Testimony

Statement of
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The Budgetary Cost of Fannie Mae and Freddie Mac and Options for the Future Federal Role in the Secondary Mortgage Market

before the Committee on the Budget U.S. House of Representatives

June 2, 2011

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Chairman Ryan, Congressman Van Hollen, and Members of the Committee, thank you for inviting me to testify about the budgetary cost of Fannie Mae and Freddie Mac and options for the future federal role in the secondary mortgage market.

Historically, support for the mortgage market has been part of a broader federal policy aimed at encouraging home ownership and, to a lesser extent, at making housing more affordable for low- and moderate-income families. The activities of Fannie Mae, Freddie Mac, and the Federal Housing Administration (FHA) have been an important aspect of that policy. In 2010, Fannie Mae and Freddie Mac owned or guaranteed roughly half of all outstanding mortgages in the United States, and they financed 63 percent of the new mortgages originated that year. Including the 23 percent of home loans insured by federal agencies such as FHA, about 86 percent of new mortgages made in 2010 carried a federal guarantee. However, the largest federal subsidies for home ownership have generally come from favorable tax treatment for housing.¹

My testimony today focuses on the Congressional Budget Office's (CBO's) estimates of the budgetary cost of the government's takeover and continuing operation of Fannie Mae and Freddie Mac. I will also discuss how the budgetary treatment of those two enterprises differs from that of FHA and other federal mortgage programs and the potential problems those inconsistencies cause, and I will summarize alternative options for the future role of the federal government in the secondary mortgage market.

Summary

The Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) are government-sponsored enterprises (GSEs) that were chartered by the Congress to provide a stable source of funding for residential mortgages across the country. They carry out that mission in the secondary, or resale, mortgage market. They purchase home loans from originators and package those loans into mortgage-backed securities (MBSs); those securities then can be sold to investors, along with a guarantee against losses from defaults on the underlying mortgages, or held as portfolio investments financed by issuing debt of the GSEs themselves, so-called "agency debt."

Until recently, the obligations of Fannie Mae and Freddie Mac had no official backing from the federal government, nor were any costs associated with them reflected in the federal budget. However, because of the GSEs' size, federal charter, and major role in the mortgage market, most observers believed that the government would not allow Fannie Mae and Freddie Mac to default on their obligations. That implicit federal guarantee, which lowered their borrowing costs and increased the price that investors paid for their guarantees, represented a federal subsidy to the GSEs.

^{1.} See Congressional Budget Office, *An Overview of Federal Support for Housing*, Issue Brief (November 2009).

Starting in 2007, as housing prices dropped nationwide and foreclosures increased, the two GSEs suffered large losses on various investments in their portfolios. Concerns arose about the size of potential losses on their outstanding guarantees (which totaled \$3.8 trillion in September 2008) impairing their ability to issue low-cost debt to fund their purchases of mortgages, and doubts surfaced about whether they had enough capital to cover potential losses. The implicit federal guarantee was made more explicit in 2008 with the enactment of the Housing and Economic Recovery Act (Public Law 110-289), which allowed the Federal Housing Finance Agency to place Fannie Mae and Freddie Mac into conservatorship in September 2008. Under the authority provided by that law, the Treasury entered into agreements with Fannie Mae and Freddie Mac to provide sufficient capital to keep their net worth from falling below zero. In return, the government received senior preferred stock and warrants that made the Treasury the effective owner of the GSEs. Between November 2008 and the end of March 2011, the government provided about \$154 billion in capital to Fannie Mae and Freddie Mac and received more than \$24 billion in dividends on its preferred stock, resulting in net payments to the GSEs of \$130 billion. CBO expects additional net cash payments from the government over the next several years.

CBO's Budgetary Treatment of Fannie Mae and Freddie Mac

In CBO's judgment, the federal conservatorship of Fannie Mae and Freddie Mac and their resulting ownership and control by the Treasury make the two entities effectively part of the government and imply that their operations should be reflected in the federal budget. Hence, in its baseline budget projections, CBO accounts for the cost of the GSEs' operations as though they are being conducted by a federal agency. The costs included in CBO's baseline are estimates of the federal subsidies associated with the GSEs' mortgage guarantees over the life of the mortgages.

Unlike CBO, the Administration's Office of Management and Budget (OMB) treats Fannie Mae and Freddie Mac as nongovernmental entities for budgetary purposes. In the budget, instead of recording forward-looking subsidy costs for their new obligations, OMB records only cash transfers between the Treasury and the two GSEs, such as for stock purchases made to shore up their capital and the dividends they pay to the Treasury. That approach can postpone for many years the recognition of the costs of new obligations. Subsidized mortgage guarantees may even show gains for the government in the short term because fees are collected up front but losses are realized over time as defaults occur.

After consulting with the House and Senate Committees on the Budget, CBO concluded that using a fair-value approach to estimate subsidy costs for Fannie Mae and Freddie Mac would give the Congress the most accurate and comprehensive information about the budgetary costs of supporting the GSEs. Those fair-value estimates represent the up-front payment that a private entity in an orderly transaction would

require to assume the federal responsibility for the GSEs' obligations.² The fair-value approach produces estimates of the value of assets and liabilities that either correspond to or approximate market prices.

Another alternative would be to account for the GSEs according to the method spelled out in the Federal Credit Reform Act of 1990 (FCRA). Most federal programs that provide loans or loan guarantees are accounted for using that method. The main difference between FCRA estimates and fair-value estimates is the discount rate used to calculate the present value of the future costs of guarantees and acquisitions: Under FCRA, projected cash flows are discounted using interest rates on Treasury securities, whereas fair-value estimates use rates that incorporate a risk premium. By including a market-based risk premium, fair-value estimates provide a more comprehensive measure of cost, which recognizes that the financial risk that the government assumes when issuing guarantees is more costly to taxpayers than FCRA estimates suggest. The FCRA and fair-value approaches paint very different pictures of the cost of continuing to operate Fannie Mae and Freddie Mac over the next decade under current law. Whereas on a fair-value basis, new obligations generate a budgetary *cost*, under FCRA, the continuing operations would result in budgetary *savings*.³

CBO's Estimates of the Cost of the GSEs' Activities

In August 2009, CBO estimated that the cost of all of the GSEs' mortgage commitments made before fiscal year 2009 plus new commitments made in 2009 would total \$291 billion on a fair- value basis. Since then, CBO has not produced a new estimate of the subsidy cost associated with the GSEs' past commitments. However, the GSEs' financial reports suggest that losses have increased somewhat since that time because of the continued deterioration of conditions in the housing market.

For each new set of baseline budget projections, CBO estimates the subsidy cost for the GSEs' new business over the current year and next 10 years on a fair-value basis. The average rate for that subsidy of the GSEs' new business has fallen since the peak of the financial crisis, and it is expected to decline further in coming years as the housing market recovers. The subsidy rate (the subsidy cost per dollar of mortgage principal guaranteed) will remain positive, however, as long as Fannie Mae and Freddie Mac provide capital and guarantees to the mortgage market at prices below what private financial institutions offer. On the basis of the March 2011 baseline projections used for CBO's analysis of the President's budget, the agency estimates that the new guarantees the GSEs will make over the 2012–2021 period will cost the government \$42 billion.

^{2.} An orderly transaction is one that occurs under competitive market conditions between willing participants and does not involve forced liquidation or a distressed sale.

^{3.} Congressional Budget Office, letter to the Honorable Barney Frank about the budgetary impact of Fannie Mae and Freddie Mac (September 16, 2010).

Options for the Federal Role in the Secondary Mortgage Market

Policymakers are contemplating a wide range of proposals for the federal role in the secondary mortgage market in general, for the future of Fannie Mae and Freddie Mac in particular, and for the transition to a new model. The broad options include:

- Moving to a hybrid public/private approach that would involve explicit federal guarantees of some privately issued MBSs;
- Establishing a fully federal agency that would purchase and guarantee qualifying mortgages; or
- Promoting a fully private secondary mortgage market with no federal guarantees.

