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Statement of
Alan Greenspan
Chairman
Board of Governors of the Federal Reserve System
before the
Committee on Banking, Housing, and Urban Affairs
United States Senate
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Mr. Chairman, Senator Sarbanes, and Members of the Committee: Thank you for inviting me to discuss the role of housing-related government-sponsored enterprises (GSEs) in our economy. These GSEs--the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), and the Federal Home Loan Banks (FHLBs)--collectively dominate the financing of residential housing in the United States. Indeed, these entities have grown to be among the largest financial institutions in the United States, and they now stand behind more than \$4 trillion of mortgages--or more than three-quarters of the single-family mortgages in the United States--either by holding the mortgage-related assets directly or assuming their credit risk.¹ Given their ties to the government and the consequent private market subsidized debt that they issue, it is little wonder that these GSEs have come under increased scrutiny as their competitive presence in the marketplace has increased.

In my remarks, I will not focus on the Federal Home Loan Banks, although much of this analysis applies to them as well. In fact, because the Home Loan Banks can design their

¹Fannie Mae and Freddie Mac stand behind mortgages in two ways: The first method is to purchase mortgages, bundle them together, and then sell claims on the cash flows to be generated by these bundles. These claims are known as mortgage-backed securities (MBS). The second method involves Fannie's and Freddie's purchasing mortgages or their own mortgage-backed securities outright and financing those purchases by selling debt directly in the name of the GSE. Both methods create publicly traded securities and thus permit a wide variety and large number of purely private investors to fund mortgages. Using the first method, Fannie and Freddie are relieved of interest-rate risk but are still exposed to credit risk because they guarantee MBS investors against the risk that some homeowners will default on the underlying mortgages. The second method of funding mortgages increases Fannie's and Freddie's debt outstanding and expands their balance sheets. In this case, Fannie Mae and Freddie Mac must manage the interest rate, prepayment, and credit risks associated with the mortgages they purchase.

In the conforming mortgage market, Fannie Mae and Freddie Mac, using these two methods, play dominant roles in funding and managing the credit risk of the mortgages, but they do not participate directly in the origination of mortgage credit. Depository institutions, mortgage bankers, and their affiliates originate most mortgages. However, the underwriting standards of Fannie Mae and Freddie Mac substantially influence which borrowers receive mortgage credit. As discussed below, because of Fannie Mae's and Freddie Mac's government-sponsored advantages, there currently is *no* secondary market for conforming mortgages other than that provided by Fannie Mae and Freddie Mac. If a bank chooses not to sell the mortgage that it originates, it must fund that mortgage and manage the associated credit and interest rate risks itself.

advances to encompass almost any type of risk, they are more complex to analyze than other GSEs and, hence, raise additional issues.

During the 1980s and early 1990s, Fannie Mae and Freddie Mac (hereafter Fannie and Freddie) contributed importantly to the development of the secondary mortgage markets for home loans and to the diversification of funding sources for depository institutions and other mortgage originators. Although the risk that a home mortgage borrower may default is small for any individual mortgage, risks can be substantial for a financial institution holding a large volume of mortgages for homes concentrated in one area or a few areas of the country. The possible consequences of such concentration of risk were vividly illustrated by the events of the 1980s, when oil prices fell and the subsequent economic distress led to numerous mortgage defaults in Texas and surrounding states. The secondary markets pioneered by Fannie and Freddie permit mortgage lenders to diversify these risks geographically and thus to extend more safely a greater amount of residential mortgage credit than might otherwise be prudent.

The key to developing secondary markets was securitization, and Fannie and Freddie played a critical role in developing and promoting mortgage securitization, the process whereby mortgages are bundled together into pools and then turned into securities that can be bought and sold alongside other debt securities. Securitization by Fannie and Freddie allows mortgage originators to separate themselves from almost all aspects of risk associated with mortgage lending: Once the originator sells the loan into the secondary market, he or she may play no further role in the contract. This development was particularly important before the emergence of truly nationwide banking institutions because it provided a dramatically improved method for

diversifying mortgage credit risk. Fannie and Freddie demonstrated that, by facilitating the diversification of mortgage portfolios and insisting on the application of sound loan underwriting standards, the credit risk associated with holding conforming mortgages could be reduced to very low levels and could be distributed across a wide variety and large number of investors. This innovation in the mortgage market led to the securitization of many other assets and to the creation of many other types of securities. During the 1980s, the GSEs led the private sector in this innovation, and their contribution enhanced the stability of our financial markets.

