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The Housing Giants in Plain View

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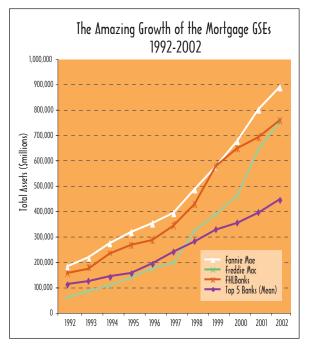
n the past few years, the Federal Home Loan Mortgage Corp. (Freddie Mac), the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Bank System (FHLBanks) have frequented the headlines in the financial press. These housing giants are government-sponsored enterprises (GSEs), government-chartered but privately owned entities charged with a public-policy mission. Congress has charged Freddie Mac, Fannie Mae and the FHLBanks with increasing mortgage-market liquidity, thereby promoting home ownership, particularly among low- and middle-income households. Between 1992 and 2002, the housing GSEs together grew by nearly 600 percent of assets—about 1.5 times faster than the combined

growth of the top five U.S. commercial banks.¹ This rapid growth, many economists argue, has made the health of the financial system dependent on the health of these housing giants. The GSEs counter that the potential risks to the financial system (and, ultimately, to taxpayers) are overblown and that the benefits to homeowners are underappreciated.

In recent years, Congress has debated the proper scope of the GSEs. As this debate continues, taxpayers will need a primer to be able to reach an informed judgment on the pros and cons of housing-GSE activity, particularly because the good the GSEs do—promoting home ownership, for example—is easy to understand, while the risks they pose to the general economy are subtle.

The FHLBanks—A Closer Look

The Federal Home Loan Bank System was the first housing GSE. The FHLBanks were established by Congress in 1932 to advance funds against mortgage collateral. At the time, the country was in the midst of an unprecedented wave of depositor runs. Depository institutions faced the risk that loans would have to be liquidated at fire-sale prices to pay off anxious depositors. The FHLBanks enabled their members, primarily savings and loan associations and savings banks, to obtain cash quickly should depositors



come calling. This access to ready cash reduced the liquidity risk of mortgage lending, thereby freeing FHLB members to originate more home loans.

The FHLBanks also allowed the thrifts to offer better terms on mortgage loans. At the time, there was no secondary market for mortgages; so, thrift institutions were forced to hold loans until maturity. Consequently, they made only very short-term loans-three to five years at most. Moreover, these loans were nonamortizing "balloons"-upon maturity, the borrower either repaid the loan in full or paid a fee to renew the

loan. Few families had the incomes necessary to get funding under these terms; so, few families owned their own homes. The FHLBanks stepped in and provided a source of long-term stable funding, thereby allowing member institutions to separate the credit risk and the liquidity risk of mortgage lending.²

The FHLB System consists of 12 regional banks and an oversight board in Washington, D.C.—the Federal Housing Finance Board. Each Home Loan Bank is a private cooperative enterprise owned by member institutions in its district. Membership is voluntary, and FHLBank stock does not trade publicly. Originally, only thrift institutions and insurance companies could join the FHLB System. Over time, Congress broadened access to include commercial banks and credit unions. As of year-end 2003, the system boasted 8,101 members-5,946 commercial banks, 1,344 thrifts, 729 credit unions and 82 insurance companies. At yearend 2003, the FHLBanks held \$822.8 billion in assets, about 62 percent of which were advances to member institutions.

Although advances against mortgage collateral remain the focus of FHLBank activities, the justification for this focus has widened beyond support for home ownership. Now, the system sees its mission as including support for community banking. Community banks are relatively small institutions that specialize in making loans to and taking deposits from small towns or city suburbs. Community bankers find FHLB membership and services attractive because the growth of core deposits—checking and savings accounts that are not very sensitive to interest-rate movements-has lagged behind the growth of loans. FHLB advances are dependable and convenient substitutes for core deposits. Indeed, the FHLBanks offer a wide variety of maturities, from overnight to over 20 years.