Any new approach would need to confront major design issues—if the approach included federal guarantees, how to structure and price them; whether to support affordable housing and, if so, by what means; and how to structure and regulate the secondary market. In a recent study, CBO analyzed those alternatives and the trade-offs among them.⁴ To evaluate the options, CBO looked at a number of criteria, including whether a given alternative would ensure a stable supply of financing for mortgages, how affordable-housing goals would be met, how well taxpayers would be protected from risk, whether federal guarantees would be priced fairly, and to what extent an approach would provide incentives to control risk taking. A summary of the study's findings is included at the end of this testimony.

Comparability of Cost Estimates Across Federal Housing Programs

The policy choices made about the future federal role in the secondary mortgage market will have budgetary implications that could differ considerably depending on the budgetary treatment used. In CBO's judgment, continuing to use a fair-value approach to estimate subsidy costs for Fannie Mae and Freddie Mac would provide the most accurate and comprehensive measure of the cost to taxpayers of any eventual transition to a new model for the federal role in the secondary mortgage market. However, doing so would maintain the practice of accounting for similar federal credit programs and financial transactions in different ways. Currently, fair-value accounting is used to estimate the budgetary cost of activities of the Troubled Asset Relief Program (TARP), as well as for CBO's baseline projections of the cost of operating Fannie Mae and Freddie Mac, but the FCRA approach is used to estimate the cost of federal mortgage guarantee programs operated by the Department of Veterans Affairs (VA) and FHA. At the same time, the Federal Reserve System's remittances to the Treasury (based on the Federal Reserve's net income) are recorded in the budget on a cash basis. As a result, the budgetary effects of recent purchases of mortgagebacked securities by federal entities have been accounted for on a FCRA basis for

^{4.} Congressional Budget Office, Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market (December 2010).

transactions by the Treasury, on a fair-value basis for transactions by the GSEs, and on a cash basis for transactions by the Federal Reserve.

The practice of using different accounting methods for similar federal obligations can cause confusion, make it difficult to accurately compare costs between programs, and create an incentive to rely more on programs or activities that have relatively low budgetary costs even if their full costs to taxpayers are higher. Providing an illustration, CBO recently compared the estimated cost of FHA's single-family mortgage insurance program on a FCRA versus a fair-value basis. The two approaches yield very different estimates. Under the FCRA methodology, the FHA program would produce budgetary *savings* of \$4.4 billion in fiscal year 2012. On a fair-value basis, in contrast, the program would have a *cost* of \$3.5 billion in 2012. The inconsistent treatment of the GSEs and FHA also implies that a mortgage that generates a budgetary cost when it is guaranteed by Fannie Mae or Freddie Mac could show budgetary savings if FHA provided the coverage instead.

Fannie Mae, Freddie Mac, and the Secondary Mortgage Market

Four decades ago, Congressional charters set up Fannie Mae and Freddie Mac as government-sponsored enterprises—privately owned financial institutions established by the government to fulfill a public mission. The two GSEs were created to provide a stable source of funding for residential mortgages across the country, including loans on housing for low- and moderate-income families. The GSEs purchase mortgages that meet certain standards from banks and other originators, pool those loans into MBSs that they guarantee against losses from defaults, and sell the securities to investors—a process referred to as securitization. In addition, they buy mortgages and MBSs (both each other's and those issued by private companies) to hold in their portfolios. They fund those portfolio holdings by issuing debt obligations, known as agency securities, which are sold to investors.

Until recently, the GSEs' debt securities and MBSs were not officially backed by the federal government. Nevertheless, most investors believed that the government would not allow Fannie Mae and Freddie Mac to default on their obligations. That perception of an implicit federal guarantee stemmed from the very prominent role the two entities played in the housing market and in the broader financial markets. It also stemmed from the specific benefits that the two entities received because of their status as GSEs, such as not having to register their securities with the Securities and Exchange Commission, being exempt from state and local corporate income taxes, and having a line of credit with the Treasury.

^{5.} Congressional Budget Office, "Accounting for FHA's Single-Family Mortgage Insurance Program on a Fair-Value Basis," attachment to a letter to the Honorable Paul Ryan (May 18, 2011).

Because of their implicit federal guarantee, Fannie Mae and Freddie Mac could borrow to fund their portfolio holdings at lower interest rates than those paid by fully private financial institutions that posed otherwise comparable risks. In addition, investors valued the GSEs' guarantees of MBSs more highly than those issued by fully private guarantors. Some of those benefits from federal support flowed to mortgage borrowers in the form of greater availability of credit and somewhat lower interest rates. The GSEs' other stakeholders (shareholders, managers, and employees) also reaped some of the gains. The advantages of implicit federal support allowed Fannie Mae and Freddie Mac to grow rapidly and dominate the secondary market for the types of mortgages they were permitted to buy (known as conforming mortgages). In turn, the perception that the GSEs had become "too big to fail" reinforced the idea that they were federally protected.

Fannie Mae and Freddie Mac were profitable in most years until recently, when the United States experienced its most severe financial crisis since the Great Depression of the 1930s. Starting in 2007, as housing prices dropped nationwide and foreclosures increased, the two GSEs suffered large losses on various investments in their portfolios, such as subprime mortgages (loans made to borrowers with poorer-than-average credit) and "private-label" MBSs (securities issued and insured by private companies without government backing). The GSEs also faced heightened uncertainty about the magnitude of the ultimate decline in housing prices and increase in unemployment and thus about the size of losses on their outstanding guarantees (which totaled \$3.8 trillion in September 2008). Those factors impaired the GSEs' ability to issue low-cost debt to fund their purchases of mortgages, and doubts arose about whether they had enough capital to cover potential losses.

The enactment of the Housing and Economic Recovery Act of 2008 established the Federal Housing Finance Agency and gave it the authority to place Fannie Mae and Freddie Mac in conservatorship—a step it took in September 2008. Under the authority provided by that law, the Treasury entered into agreements with Fannie Mae and Freddie Mac to provide up to \$200 billion (by purchasing their stock) in order to maintain their solvency. The amount was increased in February 2009 to a maximum of \$400 billion and again in December 2009, when the Treasury made the commitment unlimited for 2010 through 2012. Beginning in 2013, the Treasury will continue to maintain the GSEs' solvency using the remaining balances of the \$400 billion (net of amounts of capital provided before 2010), which have no time limit. Those actions gave the government control over the two institutions and effectively made the government's backing of their debt securities and MBS guarantees explicit.

Under the agreements authorized by the Housing and Economic Recovery Act, the Treasury committed to provide sufficient capital to keep Fannie Mae's and Freddie Mac's net worth at zero through 2012 (as measured according to generally accepted accounting principles). In return, the government received senior preferred stock in the GSEs and warrants that give it the option to buy nearly 80 percent of the entities' common stock at a price close to zero. The Treasury's agreements with the GSEs also

call for their portfolio holdings of mortgages to gradually shrink over time to reduce risks to the overall financial system and losses to taxpayers.

As of March 31, 2011, the government had provided about \$154 billion to Fannie Mae and Freddie Mac and received over \$24 billion in dividends on their preferred stock holdings, resulting in net payments to the GSEs of \$130 billion. CBO expects that the GSEs will need additional net cash payments in fiscal year 2011 and in 2012 as well. After that, CBO estimates, the GSEs will pay more to the Treasury in dividends than they will receive from purchases of preferred stock.⁶

As a result of the government's aid and the explicit federal guarantee, Fannie Mae and Freddie Mac have been able to continue channeling funds to the mortgage market, even as private financial institutions faltered. Consequently, in 2010, the two GSEs owned or guaranteed roughly half of all outstanding mortgages in the United States (including a significant share of subprime mortgages), and they financed 63 percent of new mortgages originated that year. Including the 23 percent of home loans insured by federal agencies such as FHA, about 86 percent of new mortgages made in 2010 carried a federal guarantee.

