

Ginnie Mae and the Securitization of Federally Guaranteed Mortgages



At a Glance

The Government National Mortgage Association (Ginnie Mae), a part of the Department of Housing and Urban Development, works to attract capital to the market for federally insured mortgages. It does so by guaranteeing the timely payment of principal and interest on mortgage-backed securities (MBSs) that private financial institutions create from mortgages that are insured or guaranteed by other federal programs.

Ginnie Mae's guarantee operations have increased significantly in recent years. In addition, the types of mortgages included in the MBSs that Ginnie Mae guarantees—and the types of lenders that issue those MBSs—have shifted in ways that could increase Ginnie Mae's exposure to the risk of losses on its guarantees.

In this report, the Congressional Budget Office provides an overview of its baseline budget projections for Ginnie Mae and analyzes a scenario in which Ginnie Mae could be exposed to losses in a period of severe economic stress.

- In its July 2021 baseline, CBO estimates that new guarantees issued by Ginnie Mae in 2022 will produce a budgetary savings of \$2.2 billion in that year (using the measures for the cost of federal credit programs specified in the Federal Credit Reform Act).
- In the stress scenario—which represents the worst 1 percent of potential economic outcomes over the coming decade—financial institutions that issue Ginnie Mae-backed MBSs would fail at higher-than-expected rates. Losses on the mortgages underlying those securities would also be larger than expected. Under that scenario, Ginnie Mae's new guarantees in 2022 would not produce budgetary savings but instead would increase the deficit by \$3.0 billion in that year, CBO estimates.

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Unless this report indicates otherwise, all years referred to are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end.

Numbers in the text and tables may not add up to totals because of rounding.

References to the Congressional Budget Office's baseline budget projections refer to the July 2021 baseline.

Ginnie Mae and the Securitization of Federally Guaranteed Mortgages

Summary

The Government National Mortgage Association, known as Ginnie Mae, is a government-owned corporation within the Department of Housing and Urban Development. Since its establishment in 1968, Ginnie Mae has aimed to attract capital to the market for federally insured mortgages, and thus reduce costs to mortgage borrowers, while minimizing risk to taxpayers. Ginnie Mae carries out that mission by guaranteeing the timely payment of principal and interest on mortgage-backed securities (MBSs) that private financial institutions create from home loans that are insured or guaranteed by other federal programs, such as those of the Federal Housing Administration (FHA), the Department of Veterans Affairs (VA), and the Department of Agriculture's Rural Housing Service (RHS).

Ginnie Mae's MBS guarantees are similar to the ones provided by Fannie Mae and Freddie Mac, except that those two government-sponsored enterprises focus on conventional mortgages that are not federally insured.¹ In addition, effective federal support for Fannie Mae's and Freddie Mac's guarantees is limited, whereas Ginnie Mae's guarantees are explicitly backed by the full faith and credit of the federal government.²

The volume of Ginnie Mae's business has increased sharply in the past 15 years, reflecting the growth in the volume of federally insured mortgages over that period. The composition of Ginnie Mae's business has also changed. For example, a growing share of the MBSs guaranteed by Ginnie Mae contain loans issued by nonbank financial institutions. Such institutions are generally subject to a different regulatory regimen and a more uncertain process in the event of failure than traditional banks are. In addition, a growing share of Ginnie Mae-guaranteed MBSs contain loans backed by federal mortgage guarantee programs, such as VA's, that provide a partial rather than a full guarantee against losses when a borrower defaults. Those changes may increase Ginnie Mae's risk to taxpayers, although the extent of the additional risk is uncertain.

In its baseline budget projections, the Congressional Budget Office estimates that Ginnie Mae's new guarantees will have a negative subsidy rate throughout the next 10 years, according to the accounting approach prescribed by the Federal Credit Reform Act of 1990. The subsidy rate measures the budgetary cost to the federal government per dollar of new guarantees. A negative subsidy rate represents a budgetary savings.

Although Ginnie Mae's activities are projected to reduce the budget deficit under normal, or even moderately stressful, economic conditions, the corporation could be exposed to losses in a period of severe economic stress. To explore the potential for such losses, CBO analyzed a scenario with higher-than-expected failure rates among issuers of Ginnie Mae-guaranteed securities and larger-than-expected losses on the mortgages underlying those securities.³ That stress scenario—which represents the

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1. Fannie Mae and Freddie Mac are government-sponsored enterprises that were established by federal law to provide a stable flow of funding for home loans. They buy mortgages that are not insured or guaranteed by a federal agency, pool them to create MBSs, and sell the securities to investors with a guarantee against most losses from defaults on the underlying loans. Although Fannie Mae and Freddie Mac were originally independent entities, they have been under the government's control (in federal conservatorships) since the financial crisis of 2008. For more details, see Congressional Budget Office, *Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market* (December 2010), www.cbo.gov/publication/21992.
 2. For a description of the limits on federal support for Fannie Mae and Freddie Mac, see Congressional Budget Office, *The Effects of Increasing Fannie Mae's and Freddie Mac's Capital* (October 2016), www.cbo.gov/publication/52089.

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3. Ginnie Mae's exposure to risk ultimately comes from the institutions that service the mortgages in a Ginnie Mae-guaranteed MBS. (Servicers collect the payments that borrowers owe on those loans.) The servicer is not always the same institution that originated the loan for the borrower or that issued the MBS. In this report, CBO uses "issuer" to describe an institution that plays all three roles—originator, issuer, and servicer.

worst 1 percent of economic outcomes over the coming decade, CBO estimates—reflects some of the increased uncertainty for Ginnie Mae stemming from the recent increases in the number of nonbank issuers and in the volume of VA-guaranteed loans.

The conditions of the stress scenario would significantly alter Ginnie Mae's effect on the federal budget. For example, CBO projects that in 2022, Ginnie Mae's new guarantees would increase the deficit by \$3.0 billion under the stress scenario, as opposed to reducing the deficit by \$2.2 billion in CBO's baseline estimate.

Overview of Ginnie Mae and Its Exposure to Future Losses

The federal government operates various programs to encourage lenders to provide mortgages to people who might otherwise have trouble getting a home loan, such as first-time homebuyers, veterans, people with relatively low income, or people who live in places where access to credit is limited. Ginnie Mae was created to make it easier for lenders that make loans under those programs to sell the loans in the secondary (resale) market and thus replenish their funds to make additional mortgages. Ginnie Mae pursues that goal by guaranteeing that investors who buy mortgage-backed securities based on such loans will continue to receive scheduled principal and interest payments on the loans if the MBS issuers or mortgage borrowers fail to meet their financial obligations.

In recent years, Ginnie Mae's guarantee operations have grown substantially. At the same time, the types of mortgages included in the MBSs that Ginnie Mae guarantees—and the types of lenders issuing those MBSs—have changed in ways that could increase Ginnie Mae's exposure to the risk of losses on its guarantees.

The Role of Ginnie Mae in the Secondary Mortgage Market

Ginnie Mae oversees the process in which private issuers create MBSs backed by the full faith and credit of the federal government by pooling mortgages that are guaranteed or insured by various federal agencies. Those agencies include the Federal Housing Administration and the Office of Public and Indian Housing (PIH), both part of the Department of Housing and Urban Development; the Department of Veterans Affairs; and the Rural Housing Service, part of the Department of Agriculture. Some of those agencies' programs, such as FHA's, provide mortgage insurance that protects lenders against losses if a borrower defaults on a mortgage. When that happens, FHA pays a claim to the lender

for the unpaid principal balance of the defaulted mortgage. Other programs, such as VA's, guarantee to repay a certain percentage of a mortgage in default. Those federal backstops typically mean that lenders provide mortgages to qualifying borrowers on better terms (such as with lower interest rates, lower closing costs, or smaller down payments) than they might otherwise.

Ginnie Mae's role in turning such loans into government-guaranteed mortgage-backed securities, which issuers can sell to investors, involves steps at every stage of the securitization process:

- Approving new issuers of MBSs;
- Managing the issuers and the infrastructure (such as technology, program rules, legal documentation, and personnel) for pooling loans to serve as collateral for MBSs;
- Maintaining the technology, operations, legal disclosures, and personnel necessary to guarantee the timely payment of principal and interest to investors that buy the MBSs; and
- Managing outstanding MBSs that Ginnie Mae takes over from issuers that have defaulted on their obligations (see Figure 1).