Mortgage securitization continues to perform this crucial function, and its techniques have now been applied by the private sector in many markets, including markets for automobile loans, credit card loans, nonconforming mortgages, and commercial mortgages. Asset-backed securities and the secondary markets in which they trade generally provide both households and businesses with excellent access to credit at an appropriate risk-adjusted interest rate. Moreover, credit supply is far more stable today than it was because it is now founded on a much broader base of potential sources of funds. The aspiring homeowner no longer depends on the willingness of the local commercial bank or savings and loan association to hold his or her mortgage. Similarly, the sources of credit available to purchasers of cars and users of credit cards have expanded widely beyond local credit institutions. Unbeknownst to such borrowers, their loans may ultimately be held by a pension fund, an insurance company, a university endowment, or another investor far removed from the local area. This development has facilitated the substantial growth of nonmortgage consumer credit. Indeed, in the United States, more than \$2 trillion of securitized assets currently exists with no government guarantee, either explicit or implicit.

Given their history of innovation in mortgage-backed securities, why do Fannie and Freddie now generate such substantial concern? The unease relates mainly to the scale and growth of the mortgage-related asset portfolios held on their balance sheets. That growth has been facilitated, as least in part, by a perceived special advantage of these institutions that keeps normal market restraints from being fully effective.

The GSEs' special advantage arises because, despite the explicit statement on the prospectus to GSE debentures that they are not backed by the full faith and credit of the U.S. government, most investors have apparently concluded that during a crisis the federal government will prevent the GSEs from defaulting on their debt. An implicit guarantee is thus created not by the Congress but by the willingness of investors to accept a lower rate of interest on GSE debt than they would otherwise require in the absence of federal sponsorship.

Because Fannie and Freddie can borrow at a subsidized rate, they have been able to pay higher prices to originators for their mortgages than can potential competitors and to gradually but inexorably take over the market for conforming mortgages.² This process has provided Fannie and Freddie with a powerful vehicle and incentive for achieving extremely rapid growth of their balance sheets. The resultant scale gives Fannie and Freddie additional advantages that potential private-sector competitors cannot overcome. Importantly, the scale itself has reinforced investors' perceptions that, in the event of a crisis involving Fannie and Freddie, policymakers

²Conforming mortgages are mortgages that are eligible for purchase by Fannie and Freddie. Fannie and Freddie can purchase mortgages only below the conforming loan limit (currently \$333,700) and will purchase only those mortgages that meet their underwriting standards, including, for many mortgages, the standard that the mortgage is equivalent in risk to a mortgage with an 80 percent loan-to-value ratio. This latter requirement makes it difficult to know the extent of the market, but market participants generally believe that Fannie and Freddie purchase a large share of the truly conforming mortgages.

would have little alternative than to have the taxpayers explicitly stand behind the GSE debt. This view is widespread in the marketplace despite the privatization of Fannie and Freddie and their control by private shareholders, because these institutions continue to have government missions, a line of credit with the Treasury, and other government benefits, which confer upon them a special status in the eyes of many investors.

The part of Fannie's and Freddie's purchases from mortgage originators that they do not fund themselves, but instead securitize, guarantee, and sell into the market, is a somewhat different business. The value of the guarantee is a function of the expectation that Fannie and Freddie will not be allowed to fail. While the rate of return reflects the implicit subsidy, a smaller amount of Fannie's and Freddie's overall profit comes from securitizing and selling mortgage-backed securities (MBS).

Fannie's and Freddie's persistently higher rates of return for bearing the relatively low credit risks associated with conforming mortgages is evidence of a significant implicit subsidy. A recent study by a Federal Reserve economist, Wayne Passmore, attempts to quantify the value of that implicit subsidy to the private shareholders of Fannie and Freddie. His research indicates that it may account for more than half of the stock market capitalization of these institutions. The study also suggests that these institutions pass little of the benefit of their government-sponsored status to homeowners in the form of lower mortgage rates.

