

September 9, 2003

## Problems at Freddie Mac and Fannie Mae: Too Big to Fail?

### *Executive Summary*

- The recent media attention on the management and accounting scandal at Freddie Mac has exposed a more pressing concern: Fannie Mae and Freddie Mac have grown so large and are counterparties to so many transactions that if unforeseen interest rate volatility caused either or both companies to fail, the potential cost to U.S. taxpayers could range into the hundreds of billions of dollars.
- Fannie Mae (the Federal National Mortgage Association) and Freddie Mac (the Federal Home Loan Mortgage Corporation) are Government Sponsored Enterprises (GSEs), whose federal charters confer certain benefits – most notably an implicit guarantee that the Treasury stands behind their securities.
- The basic problem at Freddie Mac and Fannie Mae – from the taxpayers’ perspective – is their aggressive investment strategy that attempts to leverage their implicit guarantee to accumulate vastly increasing amounts of mortgage investments with a huge amount of debt.
- As Fannie Mae and Freddie Mac’s investment portfolios have grown, so too has the amount of interest-rate risk that these companies retain. The implicit guarantee causes investors to continue to loan to Fannie and Freddie despite these risks because of the expectation that the Treasury would come to their aid in a crisis. This encourages the management at Fannie and Freddie to take on more risk and more debt than they otherwise would.
- As a result, Fannie and Freddie have a combined outstanding debt that is equal to 39 percent of the total outstanding U.S. public debt, and their combined financial assets are worth 44 percent more than those of Citigroup, the largest bank in the United States.
- To insure against the failure of either or both GSE, however remote it may seem, Congress should: improve disclosure requirements and transparency; increase risk-based regulatory oversight; and begin to consider how to create a greater separation between the taxpayers and the business operations of these firms without causing financial dislocation or upsetting the mortgage markets.

## Introduction

Over the past several months, the Federal Home Loan Mortgage Corporation (Freddie Mac) has garnered much attention from the news media, financial analysts, and policymakers for its unorthodox management and accounting practices. While this scandal merits serious attention,<sup>1</sup> it is but a symptom of a much larger public policy problem.

Both Freddie Mac and its larger Government Sponsored Enterprise (GSE) cousin, the Federal National Mortgage Association (Fannie Mae), are treated in the law as “instrumentalities” of the federal government with some features of publicly listed corporations and others that are more similar to wholly owned federal agencies.<sup>2</sup> In exchange for certain public policy responsibilities related to housing,<sup>3</sup> the federal government provides both firms’ securities with several explicit advantages<sup>4</sup> that have

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<sup>1</sup> In June, Freddie Mac dismissed or sought the early retirement of its top three executives and estimated that its earnings for the past three years would have to be restated upwards by approximately \$4.5 billion, which will lead to more volatile or lower earnings in the future. An investigation completed in late July by the law firm Baker Botts, LLP at the behest of Freddie Mac’s Board of Directors found more questionable activities – specifically, that the company engaged in several transactions for the sole purpose of deferring unanticipated earnings to later periods, and that it gamed its accounting treatment of other transactions to improve investors’ perceptions of its earnings. In late August, the company dismissed its newly installed Chief Executive, Greg Parseghian, due to his active participation in the strategy that directed these activities. Civil and criminal investigations into the scandal, conducted by the Securities and Exchange Commission (SEC), Office of Federal Housing Enterprise Oversight (OFHEO), and U.S. Attorney’s Office for Eastern Virginia are underway. See: Baker Botts, L.L.P., “Report to the Board of Directors Internal Investigation of Certain Accounting Matters,” December 10, 2002 – July 21, 2003; Patrick Barta and John D. McKinnon, “At Freddie Mac, Fresh Pressures Loom for Board,” *The Wall Street Journal*, August 25, 2003; and Peronet Despeignes and Jenny Wiggins, “SEC Deepens Probe into Freddie Mac,” *Financial Times*, June 12, 2003.

<sup>2</sup> Congressional Budget Office, *Effects of Repealing Fannie Mae’s and Freddie Mac’s SEC Exemptions*, May 2003.

<sup>3</sup> Specifically, the charters state that it is the purpose of Fannie Mae and Freddie Mac to: Provide stability in the secondary market for residential mortgages; respond appropriately to the private capital markets; provide ongoing assistance to the secondary market for residential mortgages by increasing the liquidity of mortgage investments and improving the distribution of investment capital [towards mortgage markets]; and promote access to mortgage credit nationwide. See: “Federal National Mortgage Association Charter Act,” (12 U.S.C. 1716-1723); “Federal Home Loan Mortgage Corporation Act,” (12 U.S.C. 1451-1459), and “Federal Housing Enterprises Safety and Soundness Act of 1992,” Title XIII of P.L. 92-550 (12 U.S.C. 4501).

