs-of-a-good-2015

Duca, John (2014). "Nationally, Housing Recovery Finally Gains Traction." Federal Reserve Bank of Dallas. http://www.dallasfed.org/microsites/fed/reports/2014/e1.cfm

Dynan, Karen and Ted Gayer (2011). "The Government's Role in the Housing Finance System: Where Do We Go from Here?" The Brookings Institution. http://www.brookings.edu/~/media/research/files/papers/2011/2/11-housing-finance-dynan-gayer/0211_housing_finance_dynan_gayer.pdf

Federal Housing Authority Office of the Inspector General (2013). "Analysis of the 2012 Amendments to the Senior Preferred Stock Purchase Agreements" White Paper Number 2013-002. http://www.fhfaoig.gov/Content/Files/WPR-2013-002_2.pdf

Federal Housing Authority Office of the Inspector General (2015). "The Continued Profitability of Fannie Mae and Freddie Mac is not Assured." White Paper Number 2015-001. http://www.fhfaoig.gov/Content/Files/WPR-2015-001.pdf.

Federal Housing Authority Office of the Inspector General (2015-A). "History of the Government Sponsored Enterprises." http://fhfaoig.gov/LearnMore/History

Federal Housing Finance Agency (2015-A). "Overview of Fannie Mae and Freddie Mac Credit Risk Transfer Transactions" August 21, 2015. http://www.fhfa.gov/AboutUs/Reports/Pages/Overview-of-Fannie-Mae-and-Freddie-Mac-Credit-Risk-Transfer-Transactions-8212015.aspx

Federal Housing Finance Agency (2015-B). "Fannie Mae and Freddie Mac Single Family Guarantees in 2014." Division of Housing Mission and Goals. June 30, 2015. http://www.fhfa.gov/AboutUs/Reports/ReportDocuments/GFeeReport6302015.pdf

Federal Housing Finance Agency Office of the Inspector General (2011). "Evaluation of FHFA's Oversight of Fannie Mae's Management of Operational Risk." Evaluation Report 2011-004. http://www.fhfaoig.gov/Content/Files/EVL-2011-004.pdf

Federal Housing Finance Agency Public Affairs (11 Dec. 2014). "HARP Refinances Top 3.2 Million." http://www.fhfa.gov/Media/PublicAffairs/Pages/HARP-Refinances-Top-3-2-Million.aspx

Federal Loan Home Mortgage Corporation (2015). "2014 Annual Report*.*" http://www.freddiemac.com/investors/er/pdf/10k_021915.pdf

Federal National Mortgage Association (2011). "2010 Annual Report*.*" http://www.fanniemae.com/resources/file/ir/pdf/proxy-statements/10k_2010.pdf

Federal National Mortgage Association (2013). "Basics of Fannie Mae Single-Family MBS." http://www.fanniemae.com/resources/file/mbs/pdf/basics-sf-mbs.pdf

Federal National Mortgage Association (2015). "2014 Annual Report*.*" http://www.fanniemae.com/resources/file/ir/pdf/quarterly-annual-results/2014/10k_2014.pdf.

Federal National Mortgage Association Charter Act (2010). "Title III of the National Housing Act, 12 U.S.C. 1716 *et seq*., As amended through July 1, 2010." http://www.fanniemae.com/resources/file/aboutus/pdf/fm-amended-charter.pdf

Fernald, Marcia (2015). "The State of the Nation's Housing 2015." Joint Center for Housing Studies of Harvard University. http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/jchs-sonhr-2015-full.pdf

Finkle, Victora and Donna Borak (2014). "Cheat Sheet: Details from the Johnson-Crapo Bill." *National Mortgage News*. http://www.nationalmortgagenews.com/news/origination/cheat-sheet-details-from-the-johnson-crapo-gse-bill-1041363-1.html

Frame, W. Scott, Andreas Fuster, Joseph Tracy, and James Vickery (2015). "The Rescue of Fannie Mae and Freddie Mac." Federal Reserve Bank of New York. Staff Report 719. http://www.newyorkfed.org/research/staff_reports/sr719.pdf

Gabriel, Stuart and Stuart Rosenthal (2004). "Homeownership in the 1980s and 1990s: Aggregate Trends and Racial Gaps." *Journal of Urban Economics*, Vol. 57, Issue 1, pp. 101-127.