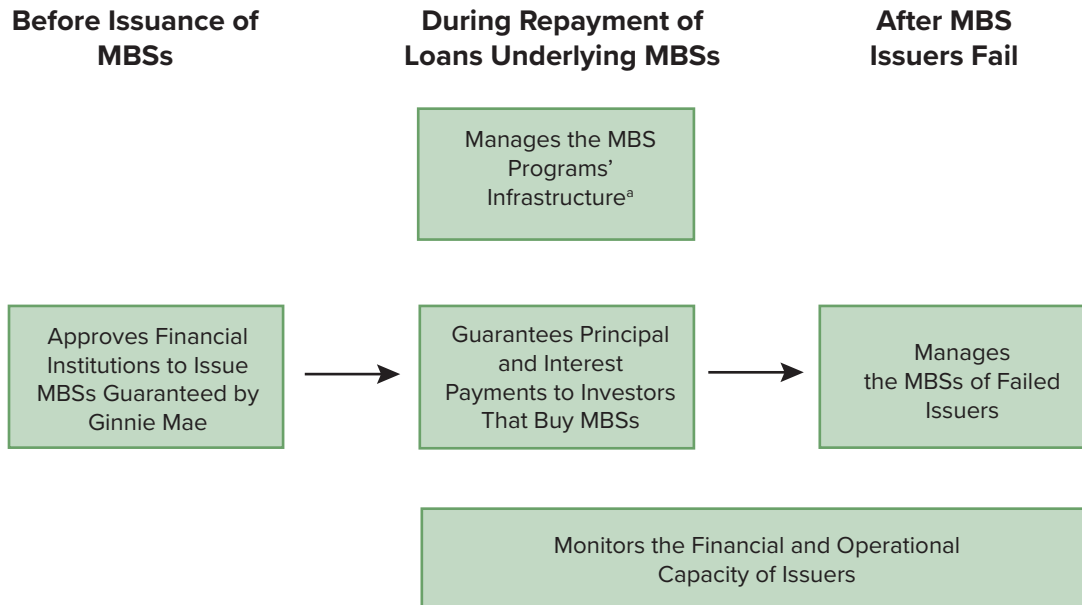
The fact that Ginnie Mae's guarantee is explicitly backed by the full faith and credit of the federal government makes the underlying mortgages more liquid, helping to reduce costs for borrowers and increasing the availability of financing for lenders.⁴ (In a liquid market, investors can quickly buy or sell large quantities of an asset without affecting its price.) Without Ginnie Mae's guarantee, there would be less demand for MBSs created from federally insured mortgages because investors would be exposed to the risk of losses if MBS issuers failed, particularly during times of economic distress and increased delinquencies by borrowers.

Unlike with traditional mortgages, which lenders typically sell to securitizers (such as Fannie Mae and Freddie Mac), issuers of Ginnie Mae-guaranteed MBSs do not sell the underlying mortgages. Instead, the issuer,

4. The explicit federal backing for Ginnie Mae's guarantee differs from the effective federal support for the guarantees of Fannie Mae and Freddie Mac. For a description of the federal support offered to Fannie Mae and Freddie Mac, see Congressional Budget Office, *The Effects of Increasing Fannie Mae's and Freddie Mac's Capital* (October 2016), www.cbo.gov/publication/52089, and *Effects of Recapitalizing Fannie Mae and Freddie Mac Through Administrative Actions* (August 2020), www.cbo.gov/publication/56496.

Figure 1.

The Role of Ginnie Mae in the Market for Mortgage-Backed Securities



Data source: Congressional Budget Office.

MBSs = mortgage-backed securities.

a. Program infrastructure consists of the technology, legal documentation, personnel, and other things needed to pool mortgages and issue MBSs.

or a designated party, continues to receive payments from borrowers and forwards part of those payments to the MBS investors (see Figure 2). If borrowers fail to make their payments, the issuer is required to send the expected principal and interest payments to the investors, as long as the underlying loans remain in the MBSs. Once the issuer determines that a borrower is unable or unwilling to resume regular payments, it will remove that borrower’s loan from the MBS, repay the investor the remaining principal balance, and try to recover the amount owed from the borrower. At the end of that recovery process, the issuer may work to settle any potential claim with the primary government guarantor, typically FHA or VA. As long as issuers perform their duties, Ginnie Mae’s only involvement in those cash flows is providing the infrastructure necessary for issuers to remit payments to MBS investors and collecting the guarantee fee it charges issuers.

Ginnie Mae’s role and exposure to risk change significantly if an issuer fails to perform its duties. In that case, Ginnie Mae steps into the role of issuer—servicing and administering the MBSs (by promptly forwarding principal and interest payments on the securities and providing disclosures to investors), handling defaults and

foreclosures on the underlying loans, and working with the primary government guarantors to settle claims.⁵

Ginnie Mae’s MBS Programs

Ginnie Mae’s largest securitization program—and the focus of this report—involves MBSs composed of mortgages on single-family homes. However, Ginnie Mae also offers securitization programs for other types of loans, including multifamily mortgages (for properties with five or more units), mortgages for manufactured housing, and reverse mortgages (in which households with at least one member age 62 or older can borrow money by using the equity in their home as collateral).⁶

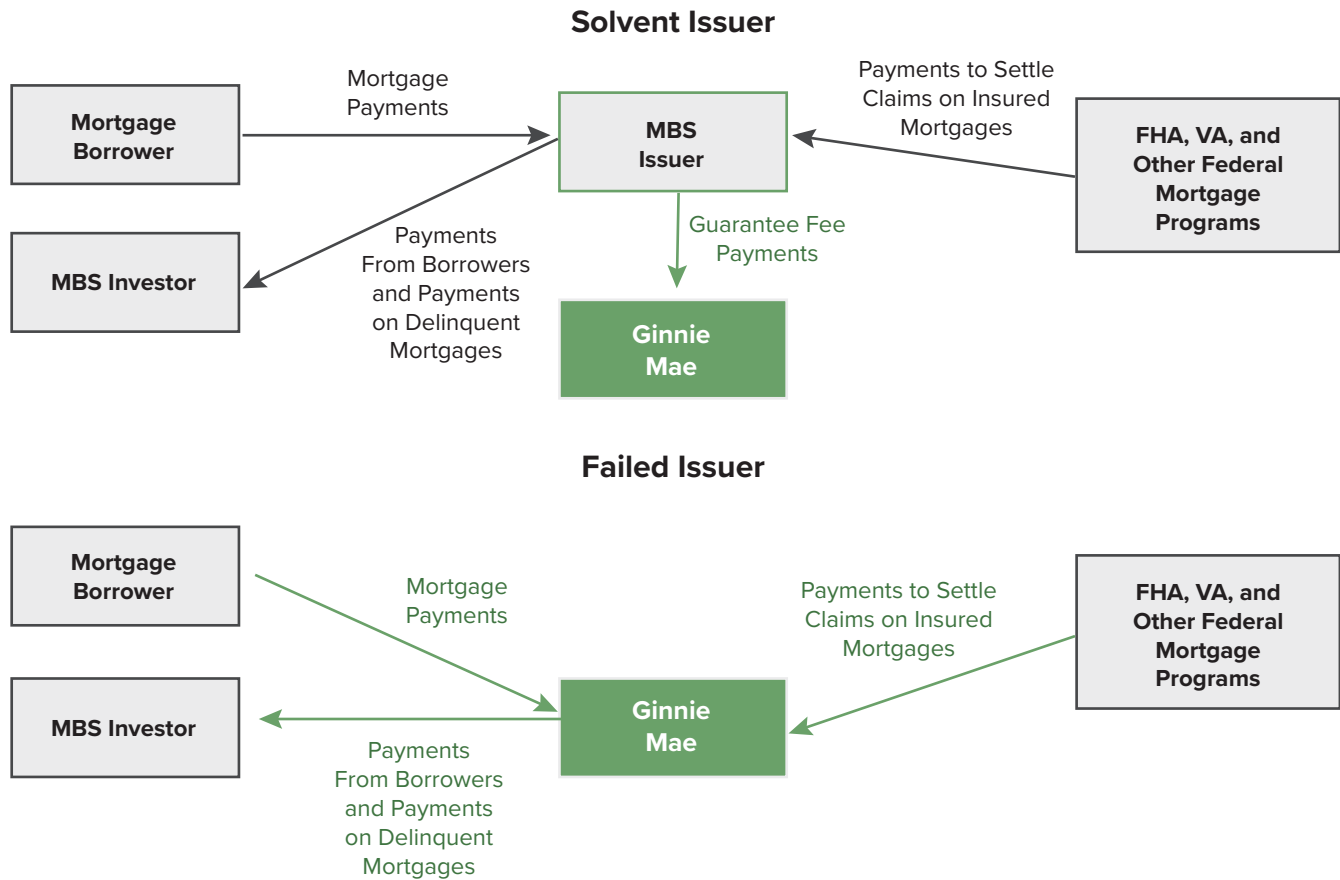
5. Rather than perform the role of issuer itself, Ginnie Mae could transfer those responsibilities to another issuer or hire a third party (known as a subservicer) to handle them. In either case, Ginnie Mae’s guarantee, and thus its exposure to risk, would remain in effect.