Passmore's analysis suggests that Fannie and Freddie likely lower mortgage rates less than 16 basis points, with a best estimate centering on about 7 basis points. If the estimated 7 basis points is correct, the associated present value of homeowner savings is only about half the

after-tax subsidy that shareholders of these GSEs are estimated to receive. Congressional Budget Office and other estimates differ, but they come to the essentially same conclusion: A substantial portion of these GSEs' implicit subsidy accrues to GSE shareholders in the form of increased dividends and stock market value. Fannie and Freddie, as you know, have disputed the conclusions of many of these studies.

As noted by the General Accounting Office, the task of assessing the costs and benefits associated with the GSEs is difficult. One possible way to advance the technical discussion would be for the Congress to request disinterested parties to convene groups of technical experts in an effort to better understand and measure these costs and benefits.

The Federal Reserve is concerned about the growth and the scale of the GSEs' mortgage portfolios, which concentrate interest rate and prepayment risks at these two institutions. Unlike many well-capitalized savings and loans and commercial banks, Fannie and Freddie have chosen not to manage that risk by holding greater capital. Instead, they have chosen heightened leverage, which raises interest rate risk but enables them to multiply the profitability of subsidized debt in direct proportion to their degree of leverage. Without the expectation of government support in a crisis, such leverage would not be possible without a significantly higher cost of debt.

Interest rate risk associated with fixed-rate mortgages, unless supported by substantial capital, however, can be of even greater concern than the credit risk. Interest rate volatility combined with the ability of homeowners to prepay their mortgages without penalty means that the cash flows associated with the holding of mortgage debt directly or through mortgage-backed

securities are highly uncertain, even if the probability of default is low.

In general, interest rate risk is readily handled by adjusting maturities of assets and liabilities. But hedging prepayment risk is more complex. To manage this risk with little capital requires a conceptually sophisticated hedging framework. In essence, the current system depends on the risk managers at Fannie and Freddie to do everything just right, rather than depending on a market-based system supported by the risk assessments and management capabilities of many participants with different views and different strategies for hedging risks. Our financial system would be more robust if we relied on a market-based system that spreads interest rate risks, rather than on the current system, which concentrates such risk with the GSEs.

As always, concerns about systemic risk are appropriately focused on large, highly leveraged financial institutions such as the GSEs that play substantial roles in the functioning of financial markets. I should emphasize that Fannie and Freddie, to date, appear to have managed these risks well and that we see nothing on the immediate horizon that is likely to create a systemic problem. But to fend off possible future systemic difficulties, which we assess as likely if GSE expansion continues unabated, preventive actions are required sooner rather than later.

As a general matter, we rely in a market economy upon market discipline to constrain the leverage of firms, including financial institutions. However, the existence, or even the perception, of government backing undermines the effectiveness of market discipline. A market system relies on the vigilance of lenders and investors in market transactions to assure themselves of their counterparties' strength. However, many counterparties in GSE transactions, when assessing their risk, clearly rely instead on the GSEs' perceived special relationship to the

government. Thus, with housing-related GSEs, regulators cannot rely significantly on market discipline. Indeed, they must assess whether these institutions hold appropriate amounts of capital relative to the risks that they assume and the costs that they might impose on others, including taxpayers, in the event of a financial-market meltdown. The issues are similar to those that arise in the context of commercial banking and deposit insurance--indeed, they are the reason that commercial banks are regulated and subject to stringent regulatory capital standards.

Traditionally, questions of capital adequacy for financial institutions have been evaluated with regard to credit and interest rate risks. However, in the case of the GSEs and other large regulated financial institutions with significant roles in market functioning, liquidity and operation risks also need to be considered. Determining the suitable amount of capital for Fannie and Freddie is a difficult and technical process, and in the Federal Reserve's judgment, a regulator should have a free hand in determining the minimum and risk-based capital standards for these institutions.

The size of Fannie and Freddie, the complexity of their financial operations, and the general indifference of many investors to the financial condition of the GSEs because of their perceived special relationship to the government suggest that the GSE regulator must have authority similar to that of the banking regulators. In addressing the role of a new GSE regulator, the Congress needs to clarify the circumstances under which a GSE can become insolvent and, in particular, the resultant position--both during and after insolvency--of the investors that hold GSE debt. This process must be clear before it is needed; otherwise, should these institutions experience significant financial difficulty, the hands of any regulator, and of public authorities generally, would be constrained by uncertainties about the process. Left unresolved, such

uncertainties would only heighten the prospect that a crisis would result in an explicit guaranteeing of GSE debt.