CBO's Budgetary Treatment of Fannie Mae and Freddie Mac

The federal government now controls Fannie Mae and Freddie Mac and is operating them to fulfill the public purpose of supporting the housing and mortgage markets. Moreover, both entities are relying on their federal backing to maintain their low-cost access to financial markets. Although they are not legally government agencies, and their employees are not civil servants, CBO believes that the two entities are effectively part of the government and that it is appropriate and useful to policymakers to include their financial transactions alongside all other federal activities in the budget. Hence, in its baseline budget projections, CBO accounts for the cost of the entities' operations as though the operations are being carried out by a federal agency.

Specifically, CBO treats the mortgages guaranteed each year by the two GSEs as new guarantee obligations of the federal government. For those guarantees, CBO's projections of budget outlays equal the estimated federal subsidies inherent in the commitments at the time they are made. In contrast, the Administration's Office of Management and Budget continues to treat Fannie Mae and Freddie Mac as non-governmental entities for budgetary purposes, and thus outside the budget. It records as outlays the amount of the net cash payments provided by the Treasury to the GSEs. (By CBO's accounting, those payments from the Treasury are effectively intragovernmental payments, which do not affect net federal outlays.)

The total projected cash payments are lower than the fair value estimates of cost discussed elsewhere in this testimony primarily because cash estimates do not include the cost of market risk and are not discounted.

Neither CBO nor OMB incorporates debt securities or mortgage-backed securities issued by Fannie Mae and Freddie Mac in estimates of federal debt held by the public. Such a determination depends on how narrowly or broadly—and for what purpose—one interprets the concept of federal debt. Nevertheless, recent events clearly indicate a strengthening of the federal government's commitment to the obligations of Fannie Mae and Freddie Mac.

Possible Approaches to Estimating the Budgetary Impact of the GSEs' Activities

Two approaches are available that, in principle, could be used to estimate the budget-ary impact of the credit activities of Fannie Mae and Freddie Mac, considering them as part of the federal government: the method specified by the Federal Credit Reform Act of 1990 and the fair-value (or risk-adjusted) method. Those approaches differ significantly in the information they provide to policymakers and in their implications for the budgetary costs of the GSEs and of any new policies that would affect the GSEs' operations or structure. In CBO's judgment, using a fair-value basis to estimate the subsidy cost for Fannie Mae and Freddie Mac has two advantages: It provides the Congress with the most complete information about the cost of supporting those entities under conservatorship, and it aligns the budgetary costs with the economic costs of any eventual transition to a new federal role in the secondary mortgage market.

FCRA Subsidy Estimates. Most federal credit programs are accounted for on a FCRA basis, which, like a fair-value approach, provides an accrual measure of the so-called subsidy cost of new federal direct loans or loan guarantees made each year. Under FCRA, the subsidy calculation measures the lifetime cost of loans or guarantees as of the year of disbursement and counts that cost as a federal outlay in that year; that cost is calculated by projecting all federal cash flows associated with a cohort of loans or guarantees and discounting those cash flows to the year of disbursement using interest rates on Treasury securities of comparable maturity.

A stated purpose of FCRA accounting is to make the budgetary cost of credit programs equivalent to that of other federal spending. FCRA estimates do not fully achieve that goal, however. Most federal spending takes place at prices that cover the costs to private entities of producing the goods and services that the government buys. But with FCRA estimates, the costs of federal loans and loan guarantees are recorded in the budget at prices that do not fully reflect such costs, for two reasons:

- By using Treasury rates for discounting, FCRA accounting implicitly treats market risk—a type of risk that is reflected in market prices because investors require compensation to bear it—as having no cost to the government. (FCRA procedures do, however, incorporate the expected cost of defaults on federal loans or loan guarantees.)
- Subsidy rates computed under FCRA exclude the administrative costs of federal credit programs—even costs that are essential for preserving the value of the government's claim to future repayments, such as costs for servicing and collecting on

loans. Such administrative costs are accounted for separately in the budget on a cash basis each year as they are incurred.

Because the cost of market risk is omitted and essential administrative costs are treated separately, the estimated budgetary cost of a federal loan or loan guarantee is systematically lower than that of an economically equivalent grant or benefit payment. That bias may lead policymakers to favor credit programs over other forms of aid that have a similar economic cost. Moreover, federal loans and loan guarantees tend to appear less costly than comparable activities undertaken in the private sector, even if the government is not intrinsically more efficient at providing them.

For those reasons, estimates prepared using FCRA procedures provide a less-than-comprehensive measure of the cost to taxpayers of federal credit commitments. In particular, discounting expected cash flows at Treasury rates—and thus ignoring market risk—yields an estimate of the cost of a loan guarantee that is lower than what competitive financial institutions would charge for such protection.

Fair-Value Subsidy Estimates. After consulting with the House and Senate Committees on the Budget, CBO concluded that using a fair-value basis to estimate subsidy costs for Fannie Mae and Freddie Mac under conservatorship would provide the Congress with the most useful information about the budgetary cost of supporting those entities. A fair-value approach produces a more comprehensive measure of cost than credit reform accounting because it recognizes that when the government assumes financial risk, there is a cost to taxpayers of bearing risk beyond the expected losses from defaults. Specifically, fair-value estimates represent the up-front payments that a private entity in an orderly market would need to be paid to voluntarily take on the commitments of Fannie Mae and Freddie Mac without any federal backing.⁷

The fair-value approach produces estimates of the value of assets and liabilities that either correspond to or approximate market prices. The fair value of an asset is defined as the price that would be received if the asset was sold in an orderly transaction (one that occurs under competitive market conditions between willing participants and does not involve forced liquidation or a distressed sale). The fair value of a liability, such as a GSE loan guarantee, is the price that would have to be paid to induce a private financial institution to assume the liability.

A common argument against using fair-value estimates is that market risk does not involve costs for the federal government because the government can borrow at Treasury rates. However, when the government finances a risky loan or loan guarantee by selling a safe Treasury security, it is effectively shifting risk to members of the public. If such a loan is paid off as expected, the interest and principal payments cover the government's obligation to the holder of the Treasury security, but if the borrower

^{7.} For a more detailed description of how CBO accounts for Fannie Mae and Freddie Mac and estimates federal subsidies, see Congressional Budget Office, CBO's Budgetary Treatment of Fannie Mae and Freddie Mac, Background Paper (January 2010).

defaults, the security must be paid for through higher taxes or lower government spending in the future.

In CBO's view, a fair-value treatment provides more timely and relevant information to policymakers about the costs of the GSEs' activities than does the cash treatment currently used by the Administration. For instance, if legislation were to require Fannie Mae and Freddie Mac to increase subsidies on guarantees to first-time home buyers, the program would show an immediate cost under CBO's budgetary treatment. But under a cash treatment that tracked inflows and outflows from the Treasury, there would be no immediate cost (or possibly a net gain from fees collected), because losses would not materialize for some months or years. For the same reason, the cost of different proposals to modify the terms on mortgages guaranteed by the GSEs cannot be compared meaningfully on a cash basis.

Both the FCRA approach and the fair-value approach use an accrual basis of accounting, and both rely on the same projections of future cash flows. The main difference between FCRA estimates and fair-value estimates is the discount rate used to calculate the present value of future costs of guarantees and acquisitions: Projected cash flows under FCRA are discounted at Treasury rates, whereas fair-value estimates incorporate a risk premium. Thus, FCRA estimates omit the cost of market risk, and fair-value estimates include it.