6. For more information about multifamily mortgages and reverse mortgages, see Congressional Budget Office, *The Federal Role in the Financing of Multifamily Rental Properties* (December 2015), www.cbo.gov/publication/51006, and *The Role of the Federal Housing Administration in the Reverse-Mortgage Market* (May 2019), www.cbo.gov/publication/55247.



Figure 2.

Ginnie Mae's Cash Flows, by Financial Condition of MBS Issuer



Data source: Congressional Budget Office.

FHA = Federal Housing Administration; MBS = mortgage-backed security; VA = Department of Veterans Affairs.

In addition to different types of mortgages, Ginnie Mae oversees the creation of different types of MBSs. The two main types are single-class securities called Ginnie Mae I and Ginnie Mae II.⁷ A Ginnie Mae I security is based on mortgages from the same issuer that total at least \$1 million and have the same interest rate. A Ginnie Mae II security, by contrast, can include mortgages from different issuers and with different interest rates (which can range from 0.25 percentage points to 0.75 percentage points above the rate on the MBS). The multi-issuer feature of Ginnie Mae II MBSs is particularly important for smaller issuers, which may have trouble acquiring

enough loans to meet the size requirement for a Ginnie Mae I MBS.

The multi-issuer pool of loans underlying a Ginnie Mae II MBS functions in much the same way as the pool of loans from a single issuer. Each issuer receives a share of the Ginnie Mae II security that is based on the unpaid principal balance of the loans it contributed. After the MBS is issued, a central agent collects payments from all of the issuers and makes a single monthly payment to each investor holding that security.⁸

7. Ginnie Mae also guarantees multiclass securities, which are based on a combination of existing MBSs. Those securities are not covered in this report.

8. See Ted Tozer, *A Primer and Perspective on Ginnie Mae* (Milken Institute, October 2019), <https://tinyurl.com/54kw29fm>.

The volume of Ginnie Mae II securities far exceeds that of Ginnie Mae I securities. At the end of 2020, the outstanding balance of single-family Ginnie Mae II MBSs totaled about \$1.5 trillion, compared with about \$0.1 trillion of single-family Ginnie Mae I MBSs.⁹

Ginnie Mae's Exposure to Losses

Because Ginnie Mae's guarantee is limited to providing timely principal and interest payments to investors in its MBSs, its exposure to losses on its guarantees is buffered by other parties in a mortgage transaction. The first level of protection comes from the homeowner's down payment and resources for repaying the mortgage. Any equity contributed by the homeowner (defined as the difference between the value of the home and the balance of the mortgage) reduces both the likelihood and the severity of default.

If a borrower defaults and the default leads to losses, the primary government guarantee from FHA, VA, or another federal mortgage program covers a significant portion of losses. FHA's mortgage insurance provides a full credit guarantee, which covers all reasonable losses from a default. Guarantees by VA and the Rural Housing Service are partial—from 25 percent to 50 percent of the unpaid mortgage balance for VA and 90 percent for RHS. In many cases, those amounts are large enough to cover much of the expected losses from a default because some money is eventually recovered from the borrower.

Despite down payments and primary government guarantees, MBS issuers frequently bear costs on mortgages for borrowers who fail to make their monthly payments. For a delinquent mortgage—in which the borrower is behind on payments but is not yet declared to be in default—the issuer is required to make scheduled principal and interest payments to MBS investors. The issuer generally recoups those costs once the borrower starts making scheduled monthly payments again, or once a claim is settled with the government guarantor. Nevertheless, such an obligation presents a liquidity risk for the issuer. For example, an issuer might have to raise the money to cover a shortfall resulting from an increase in late payments by borrowers during an economic slowdown, when the issuer might have more trouble borrowing money than at other times. That liquidity risk is particularly acute for nonbank financial institutions, which do not have access to the same types of funding

that banks do (such as deposits from customers and short-term loans from the Federal Reserve's discount window).¹⁰ An MBS issuer can also face solvency concerns if too many costs associated with defaults are not repaid as part of the claim process—whether because of the partial guarantee from VA and RHS or because some foreclosure costs are not reimbursable even under FHA's full guarantee.

Ginnie Mae's guarantee that investors in qualifying MBSs will receive timely payments of principal and interest requires it to assume the obligations for an issuer's entire portfolio of outstanding MBSs when the issuer fails. As a result, Ginnie Mae faces the same concerns that issuers face, including having to cover uncollected mortgage payments for MBS investors and settle claims with primary government guarantors for defaulted mortgages. Ginnie Mae's liquidity concerns are alleviated by the fact that it can borrow funds from the Treasury. But that borrowing exposes taxpayers to the risk that the funds will not be recovered from the mortgage borrowers or primary government guarantors.

To compensate for that risk, Ginnie Mae charges issuers a guarantee fee of 6 basis points (0.06 percent) of the outstanding balance of an MBS. That fee is set by law as a part of the National Housing Act, which mandates that Ginnie Mae charge no more than 6 basis points for MBSs made up of single-family loans.¹¹ Ginnie Mae can reduce that fee for certain securities, but it has limited ability to adjust its fee to account for the expected cost of its guarantee. Ginnie Mae's fee is in addition to the up-front and ongoing guarantee fees that the primary guarantor charges lenders.

Volume and Loan Characteristics of Ginnie Mae's Guarantees

The dollar amount of new MBSs that Ginnie Mae guarantees in a year is directly related to the amount of new mortgages guaranteed by the primary government guarantors. As a result, the volume and loan characteristics of Ginnie Mae's guarantees closely track those of

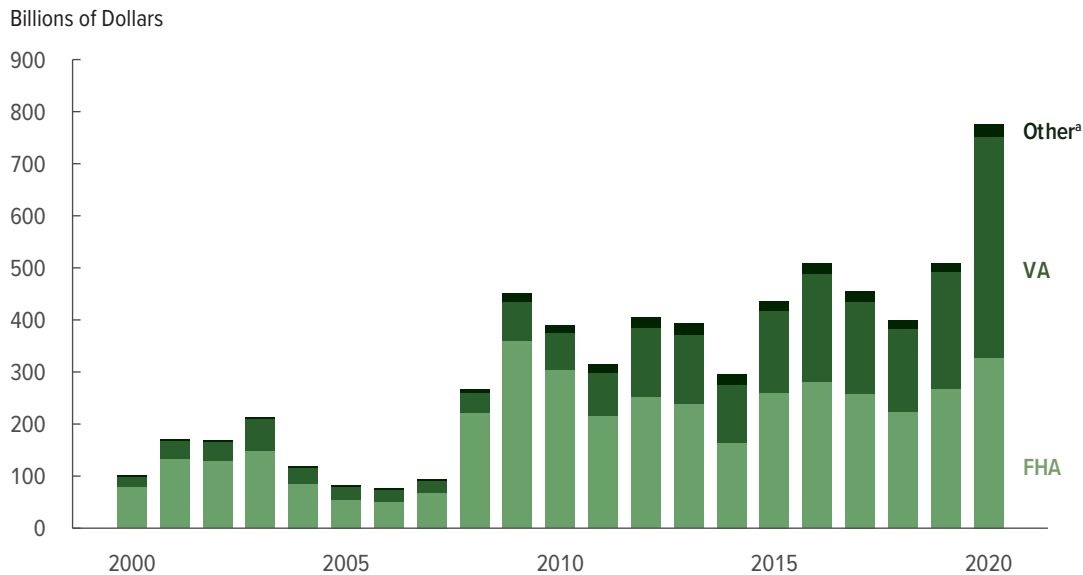
9. See Ginnie Mae, "Unpaid Principal Balance (UPB) Summary" (September 2020), <https://tinyurl.com/fxfk2db>.

10. See Karan Kaul and Ted Tozer, *The Need for a Federal Liquidity Facility for Government Loan Servicing* (Urban Institute, July 2020), <https://tinyurl.com/3c6b2exm>; and Karan Kaul and Laurie Goodman, *Should Nonbank Mortgage Companies Be Permitted to Become Federal Home Loan Bank Members?* (Urban Institute, June 2020), <https://tinyurl.com/vsuck6bf>.