Gavekal Capital (2015). "San Francisco Real Estate Is 75% Above Housing Crisis Lows." 26 May 2015. http://blog.gavekalcapital.com/san-francisco-real-estate-is-75-above-housing-crisis-lows-2/

Goodman, Laurie, Jun Zhu, and Taz George (2015). "The Impact of Tight Credit Standards on 2009–13 Lending." Urban Institute. http://www.urban.org/research/publication/impact-tight-credit-standards-2009-13-lending/view/full_report

Government Accountability Office (2009)., "Analysis of Options for Revising the Housing Enterprises' Long-term Structures." http://www.gao.gov/new.items/d09782.pdf

Gramlich, Ed (2015). "Getting to Know the NHTF Regulations." National Low Income Housing Coalition. http://nlihc.org/sites/default/files/NHTF_Powerpoint_062215.pdf

Gudell, Svenja (11 Jun 2015). "Q1 2015 Negative Equity Report: After Three Long Years, The Hard Work Begins Now." Zillow Real Estate Research. http://www.zillow.com/research/negative-equity-2015-q1-9905/

Harney, Kenneth (Jan. 16, 2015). "Many Gain from New FHA Insurance Rules, but Conventional Loans are Better for Some." *The Washington Post*. http://www.washingtonpost.com/realestate/many-gain-from-new-fha-insurance-rules-but-conventional-loans-are-better-for-some/2015/01/15/ca58179e-9a7e-11e4-bcfb-059ec7a93ddc_story.html

Hartman, Mitchell (Mar. 17, 2015). "Housing Market Recovery is Limping Along." *Marketplace*. http://www.marketplace.org/topics/economy/housing-market-recovery-limping-along

Hays, Kathleen (May 19, 2005). "Greenspan Steps up Criticism of Fannie." CNN Money. http://money.cnn.com/2005/05/19/news/economy/greenspan_fannie/

Herbers, Janette E., Arthur J. Reynolds, and Chin-Chih Chen (2013). "School Mobility and Developmental Outcomes in Young Adulthood." *Development and Psychopathology*. Vol. 25, Issue 2, pp. 501–515.

Hoskins, Sean (2014). "Explanation and Illustration of the Johnson-Crapo GSE Reform Proposal." Congressional Research Service. http://www.crapo.senate.gov/issues/banking/documents/CRS_HousingFinanceReform.pdf

Illinois Housing Development Authority (2015). "Illinois Affordable Housing Trust Fund." http://www.ihda.org/developer/trustFund.htm

Independent Community Bankers of America (2008). "Summary of the 'Housing and Economic Recovery Act of 2008.'" https://www.icba.org/files/ICBASites/PDFs/hr3221summary.pdf.

Labaton, Stephen and Edmund Andrews (Sep. 7, 2008). "In Rescue to Stabilize Lending, U.S. Takes Over Mortgage Finance Titans." *The New York Times*. http://www.nytimes.com/2008/09/08/business/08fannie.html?pagewanted=all&_r=0

Lane, Ben (Apr. 14, 2015). "Fannie Mae Launches Major First Time Homebuyer Assistance Program." HousingWire. http://www.housingwire.com/articles/33555-fannie-mae-launches-major-first-time-homebuyer-assistance-program

Lee, Pamela and Bing Bae (2014). "Risk Sharing: High LTV mortgages are the next frontier." Urban Institute. http://www.urban.org/urban-wire/risk-sharing-high-ltv-mortgages-are-next-frontier.

Lehnert, Andreas, Wayne Passmore, and Shane Sherlund (2006). "GSEs, Mortgage Rates, and Secondary Market Activity." Federal Reserve Board, Staff Working Paper 2006-30. http://www.federalreserve.gov/pubs/feds/2006/200630/200630pap.pdf

Light, Joe (Apr. 21, 2015). "Treasury Department: Fannie, Freddie Bailout Wasn't A Loan." *The Wall Street Journal*. http://blogs.wsj.com/developments/2015/04/21/treasury-department-fannie-freddie-bailout-wasnt-a-loan/

Light, Joe (Jun. 23, 2015). "Why the U.S. Housing Recovery is Leaving Poorer Neighborhood Behind." *The Wall Street Journal*. http://www.wsj.com/articles/in-u-s-poorer-areas-have-yet-to-see-housing-rebound-1435091711

Liu, Yang, Rashid Njai, Kurt Greenlund, Daniel Chapman, and Janet B. Croft (2014). "Relationships Between Housing and Food Insecurity, Frequent Mental Distress, and Insufficient Sleep Among Adults in 12 US States, 2009." *Preventing Chronic Disease.* Vol. 13.