The market risk associated with any new mortgage guarantees made by the GSEs generates a cost to taxpayers. The guarantees that CBO projects will be made over the 2011–2020 period appear to be considerably safer than were the guarantees made during the peak of the housing boom or during the recession. However, foreclosure rates on houses remain high, and there is continuing uncertainty about whether house prices will fall further than they have already. CBO expects the economy to continue to recover gradually over the next few years, but the speed and strength of the recovery are uncertain. High loss rates are unlikely on the GSEs' new guarantees, but should they recur, that is likely to happen when the overall economy is weak and the cost of those losses is high; thus, mortgage guarantees continue to expose taxpayers to market risk.

CBO's Estimates of the Cost of the GSEs' Activities

To infer the risk-adjusted discount rates used to estimate the fair value of Fannie Mae's and Freddie Mac's guarantees, CBO relied in part on information from the GSEs' disclosures and also considered prices in private markets, such as those for private-label mortgage securities and for jumbo mortgages (that is, mortgages of amounts higher than conforming mortgages). In CBO's view, Fannie Mae's and Freddie Mac's disclosures understate the fair value of the guarantees that the GSEs provide because the disclosures treat the portion of costs covered by the federal guarantee as having no cost to the GSEs. To uncover the value of the federal guarantees, CBO looked to the difference in prices that investors are willing to pay for private mortgage securities versus those backed by the GSEs, and the agency made adjustments to account for

differences in products, the characteristics of borrowers, market structure, and other factors. A further complication is that the GSEs receive no appropriated funds, and all administrative costs of their loan guarantees are covered by a portion of the fees they charge for those guarantees. Therefore, to calculate the credit subsidy for the GSEs, CBO excludes the portion of the guarantee fee that is required to cover those administrative costs. As a result, only part of the guarantee fee charged by the GSEs is available to offset the risk of default on guaranteed mortgages.

On a fair-value basis, CBO estimated in August 2009 that the cost of all of the GSEs' mortgage commitments made before fiscal year 2009 plus new commitments made in 2009 would total \$291 billion. That figure closely corresponded with the GSEs' own estimates of their fair-value net worth of a deficit of \$258 billion in June 2009. Since then, CBO has not produced a new estimate of the subsidy cost associated with the enterprises' past commitments—the value of which changes over time as repayments and defaults occur and as market conditions change. However, the assets and liabilities reported on the GSEs' fair-value balance sheets provide an indication of how the costs arising from past commitments have changed since then. As of March 31, 2011, the GSEs reported a fair-value deficit of approximately \$187 billion. Adding to that the \$130 billion in net payments already received from the Treasury implies a fairvalue cost to the government of about \$317 billion in obligations incurred through March 2011. The increase in that total compared with CBO's 2009 estimate reflects continued deterioration in the condition of the housing market that is increasing default rates on distressed mortgages and depressing the amounts that can be recovered following defaults; there are also differences between CBO's estimating assumptions and those of the GSEs.

For each new set of baseline budget projections, CBO estimates the subsidy cost for the GSEs' new business over the current year and next 10 years on a fair-value basis. In its most recent baseline projections from March 2011, CBO estimated that the subsidy costs of the GSEs' new business would total about \$42 billion over the 2012–2021 period, an average of about \$4 billion a year (see Table 1). The average subsidy rate on the GSEs' new business has fallen since the peak of the financial crisis, and it is expected to decline further in coming years as the housing market recovers. The subsidy cost will remain positive, however, as long as Fannie Mae and Freddie Mac provide capital and guarantees to the mortgage market at prices below what private financial institutions offer. The GSEs are able to do that primarily because of their federal backing, which ultimately transfers risk from them to taxpayers.

The Budgetary Cost of a Transition to a New Federal Role in the Secondary Mortgage Market

As the operations of Fannie Mae and Freddie Mac make a transition from federal conservatorship to some new federal role in the secondary mortgage market, the budgetary costs or savings—and whether the budgetary figures provide a timely and comprehensive accounting of the financial implications of the policy changes for the government—will depend critically on the budgetary treatment used.

Table 1.

CBO's March 2011 Baseline Budget Projections of Subsidy Costs for Fannie Mae and Freddie Mac

(Billions of dollars)

,											То	tal
										•	2012-	2012-
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2016	2021
Fair-Value Subsidy Costs	7.6	5.3	3.1	3.0	3.1	3.4	3.8	4.0	4.2	4.3	22.1	41.6

Source: Congressional Budget Office.

Note: Numbers do not add up to totals because of rounding.

FCRA and fair-value accounting offer very different pictures of the cost of continuing a federal program that provides government backing for a large share of new and refinanced mortgages: Under FCRA, each mortgage guaranteed would appear to make money for the government and therefore reduce the budget deficit; on a fair-value basis, each mortgage guaranteed would entail a small cost to the government. On the basis of its August 2010 baseline projections, CBO estimated that on a FCRA basis, the GSEs would generate \$44 billion in budgetary savings during the 2011–2020 period, whereas on a fair-value basis, the GSEs would generate a budgetary cost of \$53 billion over the same period (see Table 2).8

The sales or purchases of mortgages or MBSs by the GSEs that could take place in a transition period would also appear to have very different effects under the alternative budgetary treatments. On a cash basis, sales of mortgages or securities appear to make money and purchases of mortgages or securities to cost money, even if the transactions involve exchanges of equal market value (claims on mortgage income in exchange for cash with equal value). FCRA accounting also records sales and purchases of mortgages and securities in a way that creates distortions. Investments in MBSs typically yield a return that is greater than the rates earned on Treasury securities; as a result, discounting the expected cash flows from investments in MBSs at Treasury rates, as under FCRA, will result in a reported net gain from purchasing fairly priced securities. For example, the Treasury's purchases of MBSs in 2010 produced budgetary savings because they were accounted for on a FCRA basis. Conversely, selling fairly priced securities under FCRA entails a budgetary cost. However, on a fair-value basis, any purchases or sales of mortgages and MBSs by the GSEs at competitive market prices result in no estimated gains or losses.

The choice between fair-value and FCRA accounting treatments may also affect decisions about the forms of assistance offered to low-income home buyers. For example, low-income home buyers could receive assistance of equivalent economic value

^{8.} See Congressional Budget Office, letter to the Honorable Barney Frank about the budgetary impact of Fannie Mae and Freddie Mac (September 16, 2010).

Table 2.

Projections of Mandatory Outlays for Fannie Mae and Freddie Mac Under Alternative Budgetary Treatments

(By fiscal year, in billions of dollars)

											2011-
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020
•											
FCRA	-6	-5	-5	-5	-4	-4	-4	-4	-4	-4	-44
Fair Value	14	9	5	4	4	4	4	4	4	4	53

Source: Congressional Budget Office based on August 2010 baseline budget projections.

Notes: Numbers do not add up to totals because of rounding.

FCRA = Federal Credit Reform Act.

through grants that cover their down payments or through loan guarantees that subsidize their borrowing costs. FCRA accounting would make the loan program appear to be less costly than a grant for down payment assistance that has an equivalent fair value but that might be more effective at overcoming barriers to home ownership.

Comparability of Budget Estimates Across Federal Housing Programs

Currently, similar federal programs and financial transactions are being accounted for in different ways. That practice creates several problems: It can cause confusion, hamper an accurate comparison of costs between programs, and create the incentive to rely more on programs with relatively low budgetary costs even if they have higher true costs to taxpayers. For example, although CBO's method of estimating the cost of operating Fannie Mae and Freddie Mac parallels the budgetary treatment for the activities of the TARP, that methodology is inconsistent with the FCRA methodology used for other federal mortgage guarantee programs, such as the ones run by the VA and FHA. Those differing approaches create an incentive to shift activities to programs that receive the most favorable budgetary treatment. For example, because costs recorded on a FCRA basis are generally below fair value, if legislation caused mortgage borrowers who would otherwise obtain a guarantee from Fannie Mae or Freddie Mac to instead use an FHA program to guarantee an identical mortgage, the legislation could appear to produce budgetary savings, even though the government's exposure to losses from defaults would be identical.