<sup>4</sup> Fannie and Freddie’s explicit advantages written into their charters and subsequent acts (see previous footnote for citations) are as follows: Their debt and mortgage-backed securities are exempt from registration with the Securities and Exchange Commission, although in July 2002 both companies agreed to register their common stock under the Securities and Exchange Act of 1934 and to make other disclosures; they are exempt from state and local corporate income taxes; they have a line of credit from the Treasury that authorizes Treasury to purchase up to \$2.25 billion of Fannie Mae and Freddie Mac’s obligations; banks are permitted to make unlimited investments in Fannie and Freddie’s debt securities, whereas there are limits placed on their investments in any other company’s debt securities; Fannie and Freddie’s securities are eligible as collateral for public deposits and for loans from Federal Reserve Banks and Federal Home Loan Banks; Fannie and Freddie’s securities are lawful investments for federal fiduciary and public funds; and Fannie and Freddie are authorized to use Federal Reserve Banks as their fiscal agents, including issuing and transferring their securities through the book-entry system maintained by the Federal Reserve. In total, these exemptions reduce Fannie and Freddie’s operating costs relative to other publicly

convinced the financial markets that the Treasury (i.e., taxpayers) stands behind them. This is often referred to as the GSE's "implicit guarantee."

## **The Implicit Guarantee**

Although – as the management of both Fannie and Freddie is quick to note – the charters of both GSEs explicitly disavow any federal (i.e., taxpayer) responsibility for their securities, the reality is that investors do not believe the government would abandon their financial obligations.

This was made obvious in 1981 when a dramatic rise in interest rates left Fannie Mae insolvent on a mark-to-market basis.<sup>5</sup> Were it not for Fannie Mae's special relationship with the federal government – between 1978 and 1985, the federal government provided Fannie with implied annual credit support estimated to range between \$600 million and \$11 billion – the firm likely would have failed that year or the next.<sup>6</sup> Thankfully, interest rates subsided the following years, and no direct bailout was necessary; but it is clear that the markets continued to loan to Fannie Mae with the expectation that the government would have come to its assistance if necessary.<sup>7</sup>

### **The Implicit Guarantee, Quantified**

As a result of the implicit guarantee, Fannie Mae and Freddie Mac do not have to pay investors market-based interest rates on their borrowings. A 2001 Congressional Budget Office (CBO) study estimates that Fannie Mae and Freddie Mac's relationship with the federal government lowered their long-term borrowing costs by 0.46 percent in 2000 (roughly 4.5 percent instead of 5 percent interest on a 10-year bond, for example), which translated into a combined subsidy of \$6 billion for that year alone.<sup>8</sup> A more recent study found that, after adjusting for issue size, credit rating, and other relevant factors, the average spreads for private corporations relative to Fannie Mae issues were 0.29 percent for AA-rated bonds, 0.46 percent on A-rated bonds, and 0.83 percent on BBB issues.<sup>9</sup>

Put simply, the GSE's lower funding costs make it clear that the markets do not believe Congress' explicit disavowal of responsibility for Fannie and Freddie's securities. Congress has given Fannie and Freddie's securities such special treatment that the failure

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listed firms by about \$1 billion annually, according to *Federal Subsidies and the Housing GSEs*, Congressional Budget Office, May 2001. See: Gary Gensler, Undersecretary, U.S. Department of the Treasury, in testimony before House Banking Subcommittee on Capital Markets, Securities and Government Sponsored Enterprises, March 22, 2000.

<sup>5</sup> "Insolvent on a mark-to-market basis" means that the market value of Fannie's liabilities exceeded the market value of its assets. See: Congressional Budget Office, *Effects of Repealing Fannie Mae and Freddie Mac's SEC Exemptions*.

<sup>6</sup> Edward J. Kane and Chester Foster, "Valuing conjectural government guarantees of FNMA liabilities." *Conference on Bank Structure and Competition*, Federal Reserve Bank of Chicago, 1986.

<sup>7</sup> *Effects of Repealing Fannie Mae and Freddie Mac's SEC Exemptions*, CBO.

<sup>8</sup> *Federal Subsidies and the Housing GSEs*, Congressional Budget Office.

<sup>9</sup> Brent W. Ambrose and Arthur Warga, "Measuring Potential GSE Funding Advantages," *Journal of Real Estate Finance and Economics*, Vol. 25, No. 2, 2002.

of either firm would be calamitous for the U.S. housing and financial systems. As a result, market participants believe that it is most unlikely that the Treasury or Congress would fail to come to their aid in a time of crisis.

As John Gizard notes in the *Financial Times*, “While Freddie Mac bonds trade at a slightly higher premium over Treasuries, there is really only a formal distinction between the two.”<sup>10</sup> For example, Fannie and Freddie’s securities are treated like risk-free Treasury bonds and notes for many purposes: banks are permitted to make unlimited investments in them whereas there are limits placed on their investments in any other company’s debt securities; they are eligible as collateral for public deposits and for loans from Federal Reserve Banks and Federal Home Loan Banks; and they are lawful investments for federal fiduciary and public funds.