Los Angeles Times Editorial Board (2011). "No Fannie, No Freddie." Feb. 23, 2011. http://blogs.cfed.org/cfed_news_clips/2011/02/no-fannie-no-freddie.html

MacLennan, Alexander (2014). "Should you Buy Fannie and Freddie?" *The Motley Fool*. May 15, 2014). http://www.fool.com/investing/general/2014/05/15/should-you-buy-fannie-mae-and-freddie-mac.aspx

Mayer, Christopher, Karen Pence, and Shane Sherlund (2008). "The Rise in Mortgage Defaults." Federal Reserve Board, Staff Working Paper 2008-59.
http://www.federalreserve.gov/pubs/feds/2008/200859/200859pap.pdf

Mayo, Rameaka and Steven Cooper (17 July 2015). "New Residential Construction in June 2015." U.S. Census Bureau News. https://www.census.gov/construction/nrc/pdf/newresconst.pdf

McCoy, Patricia A., Andrey D. Pavlov, and Susan M. Wachter (2009). "Systemic Risk through Securitization: The Result of Deregulation and Regulatory Failure." *Connecticut Law Review* Vol. 41, pp. 493-541.

Munnell, Alicia, Geoffrey Tootell, Lynn Browne, and James McEneaney (1996). "Mortgage Lending in Boston: Interpreting HDMA Data." *The American Economic Review*, Vol. 86, Issue 1, pp. 25-53.

National Low Income Housing Coalition (2015). "Estimated State Allocations for Every $1 Billion Invested in the National Housing Trust Fund."
http://nlihc.org/sites/default/files/NHTF_State_Allocations_5bill.pdf

New York State Home and Community Renewal (2015). "Housing Trust Fund Program (HTF)."
http://www.nyshcr.org/programs/housingtrustfund/

North Carolina Housing Finance Agency (2014). "Facts on the Housing Trust Fund."
http://www.nchfa.com/about/facts/htffactsheet.pdf

Keith Ellison (2014). "Rep Ellison Statement on National Housing Trust Fund and Capital Magnet Fund." Press Release, Dec. 1, 2014). https://ellison.house.gov/media-center/press-releases/rep-ellison-statement-on-national-housing-trust-fund-and-capital-magnet

Park, Kevin (2010). "Fannie, Freddie and the Foreclosure Crisis." UNC Center for Community Capital. http://ccc.sites.unc.edu/files/2013/02/FannieFreddieForeclosure.pdf

Podmolik, Mary Ellen (Apr. 15 2015). "Fannie, Freddie to discount blighted homes in Chicago, Cook County." *Chicago Tribune*. http://www.chicagotribune.com/business/ct-fannie-freddie-homes-0415-biz-20150415-story.html

Pollock, Alex J. (2013). "What to do with Fannie and Freddie." American Enterprise Institute. http://www.aei.org/publication/what-to-do-with-fannie-and-freddie/

Reddy, Sudeep (Sep. 24, 2008). "Paulson's Bazooka: A Weapon to Be Remembered?" *The Wall Street Journal*. http://blogs.wsj.com/economics/2008/09/24/paulsons-bazooka-a-weapon-to-be-remembered/

Reiss, David J (2014). "An Overview of the Fannie and Freddie Conservatorship Litigation." *Journal of Law and Business.* Vol 10, pp. 479-500.

Rossi, Clifford (2014). "Forging a Path out of Conservatorship for Fannie and Freddie." Chesapeake Risk Advisors, LLC.
http://www.rhsmith.umd.edu/files/Documents/News/2014/gseconservatorshippolicypaper.pdf

Seidman, Ellen (2015). "Senate GSE reform: What we learned from Johnson-Crapo." Urban Institute, Urban Wire: Housing and Housing Finance. http://www.urban.org/urban-wire/senate-gse-reform-what-we-learned-johnson-crapo.

Shapiro, Robert (2015). "Income Growth and Decline Under Recent U.S. Presidents and the new Challenge to Restore Broad Economic Prosperity." The Brookings Institution. Center for Effective Public Management.
http://www.brookings.edu/~/media/research/files/papers/2015/03/05-income-growth-decline-economic-prosperity-shapiro/shapirov3.pdf

Skinner, Raymond and Alice Pinderhughes (2014). "Maryland Affordable Housing Trust Annual Report 2014." U.S. Department of Housing and Community Development.
http://www.dhcd.maryland.gov/Website/Programs/maht/Documents/MAHT_FY14_Annual_Report.pdf

Smith, Stacy V. (2015). "Who Owns Fannie Mae and Freddie Mac?" NPR.
http://www.npr.org/sections/money/2015/04/21/401259676/who-owns-fannie-mae-and-freddie-mac

Sreeja, VN (Dec. 10, 2013). “Fannie Mae, Freddie Mac to Hike Mortgage Guarantee Fees; Reduces Adverse Market Fee of 25 BPS in all States Except Four.” *International Business Times*. http://www.ibtimes.com/fannie-mae-freddie-mac-hike-mortgage-guarantee-fees-reduces-adverse-market-fee-25-bps-all-states

Stanton, Thomas (2009). “The Failure of Fannie Mae and Freddie Mac and the Future of Government Support for the Housing Finance System.” *Journal of Law and Policy*. Vol 18, No 1, pp. 217-261.

