

FHA Single-Family Mortgage Insurance: Financial Status of the Mutual Mortgage Insurance Fund (MMI Fund)

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Summary

The Federal Housing Administration (FHA) insures private lenders against losses on home mortgages made to borrowers that meet certain eligibility criteria. If the borrower defaults—that is, does not repay the mortgage as promised—and the home goes to foreclosure, FHA pays the lender the remaining principal amount owed. By insuring lenders against the possibility of borrower default, FHA is intended to expand access to mortgage credit to households who might not otherwise be able to obtain a mortgage at an affordable interest rate or at all, such as those with small down payments.

When an FHA-insured mortgage goes to foreclosure, the lender files a claim with FHA for the remaining amount owed on the mortgage. Claims on FHA-insured home mortgages are paid out of the Mutual Mortgage Insurance Fund (MMI Fund), which is funded through fees paid by borrowers (called premiums), rather than through appropriations. However, like all federal credit programs covered by the Federal Credit Reform Act of 1990, FHA can draw on permanent and indefinite budget authority with the U.S. Treasury to cover unanticipated increases in the cost of the loans that it insures, if necessary, without additional congressional action.

Each year, as part of the annual budget process, the expected costs of mortgages insured in past years are re-estimated to take into account updated performance and economic assumptions. If the anticipated costs of insured mortgages have increased, then FHA must transfer funds from a secondary reserve account into its primary reserve account to cover the amount of the increase in the anticipated cost of insured loans. If there are not enough funds in the secondary reserve account, then the MMI Fund is required to take funds from Treasury using its permanent and indefinite budget authority in order to make the required transfer.

Separately from the budget re-estimates, FHA is required by law to obtain an independent actuarial review of the MMI Fund each year. This review provides a view of the MMI Fund's financial status by estimating the MMI Fund's economic value—that is, the amount of funds that the MMI Fund currently has on hand plus the net present value of all of the expected future cash flows on the mortgages that are currently insured under the MMI Fund. The actuarial review also determines whether the MMI Fund is in compliance with a statutory requirement to maintain a capital ratio of at least 2%. The capital ratio is the economic value of the MMI Fund divided by the total dollar amount of mortgages insured under the MMI Fund.

In the years following the housing and mortgage market turmoil that began around 2007, increased foreclosure rates, as well as economic factors such as falling house prices, contributed to an increase in expected losses on FHA-insured loans. This increase in expected losses put pressure on the MMI Fund and reduced the amount of resources that FHA had available to pay for additional, unexpected future losses. The capital ratio fell below 2% in FY2009 and remained below 2% for several years thereafter, turning negative in FY2012 and FY2013. Concerns about FHA's finances culminated at the end of FY2013, when FHA announced that it would need \$1.7 billion from Treasury to cover an increase in anticipated costs of loan guarantees. This marked the first time that FHA needed funds from Treasury to make the required transfer of funds between the primary and secondary reserve accounts.

More recently, the MMI Fund has been showing improvement, and the capital ratio once again exceeded the 2% threshold in FY2015. The FY2016 annual actuarial review of the MMI Fund, released in November 2016, estimated the economic value of the MMI Fund to be positive \$27.6 billion and the capital ratio to be 2.32%. This suggests that the MMI Fund would have about \$27.6 billion remaining after realizing all of its expected future cash flows on currently insured mortgages. The results represent an increase of \$3.7 billion from FY2015, when the economic value was estimated to be \$23.8 billion and the capital ratio was estimated to be 2.07%.

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Introduction

The Federal Housing Administration (FHA) was established by the National Housing Act of 1934 and became part of the Department of Housing and Urban Development (HUD) in 1965. It insures private lenders against losses on certain home mortgages. If the borrower does not repay the mortgage and the home goes to foreclosure, FHA pays the lender the remaining amount that the borrower owes (that is, it pays a claim to the lender). FHA charges borrowers fees, called premiums, in exchange for the insurance.

FHA insurance is intended to encourage lenders to offer mortgages to borrowers who otherwise might be unable to access mortgage credit at affordable interest rates or at all, such as households with small down payments. To qualify for FHA insurance, both the borrower and the mortgage must meet certain criteria. For example, the principal balance of the mortgage must be under a certain dollar threshold. Lenders that originate FHA-insured mortgages must be approved by FHA.

This report describes certain measures of the financial health of the FHA insurance fund for home mortgages, the Mutual Mortgage Insurance Fund. The discussion in this report assumes a certain degree of familiarity with FHA-insured mortgages. For more information on the basic features of FHA-insured mortgages and FHA's role in the mortgage market, see CRS Report RS20530, *FHA-Insured Home Loans: An Overview*, by (name redacted)

The Mutual Mortgage Insurance Fund

Most single-family mortgages insured by FHA are financed through an insurance fund called the Mutual Mortgage Insurance Fund (MMI Fund).³ Since FY2009, the MMI Fund has included FHA-insured reverse mortgages as well as traditional "forward" home mortgages.⁴ Much of the discussion in this report focuses only on traditional forward mortgages, rather than reverse mortgages. However, certain specified sections discuss both forward and reverse mortgages.

Money flows into the MMI Fund primarily from the mortgage insurance premiums paid by borrowers and from sales of foreclosed properties, and money flows out of the MMI Fund primarily from claims paid to lenders when FHA-insured mortgages default. The MMI Fund is intended to be self-supporting. It is meant to pay for costs related to insured loans (such as

¹ The National Housing Act has been amended a number of times to allow FHA to insure a wider variety of mortgages than just mortgages on single-family homes, including mortgages on multifamily buildings, hospitals, and other health care facilities. This report focuses only on FHA's single-family program.

² The basic features of FHA-insured mortgages are described in CRS Report RS20530, *FHA-Insured Home Loans: An Overview*, by (nameredacted) detailed underwriting requirements for FHA-insured mortgages, see HUD Handbook 4000.1, "FHA Single Family Housing Policy Handbook," available at http://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/hudclips/handbooks/hsgh.

³ Single-family mortgages are defined as mortgages on properties with one to four dwelling units. For example, a duplex would be considered a single-family property under this definition. Some small FHA single-family mortgage programs, such as mortgages for property improvements and mortgages on manufactured homes, are insured under a different FHA insurance fund.

⁴ Reverse mortgages allow elderly homeowners to access the equity in their homes as a source of income. The lender makes payments to the borrower, and is repaid with the proceeds from the sale of the home when the homeowner dies or chooses to no longer occupy the property. FHA-insured reverse mortgages are called Home Equity Conversion Mortgages (HECMs). For more information on HECMs, see CRS Report R44128, *HUD's Reverse Mortgage Insurance Program: Home Equity Conversion Mortgages*, by (name redacted)

insurance claims paid to lenders) with money it earns on those loans (such as through premiums paid by borrowers), not through appropriations.⁵

The MMI Fund is also required to maintain a capital ratio of 2% to pay for any unexpected increases in losses on its insured mortgages, beyond the losses that it currently anticipates. (Capital in this context is defined as the amount of funds that the MMI Fund currently has on hand, plus the net present value of future cash flows associated with the mortgages that it currently insures. The capital ratio is the ratio of capital to the total dollar amount of mortgages insured under the MMI Fund.) As will be discussed in more detail later in this report, the MMI Fund, like all federal loan and loan guarantee programs subject to the Federal Credit Reform Act of 1990, has permanent and indefinite budget authority to receive funds from the Department of the Treasury to cover increases in the costs of loan guarantees made in prior years.

FHA faces an inherent tension between facilitating the provision of mortgage credit to underserved borrowers, on the one hand, and safeguarding the health of the MMI Fund on the other. In the years following the housing and mortgage market turmoil that began around 2007, rising mortgage default rates and falling home prices put pressure on the MMI Fund. This resulted in the capital ratio falling below the required 2% threshold in FY2009 and then turning negative for a period of time. The capital ratio became positive again in FY2014 and regained the 2% threshold in FY2015.

The capital ratio falling below 2%, and then turning negative, raised concerns that the MMI Fund would not have enough money to cover all of its expected future losses on the loans that it insures. At the end of FY2013, the MMI Fund received \$1.7 billion from Treasury using its permanent and indefinite budget authority to ensure that it was holding enough funds to cover expected future losses on insured loans. This represented the first time that the MMI Fund ever had to draw on its permanent and indefinite budget authority with Treasury for this purpose. The MMI Fund has not needed to draw such funds from Treasury in subsequent years.