Freddie and Fannie—A Closer Look

The other two housing GSEs, Fannie Mae and Freddie Mac, support home ownership in a different way-by purchasing mortgages from originating institutions. Fannie Mae was originally chartered by the Reconstruction Finance Corp. in 1938 to buy mortgages insured by the Federal Housing Authority. Fannie's purchasing authority and oversight structure evolved over time until 1968, when it assumed its current form as a privately owned, publicly traded, government-sponsored enterprise able to buy most insured and conventional mortgages. Freddie Mac was chartered in 1970 to compete with Fannie Mae. Initially, Freddie was capitalized and owned by the FHLBanks; in 1989, Freddie Mac stock was sold to the public. Since 1992, both Freddie and Fannie have been supervised by a single-purpose regulator housed in the Department of Housing and Urban Development, the Office of Federal Housing Enterprise Oversight.

Freddie Mac and Fannie Mae hold some of the mortgages they buy and "securitize" the rest. Securitization is the transformation of illiquid financial assets-like mortgage loans-into marketable securities. Freddie and Fannie do this by bundling mortgages into pools and selling claims on the pools, guaranteeing the resulting mortgage-backed securities against default. Freddie and Fannie are market leaders in asset securitization-a practice that private "securitizers" have extended to credit-card loans, auto loans and small-business loans. Homeowners benefit from securitization because it allows the credit risk of mortgage lending, which may be critically dependent on local economic conditions, to be diversified across the country. More than half of the single-family mortgages in the United States are securitized, and the lion's share of this securitization is done by Freddie and Fannie. Indeed, at year-end 2002, the portion of single-family mortgage debt financed through securitization topped 58 percent; Freddie and Fannie accounted for nearly 40 percent of the overall market. The FHLBanks, by contrast, do not securitize mortgages.³

Freddie and Fannie are also good customers for their own products, buying and holding their mortgage-backed securities along with mortgages in their asset portfolios. As of March 31, 2004, Fannie Mae held mortgage assets of \$880.9 billion and stood behind another \$1.346 trillion in mortgage-backed securities held by outside investors. Of Fannie Mae's mortgage assets, \$232.4 billion was mortgages and another \$648.5 billion was mortgage-backed securities. Freddie Mac's balance sheet has a somewhat similar configuration. Mortgage assets as of March 31, 2004, totaled \$635.6 billion; of this total, \$60.3 billion was mortgage loans, and \$575.2 billion was mortgagebacked securities. Freddie also boasted another \$798.9 billion outstanding in guaranteed mortgage-backed securities.

Government Support for GSEs

The housing GSEs receive considerable support from the federal government for their activities. This support does not take the form of direct subsidies; rather, it is implicit, taking the form of exemption from state and local taxation and securities-registration requirements, as well as a line of credit at the U.S. Treasury. Even more important is the implicit protection of housing-GSE debt against defaultimplicit, at least, in the eyes of the sellers and buyers of this debt. All three housing GSEs obtain funding by selling debt instruments in the capital markets. Outstanding debt of the three GSEs at year-end 2003 exceeded \$2.4 trillion, compared with publicly held debt of \$4.0 trillion for the federal government. Because of the size of this outstanding debt, much of which is held by U.S. depository institutions, a loss of confidence in Freddie Mac, Fannie Mae or the FHLBanks could send shock waves through the financial system. Therefore, the capital markets have concluded that the federal government most likely would not permit a default. This conclusion is not irrational; the federal government bailed out another government-sponsored enterprise, the Farm Credit System, in the 1980s. Although circulars for housing-GSE debt warn that the instruments do not carry the full faith and credit of the U.S. government, the small yield spreads over comparable Treasury debt suggest that investors believe otherwise. Estimates of the value of the reduced funding costs vary. One recent study concluded that it produced an average of a 40 basis point (0.4 percent)

reduction in the interest rate on Freddie and Fannie debt between 1998 and 2003.⁴

In part because of implicit default guarantees, the housing GSEs have been extremely profitable in recent years. Fannie Mae earned net income of \$7.9 billion during 2003, while Freddie Mac earned \$10.1 billion during 2002 (latest year available)-sufficient to generate returns on equity well above 25 percent in each case. The FHLBanks are cooperative institutions; their profit figures are not as meaningful because part of the profit is distributed to members in the form of low-cost services. Bank and thrift membership in the FHLB System is growing, however, indicating that its owner-members find the combination of services and dividends quite valuable.