11. Sec. 306(g)(3)(A) of the National Housing Act, 12 U.S.C. §1721(g)(3)(A).

Figure 3.

Amount of New Mortgage-Backed Securities Guaranteed by Ginnie Mae, Calendar Years 2000 to 2020, by the Mortgages' Primary Guarantor



Data source: Ginnie Mae, *Global Markets Analysis Report* (October 2021), <https://tinyurl.com/ppdhuwvx>. See www.cbo.gov/publication/57176#data.

FHA = Federal Housing Administration; VA = Department of Veterans Affairs.

a. Includes the Office of Public and Indian Housing (part of the Department of Housing and Urban Development) and the Rural Housing Service (part of the Department of Agriculture).

FHA and VA. From a low of \$77 billion in calendar year 2006, the volume of new Ginnie Mae guarantees grew to more than \$775 billion in 2020 (see Figure 3).¹² The volume of new guarantees was especially high in 2020, partly because low interest rates, which the Federal Reserve put in place to try to lessen the economic effects of the coronavirus pandemic, led to a wave of mortgage refinancing. (For more details about how the pandemic affected Ginnie Mae's operations in 2020, see Box 1.) The total value of outstanding Ginnie Mae-guaranteed MBSs also increased over the 2006–2020 period, from about \$0.4 trillion at the end of calendar year 2006 to more than \$2.1 trillion at the end of 2020.¹³

12. See Ginnie Mae, *Global Markets Analysis Report* (October 2021), <https://tinyurl.com/ppdhuwvx>.

13. See Ginnie Mae, “Unpaid Principal Balance (UPB) Summary” (December 2020), <https://tinyurl.com/xfk2db>, and “Issuance Summary” (December 2020), <https://tinyurl.com/2p857z3r>. The total dollar value of outstanding MBSs grows each year by net issuance, which is the difference between the amount of new MBSs issued in a year and the amount of previously issued MBSs repaid during that year. The gap between annual new issuance and net issuance depends mainly on the refinancing of outstanding mortgages. That gap is small in years with little

Ginnie Mae's share of new agency MBSs—defined as the total MBSs issued by Fannie Mae, Freddie Mac, and Ginnie Mae—has also increased in recent years. Ginnie Mae was responsible for about 8 percent of the agency MBSs issued in calendar year 2006. Its share rose steadily after that, peaking at 34 percent from 2015 through 2018. Ginnie Mae's share of new agency MBSs declined to 24 percent in 2020, despite record growth in its newly guaranteed securities in that year.

In addition to the growth in the volume of Ginnie Mae's MBS guarantees since the financial crisis of 2008, the characteristics of the mortgages included in those MBSs have changed in several ways. One significant shift is the increase in the volume of mortgages originated or serviced by nonbank institutions—financial firms that

refinancing and large in years with a great deal of refinancing. For example, with the surge in refinancing in calendar year 2020 that resulted from low interest rates, new issuance of Ginnie Mae-guaranteed MBSs exceeded \$775 billion, but net issuance declined by about \$14 billion. The result was a small decrease in the total value of outstanding Ginnie Mae-guaranteed MBSs between the end of December 2019 and the end of December 2020.

Box 1.

Effects of the Coronavirus Pandemic on Ginnie Mae

The coronavirus pandemic that began in 2020 and the resulting recession in the United States have had a negative effect on the financial condition of many borrowers, including those with mortgages contained in Ginnie Mae–guaranteed mortgage-backed securities (MBSs). In response to the economic slowdown, the Federal Housing Administration (FHA), the Department of Veterans Affairs (VA), and the Rural Housing Service all announced that borrowers with loans backed by their guarantee programs could reduce or suspend mortgage payments.¹ Such loans are referred to as being in forbearance.

As a result of those actions, the percentage of borrowers with mortgages included in Ginnie Mae–guaranteed MBSs who were behind on their monthly payments increased significantly. For example, the share of people with FHA-insured mortgages who were at least 90 days past due (including loans in forbearance) or who were in foreclosure rose from 3.5 percent at the end of calendar year 2019 to 10.8 percent at the end of 2020. For VA-guaranteed mortgages, the share of borrowers who were at least 90 days past due (including loans in forbearance)

or who were in foreclosure increased from 1.9 percent to 5.8 percent in 2020.²

A sharp increase in delinquent borrowers can create stress for issuers of Ginnie Mae–guaranteed MBSs because they are required to forward the missed payments to MBS investors. In an attempt to alleviate that stress, Ginnie Mae announced a series of actions early in the pandemic, including the Pass-Through Assistance Program (PTAP).³ Under that program, a Ginnie Mae–approved issuer with a shortfall of available funds can ask Ginnie Mae to make advance payments to investors without being declared a failed issuer (whose assets are taken over by Ginnie Mae). In exchange, the issuer is required to repay the advance, with interest, in a specified period.

PTAP was designed to be a program of last resort for issuers, requiring them to exhaust all other funding options before applying for an advance from Ginnie Mae. As a result, the volume of PTAP advances has been fairly low. From April 2020 through September 2021, Ginnie Mae issued only 23 advances, totaling \$13.1 million.⁴ By the end of September 2021, the balance of all advances had been repaid.

1. See Department of Housing and Urban Development, “COVID-19 Resources for Homeowners” (June 25, 2021), www.hud.gov/coronavirus/homeowners; Department of Veterans Affairs, “VA Home Loans: Information for VA Home Loan Borrowers During COVID-19” (October 20, 2021), <https://tinyurl.com/3xcs9cyb>; and Department of Agriculture, “Rural Development COVID-19 Response” (June 24, 2021), www.rd.usda.gov/coronavirus.

2. See Ginnie Mae, *Global Markets Analysis Report* (prepared by State Street Global Advisors and the Urban Institute’s Housing Finance Policy Center, March 2020 and February 2021), <https://tinyurl.com/ppdhuwxx>.

3. See Ginnie Mae, “All Participant Memorandum 20-03: Availability of Pass-Through Assistance Program for Participants in Ginnie Mae’s Single-Family MBS Program” (April 10, 2020), <https://tinyurl.com/5bx3nua2>.

4. See Ginnie Mae, “Issuers: Ginnie Mae PTAP Assistance” (accessed November 9, 2021), <https://tinyurl.com/y82xjvba>.

do not have a banking license and do not accept deposits. At the end of calendar year 2013, loans by nonbank financial institutions made up about 50 percent of the mortgages in new Ginnie Mae–guaranteed MBSs. By the end of 2020, that share had risen to more than 90 percent. The share of mortgages from nonbank institutions included in Fannie Mae’s and Freddie Mac’s new MBSs also increased during that period, but by less than the growth for Ginnie Mae–guaranteed MBSs.¹⁴

14. Several factors have been cited as reasons for the increased role of nonbank financial institutions in the market for Ginnie Mae–guaranteed MBSs. Those factors include the processes that the federal government has used since the 2008 financial crisis to pursue recoveries on FHA-insured mortgages in default, tax changes that have affected the value of mortgage-servicing rights, and technological advances by nonbank institutions. See

Another significant shift is the increasing prevalence of loans guaranteed by VA in the securities that Ginnie Mae guarantees. From calendar year 2000 through 2009, VA loans accounted for 21 percent of the mortgages in Ginnie Mae–guaranteed MBSs, on average. Since 2015, that share has averaged 44 percent, reaching a peak of 55 percent in 2020. The total dollar amount of home loans guaranteed by VA has also grown, for a number of possible reasons, including the stricter eligibility requirements that mortgage lenders adopted for non-VA originations as a result of the financial crisis; the greater use by borrowers of refinancing options available through

You Suk Kim and others, “Liquidity Crises in the Mortgage Market,” *Brookings Papers on Economic Activity* (Spring 2018), <https://tinyurl.com/uu53b5a4>.

VA; and, since January 1, 2020, the removal of the cap on the size of a mortgage eligible for a VA guarantee.¹⁵

Ginnie Mae's Exposure to Future Losses From Changes in Its Guarantees

The protected position of Ginnie Mae's guarantees limits expected losses, meaning that Ginnie Mae is not likely to suffer large losses from its guarantees under normal economic conditions. But Ginnie Mae would be exposed to the risk of large losses in a period of severe economic stress that included high default rates on mortgages and widespread insolvency among issuers of its guaranteed MBSs. The two recent shifts in those MBSs—the increasing prevalence of loans from nonbank institutions and of VA-guaranteed loans—could increase Ginnie Mae's losses during times of stress.