Congress has expressed ongoing concern about the MMI Fund's financial status and its prospects for needing additional funds to pay for future losses on its insured loans. This report focuses on the financial position of the MMI Fund. It begins with a brief overview of some of the major factors that affect the MMI Fund's financial soundness. The remainder of the report focuses on (1) how the MMI Fund is accounted for in the federal budget and (2) the results of annual independent actuarial reviews that are mandated by Congress. The budgetary treatment of FHA-insured mortgages and the actuarial review are two different processes, but both examine how the loans insured under the MMI Fund have performed and are expected to perform in the future and the effect of this loan performance on the financial position of the MMI Fund. The annual actuarial review is the basis for determining the capital ratio. However, it is the annual budget process that determines whether or not the MMI Fund requires assistance from Treasury.

Major Factors Affecting the Stability of the MMI Fund

This section briefly describes some of the major factors that can affect the MMI Fund's financial position. These factors include default and foreclosure rates on FHA-insured loans and the average loss to FHA when a loan goes to foreclosure, the amount of the premiums charged by FHA, the volume of loans that FHA insures, and current and future economic conditions.

⁵ FHA does receive appropriations to pay for staff salaries and administrative contract expenses.

Mortgage Defaults and Foreclosures

Usually, when an FHA-insured mortgage goes to foreclosure, FHA pays the lender the remaining amount that the borrower owes on the mortgage and takes ownership of the property. The payment to the lender is called a claim. The loss to FHA is the claim amount paid plus any other foreclosure-related expenses (such as the cost of maintaining the foreclosed property), minus any amount that FHA can recoup by selling the foreclosed home. FHA's total losses related to defaults and foreclosures can depend on, among other factors, (1) the number of delinquencies, defaults, and foreclosures on FHA-insured loans; (2) the success of efforts to help borrowers avoid foreclosure on FHA-insured loans or to minimize the costs to FHA associated with a foreclosure; and (3) how much FHA can recoup by reselling foreclosed homes.

Number of Defaults and Foreclosures

Like default and foreclosure rates on other types of mortgages, default and foreclosure rates on FHA-insured mortgages increased in the years following 2006, although they have improved somewhat in more recent years. Elevated default and foreclosure rates put pressure on the MMI Fund. As of August 2016, FHA reported that, on a seasonally adjusted basis, 5% of the 7.8 million mortgages that it currently insures were seriously delinquent, meaning that they were 90 days or more past due, in the foreclosure process, or in bankruptcy. This represents about 407,000 mortgages. The serious delinquency rate of 5% is an improvement from earlier years; in September 2014, 7% of FHA-insured mortgages were seriously delinquent on a seasonally adjusted basis, and in September 2012 the serious delinquency rate was close to 10%.

Figure 1 shows the rate of FHA-insured mortgages that were seriously delinquent in recent years compared to prime mortgages, subprime mortgages, and all mortgages. FHA-insured loans have performed better than subprime loans, but not as well as prime loans. Generally speaking, FHA-insured loans are expected to have somewhat higher default rates than prime loans, since many FHA-insured loans are made to borrowers with smaller down payments or weaker credit histories than borrowers with prime conventional mortgages. (Conventional mortgages are mortgages that are not guaranteed by a government agency such as FHA.) While the serious delinquency rate on FHA-insured loans increased during the housing downturn, FHA did not experience the same sharp increase in delinquency rates that subprime loans experienced. The subprime serious delinquency rate was 12.5% in the third quarter of 2016, compared to 4.4% for FHA loans and 1.7% for prime loans. Serious delinquency rates on all categories of mortgages have been decreasing in recent years from their peaks in the aftermath of the housing downturn.

⁶ Federal Housing Administration, *FHA Single Family Loan Performance Trends Credit Risk Report*, August 2016, p. 2, available at http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/hsgrroom/loanperformance.

⁷ Federal Housing Administration, *FHA Single Family Loan Performance Trends Credit Risk Report*, September 2013, p. 2, available at http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/hsgrroom/loanperformance.

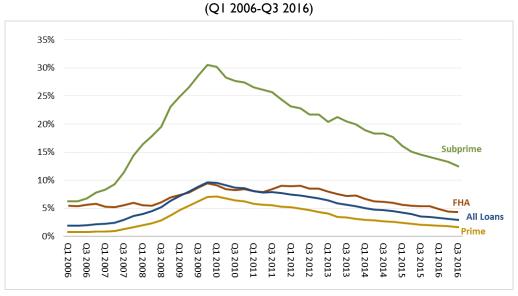


Figure I. Serious Delinquency Rates

Source: Figure created by CRS based on data from the Mortgage Bankers Association's National Delinquency Survey.

A number of factors contributed to elevated delinquency rates on FHA-insured mortgages in the aftermath of the housing market turmoil. Unfavorable economic conditions, such as decreases in home prices and increases in unemployment, affected many regions of the country, leading to more defaults and foreclosures on FHA-insured loans. Other factors, such as the credit quality of some loans, also contributed to increased default rates.

The FHA-insured loans that were originated between FY2005 and FY2008 appear to be performing especially poorly. (See **Table 1** later in this report, which shows that the loans insured in these years are now expected to lose between 6 cents and 10 cents per dollar of loans insured.) One reason for this is that these mortgages were originated at the height of the housing bubble, and therefore were most affected by factors such as subsequent home price declines. Loans insured over this time period were also of a lower credit quality on average than loans insured more recently, partly because borrowers with stronger credit histories could more easily find cheaper mortgages that were not insured by FHA. Furthermore, the loans insured in these years have a higher concentration of mortgages that benefitted from a practice known as seller-funded down payment assistance, and these loans have had especially high default rates. FHA is no longer permitted to insure loans with this type of down payment assistance.

assistance going forward. For more information on seller-funded down payment assistance, see Government Accountability Office, *Mortgage Financing: Additional Action Needed to Manage Risks of FHA-Insured Loans with Down Payment Assistance*, November 2005, http://www.gao.gov/assets/250/248463.pdf.

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⁸ U.S. Department of Housing and Urban Development, *Annual Report to Congress on the Financial Status of the FHA Mutual Mortgage Insurance Fund, Fiscal Year 2011*, November 15, 2011, p. 42, http://portal.hud.gov/hudportal/documents/huddoc?id=fhammifannrptfy2011.pdf.

⁹ Under seller-funded down payment assistance programs, borrowers would receive a gift of funds for a down payment from a nonprofit agency, and the seller of the home would later make a contribution to the nonprofit agency in the amount of the down payment. This allowed the borrower to essentially receive funds for the down payment from the seller of the home, even though FHA prohibits down payment funds from coming directly from the seller, since the seller's funds were not technically being used for the borrower's down payment. Section 2113 of the Housing and Economic Recovery Act of 2008 (P.L. 110-289) prohibited FHA from insuring loans with this type of down payment

Loss Mitigation Efforts

Default and foreclosure rates can be affected by efforts to help borrowers avoid foreclosure, such as by offering mortgage modifications. Efforts to help borrowers avoid foreclosure and thereby mitigate the losses that the MMI Fund would experience due to a foreclosure are referred to as loss mitigation actions. When a borrower with an FHA-insured loan defaults, the servicer of the loan is required to evaluate whether the borrower is eligible for certain specified loss mitigation actions. If successful, these options can reduce the losses that FHA would otherwise bear on a troubled loan and help minimize losses to the MMI Fund. Some loss mitigation options are intended to result in a borrower keeping his or her home, such as loan forbearance or loan modifications. Other options will result in the borrower losing his or her home, but avoiding foreclosure, such as short sales and deeds-in-lieu of foreclosure.

FHA pays incentive payments and, in some cases, partial insurance claim payments to lenders in connection with loss mitigation actions. These costs are likely to be less to FHA than the cost of paying a claim after a foreclosure. However, if the borrower defaults on the mortgage again in the future and the loan then goes to foreclosure, FHA could end up paying the full claim amount. Therefore, the extent to which loss mitigation actions minimize losses to FHA will depend on whether borrowers who receive any type of loan workout remain current on their mortgages or default again in the future.

Loss Severity Rates

If a mortgage must ultimately go to foreclosure, FHA may be able to recoup some of the claim amount that it pays to the lender by selling the property. In general, the amount that it recoups will usually be less than the claim amount. FHA also incurs costs related to managing and marketing foreclosed properties before they are ultimately sold. The amount of money that FHA loses on a given claim, after accounting for any amounts it recoups from selling the property, is referred to as its loss severity rate.

As of the third quarter of FY2016, FHA reported that, on average, it loses about 51% of the unpaid principal balance of the loan when it pays insurance claims. FHA's loss severity rate has improved in recent years, to the current rate of 51% from about 61% in the third quarter of FY2012, 68% in the third quarter of 2011, and 63% in the third quarter of 2010. This improvement has been driven in part by increased use of alternative methods of selling foreclosed

¹⁰ FHA's loss mitigation policies are described in Section III.A.2 of HUD Handbook 4000.1, *FHA Single-Family Housing Policy Handbook*, http://portal.hud.gov/hudportal/documents/huddoc?id=40001HSGH.pdf.