A comparison of the estimated cost of FHA's single-family mortgage insurance program on a FCRA versus a fair-value basis illustrates the magnitude of the differences. Under the FCRA methodology, the program would produce budgetary savings of \$4.4 billion in fiscal year 2012, CBO estimates. That result stems from an estimated subsidy rate of -1.9 percent applied to an estimated loan volume of \$233 billion. (The

^{9.} Congressional Budget Office, "Accounting for FHA's Single-Family Mortgage Insurance Program on a Fair-Value Basis," attachment to a letter to the Honorable Paul Ryan (May 18, 2011).

negative subsidy rate means that the present value of expected payments to the government for the loans guaranteed in 2012 exceeds the present value of expected payments from the government for those loans by an amount equal to 1.9 percent of the loan volume.) On a fair-value basis, in contrast, the program would have a cost of \$3.5 billion in 2012, CBO estimates—reflecting an estimated positive subsidy rate of 1.5 percent applied to the same projected loan volume.

Options for the Federal Role in the Secondary Mortgage Market

The cost to taxpayers of assisting Fannie Mae and Freddie Mac and continuing their operations under conservatorship—and the structural weaknesses that contributed to their financial problems—have prompted consideration of various alternatives for the federal role in the secondary mortgage market in the future. Alternative proposals involve different choices about whether the Federal government should continue to guarantee payment on certain types of mortgages or MBSs and, if so, what the scope, structure, and pricing of those guarantees should be. The proposals also involve choices about support for affordable housing and the competitive structure and regulation of the secondary market. In a recent study, CBO examined the trade-offs involved in making those key design choices and evaluated the strengths and weaknesses of three broad approaches for the future of the secondary mortgage market (see Table 3):¹¹

- A hybrid public/private model in which the government would help to ensure a steady supply of mortgage financing by providing explicit guarantees on privately issued mortgages or MBSs that met certain qualifications;
- A fully public model in which a wholly federal entity would guarantee qualifying mortgages or MBSs; or
- A fully private model in which there would be no special federal backing for the secondary mortgage market.

CBO's analysis, which is summarized in this testimony, focused primarily on the long-term strengths and weaknesses of the alternative approaches, not on the transition from the status quo to a new model. Transitional issues—such as what to do with the existing portfolios and obligations of Fannie Mae and Freddie Mac—are important in their own right, but they are largely separate from the questions about the long-term

^{10.} For a discussion of the options under consideration by the Administration, see Department of the Treasury and Department of Housing and Urban Development, *Reforming America's Housing Finance Market: A Report to Congress* (February 2010).

^{11.} Congressional Budget Office, Fannie Mae, Freddie Mac, and the Federal Role in the Secondary Mortgage Market (December 2010).

Table 3.

Key Features of Alternatives for the Secondary Mortgage Market

	Hybrid Public/ Private Model	Fully Federal Agency	Fully Private Market		
Existing operating assets of Fannie Mae and Freddie Mac	Handed over to specialized issuers of federally backed MBSs (could be nonprofit, cooperative, or private firms), sold to privatelabel issuers, or liquidated	Used for operations of agency, sold to private- label issuers, or liquidated	Sold to private-label issuers or liquidated		
Licenses to issue federally guaranteed MBSs	Under "public-utility model," only a few; under "competitive market-maker model," available to any firm meeting specified criteria	None; operations undertaken by agency	None		
Federal guarantees for loans or MBSs	Explicit, possibly covering only catastrophic risks	Explicit	None (Phased out)		
Private capital's role in secondary market	Absorbs most or all losses, except in cases of unusually large shocks	None on federally guaranteed securities; absorbs all losses on private-label securities	Absorbs all losses		
Allowable activities for federally guaranteed securitizers	Under "public-utility model," restricted to issuing MBSs and holding very limited portfolios; under "competitive market-maker model," restricted only enough to limit spillover of risk to government	Issuing guarantees and possibly holding portfolios of mortgages and MBSs	Not applicable		
Support for affordable housing	Could occur through terms on federal guarantees, fees on issuers of federally backed MBSs, or government agencies	Could occur through agency	No special role; could occur through government agencies		
Role of issuers of private-label MBSs	Serve borrowers whose mortgages do not qualify for federal guarantees	Serve borrowers whose mortgages do not qualify for federal guarantees	Dominant players in secondary market, along with other private financial institutions		

Note: MBSs = mortgage-backed securities.

future of the secondary mortgage market that are discussed here. In particular, alternative ways of resolving the transitional issues probably would not substantially affect the relative long-term merits of different models for the secondary market, and the different models do not appear to require any particular resolution of the transitional issues—choices about each could be combined in various ways. If changes were made in the next few years, care would need to be taken not to disrupt the housing and mortgage markets further. Those markets remain fragile: The sharp decline in housing prices since mid-2006 has left many homeowners owing more on their mortgages than their homes are worth, foreclosure rates are still high, and obtaining a mortgage continues to be difficult for many households.

Possible Rationales for a Federal Role in the Secondary Market

In assessing future options for Fannie Mae and Freddie Mac, a fundamental issue is what role, if any, the federal government should play in the secondary mortgage market. Historically, support for that market has been part of a broader federal housing policy aimed at encouraging home ownership and, to a lesser extent, at making housing more affordable for low- and moderate-income families. The activities of Fannie Mae and Freddie Mac have been an important aspect of that policy (although the largest federal subsidies for home ownership have generally come from favorable tax treatment for housing).

In particular, the government has tried to ensure a steady supply of financing for residential mortgages through policies that increase the liquidity of mortgages and MBSs. In a liquid market, investors can quickly buy or sell large quantities of an asset without affecting its price. The government can enhance the liquidity of the secondary mortgage market by providing credit guarantees, which make MBSs safer and thus easier for investors to value, and by standing ready to buy and sell MBSs. Such government support has the greatest impact on the availability and price of mortgage funding during disruptions in the financial markets. At such times, interruptions in the supply of mortgage credit can spill over to the market for new-home construction and weaken the broader economy. Such interruptions can also impede the mobility of labor by making it more difficult for people to buy and sell homes when they want to move.

Under normal market conditions, supporting liquidity in the secondary mortgage market through federal credit guarantees tends to lower interest rates only slightly for most mortgage borrowers. When mortgages are unsubsidized, the cost of providing a credit guarantee is offset by the fees charged to investors, and those guarantee fees are passed on to borrowers. Nevertheless, borrowers may benefit because investors are willing to pay somewhat higher prices (or, equivalently, accept lower interest rates) for MBSs that are more liquid. In a competitive marketplace, that advantage tends to reduce the rates paid by borrowers relative to what rates would be in the absence of federal guarantees. (To the extent that Fannie Mae and Freddie Mac are able to dominate the market for MBSs, the value of greater liquidity may accrue largely to them rather than to borrowers.)

The benefits of the government's actions to increase liquidity in the secondary market by providing credit guarantees and purchasing mortgages must be weighed against the costs. Those actions expose taxpayers to the risk of potentially large losses when the cost of honoring guarantees exceeds the value of guarantee fees collected—or when mortgages held by the government lose value because of changes in interest rates or prepayment rates (that is, the extent to which borrowers pay mortgages off early). Federal guarantees also reduce the incentive for mortgage originators to avoid making risky loans in the first place.