Nonbank financial institutions are subject to state-level oversight, and Ginnie Mae reviews them as MBS issuers. Nevertheless, nonbank financial institutions are typically subject to less regulation of their safety and soundness than banks are. They also have less access to the sources of liquidity available to banks, such as consumer deposits and Federal Reserve lending programs.¹⁶ As a result, the possibility of insolvency by issuers of Ginnie Mae-guaranteed MBSs may increase along with the share of mortgages from nonbank institutions included in those MBSs. (Investors that lend to nonbank financial institutions may exert more market discipline on those institutions than they do on banks because their payments are not protected by a government guarantee, such as federal deposit insurance. Such market discipline would offset some of the effect that less regulation could have on nonbank institutions' risk of insolvency.) Nonbank financial institutions are also subject to a more uncertain resolution process in the event of failure than banks are, which could expose Ginnie Mae to additional financial and operational risk.

Ginnie Mae has attempted to address those issues by tightening standards for its MBS issuers, such as requirements for their liquidity, net worth, and ratio of capital

to assets. Ginnie Mae has also increased its ongoing monitoring of issuers' financial condition.¹⁷

All mortgages included in Ginnie Mae-guaranteed securities have a primary federal guarantee, but those federal guarantees are not identical. In particular, VA's guarantee covers only part of the losses on a defaulted loan, with MBS issuers responsible for the rest. As a result, the possibility of insolvency by issuers of Ginnie Mae-guaranteed MBSs may increase along with the share of VA-guaranteed loans included in those securities. (Ginnie Mae's risks could change if the corporation's role was modified as part of broader changes to the housing finance system. For details, see Box 2.)

Estimating Federal Subsidy Costs for Ginnie Mae in CBO's Baseline and Under a Stress Scenario

In the federal budget, the subsidy outlays recorded for Ginnie Mae in a given year equal the dollar amount of new mortgage-backed securities that Ginnie Mae guarantees in that year multiplied by the budgetary cost per dollar of new guarantees, also known as the subsidy rate.¹⁸ To project subsidy outlays for Ginnie Mae, CBO needs estimates of both the expected volume of Ginnie Mae's guarantees and Ginnie Mae's subsidy rate.

17. See Ginnie Mae, *An Era of Transformation* (September 2014), <https://tinyurl.com/3fkn9ty6> (PDF, 464 KB), and Ginnie Mae 2020: *Roadmap for Sustaining Low-Cost Homeownership* (June 2018), <https://tinyurl.com/taz85ma7> (PDF, 6 MB). The capital requirement for nonbank financial institutions is a total adjusted net worth (based on Ginnie Mae's definition) equal to at least 6 percent of total assets. In comparison, banks, thrifts, bank holding companies, and savings and loan holding companies must meet one of the following targets: tier 1 capital (including retained earnings and stock) equal to at least 5 percent of total assets or 6 percent of risk-based assets, or total capital equal to at least 10 percent of risk-based assets. See Ginnie Mae, *Ginnie Mae MBS Guide, 5500.3, Rev. 1* (accessed March 9, 2021), Chapter 2, pp. 2-9 and 2-10, <https://tinyurl.com/d58c7twd>.

18. The subsidy cost associated with the current year's guarantees (which is net of the guarantee fees that Ginnie Mae collects from MBS issuers) is the largest component of Ginnie Mae's effect on the federal budget. But the budget reflects other aspects of Ginnie Mae's operations as well. Ginnie Mae earns interest on its investments in Treasury securities, which it makes primarily with cash from previously collected fees not used to cover expenses. It is also credited with offsetting collections from fees other than its guarantee fee. Furthermore, Ginnie Mae receives Congressional appropriations to pay for salaries and other operating expenses. In addition, the budget reflects credit subsidy reestimates, which are revisions to estimates of the subsidy costs of guarantees made in previous years.

15. For more about the lifting of that cap, see Veterans Benefits Administration, "Blue Water Navy Vietnam Veterans Act of 2019" (February 5, 2021), <https://tinyurl.com/2p9f33vb>.

16. See You Suk Kim and others, "Liquidity Crises in the Mortgage Market," *Brookings Papers on Economic Activity* (Spring 2018), <https://tinyurl.com/uu53b5a4>.

Box 2.

Possible Changes to Ginnie Mae's Role From a Restructuring of the Housing Finance System

Policymakers' interest in Ginnie Mae extends beyond the rapid growth of its guarantees on mortgage-backed securities (MBSs) and the shifts in the types of loans and financial institutions covered by those guarantees. One particular area of focus has been the role that Ginnie Mae might play in the mortgage markets as a part of a broader restructuring of the U.S. housing finance system. Members of Congress and market participants have discussed such restructuring since 2008, when the federal government assumed control of Fannie Mae and Freddie Mac, government-sponsored enterprises (GSEs) that are central to the housing finance system. Not all proposals for restructuring include a modified role for Ginnie Mae, but most recognize that changes to the GSEs might also require the Federal Housing Administration (FHA), the Department of Veterans Affairs (VA), the Rural Housing Service (RHS), and Ginnie Mae to adapt to those changes.

A number of proposals for altering the housing finance system would extend Ginnie Mae's guarantees to MBSs that contain mortgages currently guaranteed by the GSEs—that is, mortgages without a primary government guarantee.¹ Under such proposals, Ginnie Mae would continue to guarantee the timely payment of principal and interest to MBS investors, much as

it does today. The main difference would be that private firms would provide the capital necessary to protect Ginnie Mae against the sorts of losses that FHA, VA, and RHS cover under their guarantee programs. That private capital could take many forms, similar to the approach that the GSEs use in their existing credit-risk-transfer transactions.²

With such a change, Ginnie Mae would need to take several steps to address the additional risks involved in its expanded guarantees. First, it would need to acquire the data and expertise to assess and manage the riskiness of the private firms whose capital would substitute for a primary government guarantee. Second, it would need to determine whether existing systems and personnel could handle the added volume associated with a larger group of issuers and mortgages.³ Third, it might need to reassess its current guarantee fees and servicing requirements to ensure that they were sufficient to safeguard taxpayers from the new risks. Ginnie Mae might be able to use the expertise of the GSEs' regulator, the Federal Housing Finance Agency, to help it manage its expanded role under such proposals.

1. See Michael Bright and Ed DeMarco, *Toward a New Secondary Mortgage Market* (Milken Institute, September 2016), <https://tinyurl.com/3ekfzs48>; and statements by witnesses at a hearing of the House Committee on Financial Services titled "A Legislative Proposal to Provide for a Sustainable Housing Finance System: The Bipartisan Housing Finance Reform Act of 2018" (December 21, 2018), <https://tinyurl.com/ywj328w>.

2. For a description of the credit-risk-transfer activities of Fannie Mae and Freddie Mac, see Congressional Budget Office, *Transferring Credit Risk on Mortgages Guaranteed by Fannie Mae or Freddie Mac* (December 2017), www.cbo.gov/publication/53380.

3. For a discussion of Ginnie Mae's current staffing levels and risk management procedures, see Government Accountability Office, *Ginnie Mae: Risk Management and Staffing-Related Challenges Need to Be Addressed*, GAO-19-191 (April 3, 2019), www.gao.gov/products/gao-19-191.

The subsidy rate that CBO uses for its baseline budget projections is calculated using the measures for the cost of federal credit programs specified in the Federal Credit Reform Act (FCRA).

For this analysis, CBO also estimated Ginnie Mae's FCRA subsidy rate under a scenario of severe economic stress. That scenario is meant to illustrate the risks that Ginnie Mae could be exposed to in a major recession. Those risks include the additional uncertainty stemming from the recent changes to the types of mortgages included in Ginnie Mae-guaranteed MBSs. In CBO's baseline, which represents average economic conditions,

Ginnie Mae's new guarantees in 2022 are projected to produce budgetary *savings* of \$2.2 billion in that year (on a FCRA basis). But under the stress scenario, those guarantees would have a budgetary *cost* of \$3.0 billion in 2022, CBO estimates.

Estimating the Volume of Guarantees

For each of the 10 years of its baseline budget projections, CBO uses its macroeconomic forecast to estimate the total value of mortgages expected to be originated in a given year. On the basis of that projection for the entire single-family mortgage market—including mortgages that meet the criteria for a government guarantee and

those that do not—CBO allocates shares to the guarantee programs of Fannie Mae, Freddie Mac, FHA, VA, and RHS.¹⁹ The allocations are based on those programs' past shares of the mortgage market and any implemented or scheduled changes in law or policy that might affect future shares, such as changes in a program's guarantee fees.