¹¹ Specific loss mitigation options include forbearance agreements, partial claims, and the FHA-Home Affordable Modification Program (FHA-HAMP). Forbearance agreements allow a borrower to make lower mortgage payments for a specified period of time, and to repay the difference between the lower mortgage payment and the actual amount owed at a later date. Partial claims allow a borrower to become current again on a delinquent mortgage through an advance of funds from the lender on the borrower's behalf to reinstate the mortgage. FHA pays the lender for this advance of funds—called a partial claim, because the amount paid by FHA is only part of what the full claim amount would be if the loan went through foreclosure—and the borrower repays FHA in the future. FHA-HAMP essentially combines a loan modification and a partial claim amount to modify a borrower's loan to achieve an affordable payment. The option was created to parallel the broader Home Affordable Modification Program (HAMP), a temporary foreclosure prevention program that was created in 2009, but it differs in some important ways from HAMP.

¹² Short sales allow a borrower to sell the home for less than the full amount owed on the mortgage, and the lender accepts the proceeds of the sale as payment in full. For more information on FHA's short sale options, see http://portal.hud.gov/hudportal/documents/huddoc?id=nscpfsfaq.pdf. A deed-in-lieu of foreclosure allows the borrower to surrender the deed to the property as payment in full on the mortgage. For more information on FHA's deed-in-lieu of foreclosure options, see http://portal.hud.gov/hudportal/documents/huddoc?id=nscdilfaq.pdf.

properties, which have generally had lower loss severity rates than traditional foreclosures.¹³ However, the loss severity rates for traditional foreclosures have also decreased over time.¹⁴

Mortgage Insurance Premiums

FHA charges fees, or premiums, to borrowers who obtain FHA-insured mortgages. These premiums are intended to cover the costs of any claims that are paid out of the MMI Fund. Borrowers pay both an up-front premium and an annual premium. These fees represent the main source of revenue flowing into the MMI Fund.

The amount of premium revenue that comes into the MMI Fund depends on a number of factors, including the amount of the premiums charged, the number of outstanding mortgages on which borrowers are paying premiums, and how many of these outstanding mortgages are ultimately prepaid—through refinancing the mortgage, paying off the loan, or going to foreclosure—resulting in the borrower no longer paying premiums. Raising premiums can bring more money into the insurance fund and help to ensure that FHA is pricing its insurance high enough to adequately cover its risks. However, if premiums are raised too high, fewer borrowers might choose to take out FHA-insured mortgages, decreasing the overall amount of premium revenue that FHA earns. Furthermore, raising premiums too high could reduce the overall quality of the mortgages that FHA insures by potentially making FHA-insured mortgages a less attractive option for all but the borrowers who present the largest credit risk.

FHA raised the annual premiums that it charges multiple times in the years following the housing market turmoil before announcing a decrease in the annual premium in January 2015. The annual premiums that FHA is currently charging are lower than at any time since October 2010, though they are higher than the premiums that were charged prior to that date. ¹⁵

Loan Volume

The number and dollar volume of loans that FHA insures plays a role in its economic stability. On the one hand, more loans insured by FHA could lead to more premium revenue coming into the MMI Fund as more borrowers pay premiums on their FHA-insured loans. On the other hand, more mortgages insured by FHA also increases FHA's liability for loan defaults. Ultimately, the quality of the loans insured and their future performance influences the overall impact of loan volume on the financial stability of the MMI Fund.

Economic Conditions and Projections

Economic and housing market conditions impact FHA's financial position in several ways. First of all, economic conditions can contribute to default and foreclosure rates. If more people are unemployed or underemployed, or if home prices fall such that people cannot sell their homes if they can no longer afford their mortgages, then more people may face default or foreclosure.

¹³ Alternative disposition methods include short sales, bulk sales of severely delinquent loans prior to foreclosures being completed, and selling foreclosed properties directly to third parties at a foreclosure auction rather than conveying the properties to HUD.

¹⁴ U.S. Department of Housing and Urban Development, *Quarterly Report to Congress on the Status of the MMI Fund*, *Q4 2016*, p. 22, available at http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/oe/rpts/rtc/fhartcqtrly.

¹⁵ For more information on FHA's mortgage insurance premiums, see CRS Report RS20530, *FHA-Insured Home Loans: An Overview*, by (name redacted)

Falling house prices also limit the amount that FHA can recoup when it sells a foreclosed property.

Projections of future economic conditions are also important factors in evaluating the health of the MMI Fund. The expected future paths of house prices and interest rates, in particular, play large roles in estimating how FHA-insured mortgages will perform in the future and, ultimately, how much money is expected to flow into and out of the MMI Fund. The future path of house prices is important because, as noted, house prices play a role in default and foreclosure rates and in how much FHA can recoup on foreclosures. Interest rates are important because they can affect home purchase activity as well as the decision by homeowners to refinance their mortgages, which affects how much premium revenue FHA expects to bring in as well as affecting FHA's potential liability for future claims. If borrowers with FHA-insured mortgages refinance into new mortgages that are not insured by FHA, those borrowers will stop paying premiums to FHA, reducing the amount of revenue that FHA takes in. However, FHA's overall liabilities will also be reduced since it will no longer be responsible for repaying the lender if the borrower defaults on the mortgage.

If assumptions about future economic conditions and their impact on loan performance are not accurate, then current estimates of the MMI Fund's financial position may also not be accurate.

The MMI Fund in the Federal Budget

This section describes how FHA-insured mortgages are accounted for in the federal budget in the year that the loans are insured and in the years thereafter. It includes a discussion of the circumstances under which the MMI Fund would need an appropriation in order to cover the cost of insuring new single-family loans in an upcoming fiscal year (a situation which has never occurred), and the circumstances under which the MMI Fund can draw on permanent and indefinite budget authority with Treasury to reserve for higher-than-expected costs of loans insured in past years (an event that occurred at the end of FY2013).

Credit Reform Accounting and Credit Subsidy Rates

The Federal Credit Reform Act of 1990 (FCRA) specifies the way in which the costs of federal loan guarantees, including FHA-insured loans, are recorded in the federal budget. ¹⁶ The FCRA requires that the estimated lifetime cost of guaranteed loans (in net present value terms) be recorded in the federal budget in the year that the loans are insured. The lifetime cost per dollar of loans guaranteed is reflected in the budget as a *credit subsidy rate*, and the credit subsidy rate multiplied by the total dollar volume of loans insured that year results in the total amount of credit subsidy for those loans. ¹⁷

When a loan guarantee program is estimated to have a positive credit subsidy rate, it requires an appropriation to cover the cost of new loan guarantees before it can insure any new loans in that

¹⁶ For more information on how the costs of federal credit programs are treated in the federal budget, see archived CRS Report R42632, *Budgetary Treatment of Federal Credit (Direct Loans and Loan Guarantees): Concepts, History, and Issues for Congress*, by (name redacted)

¹⁷ In technical terms, a credit subsidy rate is calculated as the net present value of expected future cash flows from mortgages insured in a given year, divided by the dollar volume of loans expected to be insured in that year. The "net present value of expected future cash flows" is the present value of expected cash flows out of the insurance fund (such as claims expected to be paid in the future on defaulted mortgages) net of expected cash flows into the insurance fund (such as premiums expected to be paid by borrowers).

fiscal year. When a loan guarantee program is estimated to have a negative credit subsidy rate, it means that the present value of the lifetime cash flows associated with the guaranteed loans is expected to result in more money coming into the account than flowing out if it. Rather than requiring an appropriation, a negative credit subsidy rate generates negative subsidy, resulting in *offsetting receipts*. In the case of the MMI Fund, these offsetting receipts can offset other costs of the HUD budget.¹⁸

In accordance with the FCRA, each year as part of the President's budget request, FHA and the Office of Management and Budget (OMB) estimate the credit subsidy rate for the loans expected to be insured in the upcoming fiscal year. ¹⁹ These estimates are based on factors such as projections of how much mortgage insurance premium revenue the loans insured in the upcoming year are expected to bring in, projections of how much FHA will have to pay in future insurance claims related to those loans, and projections of how much money FHA will be able to recover by selling foreclosed properties. These projections, in turn, rest on assumptions about the credit quality of the loans being made and assumptions about future economic conditions (including house prices and interest rates).

Since credit reform accounting was implemented, FHA's single-family mortgages have always been estimated to have *negative* credit subsidy in the year that they are insured.²⁰ That is, over the life of the loans, the insured loans are projected to make money for the government rather than require an appropriation from the government to pay for their costs. (This applies only to the costs associated with the insured loans themselves; credit subsidy rates do not include the administrative costs of a program. FHA does receive an appropriation for administrative contract expenses and for salaries.)²¹ The original credit subsidy rate estimates for FHA-insured loans have ranged from a low of -0.05% in FY2009 to a high of -9.03% in FY2015.²² The total amount of money that FHA would expect to earn on loans insured in a given year depends on the total dollar amount of loans it insures in that year as well as the credit subsidy rate.