Why would Congress provide these special exemptions if there were not some presumption that federal authorities would intervene to support Fannie and Freddie in a time of crisis? It cannot be because these firms are inherently conservative, or even more conservative than the average business. According to James A. Bianco, president of Bianco Research, “If you start viewing Fannie and Freddie like stand-alone corporations, what you see is some of the most leveraged [high debt relative to equity] financial institutions in the world.”<sup>11</sup> In fact, most financial analysts generically consider a high debt-to-equity ratio to be anything more than 100 percent. Yet, as of December 31, Fannie Mae’s debt was equal to an astonishing 6,252 percent of its equity.<sup>12</sup>

Moreover, the corporate securities rating service, Fitch Ratings, recently upheld its AAA rating for Freddie Mac’s senior and short-term debt in the face of the accounting and management turmoil even as it downgraded the company’s preferred stock. “Central to Fitch’s ratings assessment of Freddie Mac’s senior debt and short-term ratings,” it wrote in a statement, “is its U.S. Government charter and GSE status, exceptionally strong operating platform, and leading position within the domestic housing finance system.”<sup>13</sup> Of the three attributes Fitch used to justify its rating, one names the U.S. government explicitly, another mentions the market position gained by the government charter, and the other concerns the efficiency of operations made possible by sub-market borrowing costs.

### **The Implicit Guarantee in the Pursuit of Profitability**

The scandal at Freddie Mac is a direct product of a strategy, well underway at both firms, to leverage their “implicit guarantee” to accumulate larger and larger mortgage investment portfolios and increase returns to shareholders. As a result, Fannie and Freddie now:

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<sup>10</sup> John Gizard, “Fannie and Freddie’s Negative Surprise,” *Financial Times*, June 13, 2003.

<sup>11</sup> Bianco quoted in Patrick Barta, “Fannie Mae, Freddie Mac Debt Falls on Reports of Bank Selling,” *The Wall Street Journal*, July 29, 2003.

<sup>12</sup> John Dorfman, “Why Fannie Mae and Freddie Mac Look Vulnerable,” *Bloomberg News*, August 26, 2003.

<sup>13</sup> “Fitch Affirms Freddie Mac's Senior Debt; Downgrades Pfd Stock & Sub Debt to 'AA-'” available at: [http://www.fitchratings.com/corporate/events/press\\_releases\\_detail.cfm?pr\\_id=93456](http://www.fitchratings.com/corporate/events/press_releases_detail.cfm?pr_id=93456).

- own or guarantee about 50 percent (\$3 trillion) of the \$6 trillion in U.S. mortgages;<sup>14</sup>
- have a combined outstanding debt equal to 39 percent of the total outstanding U.S. public debt;<sup>15</sup>
- and have combined financial assets worth 44 percent more than those of Citigroup, the largest bank in the United States.<sup>16</sup>

As these companies' investment portfolios have grown, so too has the amount of risk they retain. In fact, both companies now face so much interest rate risk that the notational value of their combined derivatives portfolio stood at over \$1.6 trillion at the end of last year.<sup>17</sup> Fannie and Freddie have grown so large and are counterparties to so many transactions that if unforeseen interest rate volatility caused either or both companies to fail, the potential cost to U.S. taxpayers could range into the hundreds of billions of dollars.

### **Too Big to Fail?**

Although the phrase, "too big to fail," and prospect of a taxpayer bailout has been applied to other large financial firms, such as Citigroup and J.P. Morgan Chase, the differences between these firms and Fannie and Freddie are profound. Fannie and Freddie are shielded from the market processes that temper these other firms' risk-taking because of the implicit guarantee and, as a consequence, take on more risk than they would otherwise. Economists refer to this problem as "moral hazard." It arises when a firm is not forced to bear the full cost of the risks its actions entail.

The "implicit guarantee" largely dissuades investors from performing the kind of due diligence and research that would accompany transactions with other financial firms. This allows Fannie and Freddie to borrow at lower rates and accumulate more debt than purely private firms. And unlike Citigroup or J.P. Morgan Chase, Fannie and Freddie are

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<sup>14</sup> Peter Wallison, "Freddie Needs Some Competition," *Financial Times*, June 16, 2003.

<sup>15</sup> 2003 Report to Congress of the Office of Federal Housing Enterprise Oversight (2003 OFHEO Report) and Bureau of the Public Debt, "Monthly Statement of the Public Debt of the United States," June 30, 2003.

<sup>16</sup> Gary Silverman and Peronet Despeignes, "Freddie Mac Revamp Raises Concern," *Financial Times*, June 10, 2003.