CBO then uses its projections of the volume of guarantees by FHA, VA, and RHS to project the volume of guarantees by Ginnie Mae. That estimate is based on the share of mortgages from each primary government guarantor that have been part of Ginnie Mae-guaranteed MBSs in recent years and any announced changes to Ginnie Mae's securitization programs.²⁰ On the basis of that analysis, CBO estimates that in 2022, Ginnie Mae will guarantee more than 90 percent of FHA-backed loans and 98 percent of VA- and RHS-backed loans. (Lenders are expected to hold the rest of those loans in their portfolios rather than pooling the mortgages into MBSs.) In CBO's July 2021 baseline, those percentages are projected to result in a total of \$577 billion in new Ginnie Mae MBS guarantees in 2022.

Estimating the Subsidy Rate on Ginnie Mae's Guarantees

The Federal Credit Reform Act requires that the impact of Ginnie Mae's new MBS guarantees each year—Ginnie Mae's subsidy cost—be recorded in the federal budget on a present-value basis. (A present value is a single number that expresses a flow of income or payments in terms of an equivalent lump sum received or paid at a particular point in time.) That subsidy cost is calculated as the difference between the present value of the losses that Ginnie Mae is expected to incur on a given year's cohort of newly guaranteed MBSs over their lifetime and the present value of the guarantee fees that Ginnie Mae expects to collect on those guarantees over their lifetime.

19. See Congressional Budget Office, "Details About Baseline Projections for Selected Programs: Federal Programs That Guarantee Mortgages" (July 2021), <https://tinyurl.com/5x9w63j2>.

20. The annual appropriation act that provides funding for Ginnie Mae sets a limit on the dollar volume of Ginnie Mae's guarantees. In recent years, the limit has been set high enough to not constrain Ginnie Mae's ability to meet its MBS issuers' demand for guarantees. That limit does not affect CBO's projections because, in recent years, it has been higher than CBO's projection of the volume of new guarantees.

For Fannie Mae, Freddie Mac, FHA, and other large federal credit programs, CBO uses its own models to estimate subsidy rates on a FCRA basis for its baseline projections. For Ginnie Mae, however, CBO uses the estimated FCRA subsidy rate published in the Administration's *Federal Credit Supplement*.²¹ CBO does not model Ginnie Mae's guarantee programs, because of a lack of data about the past performance of MBS issuers and the relatively small budgetary cost of those programs.

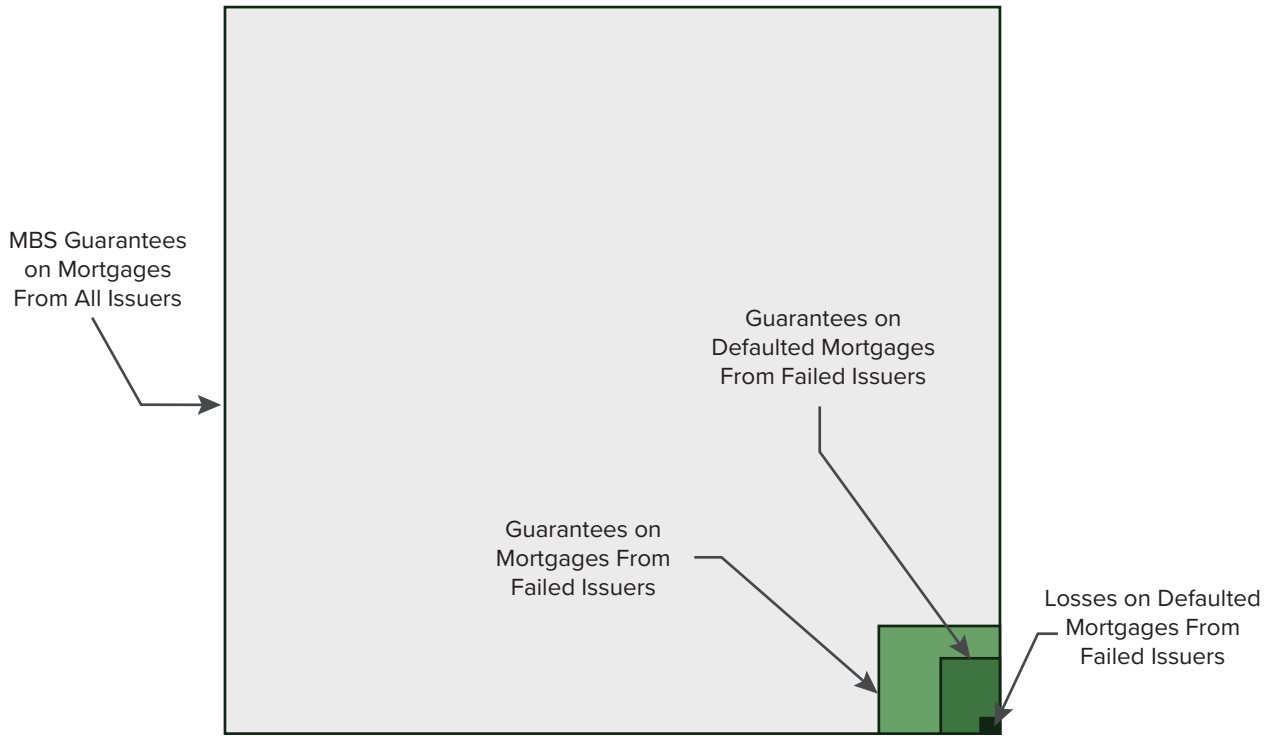
In the *Federal Credit Supplement* for fiscal year 2021, Ginnie Mae is projected to have a FCRA subsidy rate of -0.38 percent in 2022—meaning that the present value of projected losses on new guarantees made in 2022 is smaller than the present value of the fees that Ginnie Mae is projected to collect in exchange for providing those guarantees. Programs with negative subsidy rates produce savings for the federal budget.

The Administration's estimate of Ginnie Mae's FCRA subsidy rate is based on four sets of cash flows: defaults, recoveries, fees, and miscellaneous items.

- **Defaults.** The losses that Ginnie Mae incurs from mortgage defaults are a function of the number of MBS issuers that fail to meet their obligations, the number of mortgages in those failed issuers' MBSs that go into delinquency or default, and the losses experienced on those defaults (see Figure 4). Delinquent and defaulted loans in failed issuers' MBSs result in cash outflows from Ginnie Mae for several reasons. First, Ginnie Mae must forward the scheduled monthly principal and interest payments to MBS investors for failed issuers' delinquent mortgages that have not yet been removed from (bought out of) an MBS.²² Second, Ginnie Mae must repay the remaining principal to MBS investors for failed issuers' defaulted mortgages that have been bought out of an MBS. Third, it must cover maintenance costs for properties associated with defaulted mortgages until those properties
21. See Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2022: Federal Credit Supplement* (May 2021), www.whitehouse.gov/omb/supplemental-materials.
22. If, instead of servicing the loans of failed issuers itself, Ginnie Mae transferred the servicing duties to a solvent issuer, it would have little or no cash outflow. Alternatively, if Ginnie Mae retained the servicing obligation and hired a third-party servicer to carry out those duties, it would have cash outflows to pay the servicer.

Figure 4.

Representation of Ginnie Mae’s Losses as a Share of Its Annual Guarantees



Data source: Congressional Budget Office.

MBS = mortgage-backed security.

can be foreclosed on or transferred to another party. In the Administration’s 2022 FCRA subsidy estimate—which reflects the average effects of each of Ginnie Mae’s potential resolution options for addressing a failed issuer—Ginnie Mae’s outflows for delinquencies and defaults are projected to equal 0.19 percent of the original principal balance of all MBSs newly guaranteed by Ginnie Mae in 2022.

- **Recoveries.** After Ginnie Mae steps in to assume the obligations of failed issuers, it receives cash inflows from several sources: repayment of forwarded principal and interest payments for delinquent loans; recoveries after a loan is modified or a home is foreclosed on or transferred; claim payments from FHA, VA, and other primary government guarantors for defaulted mortgages in failed issuers’ MBSs; and miscellaneous reimbursements from those guarantors. In the Administration’s 2022 FCRA subsidy estimate, Ginnie Mae is expected to recover 96 percent of its outflows for delinquencies and defaults. On the basis of those default and recovery estimates, the present

value of default costs, net of recoveries, is projected to equal 0.01 percent of the original principal balance of all MBSs newly guaranteed in 2022.