Besides encouraging a stable supply of financing, another objective of federal involvement in the secondary mortgage market is to increase the availability of credit and subsidize its costs for people with low or moderate income. Broadening access to home ownership could be beneficial because owning a home may give people a greater stake in their community and thus make communities more stable. Moreover, certain types of housing assistance may be provided more effectively through support for the secondary market than through grants or tax preferences. For example, some borrowers may have the financial means to own a home but have trouble obtaining private credit—a problem known as "credit rationing." That problem can occur when it is difficult for lenders to assess the creditworthiness of certain borrowers, such as those with short credit histories. Lenders cannot address that greater risk by charging higher interest rates, because such terms tend to attract borrowers who are more likely to default. However, the government may decide that the value to society from subsidizing certain loans is greater than the cost of doing so.

Currently, several federal agencies—including FHA, VA, and the Government National Mortgage Association (Ginnie Mae)—provide assistance to low- and moderate-income borrowers through the secondary market, as (to a more limited extent) do Fannie Mae and Freddie Mac. FHA and VA increase the flow of credit to such borrowers by explicitly insuring mortgages against losses from default, and Ginnie Mae guarantees the payment of interest and principal on MBSs backed by pools of those mortgages. Fannie Mae and Freddie Mac are required to provide support for affordable housing by meeting certain goals set by regulators. Those goals specify the percentage of the GSEs' mortgage guarantees and purchases that must involve loans used to finance rental housing for, or home purchases by, people with low or moderate income.

Weaknesses of the Precrisis Model

Despite the potential beneficial effects of federal involvement in the secondary mortgage market, the rules and market structure under which Fannie Mae and Freddie Mac operated before conservatorship—referred to here as the precrisis model—had numerous weaknesses, including the following:

■ Adverse effects from the implicit federal guarantee of the two GSEs (such as a concentration of market power, risks to the stability of the larger financial system,

incentives for excessive risk taking, and a lack of transparency about costs and risks for the government);

- Limited effects on affordable housing;
- Lax regulation; and
- Tensions in trying to balance competing public and private goals.

The implicit federal guarantee concentrated market power in Fannie Mae and Freddie Mac by giving them lower funding costs than potential competitors in the secondary market. As a consequence, the GSEs grew to dominate the segments of the market in which they were allowed to operate. Because of their size and interconnectedness with other financial institutions, they posed substantial systemic risk—the risk that their failure could impose very high costs on the financial system and the economy. The GSEs' market power also allowed them to use their profits partly to benefit their other stakeholders rather than exclusively to benefit mortgage borrowers.

The implicit guarantee created an incentive for the GSEs to take excessive risks: Stakeholders would benefit when gambles paid off, but taxpayers would absorb the losses when they did not. (Financial institutions that lack the benefit of a federal guarantee have less incentive to take risks because doing so can increase their financing costs, although some still act imprudently at times.) One way that Fannie Mae and Freddie Mac increased risk was by expanding the volume of mortgages and MBSs held in their portfolios, which exposed them to the risk of losses from changes in interest or prepayment rates. Over the past decade, the two GSEs also increased their exposure to default losses by investing in lower-quality mortgages, such as subprime and Alt-A loans. ¹²

Because the federal guarantee was implicit rather than explicit, the costs and risks to taxpayers did not appear in the federal budget. That lack of transparency made it more difficult for policymakers to assess and control the GSEs' costs and risks. Lack of transparency also made it difficult for policymakers to evaluate whether the GSEs were effectively and efficiently meeting their affordable-housing goals; several studies have questioned the effectiveness of the GSEs' affordable-housing activities.

Weak regulation was a further shortcoming of the precrisis model. For instance, until 2008, the GSEs' regulators lacked the power to increase capital requirements for Fannie Mae and Freddie Mac or to place them in receivership—powers that regulators have long had over banks.

^{12.} Subprime and Alt-A mortgages are offered to some borrowers who do not meet the qualifications for a prime mortgage (one extended to the least risky borrowers) because of such risk factors as a low credit rating, insufficient documentation of income, or the ability to make only a small down payment.

Finally, as private companies with a public mission and implicit public backing, Fannie Mae and Freddie Mac faced an intrinsic tension in balancing the objectives of maximizing profits for their shareholders, maintaining safety and soundness to minimize potential costs to taxpayers, and supporting affordable housing. For example, efforts to help low-income households tend to involve targeting loans toward borrowers who generally pose more risk than borrowers of traditional conforming mortgages do, thereby putting taxpayers at greater risk of loss. The affordable-housing goals and the pursuit of profit may have encouraged Fannie Mae and Freddie Mac to purchase subprime MBSs that were expected to generate high returns but that involved excessive risk for borrowers and taxpayers alike.

Alternative Approaches for the Federal Government's Role in the Secondary Mortgage Market

The weaknesses inherent in the precrisis model may argue against returning to that model after the GSEs' conservatorship ends. A broad array of alternatives are possible for the federal government's future role in the secondary mortgage market. Any new approach would need to confront major design issues, such as whether to have federal guarantees and, if so, how to structure and price them; whether to support affordable housing and, if so, by what means; and how to structure and regulate the secondary market.

In examining the three broad approaches listed earlier, CBO looked at a number of criteria, including whether a given alternative would ensure a stable supply of financing for mortgages, how affordable-housing goals would be met, how well taxpayers would be protected from risk, whether federal guarantees would be priced fairly, and to what extent an approach would provide incentives to control risk taking. (For a synopsis of the trade-offs between the alternative approaches, see Table 4).

Managing the Transition to a New Approach. Moving from the current operations of Fannie Mae and Freddie Mac under conservatorship to any new model would involve several transitional issues, including how to manage the GSEs' existing portfolios and guarantee obligations and what to do with their operating assets. The government faces two basic choices: either retain the GSEs' portfolios and the responsibility for their outstanding guarantees and allow both to run out as mortgages are paid off, or pay a private entity to assume the guarantee obligations and sell off the portfolios. Whatever model for the secondary market is ultimately adopted, the expected losses on the GSEs' existing business will largely be borne by taxpayers, because private investors would not assume those obligations without compensation. The GSEs' operating assets are valuable; they could be auctioned off to investors (with the proceeds helping to offset some of the losses to taxpayers) or kept for use by a federal agency.

Handling those transitional issues efficiently and without disruption to the secondary mortgage market—especially given current conditions in housing and mortgage markets—is both important and difficult. However, in CBO's judgment, those issues have

Table 4.

Key Factors for Assessing Alternatives for the Secondary Mortgage Market

	Hybrid Public/ Private Model	Fully Federal Agency	Fully Private Market
Supply of financing for mortgages	Under normal market conditions, the supply of funding for federally backed mortgages would be fairly stable. During periods of market stress, financing could become less available, especially under versions with narrower federal guarantees and more reliance on private capital.	The supply of funding for federally backed mortgages would be fairly stable—both in normal times and during periods of market stress—because uncertainty about the strength of the federal guarantee would be minimized.	The market would be more susceptible to fluctuations in the supply of funding. During periods of acute market stress, funding could become extremely scarce without federal intervention.
Support for affordable housing	Mortgages that satisfied affordable-housing goals could be subsidized through lower federal guarantee fees, with the subsidy cost shown in the budget. Or responsibility could be transferred to a fully federal agency, such as the Federal Housing Administration.	Subsidies could be delivered by the agency and would be shown in the federal budget.	Responsibility would be transferred to a fully federal agency, such as the Federal Housing Administration, or subsidies would be discontinued.
Taxpayers' exposure to risk	Intermediaries in the secondary market would bear all credit losses until their capital was exhausted, limiting the credit risk that taxpayers faced. If only a few specialized firms participated in the market, they might receive government support if their solvency was threatened.	Taxpayers would bear the entire credit risk on guaranteed mortgages. Private-label issuers seen as critical to the functioning of the mortgage market might receive government support during periods of acute market stress.	Taxpayers' exposure to credit risk would be very small under normal market conditions. Taxpayers could be exposed to greater risk through federal deposit insurance if banks bore more credit risk. Firms seen as critical to the functioning of the mortgage market might receive government support during periods of acute market stress.