<sup>17</sup> Derivatives are contracts that allow firms to take positions on the movement of interest rates, commodity prices, currencies, or other assets, typically to mitigate unforeseen movements that would affect their underlying business. According to a February 2003 OFHEO report, the notational value of Fannie and Freddie's derivatives has grown from \$72 billion in 1993 to \$1.6 trillion at the end of 2001, an increase in excess of 2,000 percent. However, since these derivatives are mostly used to hedge the interest rate risk affecting the value of an underlying asset, or future cash flows expected from the spread between assets and liabilities, total notational value can be misleading. For example, even though the total notational value of derivative positions held by U.S. commercial banks equaled \$53.2 trillion at the end of 2002, the current mark-to-market exposure, as well as potential future exposure, of those banks was only \$570 billion, or a little over 1 percent of total notational value. Office of the Comptroller of the Currency, "OCC Reports Derivatives Volume Grows \$3.1 Trillion," *Release*, December 13, 2002.

exempted from posting collateral on their derivatives transactions, which could cause the risk in these transactions to be understated.<sup>18</sup>

Fannie and Freddie also have legal advantages over these other financial firms that exclude them from certain financial disclosure and capital adequacy requirements, and allow banks to hold an unlimited amount of their securities. As a result: Fannie and Freddie do not hold as much equity capital as J.P. Morgan Chase and Citigroup; they do not provide investors with complete information about their securities and mortgage pools; and about 3,000 U.S. banks hold GSE debt equal to all of their capital.<sup>19</sup>

Finally, unlike other large financial firms, Fannie and Freddie's portfolio – and risks – are concentrated in the mortgage market. As numerous studies have demonstrated, large financial firms are much safer when they are well diversified, with numerous product lines and markets.<sup>20</sup> It may be that Fannie and Freddie's aggregate size should be less of a concern than the concentration of their enormous holdings in a single market.

## **How Fannie and Freddie Grew So Large**

Both Fannie Mae and Freddie Mac's primary responsibility is to purchase mortgages to promote, and provide liquidity to, the secondary mortgage market. They go about this through two distinct business strategies: a "pass through" strategy, where Fannie and Freddie issue debt to purchase mortgages from originators (banks and other entities) and package them into bond-like instruments called Mortgage-backed Securities (MBS), which they guarantee and sell to investors;<sup>21</sup> and a mortgage "investment business," where they issue debt to purchase and retain mortgages or to repurchase previously guaranteed MBS from investors.

Since mortgages and MBS represent future cash flows, their value is interest-rate sensitive: as interest rates increase, the value of MBS decline and vice versa. However, mortgage finance is unique in that investors are also at risk when interest rates decrease. Lower interest rates encourage mortgage borrowers to prepay their loans, refinance their

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<sup>18</sup> "Perception of government support may induce the counterparties of GSEs to apply less vigorously some of the risk controls that they apply to manage their over-the-counter [OTC] derivatives exposures." Greenspan quoted in Robert Stowe England, "The Issue of Risk Containment," *Mortgage Banking*, April 1, 2003.

<sup>19</sup> Robert Samuelson, "Fixing Fannie and Freddie," *The Washington Post*, September 3, 2003.

<sup>20</sup> England, April 1, 2003.

<sup>21</sup> Mortgage-backed securities are bond-like instruments typically sold in \$1,000 intervals that represent a pro rata monthly payment stream of principal and interest payments guaranteed by Fannie Mae or Freddie Mac. MBS usually consist of a pool of mortgages of similar interest rates, types (fixed or adjustable rate), and maturities (30, 20, or 15 years), so investors can treat the MBS as a single mortgage. The minimum value for most pools is \$1 million. See: *Effects of Repealing Fannie Mae's and Freddie Mac's SEC Exemptions*, Congressional Budget Office, May 2003. For a more complete description, the Bond Market Association has produced a brochure titled, "An Investor's Guide to Mortgage Securities," that is available for free at their web site: <http://www.bondmarkets.com/>.

homes, or purchase new ones. In this circumstance, the value of MBS decline as the prepayment eliminates the expected future interest payments.<sup>22</sup>

Although both Fannie and Freddie's lines of business involve purchasing mortgages, the mechanics and risks involved are very different. Under the pass-through strategy, when the MBS is guaranteed and sold, the interest-rate risk is also passed along, meaning the investor will be the one to bear the consequences of a change in interest rates. This line of business is also much less debt-intensive, as funds raised from the sale of MBS can be used to purchase new mortgages. However, in the mortgage investment business, when Fannie and Freddie retain mortgages, or repurchase MBS, they also retain or regain all of the interest-rate risk and must issue far more debt to fund their holdings.

### **How Do Fannie and Freddie Profit from Buying Mortgages?**

When Freddie Mac and Fannie Mae purchase mortgages, package them into MBS and guarantee and sell them to investors, they earn an average of 0.19 percent of the gross value of the MBS sold.<sup>23</sup> This fee mainly covers the cost of guaranteeing the cash flow and assuming the residual credit risk that a borrower (or group of borrowers) will default. Since default rates are rarely near 0.19 percent – over the past six years, Freddie's net credit expense from defaults has ranged between 0.07 and 0.09 percent – the “pass-through” strategy represents a conservative, but profitable, business.<sup>24</sup>

The mortgage investment business, on the other hand, can be far more profitable but also far riskier. For the most part, Fannie and Freddie's investment business profits from the spread between the returns on their mortgage investments and the interest rates they must pay on their debt issued to retain mortgages. The spread between Fannie Mae's MBS returns and debt-funding costs was 0.90 percent in 1999,<sup>25</sup> and increased to 1.04 percent in 2001 on a portfolio-wide basis.<sup>26</sup> This means that in 2001, the mortgage investment business was over five times as profitable as the pass-through business.