- **Fees.** Ginnie Mae also receives cash inflows from the guarantee fee it charges solvent issuers (set at 0.06 percent of the outstanding balance of an MBS). In the Administration’s subsidy estimate, those fee collections are projected to have a present value in 2022 equal to -0.37 percent of the original principal balance of all MBSs newly guaranteed in that year.
- **Miscellaneous Cash Flows.** Ginnie Mae’s activities produce a number of other cash flows that are not directly related to defaults, recoveries, or fees. Those cash flows—which are associated with guarantees on multifamily mortgages, reverse mortgages, and VA mortgages to service members—represent a small part of Ginnie Mae’s subsidy cost. In the Administration’s 2022 FCRA estimate, those cash flows are projected to have a present value of -0.02 percent of the original principal balance of all MBSs newly guaranteed in that year.

Although FCRA estimates are used in the federal budget for most credit programs, including Ginnie Mae's, CBO also frequently prepares fair-value estimates for credit programs to provide a more comprehensive picture of the programs' long-term costs.²³ The fair-value approach recognizes that, in the private sector, uncertain cash flows that grow or shrink along with the economy are less valuable than cash flows that are stable regardless of economic conditions. Thus, fair-value estimates account for market risk, which is the element of financial risk that is correlated with overall economic conditions (and that therefore cannot be eliminated by diversifying a portfolio of investments). For assets, such as loan guarantees, that are more likely to go into default when economic conditions are poor, fair-value estimates discount the value of future cash flows at a higher rate than the interest rates on Treasury securities, which are considered risk-free. Those fair-value estimates show lower savings than present-value estimates made using the method prescribed for federal loan programs by FCRA, which involves discounting future cash flows at Treasury interest rates.

CBO publishes a fair-value subsidy rate for Ginnie Mae as part of its fair-value estimates for various federal credit programs. CBO projects that in 2022, the fair-value subsidy rate for Ginnie Mae will effectively be zero—meaning that Ginnie Mae's guarantee programs will not produce any budgetary costs or savings when measured on a fair-value basis.²⁴

Estimating the FCRA Subsidy Rate Under a Stress Scenario

The cash flows that the Administration uses to estimate Ginnie Mae's FCRA subsidy rate are based on a projection of how the MBSs that Ginnie Mae is expected to guarantee in 2022 will perform on average. That projection is based on data about the past performance of Ginnie Mae-guaranteed MBSs and their issuers, as well as the Administration's forecast of future economic conditions. The Administration's subsidy rate estimate represents an average of expected defaults, recoveries, fees, and other cash flows across a range of scenarios and economic outlooks.

23. See Congressional Budget Office, *Estimates of the Cost of Federal Credit Programs in 2022* (October 2021), www.cbo.gov/publication/57412.

24. Ibid.

For this analysis, CBO adjusted the Administration's estimates of average cash flows to calculate a FCRA subsidy rate for Ginnie Mae under a scenario of economic stress. That scenario, which reflects a severe recession, represents the worst 1 percent of economic outcomes that CBO models over the coming decade.

Although CBO does not have detailed performance data about the MBSs underlying Ginnie Mae's cash flows, it can consider the factors that would influence the issuers and mortgages in Ginnie Mae's guarantee programs under a stress scenario. For example, CBO can use its models of FHA's and VA's loan guarantee programs to project how mortgage cash flows might vary under different future economic conditions.²⁵ CBO used those models for this analysis to develop projections of defaults, prepayments, and recoveries on the mortgages that make up Ginnie Mae-guaranteed MBSs (see Table 1). In addition, CBO analyzed failure rates for thrift institutions insured by the Federal Deposit Insurance Corporation (FDIC) to estimate how much the failure rate for MBS issuers might rise under a stress scenario.

How CBO Developed the Stress Scenario. The default, prepayment, and recovery rates in the stress scenario are based on results from CBO's FHA model. That model uses 1,000 combinations of macroeconomic variables (such as interest rates, home prices, and unemployment rates) to simulate future economic conditions. On the basis of those conditions and the portfolio of mortgages that FHA is expected to guarantee, the model generates a series of cash flows—representing mortgage repayments, mortgage defaults, and recoveries on those defaults—for each period from a loan's origination to its repayment or default for each of the 1,000 paths for economic conditions. To calculate the FCRA subsidy rate for FHA, CBO converts those cash flows to present values by discounting them back to the origination date of each loan using the appropriate FCRA discount rate.²⁶

25. See Francesca Castelli and others, *Modeling the Budgetary Costs of FHA's Single Family Mortgage Insurance*, Working Paper 2014-05 (Congressional Budget Office, September 2014), www.cbo.gov/publication/45711; and Congressional Budget Office, *The Role of the Department of Veterans Affairs in the Single-Family Mortgage Market* (September 2021), www.cbo.gov/publication/57024.

26. Those discount rates are the interest rates on Treasury securities of comparable maturity. For example, the projected yield on Treasury securities maturing in two years is used to discount cash flows two years from the loan origination date, a three-year Treasury rate is used for cash flows three years from origination, and so on.

Table 1.

Data Sources That CBO Used to Estimate Ginnie Mae’s Cash Flows Under a Stress Scenario

Variable	Source of Projection for the Stress Scenario
Default Rates for MBS Issuers	Analysis of data from the Federal Deposit Insurance Corporation and the Bureau of Economic Analysis
Default Rates for Mortgages	Simulations from CBO’s model of FHA’s insurance program for single-family mortgages
Prepayment Rates for Mortgages	Simulations from CBO’s model of FHA’s insurance program for single-family mortgages
Recoveries on Defaulted Mortgages	Simulations from CBO’s model of FHA’s insurance program for single-family mortgages Analysis of losses on FHA-insured mortgages that would exceed the guarantee percentage on VA-guaranteed mortgages

Data source: Congressional Budget Office.

FHA = Federal Housing Administration; MBS = mortgage-backed security; VA = Department of Veterans Affairs.

Although the FHA subsidy rate that CBO publishes is the average rate across all 1,000 paths for economic conditions, the model produces a subsidy rate for each path. For this analysis, CBO ranked the 1,000 paths by subsidy rate, from lowest to highest. The severe economic stress scenario is defined as the set of average cash flows from the 10 paths with the highest subsidy rates.

Those 10 highest subsidy rates result from a set of projections for interest rates, home prices, and unemployment rates that would lead to very high default rates and low recoveries on FHA-insured mortgages. For example, in the 10 paths, nominal home prices are projected to decline by a total of 21 percent, on average, over the first five years of the projection and by 38 percent over 10 years. In comparison, average home prices declined by a total of 20 percent over the five years from 2007 to 2012 (which included the financial crisis), before rebounding to show total growth of 4 percent over the 10-year period from 2007 to 2017.²⁷

27. Those figures for actual changes in home prices are based on the Federal Housing Finance Agency’s monthly, purchase-only, and

Projected Cash Flows in the Stress Scenario. Using the results from the stress scenario, CBO adjusted the Administration’s estimates of average cash flows for Ginnie Mae to develop a set of cash flows representing a severe recessionary environment for Ginnie Mae. The scale of the adjustments that CBO made depended on the category of cash flows—defaults, recoveries, or fees. (CBO did not adjust miscellaneous cash flows for the stress scenario because of their negligible effect on Ginnie Mae’s subsidy rate.)

Defaults. CBO used two multipliers to adjust the Administration’s estimate of Ginnie Mae’s annual cash outflows for delinquencies and defaults. The first multiplier is based on defaults in the 10 paths with the highest subsidy rates from CBO’s FHA model (the stress scenario). The second multiplier is derived from CBO’s analysis of FDIC data on failure rates for thrift institutions. By looking at the share of thrifts that failed in each year from 1934 to 2016, CBO developed an estimate of the share of Ginnie Mae issuers that would fail in a severe recession.²⁸

Together, those two multipliers—which were adjusted to reflect the correlation between mortgage defaults and failures of financial institutions—increase the Administration’s estimate of default-related cash flows 20-fold for the stress scenario. As a result, Ginnie Mae’s estimated cash outflows in 2022 for delinquent and defaulted loans in failed issuers’ MBSs, as a share of the original balance of all MBSs newly guaranteed by Ginnie Mae in 2022, increase from 0.19 percent in the Administration’s subsidy estimate (which is used in CBO’s baseline) to 3.76 percent under CBO’s severe stress scenario (see Table 2).