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¹⁸ For more information on recent trends in FHA offsetting receipts and their role in the budget process, see CRS Report R42542, *Department of Housing and Urban Development (HUD): Funding Trends Since FY2002*, by (name r edacted).

¹⁹ FHA, in conjunction with OMB, estimates the expected gain or cost of insuring mortgages during the fiscal year in the President's annual budget requests. The Congressional Budget Office (CBO) calculates its own estimate of the expected gains or costs using its own models and assumptions. The CBO numbers are the ones that are used in the appropriations process, including determining whether the FHA single-family mortgage insurance program will require an appropriation and determining the amount of any offsetting receipts.

²⁰ While FHA's traditional single-family mortgage program has always been estimated to have a negative credit subsidy rate in the year that the loans are insured, other FHA programs have at times been estimated to have positive credit subsidy rates. When this occurs, Congress has to provide appropriations in order for FHA to enter into new commitments to insure loans under those programs in those fiscal years.

²¹ In FY2016, FHA received an appropriation of \$130 million for administrative contract expenses for all of its programs, including multifamily and healthcare facilities programs. Funding for salaries is appropriated as part of HUD's overall appropriation for salaries and expenses. Annual appropriations laws also provide FHA with the authority to enter into commitments to insure loans (called commitment authority), allowing FHA to insure up to a certain maximum dollar volume of loans. In FY2016, Congress authorized FHA to insure up to a total of \$400 billion in mortgages under the MMI Fund.

²² Some examples of reasons for the differences in the original credit subsidy rates across years could include differences in the mortgage insurance premiums that were being charged in that year, differences in the anticipated credit quality of loans being insured, or differences in the expected future trajectory of economic factors (such as interest rates or house prices) that can impact prepayments, defaults, and the amount that FHA can recover after a foreclosure.

If FHA's single-family program were ever estimated to have a positive credit subsidy rate for the upcoming fiscal year, it would require an appropriation from Congress to cover the difference between the amount of money FHA expected to take in and pay out over the life of the loans. If Congress did not appropriate funding to cover a positive subsidy rate, then FHA would not be able to insure new loans in that year. (For a brief discussion of a proposed change in the required method of calculating credit subsidy rates that could result in the MMI Fund having a positive credit subsidy rate, see the nearby text box, "FHA and "Fair Value" Accounting.")

In its FY2017 Budget Justifications, FHA estimated that the credit subsidy rate for the MMI Fund, excluding reverse mortgages, would be negative 4.42% in FY2017. This means that for every dollar of single-family loans that it insures in FY2017, FHA estimated that it would earn \$0.044. Since FHA projected that it would insure \$204 billion in single-family mortgages in FY2017, FHA estimated that the mortgages it insures in FY2017 would generate over \$9 billion in negative credit subsidy.²³ CBO does its own credit subsidy estimates, and these estimates are the ones that are used during the appropriations process. CBO estimated that FHA's single-family programs would generate about \$7 billion in negative credit subsidy in FY2017, somewhat lower than the \$9 billion estimated by FHA.²⁴ CBO's lower credit

FHA and "Fair Value" Accounting

FHA's credit subsidy rates are calculated in accordance with the methodology specified in the FCRA. This methodology takes into account expected costs (primarily claims) and gains (primarily premium revenue) associated with loans insured in a given year, and arrives at a net present value of the future cash flows on these loans by using interest rates on Treasury bonds as a discount rate. The interest rate on Treasury bonds does not account for market risk, because Treasury bonds are assumed to be virtually risk-free. However, some have suggested that credit subsidy rate estimates would more accurately reflect the value of the mortgages if the discount rate included adjustments for market risk. Accounting for market risk in calculating credit subsidy is referred to as the "fair value" approach.

In 2011, the Congressional Budget Office (CBO) released a report that discusses the difference between FCRA accounting and a fair value approach specifically as it relates to FHA. (See Congressional Budget Office, Accounting for FHA's Single-Family Mortgage Insurance Program on a Fair-Value Basis, May 18, 2011, http://www.cbo.gov/publication/41445.) The CBO report finds that using a fair value approach would have changed the estimate of FY2012 credit subsidy for the MMI Fund programs from a negative number to a positive number. This means that, had the fair value approach been used, the loans that FHA expected to insure in that year would have been projected to lose money rather than earn money over the life of the loans, and FHA would have required an appropriation from Congress in order to insure loans in that year.

The debate over how to calculate subsidy rates for FHA's loan program is part of a larger debate over whether subsidy costs of government loan guarantees in general should reflect an adjustment for market risk. For more information on the issues involved, see CRS Report R44193, Federal Credit Programs: Comparing Fair Value and the Federal Credit Reform Act (FCRA), by (name redacted)

subsidy estimate resulted from both a lower estimated credit subsidy rate (4% compared to 4.4%) and a lower estimated loan volume (\$185 billion compared to \$204 billion).

Annual Credit Subsidy Rate Re-estimates

The amount of money that loans insured by FHA in a given year actually earn for or cost the government over the course of their lifetime is likely to be different from the original credit

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²³ U.S. Department of Housing and Urban Development, *FY2017Congressional Budget Justifications*, p. 25-8, http://portal.hud.gov/hudportal/documents/huddoc?id=25-MortLoanInsFHA.Fund.pdf.

²⁴ Congressional Budget Office, *Budgetary Impact of Major Federal Programs that Guarantee Mortgages – CBO's March 2016 Baseline*, https://www.cbo.gov/sites/default/files/51297-2016-03-Mortgages.pdf.

subsidy estimates due to better or worse than expected performance of those loans. Federal credit reform accounting recognizes this, and provides permanent and indefinite budget authority to federal credit programs to cover any increased costs of loan guarantees in the future.

Each year, in consultation with OMB, FHA re-estimates each prior year's credit subsidy rates based on the actual performance of the loans and other factors, such as updated economic projections. Although the original credit subsidy rate for the single-family mortgage insurance program each year has historically been estimated to be negative, the credit subsidy rate re-estimates for the loans insured in several fiscal years are currently estimated to be positive, suggesting that FHA will actually pay out more money than it earns on the loans insured in those years.

Table 1 shows the original credit subsidy rate estimates and the most current re-estimated credit subsidy rates for the loans insured in each fiscal year between 1992 and 2015. The first column shows the original credit subsidy rate. In all cases the original subsidy rate estimates were negative (shown in green), meaning that the loans insured in those years were originally expected to make money for the government. The second column shows the current re-estimated credit subsidy rate for each year. Re-estimated credit subsidy rates are shown in green if they remained negative (even if they are less favorable than the original estimate) and in red if they have become positive.

For most years, the current re-estimated credit subsidy rate is less favorable than the original estimate, although many of the re-estimated credit subsidy rates are still negative. A lower, but still negative, credit subsidy estimate suggests that the loans insured in that fiscal year will still make money for the government, but less than was originally estimated. In most years between FY2000 and FY2009, the re-estimates of the subsidy rates are positive (shown in red), meaning that the loans insured in these years are currently expected to lose money overall. In only three years—FY1992, FY2010, and FY2012—is the current re-estimated subsidy rate more favorable than the original estimated subsidy rate, meaning that the loans insured in those years are now expected to make more money than originally estimated.

Table I. MMI Fund Credit Subsidy Rates and Re-estimates (FY1992-FY2015)

Fiscal Year	Original Subsidy Rate	Re-estimated Subsidy Rate	
1992	-2.60%	-3.23%	
1993	-2.70%	-2.66%	
1994	-2.79%	-1.80%	
1995	-1.95%	-0.73%	
1996	-2.77%	-1.05%	
1997	-2.88%	-1.01%	
1998	-2.99%	-1.43%	
1999	-2.62%	-1.25%	
2000	-1.99%	0.22%	
2001	-2.15%	0.11%	
2002	-2.07%	0.41%	
2003	-2.53%	-0.14%	

Fiscal Year	Original Subsidy Rate	Re-estimated Subsidy Rate	
2004	-2.47%	2.74%	
2005	-1.80%	6.42%	
2006	-1.70%	7.68%	
2007	-0.37%	9.63%	
2008	-0.25%	6.87%	
2009	-0.05%	1.66%	
2010	-0.86%	-1.05%	
2011	-3.10%	-2.59%	
2012	-2.53%	-4.04%	
2013	-7.22%	-4.48%	
2014	-7.25%	-5.12%	
2015	-9.03%	-5.35%	

Source: Table created by CRS based on Office of Management and Budget, *The President's Budget for Fiscal Year 2017, Federal Credit Supplement Spreadsheets, Loan Guarantees: Subsidy Re-estimates*, http://www.whitehouse.gov/omb/budget/Supplemental.