Sources of GSE Controversy

Many economists believe that the implicit subsidization of the housing GSEs distorts the allocation of scarce funds in the capital markets. Left alone, these markets would allocate funds to the business and household borrowers capable of putting them to the best use. Cheaper funding for the housing GSEs means more new homes, more larger homes and higher rates of home ownership. On the other hand, this distortion might lead to fewer funds being available for business investment, possibly resulting in slower economic growth.

Of course, accusations of inefficient resource allocation are not unique to the GSEs. Depository institutions receive government subsidies in the form of (underpriced) deposit insurance, access to the payments system and to the Fed's discount window, as well as restrictions on the chartering of new institutions. Hence, one could argue that these subsidies cause too many resources to flow to depository institutions. Three problems are clearly associated with housing GSEs, however: moral-hazard problems related to risk-taking, incomplete pass-through of subsidies intended for mortgage borrowers and risk-shifting to the Federal Deposit Insurance Corp.

Moral Hazard

When a firm can take risks, enjoy the full benefits and avoid the full costs, economists say a moral hazard is present. The hazard is that the firm will respond to these incentives by increasing risk to imprudent levels. Moral hazard is a problem for the housing GSEs. Because the capital markets view their debt as virtually free of default risk, Freddie, Fannie and the FHLBanks can enjoy all the upside of risk-taking and little of the downside. Unlike truly private firms, The Regional Economist • July 2004
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Outstanding debt of the three GSEs at year-end 2003 exceeded \$2.4 trillion, compared with publicly held debt of \$4.0 trillion for the federal government. housing GSEs need not pay higher interest rates when they ramp up risk because the markets believe the federal government guarantees the debt. The burden of the extra risk does not, of course, go away just because the housing GSEs do not bear it. Indeed, taxpayers ultimately would bear the extra risk if the federal government were to stand behind a failing GSE.

Taxpayer exposure to risk-taking by housing GSEs is not limited to potential losses from default. Risk-taking by housing GSEs could undermine the stability of the financial system because so many banks depend on them for liquidity. Commercial banks hold more than onehalf of their securities portfolios-a key source of emergency liquidity—in the form of mortgage-backed securities and GSE debt.⁵ Moreover, the portion of commercial bank loans backed by real estate is at an all-time high. Banks are comfortable holding mortgage-related securities because these securities can be sold quickly with minimal transaction costs, and banks are comfortable holding real-estate-backed loans because these loans can be pledged against advances from the FHLBanks or sold to Freddie or Fannie. A severe shock to one or more of the housing GSEs could lead to a market lockup, in which investors become reluctant to hold GSEs' direct or indirect obligations. This could, in turn, lead to a temporary suspension of mortgage purchasing, mortgage securitizing or mortgage "advancing," thereby forcing the Federal Reserve to intervene to re-liquefy the mortgage markets.6

Incomplete Pass-Through of Subsidies

Who actually benefits from the subsidy-homeowners or the employees and shareholders of GSEs? As noted, the implicit guarantee against default lowers housing-GSE funding costs. Lower funding costs can be used to reduce mortgage rates for homeowners or to raise employee salaries or dividends for housing-GSE shareholders. Estimates vary about the division of the subsidy; one recent study estimated that the subsidy to Freddie and Fannie lowered mortgage interest rates by about 7 basis points (0.07 percent), yielding a savings to homeowners of about \$44 billion.⁷ At the same time, the gain to Freddie's and Fannie's shareholders was estimated at \$72 billion. These estimates imply that much of the market value of Freddie Mac and Fannie Mae is traceable to subsidized funding.

Shifting Risk to the FDIC

Of the three housing GSEs, the FHLBanks are the least likely to increase their own risk. The shareholders of the 12 regional FHLBanks are also the customers. Therefore, the cost of excessive risk-taking by an FHLBank would fall on the same parties that enjoy the benefits. Still, the FHLB System may create moral hazard through another channel by implicitly encouraging its members to ramp up risk.