### **Expanding Mortgage Investments in the Pursuit of Profitability**

In an effort to increase returns for investors, both Fannie and Freddie over the past several years have immersed themselves in the more profitable, but more risky, mortgage-investment business. Of course, to purchase and retain mortgage assets, Fannie and Freddie must first issue debt. Since 1992, Fannie Mae's outstanding debt has grown

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<sup>22</sup> Richard Roll, “Benefits to Homeowners From Mortgage Portfolios Retained by Fannie Mae and Freddie Mac,” Allstate Professor of Finance, University of California at Los Angeles, internal publication, October 1, 2000.

<sup>23</sup> Bert Ely, Ely & Company, Inc., in testimony before the Subcommittee on Financial Management, the Budget, and International Security of the Senate Committee on Government Affairs, July 21, 2003.

<sup>24</sup> Ely and Peter Wallison, “Nationalizing Mortgage Risk: an Update,” American Enterprise Institute, October 12, 2002.

<sup>25</sup> Congressional Budget Office, “Federal Subsidies and the Housing GSEs,” May 2001.

<sup>26</sup> Dwight Jaffee, “The Interest Rate Risk of Fannie Mae and Freddie Mac,” internal publication, Haas School of Business at the University of California, Berkeley. July 31, 2002.

from \$166.3 billion to \$851 billion at the end of last year, an increase of 411 percent.<sup>27</sup> Even more startling, Freddie Mac's outstanding debt has ballooned from \$29.6 billion in 1992 to \$648.9 billion at the end of 2002, an increase of over 2,000 percent!<sup>28</sup>

Fannie and Freddie have used this funding to retain mortgages they buy and to repurchase the MBS that they have already guaranteed and sold. In 1991, Fannie and Freddie retained about 2 percent of the MBS they issued, while by 2001, this figure rose to 33 percent.<sup>29</sup> Since 1992, Freddie Mac's investment portfolio has grown from \$33.6 billion to \$583.4 billion, an increase of over 1,600 percent.<sup>30</sup> Fannie Mae's investment holdings, which were already five times that of Freddie's in 1992, grew by over 400 percent (\$156.3 billion to \$797.8 billion) during the same 10-year period.<sup>31</sup>

Since the profit realized from the investment business is a percentage of the total outstanding balance of their assets, both Fannie and Freddie are encouraged to increase the volume of their MBS holdings to their statutory limit.<sup>32</sup> According to University of California economist Dwight Jaffee, between 1997 and 2001, Fannie Mae and Freddie Mac's net income was 23.6 percent and 31.8 percent higher, respectively, than it would have been if these firms only had engaged in the pass-through business.<sup>33</sup> A similar analysis by Kenneth A. Posner of Morgan Stanley estimates that profits from their investment business represented 65 percent of Fannie Mae's and 75 percent of Freddie Mac's total income in 2001.<sup>34</sup>

### **Such Rapid Growth Poses Significant Risks**

Unfortunately, in the world of leveraged finance there can be no rewards without risk. And the financial rewards Fannie and Freddie have been generating for their shareholders in recent years are a direct consequence of both firms' increased tolerance for risk, which is largely borne by taxpayers.

Not only does every mortgage investment in their portfolio come with the interest-rate risk discussed above, but purchasing MBS with debt also exposes the purchaser to other significant interest-rate and liquidity risks that could result in collapse.

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<sup>27</sup> 2003 Report to Congress of the Office of Federal Housing Enterprise Oversight (2003 OFHEO Report), Chapter 6, Table 4, June 15, 2003.

<sup>28</sup> 2003 OFHEO Report, Table 14.

<sup>29</sup> Jaffee.

<sup>30</sup> 2003 OFHEO Report, Table 14.

<sup>31</sup> 2003 OFHEO Report, Table 4.

<sup>32</sup> The only limitation on debt is the minimum capital requirements, which are 0.45 percent for guaranteed MBS (which is treated as off-balance sheet) and 2.5 percent for the retained mortgage and MBS portfolio. In the private sector, government securities dealers carry capital in the neighborhood of 5 percent, and other financial firms considerably more. For example, FDIC-insured commercial banks hold equity capital and subordinated debt of a bit under 11 percent of total assets. The justification for the lower capital standards is that Fannie and Freddie are limited to investments in the less risky mortgage market. Moreover, as CBO notes: "Interpreting differences (in capital standards) is difficult because the risk borne by those types of institutions also differ significantly." See: William Poole. As well, Congressional Budget Office, *Federal Subsidies and the Housing GSEs*, May 2001.

<sup>33</sup> Jaffee.

<sup>34</sup> Kenneth A. Posner, "Fannie Mae, Freddie Mac, and Interest Rate Risk," *Morgan Stanley*, March 2003.