Note: These credit subsidy rates do not include FHA-insured reverse mortgages.

MMI Fund Account Balances

The credit subsidy rate re-estimates affect the way in which funds are held in the MMI Fund. The MMI Fund consists of two primary accounts: the Financing Account and the Capital Reserve Account. The Financing Account holds funds to cover *expected* future losses on FHA-insured loans. The Capital Reserve Account holds additional funds to cover any additional, *unexpected* future losses. Funds are transferred between the two accounts each year on the basis of the re-estimated credit subsidy rates to ensure that enough is held in the Financing Account to cover updated projections of expected losses on insured loans. If the credit subsidy rate re-estimates reflect an aggregate *increase* in expected losses, funds are transferred from the Capital Reserve Account to the Financing Account to cover the amount of the increase in expected losses. If the credit subsidy rate re-estimates reflect a *decrease* in aggregate expected losses, funds are transferred from the Financing Account to the Capital Reserve Account.

In the years following the housing market turmoil, the credit subsidy rate re-estimates showed aggregate increases in expected losses on FHA-insured loans, requiring large transfers of funds from the Capital Reserve Account to the Financing Account to cover these additional expected future losses. **Table 2** illustrates the changes in these account balances between FY2008 and FY2016. At the end of FY2008, the MMI Fund held \$9 billion in the Financing Account and \$19.3 billion in the Capital Reserve Account. The amounts needed in the Financing Account increased over the next several years and the amounts held in the Capital Reserve Account decreased, reaching zero at the end of FY2013 (when the MMI Fund received funds from Treasury to make a required transfer of funds to the Financing Account). By the end of FY2014,

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²⁵ The Capital Reserve Account is an on-budget account; the Financing Account is an off-budget account that reflects the actual cash flows associated with loans insured under the MMI Fund.

the MMI Fund had begun to rebuild its reserves, holding \$7.3 billion in the Capital Reserve Account. At the end of FY2016, \$37.2 billion was held in the Capital Reserve Account. 26

Table 2. MMI Fund Account Balances, FY2008-FY2016

(\$ in billions)

Fiscal Year	Financing Account	Capital Reserve Account	Total
FY2008	\$9.0	\$19.3	\$28.2
FY2009	\$21.1	\$10.7	\$31.8
FY2010	\$28.9	\$4.4	\$33.3
FY2011	\$29.0	\$4.7	\$33.7
FY2012	\$35.1	\$3.3	\$38.4
FY2013	\$48.4	\$0.0	\$48.4
FY2014	\$38.9	\$7.3	\$46.2
FY2015	\$29.6	\$16.0	\$45.6
FY2016	\$12.6	\$37.2	\$49.8

Source: FHA's Quarterly Reports to Congress on FHA Single Family Mutual Mortgage Insurance Fund Programs, available at http://portal.hud.gov/hudportal/HUD?src=/program offices/housing/rmra/oe/rpts/rtc/fhartcqtrly.

Notes: Figures reflect total account balances as of the fourth quarter of each fiscal year. They represent the amount of liquid assets that are immediately available to pay for claim expenses, not the overall asset position of the MMI Fund.

Although the total resources held in these accounts have increased over the last several years, the total dollar volume of mortgages insured by FHA has also increased, from about \$400 billion at the end of FY2018 to about \$1.2 trillion at the end of FY2016.²⁷

Permanent and Indefinite Budget Authority

Recognizing the fact that estimating the lifetime cost of a loan guarantee program is inexact, the Federal Credit Reform Act of 1990 includes permanent and indefinite budget authority for federal loan guarantee programs to cover the cost of credit subsidy rate re-estimates. ²⁸ Therefore, if FHA ever needs to transfer more money than it has in the Capital Reserve Account to the Financing Account to cover an increase in expected losses on insured loans, it can draw on its permanent and indefinite budget authority to receive funds from Treasury to make this transfer without additional congressional action. ²⁹

²⁶ U.S. Department of Housing and Urban Development, *FHA's Quarterly Report to Congress on FHA Single Family Mutual Mortgage Insurance Fund Programs*, *FY2016 Q4*, p. 10, available at http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/oe/rpts/rtc/fhartcqtrly.

²⁷ These figures represent total amortized insurance-in-force for the MMI Fund (that is, the current aggregate loan amount outstanding, rather than the initial aggregate loan amount). Figures come from FHA's *Annual Report to Congress on the Financial Status of the MMI Fund*, FY2009, p. 17, and the *Annual Report to Congress on the Financial Status of the MMI Fund*, FY2016, p. 19.

²⁸ 2 U.S.C. §661c(f).

²⁹ The credit subsidy rate re-estimates are included as part of the President's budget that is usually released in February of each year. Any required transfer of funds between the Financing Account and the Capital Reserve Account usually occurs in May or June, but can happen as late as September.

Any funds drawn from Treasury to make a required transfer of funds to the Financing Account are not spent immediately. Rather, they are held in the Financing Account, and used to pay claims to lenders only if the rest of the funds in the Financing Account are exhausted. If economic conditions and loan performance improve, or if loans insured in the future bring in enough money to both cover their own costs and pay for past loans that defaulted, it is possible that any money received from Treasury would never actually be spent. On the other hand, if future insured loans do not bring in enough funds to cover losses on past loans, or if economic conditions and loan performance do not improve, any funds received from Treasury could eventually be spent to pay actual claims.

When the President's budget request for FY2014 was released in April 2013, it included an estimate that the MMI Fund would need a mandatory appropriation of \$943 million from Treasury during FY2013 in order to make a required transfer of funds from the Capital Reserve Account to the Financing Account. FHA had until the end of FY2013 to make the required transfer of funds, and there was a possibility that the MMI Fund would bring in enough additional funds through the negative credit subsidy it earned on loans that it insured in FY2013 to make the required transfer without depleting the Capital Reserve Account. However, due to reduced loan volumes in FY2013, the MMI Fund earned less than anticipated during the year.

At the end of September 2013, HUD announced that the MMI Fund was taking a mandatory appropriation of about \$1.7 billion to ensure that enough money was available in the Financing Account to cover all expected future losses on insured loans. It received these funds from Treasury using the permanent and indefinite budget authority provided under the FCRA. This amount was nearly twice what was anticipated in the President's budget, and represented the first time that FHA had ever needed funds from Treasury to make a required transfer of funds from the Capital Reserve Account to the Financing Account. FHA has not needed to draw additional funds from Treasury since that time.

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³⁰ The Appendix, Budget of the United States Government, Fiscal Year 2014, p. 574, http://www.whitehouse.gov/sites/default/files/omb/budget/fy2014/assets/hud.pdf.

The President's FY2013 budget request had indicated that FHA could need to draw on its permanent and indefinite budget authority for \$688 million during FY2012. (See *The Appendix, Budget of the United States Government, Fiscal Year 2013*, p. 636, http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/hud.pdf.) However, FHA did not end up needing funds from Treasury that year. Increases in mortgage insurance premiums for new borrowers, as well as money that FHA received in settlements with large mortgage companies related to claims that the companies did not adhere to FHA requirements in originating and servicing loans, brought in enough funds to make the required transfer. See the Written Testimony of Shaun Donovan, Secretary of U.S. Department of Housing and Urban Development, Hearing before the Subcommittee on Transportation, Housing and Urban Development, and Related Agencies, U.S. House of Representatives Committee on Appropriations on "FY2013 Budget Request for the Department of Housing and Urban Development," March 21, 2012, p. 7, http://appropriations.house.gov/uploadedfiles/hhrg-112-ap20-wstate-sdonovan-20120321.pdf; and U.S. Congress, Senate Committee on Appropriations, Subcommittee on Transportation, Housing and Urban Development, and Related Agencies, *Hearing on President Obama's Fiscal 2014 Budget Proposal for the Federal Housing Administration*, 113th Cong., 2nd sess., June 4, 2013.

Where to Find Key Information on the MMI Fund in Federal Budget Documents

- FHA's estimates of credit subsidy rates and the dollar amounts of loans that FHA expects to insure in the upcoming fiscal year are provided in the HUD budget justifications for the MMI Fund. The FY2017 justifications are at http://portal.hud.gov/hudportal/HUD?src=/program_offices/cfo/reports/fy17_CJ.
- The re-estimated credit subsidy rates for the loans that FHA insured in previous years are available in the Federal Credit Supplement of the President's budget. The Federal Credit Supplement is at http://www.whitehouse.gov/omb/budget/Supplemental.
- If FHA expects to need funds from Treasury during a fiscal year to cover higher-than-expected future costs of
 loan guarantees, the amount that FHA expects to need is reflected as a mandatory appropriation in the
 Appendix of the President's budget.³² The most current Budget Appendix is at https://www.whitehouse.gov/omb/
 budget/Appendix. Prior years' Budget Appendices can be accessed at https://www.gpo.gov/fdsys/browse/
 collectionGPO.action?collectionCode=BUDGET.