Advances from the FHLBanks may encourage risk-taking at member institutions because the FHLBanks have little incentive to demand higher interest rates when the credit risk of a borrowing bank increases. Advances are heavily collateralized-the market value of mortgage collateral typically covers 125 to 170 percent of the advance. This protection explains why the FHLB System has never lost a penny on an advance. Because advances carry no credit risk, the individual Home Loan banks can set terms that are largely independent of the failure risk of the borrower. Put another way, borrowing from the FHLB enables a bank to avoid any market-imposed penalty for failure risk. Moreover, the FDIC, which covers losses to insured depositors in the event of a bank failure, cannot make up the difference by hiking deposit-insurance premiums. Many observers believe that the current cap-27 cents a year per \$100 of deposits—is too low to deter risktaking. In short, greater risk-taking by FHLB members implies a higher failure rate over time. A higher failure rate, in turn, implies greater losses to the deposit-insurance fund. Taxpayers ultimately stand behind this fund.8

Reform Proposals and Implications

The housing GSEs generally have been successful in achieving their dual housing mandates—increasing liquidity in the secondary mortgage market and encouraging home ownership, especially among low- and middle-income households. Reform proposals, therefore, are typically focused on the risk of GSEs' operations.

A radical approach to reform of the housing GSEs is "true" or "complete" privatization. All of the special privileges and exemptions currently enjoyed by the GSEs, including the lines of credit they have with the Treasury, would be eliminated. The former GSEs and all government representatives would state clearly, publicly and repeatedly that the firms' debts are not guaranteed by the government in full or in part. Provisions for declaring a GSE insolvent and for winding it down would be put into place. Sallie Mae, the Student Loan Marketing Association, provides a roadmap for GSE privatization. Its special status was dismantled piece by piece over several years. It will become the fully privatized SLM Corp. in the near future.

A severe shock to one or more of the housing GSEs could lead to a market lockup, in which investors become reluctant to hold GSEs' direct or indirect obligations. Privatization may address some of the aforementioned moral-hazard issues, and it could eliminate the government subsidy that the housing GSEs currently are failing to pass through to mortgage borrowers in full. Yet, privatization does nothing directly to eliminate the systemic importance of the housing GSEs. That is, a fully privatized Fannie Mae still might be considered too big to fail by the Federal Reserve and by the Treasury.

Other reform proposals include greater regulatory oversight, higher (or more flexible) statutory capital requirements, more transparency of GSE operations and greater financial disclosures. A beefed-up GSE regulator would enjoy stronger powers with respect to on-site examination, setting of both minimum and risk-based capital standards, intervention in internal control and governance functions, and authority to set up a conservatorship or a receivership in the event of default. The new regulator would be able to assess larger dollar penalties for malfeasance than currently allowed, would have discretion over new activities and products proposed by a housing GSE and would be able to order a firm to cease and desist from certain activities. The new regulator might even be empowered to limit the amount of borrowing a GSE could do-an intervention recently suggested by Federal Reserve Chairman Alan Greenspan and being investigated by the Bush administration.

Another approach to reforming the governance of the housing GSEs is to encourage more competition in their market. One initiative already under way is the Mortgage Partnership Finance Program operated by the Federal Home Loan Banks. This unique mortgage program, begun in 1997, competes with the mortgage-backed securities programs offered by Fannie and Freddie. In contrast to the "traditional" mortgage-backed securities allocation of credit risk to the GSEs and interest-rate risk to the buyer of the securities, the FHLBanks' new program reallocates the risk-sharing. The FHLBanks bear the interest-rate risk, while the originating institution retains the majority of the credit risk. Many banks like this program because they can sell their loans to the FHLBanks for a better price than they can get from Freddie and Fannie.

Another example of increasing competition—in this case, for the FHLBanks—is the reform of the Federal Reserve's discount-window procedures. The Fed now offers collateralized "primary credit" to highly rated depository institutions with "no questions asked." This transaction resembles a short-term advance offered by a Federal Home Loan Bank to a depository institution and could eventually reduce the share of such wholesale funding provided by the FHLBanks.

As already noted, Freddie Mac was created, in part, to provide competition for Fannie Mae. The housing GSEs have been so successful that the process could be repeated today. Granting new GSE charters to create competitors for Fannie and Freddie might force the GSEs to pass through more of the subsidy intended for mortgage borrowers.