Continued

Table 4. Continued

Key Factors for Assessing Alternatives for the Secondary Mortgage Market

	Hybrid Public/ Private Model	Fully Federal Agency	Fully Private Market
Pricing of federal guarantees	The government could have trouble fully pricing catastrophic risk or setting risk-sensitive prices, which would probably shift some cost to taxpayers.	The government probably has weaker incentives than private guarantors do to charge fees that would fully compensate for the risks associated with guarantees, suggesting that taxpayers would probably bear a cost.	No explicit federal guarantees; however, any implicit federal guarantees that arose would be free to the private issuers of MBSs and hence would entail a cost to taxpayers.
Incentives to control risk taking	The presence of federal guarantees would create an incentive for excessive risk taking. Limiting government guarantees and charging risk-based prices for them would reduce that incentive. In addition, private intermediaries would have an incentive to set risk-based prices and monitor risk taking.	Having the government absorb all credit losses would create a strong incentive for excessive risk taking by originators. The government could counter that incentive by setting risk-based prices for guarantees and by restricting eligibility for guarantees to safer mortgages. Incentives to limit risk taking would probably be weaker than if private capital was in the position to absorb some losses.	Financial intermediaries would have a relatively strong incentive to manage risk, but the incentive would be weakened if their obligations were seen as implicitly guaranteed by the government.

Continued

Table 4. Continued

Key Factors for Assessing Alternatives for the Secondary Mortgage Market

Other considerations

Depending on the model implemented, government control over the secondary mortgage market could be greater or less than under the precrisis model.

Tensions between public and private purposes might remain, particularly under models with a small number of highly regulated intermediaries.

Subsidies could tilt the allocation of capital in the economy too far toward housing and away from other uses.

The government would control a large segment of the capital market.

The market would probably be less dynamic, and there would be less incentive for product innovation.

Tensions between public and private purposes would be minimized.

Subsidies could tilt the allocation of capital in the economy too far toward housing and away from other uses.

The government would regulate the secondary mortgage market but otherwise not intervene.

The market would not rely on the viability of any one firm or business model.

Tensions between public and private purposes would be minimized.

Source: Congressional Budget Office.

little impact on the relative merits of various approaches for the long-term organization of the secondary market.

Major Design Issues. Many different models for the secondary mortgage market involve common design issues, such as how to structure and price any federal credit guarantees, whether and how to support affordable housing, and how to structure and regulate the secondary market.

Structuring Federal Guarantees. The design of federal guarantees is an important issue for both a hybrid public/private approach and a fully federal approach. A key choice involves which mortgages would be considered eligible for federal guarantees. Mortgage products that qualify for federal backing tend to be popular, and hence such backing can be used to encourage best practices by lenders. Including a wide range of products in the definition of qualifying mortgages—and setting high dollar limits for those loans—would provide benefits to more borrowers and could increase the stability of the secondary market. At the same time, a large-scale guarantee program would expose the government to greater risk, reduce the incentives for prudent risk taking, and tend to crowd out private participation in the market.

The government could charge guarantee fees that partly or fully offset the total expense of its guarantee program, including administrative costs, expected losses, and

the cost of risk. (If fees and other collections were insufficient to cover those costs, the government would have to subsidize the program.) Basing guarantee fees on the riskiness of a mortgage would weaken the incentive for excessive risk taking and reduce the extent to which safer borrowers cross-subsidized riskier ones.

Some proposals envision providing federal guarantees but limiting the government's exposure to losses by sharing risk with the private sector. Under such proposals, private capital—along with homeowners' down payments and any capital provided by private mortgage insurance—would be the first line of defense against losses from defaults. Transferring risk to the private sector would not only lower the government's exposure directly but also give private entities greater incentives to control risk and thereby reduce the government's exposure further.

One risk-sharing option that could limit federal losses would be for the government to sell catastrophic risk protection on qualifying MBSs. With catastrophic guarantees, payouts to investors might be triggered, for instance, only when nationwide default rates exceeded some threshold. Smaller losses would be absorbed by private capital or insured by private mortgage insurance. Relying heavily on the private sector for credit protection would have drawbacks, however. Investors would probably perceive securities with very limited federal backing as being riskier and less uniform than those currently issued by Fannie Mae and Freddie Mac, which would make them less liquid. The availability of private capital and private mortgage insurance is also susceptible to disruptions in the financial markets.

Supporting Affordable Housing. The main design issue related to affordable housing is whether to transfer the GSEs' responsibilities in this area to fully federal entities (such as FHA) that are funded with broad-based taxes or to pursue affordable-housing goals through taxes or mandates on private institutions operating in the secondary mortgage market. Supporting affordable housing generally involves providing subsidies, which are most easily controlled and monitored when administered by a federal agency. Some observers, however, question whether a federal agency could provide support as effectively or flexibly as private entities; in their view, it would be better to have such support remain the responsibility of private financial institutions.

In the precrisis model, the GSEs' affordable-housing activities were effectively funded through the financial advantage generated by the government's implicit guarantee. Under alternative approaches with an explicit federal guarantee, the fees charged to investors would probably either just cover or not entirely cover the government's cost for the guarantee program and so would not generate a surplus that could be used to support affordable housing. Thus, the alternatives to fund affordable-housing activities would be either to use general revenues or to use special taxes or mandates on financial institutions. Broad-based taxes tend to be less distorting and hence preferable in terms of economic efficiency, although special assessments on financial institutions might be justified as compensation for benefits that those institutions receive from the government.

Structuring and Regulating the Secondary Market. Key issues related to the structure of the market include what role private-label securitizers would play, how much they would be regulated, and whether any of the GSEs' advantages would be extended to other market participants or abolished. For a hybrid public/private approach, another critical design issue is how the market would be structured—specifically, the number and types of intermediaries that would exist and the activities that they would be permitted to engage in. Proposals range from licensing a small number of highly regulated private entities to package and sell federally guaranteed MBSs—the "public-utility model"—to allowing any private financial institution that met certain regulatory criteria to package and sell federally guaranteed MBSs—the "competitive market-maker model").

An argument in favor of the public-utility model is that it could create a more level playing field for mortgage originators than a less regulated approach would; the public utilities would be required to serve all originators, thereby facilitating broad access to the secondary market. In addition, having a small number of intermediaries could increase the liquidity of the secondary market by ensuring that investors viewed different federally backed MBSs as interchangeable. If the intermediaries were structured as nonprofit entities, they might also have less incentive to take risk than for-profit firms do.

If the public utilities' business was limited to creating federally backed MBSs, however, they would be more exposed to mortgage credit risk than would financial institutions with a more diverse set of investments. Concentrating risk exposure would replicate one of the major weaknesses of Fannie Mae and Freddie Mac and make the new public utilities more susceptible to shocks in the housing market than more-diversified institutions would be. In addition, having only a few large intermediaries that were essential to the functioning of the secondary market could recreate the "too big to fail" problem, even if federal guarantees were limited by law. And nonprofits might have weaker incentives than private-sector institutions do to control costs and risks and to innovate. Another concern with the public-utility model is "regulatory capture"—that over time, regulators might become more responsive to the goals of the regulated entities than to the interests of the general public.

The competitive market-maker model also has strengths and weaknesses. On the one hand, spreading mortgage credit risk more widely among more-diversified institutions would reduce risks to the overall financial system and the economy, compared with circumstances under both the precrisis model and the public-utility model. Having a greater number of institutions issue federally backed MBSs would also encourage innovation and foster competition—which could help ensure that the benefits of federal support went to mortgage borrowers rather than to stakeholders of the financial intermediaries.