Annual Actuarial Review of the MMI Fund

Separately from the annual budget process, FHA is required by law to contract with an independent actuarial firm each year to analyze the actuarial soundness of the MMI Fund. This review analyzes FHA's financial position by estimating the amount of funds that it currently has on hand and the net amount (in present value terms) that FHA expects to earn or lose in the future on loans that it currently insures. It then adds these numbers together to compute the "economic value" of the MMI Fund. The economic value is the amount of money that the MMI Fund would be projected to have on hand after all of the cash flows associated with its insured loans are realized, assuming that it does not insure any more loans going forward.

The budgetary treatment and the actuarial soundness of the MMI Fund are two different ways of looking at the same thing—namely, how the loans insured under the MMI Fund have performed and are expected to perform in the future, and the effect of this loan performance on the financial position of the MMI Fund. However, the annual actuarial review is separate from the federal budget process, and uses somewhat different economic assumptions than those used in the federal budget. This section describes the actuarial review and important related concepts and discusses the results of the FY2016 actuarial review that was released in November 2016.

In the annual actuarial review, the independent actuary reviews the MMI Fund's financial information to estimate the MMI Fund's current financial position, including both forward and reverse mortgages insured under the fund.³⁴ This includes estimating the amount of funds that the MMI Fund currently has on hand and the cash flows that it expects in the future—such as premiums paid into the fund and claims paid out of the fund—on the loans that it currently insures. It uses economic modeling to project the MMI Fund's financial status for the current year

³² For example, in the FY2014 budget request, p. 574 of the Appendix reflects that FHA expected to need \$943 million from Treasury for the MMI Fund in FY2013. (The actual amount that FHA ultimately needed from Treasury was higher, at \$1.7 billion.)

³³ This requirement is codified at 12 U.S.C. 1708(a)(4). It was enacted as part of the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) and the Cranston-Gonzalez National Affordable Housing Act of 1990 (P.L. 101-625). (Both laws included identical provisions related to the actuarial soundness of the MMI Fund.)

³⁴ There are actually two annual actuarial reviews: one analyzes only traditional FHA-insured single-family mortgages, and the other analyzes only FHA-insured reverse mortgages. Both of these actuarial reviews can be found at http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/rmra/oe/rpts/actr/actrmenu. FHA combines the numbers from the two actuarial reviews to arrive at a total economic value of the MMI Fund in its *Annual Report to Congress on the Status of the MMI Fund*, which can be found at http://portal.hud.gov/hudportal/HUD?src=/fhammifrpt.

and several years into the future under a "base case" scenario and several alternative economic scenarios. Some of the key terms used in the actuarial report include the following:

- *Capital resources* are the net assets (assets³⁵ minus liabilities) that the MMI Fund *currently* has on hand that can be converted into cash to pay claims on defaulted mortgages or other expenses.
- **Present value of future cash flows on outstanding business** is the estimated amount that the MMI Fund is currently expected to gain or lose in the future, in present value terms, on the loans that it currently insures (this estimate does not take into account any new loans that might be insured in the future).
- *Economic value* is the MMI Fund's capital resources plus the present value of its future cash flows on outstanding business. It represents the amount of capital resources that the MMI Fund would have after expected future cash flows on currently insured loans are realized. In other words, it represents the amount that the MMI Fund could use to pay for any additional, unexpected losses on its outstanding loans.

The law also mandates that FHA meet a 2% capital ratio requirement, which means that the economic value of the MMI Fund must be at least 2% of the total dollar volume of mortgages that FHA currently insures. ³⁶ The capital ratio is calculated on the basis of the actuarial report. The capital ratio fell below this 2% requirement in FY2009 and remained below 2% for several years thereafter, turning negative in FY2012 and FY2013. The capital ratio was estimated to be positive again in FY2014 and was estimated to exceed 2% in both FY2015 and FY2016.

Results of the FY2016 Annual Actuarial Review

The FY2016 annual actuarial review was released in November 2016. The independent actuary estimated the MMI Fund's total capital resources to be \$35.3 billion. This is the amount of

resources that FHA currently has on hand that can be converted into cash to pay claims. The actuaries estimated the present value of future cash flows on insured loans to be *negative* \$7.8 billion. In other words, in net present value terms, the loans that FHA currently insures are

Where to Find FHA Reports on the MMI Fund

The FHA reports discussed in this section, including the annual actuarial review and FHA's annual report to Congress on the financial status of the MMI Fund, can be accessed from HUD's Office of Housing Reading Room web page at http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/hsgrroom.

expected to cost FHA about \$7.8 billion over the remaining life of those loans. The economic value of the MMI Fund, therefore, was estimated by the actuaries to be \$27.6 billion (\$35.3 billion – \$7.8 billion).³⁷ This includes both forward and reverse mortgages.

The estimated economic value of \$27.6 billion was an improvement of about \$3.7 billion compared to FY2015, when the MMI Fund was estimated to have an economic value of \$23.8 billion. The FY2015 estimated economic value, in turn, was an improvement over the FY2014 estimated economic value of \$4.8 billion.

³⁵ The MMI Fund's assets include things such as cash, Treasury investments, and foreclosed properties held by HUD.

³⁶ 12 U.S.C. 1711(f)

³⁷ U.S. Department of Housing and Urban Development, *Annual Report to Congress, Fiscal Year 2016 Financial Status, FHA Mutual Mortgage Insurance Fund*, November 15, 2016, p. 19, http://portal.hud.gov/hudportal/documents/huddoc?id=2016fhaannualreport1.pdf.

In FY2012 and FY2013, the MMI Fund was estimated to have a *negative* economic value. A negative economic value means that the funds that the MMI Fund currently has on hand, plus the present value of the funds that it expects to earn in premiums on loans that it currently insures, would not be enough to pay for the present value of claims on the loans that are currently insured. For example, in FY2013 the MMI Fund was estimated to have an economic value of negative \$1.3 billion. This meant that, based on the MMI Fund's capital resources and estimates of future cash flows on insured loans as of the time the report was prepared, FHA was expected to be short about \$1.3 billion when all of its currently insured loans were eventually paid off. In contrast, the FY2016 economic value of positive \$27.6 billion means that the MMI Fund would be estimated to have that amount left over after all of the expected future cash flows (including premium payments and insurance claims) on its currently insured mortgages were realized. This provides a "cushion" should future losses on insured mortgages be higher than currently anticipated.

The projections included in the actuarial report rely on several assumptions. For one thing, the estimates of the MMI Fund's current status assume that FHA will not insure any more mortgages. In actuality, FHA will likely continue to insure loans, which will bring in additional resources in the form of premium revenues, but will also create new liabilities in terms of claims.

Furthermore, the actuarial review relies upon assumptions about future economic conditions. To the extent that actual future economic conditions differ from these assumptions, the estimates of the MMI Fund's value will also be different.³⁹ Although the independent actuaries estimate that the MMI Fund's economic value in FY2016 is positive \$27.6 billion, they note that, under a variety of alternative future economic scenarios, the MMI Fund's economic value could be different. The actuaries estimated the MMI Fund's economic value under 100 randomly generated economic paths; the base case estimate (the \$27.6 billion) represents the average expected economic value among these 100 paths. However, under the 10th-best economic scenario considered by the actuaries, the economic value for the MMI Fund is estimated to be \$48 billion; under the 10th-worst scenario, the economic value is estimated to be \$6.1 billion. Under the worst-case economic path, the economic value is estimated to be *negative* \$54.5 billion.

revenue from newly insured mortgages, to pay for these expected claims.

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³⁸ A negative economic value does not mean that FHA is currently out of money. Projected losses on the loans insured by FHA are realized over the life of those loans, rather than all at once, potentially giving FHA time to increase its capital resources before these projected losses are realized. Whether or not the MMI Fund will ever actually run out of money to pay claims depends on factors such as whether the projections of future cash flows are accurate and whether the MMI Fund is able to build enough additional capital resources over time, such as through additional premium

³⁹ To understand how assumptions about future economic conditions affect estimates of the MMI Fund's current value, consider that, for example, the *future* path of house prices affects *current* estimates of future cash flows on mortgages insured under the MMI Fund. If house prices fall more than expected in the future, then cash flows on currently insured mortgages might be more negative than currently anticipated due to more foreclosures and foreclosed properties held by FHA selling for less money; if house prices rise more than expected in the future, then cash flows on currently insured mortgages might be more positive than currently anticipated due to fewer foreclosures and foreclosed properties selling for more money. Likewise, assumptions about other economic indicators in the future also impact current estimates of future cash flows associated with currently insured mortgages.