Swanson, Brena (Dec. 3, 2014). “Freddie Mac launches Home Possible Advantage program with 97% LTV.” *HousingWire*. http://www.housingwire.com/articles/32270-freddie-mac-launches-home-possible-advantage-program-with-97-ltv

Timiraos, Nick (Apr. 3, 2014). “Fannie, Freddie Overhaul will Translate into Higher Mortgage Rates.” *The Wall Street Journal*. http://blogs.wsj.com/economics/2014/04/03/fannie-freddie-overhaul-will-translate-into-higher-mortgage-rates/

U.S. Census Bureau (2015-A). “Historical Census of Housing Tables,” https://www.census.gov/hhes/www/housing/census/historic/owner.html.

__________ (2015-B). “Housing Vacancies and Home Ownership.” http://www.census.gov/housing/hvs/data/histtabs.html

____________ (2015-C). “New Residential Construction in June 2015.” July 17 2015. http://www.census.gov/construction/nrc/pdf/newresconst.pdf.

____________ (2015-D). “Residential Vacancies and Home Ownership in the Fourth Quarter 2014.” Social, Economic and Housing Statistics Division. Table 4. http://www.census.gov/housing/hvs/files/currenthvspress.pdf

U.S. Department of Housing and Urban Development (2015-A). “The HOME Program: HOME Investment Partnerships.” http://portal.hud.gov/hudportal/HUD?src=/hudprograms/home-program.

____________ (2015-B) *HUDExchange.info* (2015) “HOME Program Snapshot–Alabama–March 31, 2015.” https://www.hudexchange.info/resource/reportmanagement/published/HOME_Snap_PJ_Snapshot_AAAA-AL_AL_20150331.pdf.

____________ (2001). “HUD’s Affordable Lending Goals for Fannie Mae and Freddie Mac.” Office of Policy Development and Research. Issue Brief V. January 2001. http://www.huduser.org/publications/pdf/gse.pdf .

____________ (2008). "Profiles of GSE Mortgage Purchases in 2005 – 2007.” Office of Policy Development and Research. http://www.huduser.org/portal/datasets/GSE/profiles_05-07.pdf.

U.S. Department of the Treasury (2011). "Housing Finance Reform Plan." Information Memorandum for Secretary Geithner from Jeffrey A. Goldstein. January 4, 2011.

Vardi, Nathan (Oct. 1, 2014). "The End of the Fannie and Freddie Stock Boom?" *Forbes*. http://www.forbes.com/sites/nathanvardi/2014/10/01/the-end-of-the-fannie-and-freddie-stock-boom/

Washington Post (2015). "The Road to Reforming Fannie and Freddie." Staff Report. http://www.washingtonpost.com/wp-srv/special/business/fannie-freddie-timeline/

Washington Post Editorial Board (2013). "A Promising Congressional Debate on Ending Fannie and Freddie." July 13, 2013. https://www.washingtonpost.com/opinions/a-promising-congressional-debate-on-ending-fannie-and-freddie/2013/07/25/307cc99c-f482-11e2-aa2e-4088616498b4_story.html.

Weicher, John C. (2010). "The Affordable Housing Goals, Homeownership and Risk: Some Lessons from Past Efforts to Regulate the GSEs" Conference on "The Past, present, and Future of the Government-Sponsored Enterprises." Federal Reserve Bank of St. Louis. https://research.stlouisfed.org/conferences/gse/Weicher.pdf

Weinberg, John (2013). "The Great Recession and its Aftermath." Federal Reserve History. http://www.federalreservehistory.org/Events/DetailView/66.

Wheelock, David C. (2008). "Changing the Rules: State Mortgage Foreclosure Moratoria During the Great Depression." *Federal Reserve Bank of St. Louis Review*. November/December 2008. https://research.stlouisfed.org/publications/review/08/11/Wheelock.pdf.

Zandi, Mark and Christian deRitas (2011). "The Future of the Mortgage Finance System." Moody's Analytics. https://www.economy.com/mark-zandi/documents/Mortgage-Finance-Reform-020711.pdf

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