On the other hand, even with a federal guarantee, MBSs issued by different institutions might not be viewed as completely interchangeable. In that case, the liquidity of MBSs would be reduced, and borrowing costs would increase. It is also possible that smaller mortgage originators might have trouble gaining access to the secondary mar-

ket if large private institutions were unwilling to buy loans from them, although competition among market makers would make that outcome unlikely. Another concern with allowing broad participation by diversified firms is that the government could be exposed to greater risk because losses from the firms' other lines of business could spill over to their activities in the secondary mortgage market.

A Hybrid Public/Private Model. Many proposals for the future of the secondary market involve providing federal guarantees of certain mortgages or MBSs that would qualify for government backing. That approach would preserve many features of how the secondary market for conforming mortgages operated before Fannie Mae and Freddie Mac were placed in conservatorship. However, a hybrid approach would depart from the precrisis model in three main ways: A potentially different set of private intermediaries would be established to securitize federally backed mortgages, the federal guarantees on those mortgages would be explicit rather than implicit, and their subsidy cost would be recorded in the federal budget.

As the preceding discussions about structuring federal guarantees and regulating the secondary mortgage market illustrate, a hybrid approach could be implemented in ways that involved broader or narrower federal guarantees and more or less regulation of participants in the market.

Under a hybrid approach, private capital and possibly private mortgage insurance would absorb losses from defaults before the federal guarantee would be called upon. Fannie Mae and Freddie Mac could be privatized and allowed to compete in the secondary market; they could be used to form a nonprofit organization that would issue federal guarantees; or they could be liquidated. The government could provide additional housing assistance to low- and moderate-income families by subsidizing guarantee fees for qualifying borrowers or by funding programs of FHA or other federal agencies that target those groups.

Compared with the approach of establishing a fully federal agency, a hybrid public/ private approach would lessen concerns about putting a large portion of the capital market under government control. It would also limit costs and risks to taxpayers by having intermediaries in the secondary market bear all credit losses until their capital was exhausted. In addition, putting private capital at risk would provide incentives for prudent underwriting and pricing of risk. Compared with a fully private secondary market, a hybrid approach would probably improve the liquidity of the market, especially during times of financial stress. Moreover, providing an explicit federal guarantee would avoid the problems of a lack of transparency and control that an implicit guarantee involves.

Relying on explicit government guarantees of qualifying mortgages would also have some disadvantages, the importance of which would depend partly on the design chosen. If competition remained muted, with only a few specialized firms participating in the secondary market, limiting risk to the overall financial system and avoiding regulatory capture could be difficult. Moreover, federal guarantees would reduce creditors'

incentive to monitor risk. Experience with other federal insurance and credit programs suggests that the government would have trouble setting risk-sensitive prices and would most likely end up imposing some cost and risk on taxpayers. In addition, a hybrid approach might not eliminate the frictions that arise between private and public missions.

A Fully Federal Agency. An alternative would be to create a government-run program that provided explicit federal guarantees promising timely payment of interest and principal on qualifying mortgages or MBSs. (Such a program could share many features with the current activities of FHA and Ginnie Mae.) The net cost of the federal program would appear in the budget and could be covered wholly or partly by charging guarantee fees. Policymakers could use the design of the fees to determine the size of subsidies to low-income borrowers or providers of low-income rental housing. Under that fully federal approach, some of the current operations of Fannie Mae and Freddie Mac could become part of a new or existing federal agency.

A federally run program could have some advantages over alternatives that relied on the private sector. For example, such a program would be more likely to ensure a fairly steady flow of funds to the secondary mortgage market—both in normal times and during periods of financial stress—by minimizing uncertainty about the strength of the federal guarantee. Compared with the precrisis model, this approach would increase transparency by replacing an implicit guarantee with an explicit one. Moreover, most of the federal subsidies would probably flow to mortgage borrowers rather than to private financial institutions.

At the same time, however, a new federal program would permanently increase government control of a large segment of the capital market. Depending on the size of the subsidies, that greater federal presence could tilt the allocation of capital in the economy further toward housing and away from other activities. In addition, a federally operated secondary market would probably be less dynamic and result in fewer innovations than a market in which competing private institutions played a larger role.

Furthermore, taxpayers, rather than private financial institutions, would bear much of the credit risk on guaranteed mortgages. That shift in risk bearing might give mortgage originators and other financial intermediaries less incentive to control risk—a situation (known as moral hazard) that commonly arises with guarantees and insurance. Depending on the specific budgetary treatment of the program, the government could have weaker incentives than private parties do to charge guarantee fees that fully compensated for the risks associated with the guarantees. Currently, the budgetary treatment of most federal credit guarantees follows the guidelines of FCRA, which do not include a charge for market risk in estimates of federal subsidies. As a result, such estimates tend to understate a guarantee's economic cost to taxpayers.

A Fully Private Secondary Mortgage Market. Another approach would be to move to a fully private secondary mortgage market and either wind down the operations of

Fannie Mae and Freddie Mac or sell the federal stake in their assets to private investors. Responsibility for carrying out the GSEs' affordable-housing mission, to the extent it was continued, could be transferred to a government housing agency, such as FHA. Private firms would then form the secondary market—just as they did for private-label MBSs before the financial crisis and as they continue to do for securities backed by other types of assets (such as automobile, student, commercial real estate, and credit card loans). In times of severe distress, the government could still step in to promote liquidity. For instance, it could make FHA guarantees available to more borrowers, or it could buy MBSs (as the Treasury and the Federal Reserve did during the financial crisis). Expanding the activities of federal agencies, however, generally requires Congressional action.

Privatization might provide the strongest incentive for prudent behavior on the part of financial intermediaries by removing the moral hazard that federal guarantees create. (The enormous losses that have occurred in recent years on private-label subprime mortgages, however, offer a painful reminder that private markets are not immune to aggressive risk taking.) By increasing competition in the secondary market, the privatization approach would reduce the market's reliance on the viability of any one firm. Private markets may also be best positioned to allocate the credit risk and interest rate risk of mortgages efficiently, and they would probably be more innovative than a secondary market dominated by a fully federal agency. Further, privatization would eliminate the tension between public and private purposes inherent in the traditional GSE model.

Full privatization could have several drawbacks, however, including the risk that it might not prove credible. If the private firms operating in the secondary market were seen as critical to the functioning of the mortgage market, investors might again treat them as implicitly guaranteed by the government, weakening market discipline, reducing transparency, and creating moral hazard. In addition, without some predictable federal response, the liquidity of the private secondary market might dry up during periods of acute financial stress. Moreover, privatization might not significantly reduce taxpayers' overall exposure to risk if it shifted credit risk on mortgages to banks that were covered by federal deposit insurance and if that additional risk was not recognized in regulators' actions and in the fees charged for deposit insurance.

Other Mortgage-Financing Approaches. As an alternative to mortgage-backed securities, the federal government could offer support for other funding mechanisms for home loans. One possibility would be to encourage greater reliance on covered bonds—bonds collateralized by residential mortgages—which many large European banks use to fund the mortgages they hold. With covered bonds, banks bear most of the risks of mortgage lending: When a mortgage is paid off or goes into default, the issuer is contractually obligated to replace the collateral with a new mortgage. That allocation of risk has both advantages and disadvantages compared with MBSs, which spread risk more widely among financial institutions, investors, and the government. Other developed countries with high rates of home ownership rely less on government-backed MBSs to fund mortgages than the United States does. Some observers have pointed to Europe's housing finance systems as potential models for

this country; those systems have supported rates of home ownership comparable with that in the United States while relying less on MBSs. Although covered bonds are common in Europe, there is considerable variation in how mortgages are funded and what types of mortgages are available. Nevertheless, all developed countries with high rates of home ownership depend on some degree of government support to maintain the flow of credit to the mortgage market during periods of financial stress.