For example, rising interest rates depress the value of mortgage investments at the same time that they raise the cost of new debt issued to replace maturing debt. This could reverse the yield spread between assets and liabilities and lead to insolvency, as nearly happened to Fannie in 1981.

On the other hand, if falling interest rates cause mortgage borrowers to prepay while Fannie and Freddie retain their longer-term debt obligations, the resulting maturity mismatch reduces their asset base and creates liquidity problems as assets pay off faster than liabilities. In either case, unexpected movements in interest rates could create significant problems that could lead to insolvency.

### **Fannie and Freddie Contend That Derivatives Shield Them From Risk**

Fannie and Freddie argue that their use of derivatives attenuates the risk they face and makes conventional debt-to-equity figures less consequential. Most of the derivatives Fannie and Freddie use are very basic over-the-counter interest-rate swaps and swaptions contracts.<sup>35</sup> These products allow Fannie and Freddie to hedge their interest-rate risk and turn short-term debt they issue into long-term debt (or vice versa) to reduce their risk exposure.

### **“Perfect Hedging” is a Myth**

Still, no matter how well hedged Fannie and Freddie may seem to be, there is still no way to be 100-percent hedged against interest-rate risk. To cover every conceivable interest-rate move with a derivative contract would be identical to having no investment business because gains made from interest rates moving in one direction would be offset by losses on hedges against rates moving in the opposite direction.<sup>36</sup> In fact, being perfectly hedged with such a large MBS portfolio would actually be worse than having no MBS investments at all because of the additional exposure to counterparty default.

This means that even though Fannie and Freddie use derivatives to hedge risk, they do so in a way that reveals the direction they believe interest rates will move. As economist Susan Lee explains in *The Wall Street Journal*:

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<sup>35</sup> **Over-the-counter** means the derivative is not traded on a regulated exchange. A **swap** is the sale of one security to purchase another. A swap can change the characteristics of a portfolio, such as yield, quality, call protection, and interest-rate sensitivity. In most Fannie and Freddie swaps a short term floating interest rate is swapped for a long-term fixed interest rate or vice versa. A **swaption** is an option that gives the buyer the right to enter into an interest rate swap agreement on or before a specified future date. The swaption agreement specifies whether the buyer is a fixed-rate receiver or a fixed-rate payer. If the buyer enters into the swap as a fixed-rate payer, the agreement is called a put swaption. If the buyer enters into the swap as a floating-rate payer, the agreement is called a call swaption. For more information see the Reuters Fixed-Income glossary at: <http://www.ejv.com/bp/html/glossary3.html#swap> or for a more detailed and easy to digest explanation of interest rate swaps go to “The Financial Pipeline” interest rate swap page at: <http://www.finpipe.com/inrateswaps.htm>

<sup>36</sup> Hedges are contracts designed to mitigate both gains and losses. When the underlying asset appreciates, the value of the hedge depreciates and vice versa. Jaffee, “The Interest Rate Risk of Fannie Mae and Freddie Mac.”

In theory, the difference between hedging and speculating is quite clear...In practice, however, the difference between hedging and speculating is murky...The bondholder can buy options to hedge any amount of risk – all the way from a smidge, say 1 percent up to 150 percent and beyond. At 1 percent, the bondholder is underhedged and speculating that rates will go down, at 100 percent the bondholder is matched and not speculating at all, and at 150 percent the bondholder is now bearing the opposite risk and speculating that interest rates will go up.<sup>37</sup>

This scenario may perfectly describe the strategy at Freddie Mac. If, as its disclosures indicate, Freddie Mac will have to revise upwards its earnings by \$4.5 billion for 2000 through 2002, it is likely because it was hedged against the risk of lower interest rates and underhedged against the risk of rising interest rates. It is possible that many of Freddie's accounting schemes were intended to hide the fact that it used its derivatives products in this way.

## **Congress Needs to Act**

Given all of the legal advantages that Fannie and Freddie enjoy, it is simply not credible to suggest that the risks they present are similar to those of any large financial institution, or that they are "too big to fail." Indeed the unique (and uniquely large) risks Fannie Mae and Freddie Mac pose to taxpayers are a direct result of their legal advantages and the way the markets interpret them.

As economists W. Scott Frame and Larry D. Wall explain in the Federal Reserve Bank of Atlanta's *Economic Review*, "Providing an implicit guarantee is like agreeing to co-sign a loan. A parent who co-signs a loan for an adult child is conveying a valuable benefit to the child in that the loan is made on terms that would not be available absent the parent's co-signing." While the co-signing requires no immediate financial contribution, if the borrower is unable to meet its commitments, "the guarantee may turn out to be very expensive."<sup>38</sup> The amount that taxpayers have "co-signed" for Fannie and Freddie over the past 10 years has grown by over 600 percent without Congressional consent, and it continues to grow each day as both firms add to their investment holdings.