Finally, Congress could encourage the housing GSEs to restructure themselves in ways that make them more competitive and transparent, fostering market discipline. Fannie Mae and Freddie Mac operate two distinct lines of businessa mortgage-backed security guaranty business and a retained-mortgage portfolio business. The first involves managing credit risk, while the second involves managing interest rate and liquidity risks. Fannie and Freddie each could be enticed to split themselves into two companies, one that provides only guarantees (as several private bond-insurance companies do) and another that only invests in mortgages (as many private mutual funds and thrifts do). This split would foster greater market discipline on the retained portfolio business because investors could assess the interest rate and liquidity risks independent from the credit risk. Meanwhile, the 12 FHLBanks could be split into several groups to compete with one another nationwide. Currently, the FHLBanks operate in nonoverlapping territories, although interstate branching is blurring these territories.

Time for Change?

The housing GSEs and their many advocates in the financial sector, in Congress and across the country argue that the housing GSEs have yet to cost taxpayers a nickel. They also note that stand-alone ratings of housing-GSE debt, that is, the bond ratings Moody's and Standard & Poor would award absent implicit federal-government backing, are quite high. Finally, supporters point to the millions of Americans whose dream of home ownership became a reality due to housing-GSE activity. Because this reality is so vivid to most taxpayers, the downside of Fannie Mae, Freddie Mac and the FHLBanks is easy to overlook. An informed judgment about the proper scope of housing-GSE activity must take into account the potential costs of misdirected subsidies and financial instability.9

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ENDNOTES

- ¹ Data were obtained from three sources—the *Reports of Condition and Income for U.S. Commercial Banks* (various years), the *Report to Congress* of the Office of Federal Housing Enterprise Oversight (June 2003) and the *Financial Report* of the Federal Home Loan Banks (2003).
- ² See OFHEO's Report to Congress, June 2003, Chapter 2, "The Development of the U.S. Secondary Mortgage Market."
- ³ FHLBanks do offer a Mortgage Partnership Finance Program in which they purchase home loans directly from banks. This is discussed in the article.
- ⁴ See Passmore (2003) for further details.
- ⁵ Agency debt includes but is not limited to housing-GSE debt. Agency debt includes instruments issued by any U.S. government agency—such as the Federal Land Banks, the Veterans Administration and the Government National Mortgage Association.
- ⁶ Such an intervention occurred after Penn Central Railroad's default on \$82 million in commercial paper in June 1970. Between June 24 and July 15, commercial paper rollovers became difficult, and outstanding nonbank paper dropped almost 10 percent. The market recovered only after the Fed announced that it would lend freely to banks willing to help customers with maturing commercial paper.
- ⁷ See Passmore (2003) for further details.
- ⁸ For more on the hazards posed to the deposit-insurance fund by FHLB activity, see Vaughan and Wheelock (2002) and Stojanovic et al. (2000).
- ⁹ Good sources include the web sites of Freddie Mac (www.freddiemac.com), Fannie Mae (www.fanniemae.com) and the individual Home Loan Banks (www.fhfb.gov/FHLB/fhlbs_banks.htm).

REFERENCES

- Federal Home Loan Banks. *Financial Report*, 2003.
- Greenspan, Alan. Testimony on government-sponsored enterprises before the Senate Committee on Banking, Housing and Urban Affairs, Feb. 24, 2004.
- Mankiw, N. Gregory. Remarks at the Conference of State Bank Supervisors' State Banking Summit and Leadership Conference, Washington, D.C., Nov. 6, 2003.
- Office of Federal Housing Enterprise Oversight (OFHEO). *Report to Congress*, June 2003.
- Passmore, Wayne. "The GSE Implicit Subsidy and Value of Government Ambiguity." Working Paper 2003-64, Board of Governors of the Federal Reserve System, December 2003.
- Stojanovic, Dusan; Vaughan, Mark D.; and Timothy J. Yeager. "Is Federal Home Loan Bank Funding a Risky Business for the FDIC?" Federal Reserve Bank of St. Louis *The Regional Economist*, October 2000, pp. 4-9.
- Vaughan, Mark D. and Wheelock, David C. "Deposit Insurance Reform: Is It Déjà Vu All Over Again?" Federal Reserve Bank of St. Louis *The Regional Economist*, October 2002, pp. 5-9.