⁴⁰ Integrated Financial Engineering, Inc., *FY2016 Actuarial Review of MMIF Forward Mortgages*, pp. 50-59 and *FY2016 Actuarial Review of MMIF HECM Loans*, pp. 44-48. The economic value for the MMI Fund under alternative economic scenarios is obtained by adding together the economic values for forward mortgages and reverse mortgages under alternative scenarios.

The 2% Capital Ratio Requirement

In the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508), in response to concerns about the solvency of the FHA single-family insurance program, Congress mandated that, going forward, the MMI Fund's economic value must be at least 2% of the total dollar amount of loans⁴¹ that it is currently insuring. This is known as the capital ratio requirement.⁴² The capital ratio is an expression of the economic value of the MMI Fund as a percentage of the total dollar volume of loans insured by the MMI Fund. It is a measure of how much capital the MMI Fund will have available to pay for *unexpected* losses on currently insured loans, after the amounts estimated to be needed to cover *expected* losses are taken into account.

Brief History of the Capital Ratio Requirement

The capital ratio requirement for the MMI Fund was enacted by Congress in 1990 amid concerns about the Fund's financial stability. In 1990, the MMI Fund had a negative economic value. This meant that the expected future cash flows associated with the mortgages currently insured by the MMI Fund, when combined with the capital resources that the MMI Fund currently had on hand, were not expected to be enough to pay for all future claims on FHA-insured loans. In response, legislation passed by Congress directed FHA to make certain changes that were intended to result in the Fund building up reserves of at least 2% of the dollar volume of mortgages that it currently insured to enable it to cover any increases in the expected costs of insured loans that may occur in the future. These funds would be available to pay for any additional, unexpected costs above what was currently anticipated.

The changes required by the legislation included charging borrowers an annual mortgage insurance premium to go along with the existing premium that was paid upfront and suspending certain payments (known as distributive shares) that had previously been paid to borrowers under certain conditions. The law also established the requirement for the annual independent actuarial review. Some of these changes, such as the additional mortgage insurance premium, essentially meant that FHA would charge more to future borrowers to build up reserves to pay for losses on mortgages made to past borrowers.

As Congress considered the legislation, there was debate over the appropriate level for the capital ratio requirement. This debate highlights the ongoing tension that FHA faces between maintaining its financial soundness and carrying out its purpose of expanding access to affordable mortgage credit for underserved borrowers. The 2% threshold was adopted because it was viewed as being high enough to provide FHA with a cushion to withstand unexpected losses, but without imposing an undue financial burden on future FHA-insured borrowers. A higher capital ratio requirement would have likely required FHA to charge higher premiums for FHA insurance. It was recognized that a 2% requirement would likely be high enough to withstand moderate future

⁴¹ The legislation calls for the capital ratio to be calculated as the economic value of the MMI Fund divided by unamortized insurance-in-force. Unamortized insurance-in-force is generally understood to mean the original principal balance of insured mortgages. However, the legislation defines unamortized insurance-in-force as "the remaining obligation on outstanding mortgages," a definition that is usually understood to be amortized insurance-in-force. The actuarial report includes both amortized and unamortized insurance-in-force as generally understood, allowing the capital ratio to be calculated both ways.

⁴² 12 U.S.C. 1711(f). The Omnibus Budget Reconciliation Act of 1990 is also the law that required annual independent actuarial reports on the Mutual Mortgage Insurance Fund.

⁴³ See the discussion of the history of the capital ratio in Capone Jr., Charles A., "Credit Risk, Capital, and Federal Housing Administration Mortgage Insurance," Journal of Housing Research, Volume 11, Issue 2, pp. 373-401.

economic downturns, but would likely not be high enough to allow the MMI Fund to withstand a catastrophic economic downturn. According to testimony from the General Accounting Office (GAO, now the Government Accountability Office) from 2000:

Determining what constitutes an adequate reserve level is essentially a question of what kinds of adverse economic conditions—moderately severe or catastrophic—the reserve should be able to withstand.... In the actuarial review of the Fund conducted by Price Waterhouse for fiscal year 1989, the researchers concluded that actuarial soundness would be consistent with a reserve that could withstand adverse, but not catastrophic, economic downturns. They further concluded that the Treasury implicitly covers catastrophic risk.... By contrast, rating agencies have taken the position, when evaluating private mortgage insurers, that they should have enough capital to withstand catastrophic risk.... However, requiring FHA to hold capital equivalent to that held by private mortgage insurers would likely impair FHA's public purpose.

While the law requires the Secretary of HUD to ensure that the MMI Fund maintains a capital ratio of 2%, it does not specify consequences or specific actions that the Secretary must take if the capital ratio falls below that threshold. Furthermore, while the results of the actuarial review and the estimate of the capital ratio provide important information about the financial soundness of the MMI Fund, the results of the actuarial review and the capital ratio estimate do not determine whether or not FHA will need to draw on its permanent and indefinite budget authority with Treasury for funds to hold against expected future losses or to pay claims. That is determined as part of the re-estimate process that is done as part of the federal budgeting process each year, which is described in the "The MMI Fund in the Federal Budget" section of this report.

FY2016 Capital Ratio

The capital ratio is reported in FHA's annual report to Congress on the status of the MMI Fund, using the actuarial report's numbers for both traditional single-family mortgages and reverse mortgages insured by FHA. In FY2016, the actuarial report estimated the economic value of the MMI Fund to be \$27.6 billion. The total dollar volume of mortgages currently insured by the MMI Fund was \$1.189 trillion, which means that the capital ratio was estimated to be 2.32% (\$27.6 billion divided by \$1.189 trillion). This represents an increase from the FY2015 capital ratio of 2.07%. FY2015 was the first time the capital ratio had exceeded 2% since FY2008.

In FY2009, the capital ratio was estimated to be 0.53%.⁴⁶ This was the first time that the capital ratio had fallen below 2% since the requirement was first met in FY1995.⁴⁷ The capital ratio remained below 2% from FY2009 through FY2014, when the capital ratio was estimated to be

⁴⁴ United States General Accounting Office, *Mortgage Financing: Financial Health of the Federal Housing Administration's Mutual Mortgage Insurance Fund*, Statement of Stanley J. Czerwinski before the Subcommittee on Housing and Transportation, Senate Committee on Banking, Housing and Urban Affairs, September 12, 2000, p. 7-8, http://gao.gov/assets/110/108623.pdf.

⁴⁵ The capital ratio requirement is codified at 12 U.S.C. §1711(f). A separate section of the law, 12 U.S.C. §1708(a)(3), also requires the Secretary to make sure that the MMI Fund is financially sound.

⁴⁶ U.S. Department of Housing and Urban Development, *Annual Report to Congress Regarding the Financial Status of the Mutual Mortgage Insurance Fund*, *FY2009*, November 12, 2009, p. 17, http://portal.hud.gov/hudportal/documents/huddoc?id=fhammifannrptfy2009.pdf. This capital ratio uses amortized insurance-in-force, as generally understood, as the denominator of the ratio.

⁴⁷ U.S. Department of Housing and Urban Development, Office of Policy Development and Research, "The FHA Single-Family Insurance Program: Performing a Needed Role in the Housing Finance Market," Executive Summary, p. 3, http://www.huduser.org/publications/pdf/FHA_SingleFamilyIns_2012.pdf. The discussion of the history of FHA notes that the capital ratio requirement of 2% was first reached in FY1995.

0.41%. In FY2012 and FY2013, the capital ratio was estimated to be *negative* 1.44% and *negative* 0.11%, respectively. FY2012 was the first time that the MMI Fund had been estimated to have a negative capital ratio since the early 1990s, when Congress enacted the series of changes aimed at ensuring the financial soundness of the MMI Fund, including the requirement for an independent annual actuarial review and the required capital ratio. 49

A negative capital ratio by itself does not trigger any special assistance from Treasury, although it suggests that such assistance could be needed at some point. Rather, any assistance from Treasury is triggered if the credit subsidy rate re-estimates described in the "Annual Credit Subsidy Rate Re-estimates" section show that FHA needs to transfer more funds than it has in its Capital Reserve Account into its Financing Account to cover increases in expected future losses. The amount of assistance required from Treasury is based on the credit subsidy rate re-estimates, not on the capital ratio or the economic value of the MMI Fund as reported in the actuarial report.

Table 3 shows the MMI Fund's financial position, including its economic value, dollar volume of insured mortgages, and capital ratio, as estimated by the independent actuary for each fiscal year between FY2006 and FY2016.