### **Preemptive Action Needed**

Although both firms seem to be performing well at the moment, it is far better for Congress to take preemptive action instead of facing an enormously expensive corrective action after a destabilizing crisis strikes. As the Chairman of the Federal Reserve Board of Governors, Alan Greenspan, recently advised policymakers concerning financial crises, "The product of a low-probability event and a severe outcome, should it occur, [is] a larger threat than the possible adverse consequences of insurance that might prove

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<sup>37</sup> Susan Lee, "The Dismal Science: Freddie Hides in the Hedges," *The Wall Street Journal*, July 15, 2003.

<sup>38</sup> W. Scott Frame and Larry D. Wall, "Financing Housing Through Government-Sponsored Enterprises," *Economic Review - Federal Reserve Bank of Atlanta*, Vol. 87, No. 1, First Quarter 2002.

unnecessary.”<sup>39</sup> This means that even though the chance of a cataclysmic event, like the collapse of either or both GSEs, may seem remote, the consequences of such an event would be so dire that it is more prudent to take positive action now.

### **Improve Transparency and Disclosure**

Congress could take several steps to help insure against a financial calamity. First, it should increase both firms’ financial disclosure requirements to bring them in line with other publicly traded corporations.

Fannie and Freddie are not subject to the accounting and disclosure requirements of other firms. Although both have voluntarily registered their stock with the Securities and Exchange Commission (SEC) in accordance with the Securities and Exchange Act of 1934, these disclosures are not as robust as would be required by mandatory registration with the 1933 Act, particularly as it concerns MBS and debt.<sup>40</sup> As a result, investors have less knowledge about the risks associated with certain MBS pools, and Fannie and Freddie gain from asymmetric information about the pools they package when they repurchase them.

Congress should strongly consider requiring both Fannie and Freddie to register their debt and MBS with the SEC in compliance with the Securities and Exchange Act of 1933 to increase investors’ information about MBS characteristics and gain a better understanding of how Fannie and Freddie influence this market. H.R. 2022, sponsored in the House by Representative Chris Shays (R-CN) and Edward Markey (D-MA), would do just that. Mandatory registration would cost both Fannie and Freddie an estimated \$250 million in fees, which would translate into an increase of \$25 in the cost of a \$200,000 mortgage if passed on to consumers.<sup>41</sup>

It is unlikely such a modest cost increase would affect housing, but could benefit investors and policymakers by providing a clearer picture of MBS credit risk pools and bring Fannie and Freddie in line with other corporations’ reporting requirements. It is also difficult to see how increasing disclosure requirements could upset their housing mission or compromise credit access for borrowers. On many occasions since the Office of Federal Housing Enterprise Oversight (OFHEO) was created in 1992, Fannie and Freddie have voluntarily increased their disclosures to placate Congress when it seemed that a legislative change to their status was imminent.<sup>42</sup> At no time did any of these increased disclosures compromise housing, or undermine either company’s ability to make money.

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<sup>39</sup> Fed Chairman Alan Greenspan quoted in Alan Beattie, “Greenspan Defends Fed’s ‘Baffling’ Tactics,” *Financial Times*, August 30, 2003.

<sup>40</sup> Congressional Budget Office, *Effects of Repealing Fannie Mae’s and Freddie Mac’s SEC Exemptions*.

<sup>41</sup> *Effects of Repealing Fannie Mae’s and Freddie Mac’s SEC Exemptions*.

<sup>42</sup> For a basic summary of new disclosures see *Effects of Repealing Fannie Mae’s and Freddie Mac’s SEC Exemptions*.

### **Enhanced Regulatory Supervision**

Congress could also enhance the regulatory supervision of Fannie Mae and Freddie Mac's interest-rate risk so that regulators are better able to put the firms' expanding investment portfolio in the context of its risks to taxpayers. It is important to recognize that Fannie and Freddie do not have to accumulate large investment portfolios to fulfill their statutory mission. In fact, for two-thirds of its history, Freddie Mac eschewed the mortgage investment business altogether.<sup>43</sup>

Yet, Fannie and Freddie have few restrictions on the size of their portfolio and hold only one-quarter as much equity capital on their balance sheets as FDIC-insured banks.<sup>44</sup> It is odd, to say the least, that companies of their size are regulated for "safety and soundness" by the Office of Federal Housing Enterprise Oversight (OFHEO), a tiny independent agency within the Department of Housing and Urban Development with an annual budget of about \$20 million and which lacks the authority to take receivership of either company in the event of failure.<sup>45</sup>

Congress should consider transferring Fannie Mae and Freddie Mac's safety and soundness oversight from OFHEO (which could be abolished following such a move) to the Treasury Department. There have been many different legislative proposals suggesting such action, including H.R. 2803 and H.R. 2575 in the House, sponsored by Representative Ed Royce (R-CA) and Representative Richard Baker (R-LA) respectively. Senator Chuck Hagel (R-NE) has also sponsored a bill, S. 1508, to establish a new independent regulator with increased oversight powers and flexibility to be placed under the control of the Treasury Department.