Recoveries. The Administration calculates Ginnie Mae’s cash flows from recoveries as a share of its cash outflows for delinquent and defaulted mortgages in failed issuers’ MBSs. Thus, the first step in CBO’s estimate of recoveries in a severe recession was to increase the Administration’s estimate of average recovery cash flows by the same 20-fold multiplier used to adjust defaults.

not seasonally adjusted house price index. See Federal Housing Finance Agency, “House Price Index Datasets” (accessed October 26, 2021), <https://tinyurl.com/cy6bjtby>.

28. In CBO’s judgment, thrifts operating during the 1934–2016 period are a good proxy for the risks associated with nonbank institutions’ increased participation in Ginnie Mae’s MBS programs today.



Table 2.

Estimates of Ginnie Mae's Cash Flows and Budgetary Cost in 2022 Under CBO's Baseline and a Stress Scenario

	CBO's Baseline	Severe Economic Stress Scenario ^a
Ginnie Mae's Cash Flows From MBSs Newly Guaranteed in 2022		
Lifetime default costs (Percentage of original principal balance of MBSs)	0.19	3.76
Recoveries on defaulted mortgages (Percentage of default costs)	96.17	69.72
Present value of net default costs (Percentage of original principal balance of MBSs)	0.01	1.07
Present value of income from guarantee fees (Percentage of original principal balance of MBSs)	-0.37	-0.52
Present value of miscellaneous cash flows (Percentage of original principal balance of MBSs)	-0.02	-0.02 ^b
Ginnie Mae's Subsidy Rate (Per dollar of new guarantees)	-0.38	0.53
Ginnie Mae's Subsidy Cost (Billions of dollars)	-2.2	3.0

Data source: Congressional Budget Office, using data from Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2022: Federal Credit Supplement* (May 2021), www.whitehouse.gov/omb/supplemental-materials. See www.cbo.gov/publication/57176#data.

MBSs = mortgage-backed securities.

a. This scenario represents the worst 1 percent of economic outcomes that CBO models over the coming decade. It represents a severe recession that includes higher-than-expected failure rates among issuers of Ginnie Mae–guaranteed MBSs and larger-than-expected losses on the mortgages underlying those securities. CBO based the stress scenario on its model of the Federal Housing Administration's (FHA's) mortgage guarantee programs. That model uses 1,000 combinations of different values for major macroeconomic variables to simulate future economic conditions and projects FHA's cash flows for loan guarantees under those differing conditions. CBO defined the stress scenario as the 10 out of those 1,000 sets of economic conditions that produced the highest estimated subsidy rates for FHA's loan guarantees (and thus presumably for Ginnie Mae's guarantees of MBSs composed of loans guaranteed by FHA and other federal agencies).

b. CBO did not adjust miscellaneous cash flows for the stress scenario because of their negligible effect on Ginnie Mae's subsidy rate.

CBO further adjusted recovery cash flows to reflect the expectation that home prices would decline in a severe recession, resulting in greater default losses. In particular, mortgages guaranteed by VA would be expected to incur losses in excess of VA's partial guarantee, resulting in costs to Ginnie Mae (in its role as a replacement for the failed issuer). CBO estimated the size of those additional losses by determining the projected losses on FHA-insured loans under the stress scenario that would exceed the amount covered by a VA guarantee and then applying that estimate of excess losses to the expected share of VA-guaranteed loans in Ginnie Mae–guaranteed securities. That estimate reflects the lower expected default rate on mortgages guaranteed by VA than on loans insured by FHA.

In the stress scenario, those adjustments reduce the Administration's estimate of Ginnie Mae's recovery cash flows by 28 percent. As a result, Ginnie Mae is projected to recover 70 percent of its outflows for delinquencies and defaults in 2022 under CBO's severe stress scenario, compared with 96 percent in the baseline subsidy estimate.

With those default and recovery estimates, the present value of default costs, net of recoveries, would equal 1.07 percent of the original principal balance of all MBSs newly guaranteed in 2022 under CBO's severe stress scenario, compared with 0.01 percent in the baseline subsidy estimate.

Fees. CBO adjusted the Administration's estimate of annual cash flows from Ginnie Mae's guarantee fees for the stress scenario to reflect the expected difference in borrowers' voluntary prepayments of mortgages. Under the economic conditions implied by the stress scenario, borrowers would voluntarily prepay their mortgages more slowly—driven in part by declining home prices and tighter lending standards for refinancing loans—leaving higher outstanding mortgage balances, which would generate more fee income for Ginnie Mae. As it did with recoveries, CBO used results from its FHA model to estimate the size of that adjustment.

In the stress scenario, the adjustment for slower prepayments increases the Administration's estimate of cash flows from guarantee fees by 42 percent. As a result, Ginnie Mae's fee income in 2022 is projected to have a present value of -0.52 percent of the original balance of all MBSs newly guaranteed in that year under the stress scenario, compared with -0.37 percent in the baseline subsidy estimate.

Estimates of Ginnie Mae's Budgetary Costs

Using the Administration's estimates of cash flows for Ginnie Mae, CBO projects in its July 2021 baseline that Ginnie Mae's outflows in 2022 for delinquent and defaulted loans in failed issuers' MBSs will equal 0.19 percent of the original principal balance of the new MBSs that Ginnie Mae will guarantee in 2022. Recoveries on those defaults are projected to equal 96 percent, leaving net losses to Ginnie Mae equal to 0.01 percent of guarantees. Fees collected on those guarantees (equal to -0.37 percent) and miscellaneous cash flows (equal to -0.02 percent) more than offset losses, resulting in an estimated FCRA subsidy rate of -0.38 percent for 2022 (see Table 2). Because CBO projects that Ginnie Mae will guarantee \$577 billion in new MBSs in 2022, the budgetary impact of those guarantees is estimated to be a savings of \$2.2 billion under the baseline.

Ginnie Mae's estimated subsidy rate is higher under the scenario of severe economic stress that CBO constructed for this analysis because of the changes to defaults, recoveries, and fee income described above. With defaulted mortgages from failed issuers increased and recoveries decreased, net losses to Ginnie Mae in 2022 under the stress scenario would equal 1.07 percent of the original

principal balance of MBSs newly guaranteed in that year. Although fee income would increase to -0.52 percent of guarantees, that increase would not be sufficient to offset the larger losses, resulting in a FCRA subsidy rate of 0.53 percent under the stress scenario. Given CBO's projection of \$577 billion in new Ginnie Mae guarantees in 2022, the budgetary impact of those guarantees would be a cost of \$3.0 billion under the stress scenario—an increase of \$5.2 billion from CBO's baseline.²⁹

The estimates that Ginnie Mae's net losses (on a FCRA basis) would equal 0.01 percent of guarantees on average and 1.07 percent in a stress scenario that has a 1 percent chance of occurring over the coming decade suggest that Ginnie Mae would effectively incur no losses in the 99 percent of economic scenarios not covered by CBO's stress scenario.³⁰ That estimate is consistent with Ginnie Mae's past performance, including during and after the financial crisis of 2008.³¹

CBO did not estimate losses in the stress scenario under the fair-value approach, but the results would follow a similar pattern: Ginnie Mae would be expected to incur few or no losses in the majority of economic scenarios and much higher losses in the stress scenario. The main difference from the FCRA estimates is that Ginnie Mae's net losses in the stress scenario would probably be much higher under the fair-value approach.

29. The stress scenario described here would probably also increase the costs associated with Ginnie Mae's guarantees of MBSs issued before or after 2022. Thus, the total cost increase resulting from that scenario would exceed the \$5.2 billion associated with new Ginnie Mae guarantees in 2022.

30. Although CBO did not calculate Ginnie Mae's net losses in scenarios other than the one with a 1 percent chance of occurring, the average for 99 paths with no net losses and 1 path with net losses of 1.07 percent is net losses equal to 0.01 percent.

31. According to Ginnie Mae's annual reports, since 2007 the corporation's posted revenues have exceeded its expenses every year except 2019. (In that year, a large write-down in the value of Ginnie Mae's future fee income from its guarantees, driven by market conditions and by modeling and accounting changes, caused the corporation to post an operating loss.) Any revenues it earns that exceed those costs are used to accumulate a capital reserve, which is held as cash by the Treasury or invested in Treasury securities. See Ginnie Mae, "Annual Reports" (accessed September 28, 2021), <https://tinyurl.com/3bhpmbybv>.

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About This Document

The Congressional Budget Office prepared this report in fulfillment of its efforts to be more transparent. In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

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CBO seeks feedback to make its work as useful as possible. Please send any comments to communications@cbo.gov.



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