Table 3. Results of the Annual Actuarial Review of the MMI Fund, FY2006-FY2016 (\$ in millions)

Fiscal Year	Capital Resources	PV of Future Cash Flows	Economic Value	Dollar Volume of Insured Mortgages	Capital Ratio
FY2006	\$23,461	-\$1,440	\$22,021	\$298,542	7.38%
FY2007	\$25,365	-\$3,952	\$21,277	\$305,449	6.97%
FY2008	\$27,281	-\$14,374	\$12,908	\$401,461	3.22%
FY2009	\$30,719	-\$27,078	\$3,641	\$684,708	0.53%
FY2010	\$33,594	-\$28,937	\$4,657	\$931,272	0.50%
FY2011	\$32,431	-\$29,880	\$2,551	\$1,078,000	0.24%
FY2012	\$30,362	-\$46,638	-\$16,277	\$1,131,543	-1.44%
FY2013	\$29,680	-\$31,010	-\$1,330	\$1,178,154	-0.11%
FY2014	\$28,432	-\$23,667	\$4,765	\$1,156,741	0.41%
FY2015	\$30,862	-\$7,040	\$23,822	\$1,151,458	2.07%
FY2016	\$35,346	-\$7,795	\$27,551	\$1,188,569	2.32%

Source: FHA's Annual Reports to Congress on the Financial Status of the MMI Fund.

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⁴⁸ This comparison uses the results of the standard actuarial review of the MMI Fund for FY2013. In FY2013, FHA also obtained a second actuarial review of the MMI Fund performed by a different company to get an alternative view of the MMI Fund's financial status. This alternative actuarial review estimated a lower economic value for the MMI Fund than the official actuarial review, although, like the official actuarial review, it also showed improvement in the MMI Fund's financial position from FY2012. A major reason for the different results in the two FY2013 actuarial reviews was that the alternative actuarial review estimated lower future premium revenue for the MMI Fund due to higher prepayment speeds. See the FY2013 *Annual Report to Congress on the Financial Status of the MMI Fund*, p. 61, for a discussion of the differences between the two actuarial reviews.

⁴⁹ See, for example, General Accounting Office, *Mortgage Financing: Actuarial Soundness of the Federal Housing Administration's Mutual Mortgage Insurance Fund*, statement of Thomas J. McCool before the Subcommittee on Housing and Community Opportunity, House Committee on Financial Services, March 20, 2001, p. 2, showing an estimated negative economic value of the MMI Fund in 1990 and 1991.

Notes: Figures are based on the base case scenario reported in the actuarial reports. The dollar volume of insured mortgages is amortized insurance-in-force. FHA-insured reverse mortgages became part of the MMI Fund in FY2009.

The drop in the capital ratio in the years after 2008 resulted from both a decrease in the numerator of the ratio (the MMI Fund's economic value) and an increase in the denominator of the ratio (total dollar volume of mortgages outstanding), which reflects the fact that FHA is insuring a greater volume of loans than it has in the recent past. The decrease in the MMI Fund's economic value, in turn, was mostly due to the fact that the present value of future cash flows became increasingly negative for a time, suggesting that FHA was expecting large net cash outflows over the life of the loans that it was currently insuring.

Role of FHA-Insured Reverse Mortgages in the Annual Actuarial Review

FHA-insured reverse mortgages, known as Home Equity Conversion Mortgages (HECMs), were moved into the MMI Fund beginning in FY2009. In contrast to traditional forward mortgages, HECMs are FHA-insured reverse mortgages for elderly homeowners who are seeking to access their accumulated home equity. HECMs that were insured by FHA prior to FY2009 are obligations of a different FHA insurance fund, but HECMs insured in FY2009 or later are obligations of the MMI Fund. 151

The dollar amount of HECMs insured under the MMI Fund is much smaller than the amount of traditional forward mortgages: only about \$112 billion of the \$1.2 trillion of mortgages insured under the MMI Fund are HECMs.⁵² However, changes in the estimated value of HECMs can have a large impact on the MMI Fund's economic value and on the capital ratio.

Estimates of HECM performance are particularly sensitive to economic assumptions, making the value of the HECM portfolio volatile. While the value of forward mortgages insured under the MMI Fund has consistently increased since FY2012, the value of HECMs has fluctuated between negative and positive values.⁵³ This volatility suggests that the value of the HECM portfolio could decline, perhaps substantially, in future years, negatively impacting the overall value of the MMI Fund and the capital ratio. This volatility in the HECM portfolio can be seen in a comparison of the FY2015 and FY2016 actuarial reviews.

A major reason that the MMI Fund's capital ratio exceeded 2% in FY2015 was because of the performance of HECMs. The capital ratio for forward mortgages alone, excluding HECMs, was estimated to be 1.63% in FY2015.⁵⁴ This was a marked improvement from FY2014, when the capital ratio for forward mortgages alone was estimated to be 0.56%, 55 but meant that the forward portfolio alone would not have been estimated to exceed the 2% capital ratio threshold in FY2015. The capital ratio for HECMs alone was estimated to increase from *negative* 1.2% in

⁵⁰ For more information on HECMs, see CRS Report R44128, *HUD's Reverse Mortgage Insurance Program: Home Equity Conversion Mortgages*, by (name redacted)

⁵¹ HECMs endorsed prior to FY2009 are obligations of a different FHA insurance fund, the General and Special Risk Insurance Fund (GI/SRI Fund). The Housing and Economic Recovery Act of 2008 (HERA, P.L. 110-289) made HECMs an obligation of the MMI Fund going forward.

⁵² HUD, Annual Report to Congress, Fiscal Year 2016 Financial Status, FHA Mutual Mortgage Insurance Fund, p. 19.

⁵³ HUD, Annual Report to Congress, Fiscal Year 2016 Financial Status, FHA Mutual Mortgage Insurance Fund, p. 21.

⁵⁴ HUD, Annual Report to Congress, Fiscal Year 2015 Financial Status, FHA Mutual Mortgage Insurance Fund, p. 22.

⁵⁵ HUD, Annual Report to Congress Regarding the Financial Status of the FHA Mutual Mortgage Insurance Fund, Fiscal Year 2014, p. 7, http://portal.hud.gov/hudportal/documents/huddoc?id=FY2014FHAAnnRep11_17_14.pdf.

FY2014 to *positive* 6.4% in FY2015. Overall, the economic value of the MMI Fund in FY2015 was estimated to be \$8.7 billion higher than the FY2014 actuarial review had projected it would be. Most of this higher-than-expected value—\$7.9 billion—was attributable to HECMs. ⁵⁶

In FY2016, in contrast, the capital ratio for forward mortgages alone was estimated to be 3.28%, well above the 2% requirement and higher than the 2.32% capital ratio for the MMI Fund as a whole.⁵⁷ The capital ratio for HECMs, however, was estimated to be *negative* 6.90%, compared to *positive* 6.4% in FY2015. Overall, the economic value of the MMI Fund in FY2016 was estimated to be \$5 billion lower than the FY2015 actuarial review had projected it would be. This lower-than-expected value was attributable to HECMs, which had an estimated economic value of negative \$7.7 billion compared to the FY2015 projection of positive \$7.4 billion.⁵⁸ The economic value of forward mortgages alone exceeded the FY2015 projection: it was estimated to be \$35.3 billion, compared to a projected value of \$25.2 billion.⁵⁹

The volatility of HECMs and their inclusion in the MMI Fund potentially raise some policy questions. In its FY2015 annual report on the status of the MMI Fund, FHA noted that including both HECMs and forward mortgages in the fund could make it more difficult to independently assess the financial health of the separate programs, particularly since the capital ratio for the entire MMI Fund is often used as a proxy for the performance of the much larger forward mortgage portfolio. Furthermore, including both types of mortgages in the same fund could eventually lead to changes related to forward mortgages, such as increases in fees paid by borrowers, in order to address instability in the MMI Fund driven by HECMs. 61

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HUD, Annual Report to Congress, Fiscal Year 2015 Financial Status, FHA Mutual Mortgage Insurance Fund, p. 22.
 HUD, Annual Report to Congress, Fiscal Year 2016 Financial Status, FHA Mutual Mortgage Insurance Fund, p. 19.

⁵⁸ The decrease in the estimated economic net worth of the HECM portfolio in FY2016 was partially due to changes in certain modeling assumptions. A discussion of the factors that affected the value of the HECM portfolio begins on p.

²⁹ of HUD's Annual Report to Congress, Fiscal Year 2016 Financial Status, FHA Mutual Mortgage Insurance Fund.
⁵⁹ HUD, Annual Report to Congress, Fiscal Year 2016 Financial Status, FHA Mutual Mortgage Insurance Fund, p. 20.

⁶⁰ HUD, Annual Report to Congress, Fiscal Year 2015 Financial Status, FHA Mutual Mortgage Insurance Fund, p. 44.

⁶¹ HUD, Annual Report to Congress, Fiscal Year 2015 Financial Status, FHA Mutual Mortgage Insurance Fund, p. 42.

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