World-class regulation, by itself, may not be sufficient and indeed, as suggested by Treasury Secretary Snow, may even worsen the situation if market participants infer from such regulation that the government is all the more likely to back GSE debt. This is the heart of a dilemma in designing regulation for the GSEs. On the one hand, if the regulation of the GSEs is strengthened, the market may view them even more as extensions of the government and view their debt as government debt. The result, short of a marked increase in capital, would be to expand the implicit subsidy and allow the GSEs to play an even larger unconstrained role in the financial markets. On the other hand, if we fail to strengthen GSE regulation, the possibility of an actual crisis or insolvency is increased.

Some observers have argued that Fannie and Freddie are simple institutions with a function that is clear to all. The evidence suggests that this is far from the case. The difficulties of creating transparent accounting standards to reflect the gains and losses associated with hedging mortgage-prepayment risk highlight that the business of taking on interest rate and prepayment risk is far from simple and is difficult to communicate to outside investors.

Most of the concerns associated with systemic risks flow from the size of the balance sheets that these GSEs maintain. One way the Congress could constrain the size of these balance sheets is to alter the composition of Fannie's and Freddie's mortgage financing by limiting the dollar amount of their debt relative to the dollar amount of mortgages securitized and held by other investors. Although it is difficult to know how best to set such a rule, this approach would

continue to expand the depth and liquidity of mortgage markets through mortgage securitization but would remove most of the potential systemic risks associated with these GSEs. Ideally such a ratio would focus the business operations of Fannie and Freddie on the enhancement of secondary markets and not on the capture of the implicit subsidy.³

Limiting the debt of Fannie and Freddie and expanding their role in mortgage securitization would be consistent with the original congressional intent that these institutions provide stability in the market for residential mortgages and provide liquidity for mortgage investors. Deep and liquid markets for mortgages are made using mortgage-backed securities that are held by non-GSE private investors. Fannie's and Freddie's purchases of their own or each other's securities with their debt do not appear needed to supply mortgage market liquidity or to enhance capital markets in the United States.

The expansion of homeownership is a widely supported goal in this country. A sense of ownership and commitment to our communities imparts a degree of stability that is particularly valuable to society. But there are many ways to enhance the attractiveness of homeownership at significantly less potential cost to taxpayers than through the opaque and circuitous GSE paradigm currently in place.

Even with a constraint on debt issuance, Fannie and Freddie would remain among the largest financial institutions in the United States and would be able to grow with the size of the mortgage markets. These are important organizations that, because of their implicit subsidy, are expanding at a pace beyond that consistent with systematic safety. They have made, and should--

³Likewise, the ability of Federal Home Loan Banks to hold mortgages and mortgage-backed securities directly could also be limited, so that mortgage-related interest rate risks are managed by a variety of purely private investors.

with less reliance on subsidies--continue to make, major contributions to the financial system of the United States.

In sum, the Congress needs to create a GSE regulator with authority on a par with that of banking regulators, with a free hand to set appropriate capital standards, and with a clear process sanctioned by the Congress for placing a GSE in receivership. However, if the Congress takes only these actions, it runs the risk of solidifying investors' perceptions that the GSEs are instruments of the government and that their debt is equivalent to government debt. The GSEs will have increased incentives to continue to grow faster than the overall home mortgage market. Because they already purchase most conforming mortgages, they, like all effective profit-maximizing organizations, will be seeking new avenues to expand the scope of their operations, assisted by a subsidy that their existing or potential competitors do not enjoy.

Thus, GSEs need to be limited in the issuance of GSE debt and in the purchase of assets, both mortgages and nonmortgages, that they hold. Fannie and Freddie should be encouraged to continue to expand mortgage securitization, keeping mortgage markets deep and liquid while limiting the size of their portfolios. This action will allow the mortgage markets to support homeownership and homebuilding in a manner consistent with preserving the safe and sound financial markets of the United States.