Whatever the logistics of the change in regulatory oversight, the new regulator should be empowered to develop regulations to require Fannie and Freddie to provide reports that disclose the loss in portfolio value that would arise from random interest-rate shocks at random probability levels.

Although the management of both Fannie and Freddie are quick to defend OFHEO's current oversight,<sup>46</sup> as numerous studies have argued, current OFHEO regulations are inadequate because Fannie and Freddie are required to provide only quarterly (or monthly) snapshots of market value risk or sensitivity at predetermined levels. For financial firms it is especially easy to manage investors' perceptions of risk at

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<sup>43</sup> Stuart D. Root, "Mirabile dictu," *The Wall Street Journal*, Letters to the Editor, June 25, 2003. See also: 2003 Report to Congress of the Office of Federal Housing Enterprise Oversight (2003 OFHEO Report), Chapter 6, Table 14, June 15, 2003.

<sup>44</sup> William Poole, President, Federal Reserve Bank of St. Louis, "Housing in the Macroeconomy," Office of Federal Housing Enterprise Oversight Symposium, March 10, 2003.

<sup>45</sup> OFHEO 2003 Report to Congress.

<sup>46</sup> Fannie Mae: <http://www.fanniemae.com/ir/issues/interestrisk/index.jhtml?p=Investor+Relations>. Freddie Mac: [http://www.freddiemac.com/news/archives2001/interest\\_risk.htm](http://www.freddiemac.com/news/archives2001/interest_risk.htm).

defined moments in time and levels of sensitivity because they can enter short-term derivatives transactions that are effective over a reporting date but expire shortly thereafter, or are designed to meet a specific sensitivity level but nothing above it.<sup>47</sup>

Therefore, whomever the new regulator would be, its regulations must require disclosures from Fannie and Freddie that correspond to daily trading revenues so as to eliminate the chance of “window dressing.” The Federal Reserve, the Office of the Comptroller of the Currency, and the Securities and Exchange Commission supported a similar initiative for private sector entities in 2001.<sup>48</sup>

### **Are Increased Transparency and Regulation Sufficient?**

Improved disclosure and regulation should improve the situation and encourage Fannie and Freddie to behave more conservatively, but as long as financial markets perceive these GSEs’ securities as being backed by the government, the moral hazard problem may persist. Therefore, Congress should begin to examine what legal advantages derived from Fannie and Freddie’s charter are actually necessary to increase access to affordable housing, and which are merely advantages that primarily benefit Fannie and Freddie’s shareholders.

As part of this examination, Congress could consider how to remove the legal advantages that cause investors to believe that Fannie and Freddie’s securities are de facto government obligations without causing financial dislocation.

William Poole, President of the Federal Reserve Bank of St. Louis, argues for removing the Secretary of the Treasury’s authority to lend a maximum of \$2.25 billion to each firm. Poole reasons that the firms are so large that the credit facility provides little benefit, while its elimination “would provide a signal that the government is serious when it says that there is no government guarantee of GSE debt.”<sup>49</sup>

Others, such as Peter Wallison of the American Enterprise Institute, argue that full privatization, with a break-up of the two companies into six smaller enterprises, would be required to truly protect taxpayers. So long as these companies are insulated from competition through a federal charter, Wallison contends, the concentration of interest-rate risk exposes taxpayers to a potential bailout.<sup>50</sup>

Since the legal benefits Fannie and Freddie enjoy are so numerous, it is difficult to judge which attributes, or combination thereof, secure the implicit guarantee. Moreover, it is quite possible that the recommended disclosure and regulatory changes themselves would attenuate perceptions of the guarantee to some extent. If not, solutions ranging from explicit limitations to the size of their investment portfolios to full privatization must be given consideration. Taxpayers can no longer be expected to underwrite such speculative financial activities.

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<sup>47</sup> Frame and Wall.

<sup>48</sup> Frame and Wall.

<sup>49</sup> Poole.

<sup>50</sup> Wallison, “Freddie Needs Some Competition.”

## **Conclusion**

In the wake of the corporate scandals of 2001 and 2002, Congress passed the Sarbanes-Oxley Act (P.L. 107-204), not only to restore investor confidence but also to preempt future corporate scandals and accounting fraud. Congress recognized that the current law provided inadequate protections from corporate malfeasance, and so it took steps to construct better incentives and treat wrongdoing with harsher penalties. As a result, the risk of similar misconduct in the future has been reduced.

In this same vein, Congress must recognize the inadequacy of the current law as it relates to Fannie Mae and Freddie Mac. The fact that the financial markets treat Fannie and Freddie securities as though the government stands behind them encourages the management at both firms to take on more risk than would otherwise be the case. Given how large these companies have grown and how much interest-rate risk they retain, the risks posed by their current operations should move Congress to increase their disclosure requirements, improve “safety and soundness” regulation, and examine how best to extricate the federal government from their operations. Through such steps, Congress could give regulators and investors a better sense of the risk Fannie and Freddie’s operations pose – and reduce the likelihood of a bailout.