

January 29, 2001

Mr. Robert S. Seiler, Jr.  
Manager of Policy Analysis  
Office of Federal Housing Enterprise Oversight  
1700 G Street, NW, Fourth Floor  
Washington, DC 20552

**Re: Solicitation of Public Comment on Systemic Risk**

Dear Mr. Seiler:

Fannie Mae appreciates this opportunity to respond to the solicitation of public comment on systemic risk of the Office of Federal Housing Enterprise Oversight (“OFHEO”) — 65 Fed. Reg. 64718-64720 (October 30, 2000).

**Executive Summary**

Safety and soundness are at the core of every business decision made by Fannie Mae.

Fannie Mae is committed to far more than ensuring that the company will not be the source of systemic risk; we are committed to remaining one of the safest financial institutions in the country. Fannie Mae’s safety and soundness are enhanced by the nature of its business and by the strict guidelines we apply to all our business practices. In fact, far from being a source of systemic risk, Fannie Mae operates to stabilize the financial markets in which it operates.

There are several key factors that help ensure the safety and soundness of Fannie Mae:

*Fannie Mae devotes significant resources to minimizing the financial risks of loan defaults and interest rate fluctuations.* Over the past several years, Fannie Mae has invested in new credit-risk management tools and enhanced underwriting procedures to better gauge the ability of borrowers to meet their mortgage payments. It has also instituted a variety of initiatives aimed at helping servicers identify and assist borrowers who are in danger of foreclosure. These efforts have paid off. Fannie Mae’s credit losses in 1999 were the lowest in dollar amount since 1983, when Fannie Mae’s book of business was just one-tenth its current size. Fannie Mae is

just as committed to interest-rate risk management and uses callable debt and other measures to protect itself from dramatic changes in interest rates. In 1999, for example, Fannie Mae spent more than half of its gross revenue to protect its investments in case of significant fluctuations in interest rates.

***History has shown that mortgages are one of the most solid and liquid products in the financial services industry.*** Unlike other financial companies, Fannie Mae has one main business line, mortgages, and mortgages are among the safest products in the financial services sector. Economists have documented that, in times of trouble, financial institutions that invest in traditional assets (such as mortgages) are much more likely to stay afloat than their competitors.

***Fannie Mae is subject to strict financial supervision by OFHEO.*** In 1992, Congress put in place a set of regulatory and supervisory measures that include a statutory minimum capital requirement and a risk-based capital regulation based on severe stress scenarios. In addition, Fannie Mae is subject to continual on-site examinations, the results of which are made public each year in an annual report. (In contrast, the examination results of banks, thrifts and even the Federal Home Loan Banks are kept secret.)

***Fannie Mae has taken additional, voluntary steps to further enhance its transparency and safety and soundness.*** On October 19, 2000, Fannie Mae (along with Freddie Mac) adopted a series of voluntary commitments to:

- Implement a strict, interim test of Fannie Mae's ability to withstand economic turmoil pending OFHEO's finalization of permanent risk-based capital standards as required by law;
- Maintain a level of liquidity sufficient to allow the company to continue operations for at least three months if it were ever denied access to the new-issue debt markets for that period of time;
- Disclose publicly how a change in interest rates or credit conditions would affect Fannie Mae's financial condition;
- Obtain and disclose a rating from a nationally recognized statistical rating organization; and
- Issue publicly traded, externally rated subordinate debt on a semi-annual basis such that the sum of Fannie Mae's core capital and

outstanding subordinated debt will equal or exceed 4 percent of on-balance-sheet assets.

Far from being a source of systemic risk, experience has shown that Fannie Mae can operate as a stabilizer in the markets in which it operates. The combination of all these factors means that Fannie Mae will operate with a cutting-edge safety and soundness regime unmatched by any financial institution in the world.

### **Section I: Fannie Mae and Risk**

There is no widely accepted definition of systemic risk in the literature.<sup>1</sup> Generally, systemic risk is thought to exist when the failure of one or a handful of financial firms could lead to reverberations throughout the economy. Systemic risk is, in essence, the fear of a chain reaction — that the failures of a few financial firms would lead to bank runs or failures of other financial institutions that would in turn shrink liquidity and the money supply, seriously disrupting the financial system and the availability of credit, and ultimately hurting the overall economy.

Regardless of which definition is applied, Fannie Mae does not pose systemic risk for the simple reason that in order to be a source of such risk a firm must be a host of potential contagion. And there can be no question about it: Fannie Mae is not such a host.

In the words of a leading rating agency: Fannie Mae and Freddie Mac are “well run, world-class financial institutions with highly developed risk-management tools and conservative risk appetites that pose very little potential for failure.”<sup>2</sup>

As explained below, Fannie Mae devotes a great deal of management time and effort and a great deal of economic resources to managing risk, and, as a result, is among the most stable financial services companies.

It is structured to withstand financial storms that other financial institutions would have difficulty surviving. Its product line consists of stringently underwritten, geographically diverse mortgages whose risk is further reduced through risk-sharing

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<sup>1</sup> In a 1994 conference on systemic risk in the banking and financial markets, Eugene Ludwig, then-head of the Office of Comptroller of the Currency stated: “Regrettably, there is no clear agreement on what constitutes systemic risk.” *Banking, Financial Markets and Systemic Risk* 350 (George G. Kaufman ed., JAI Press, 1995). Mr. Ludwig quoted approvingly one definition given at the same conference by Phil Bartholomew and Gary Whalen: Systemic risk is characterized by “a sudden, usually unexpected collapse of confidence in a significant portion of the financial system with potentially large economic impact.” Professor Mark Flannery gave another definition at the same event: “Systemic risk occurs if a liquidity or solvency problem at one financial firm may impair other firms’ abilities to fulfill their obligations.” *Id.* at 323-4.

<sup>2</sup> *New Freddie Mac and Fannie Mae “Open Book” Policy: A Positive Credit Development*, Moody’s Investor Services Special Comment, Oct. 2000, at 4.

arrangements. It uses liability management and hedging techniques to ensure that its cash flows are matched. It maintains a portfolio of high-quality liquid assets that are used to support the liquidity needs of its operations and of the mortgage market in general.

The beneficial, risk-protection effects of all of these factors can be seen when company operations are subject to the risk-based capital requirements derived from the application of the stringent stress test laid out by Congress in 1992. The test requires the company to hold enough capital not only to withstand a severely adverse credit and interest-rate environment for ten years but to have an additional 30% in capital as a supplementary cushion of safety.

Thus, if the mortgage market was severely stressed, the likelihood is that Fannie Mae, far from posing a risk to the system, would be a stabilizing force in the market.

***a. Credit-Risk Management***

Fannie Mae manages credit risk by using sound underwriting guidelines to determine which mortgages the company will buy or securitize, by paying close attention to loans with a higher risk of default, by monitoring the performance of companies that service loans held by Fannie Mae, and by sharing risk across a broad range of structures and partners.

There are several components to Fannie Mae's credit-risk management.

First, Fannie Mae's portfolio of mortgages consists of product from all areas of the country; this geographic dispersion diversifies the risk of default and protects the company from the disproportionate effect of a regional downturn (See Exhibit 1).

Second, over the past several years, Fannie Mae has made strategic investments in new credit-risk management tools and enhanced underwriting procedures, creating the finest mortgage credit-risk management capabilities of any financial institution.

Third, Fannie Mae has instituted a variety of loss mitigation efforts aimed at helping servicers identify and assist borrowers who, for one reason or another, are in danger of having their homes foreclosed upon. This technology enables servicers to predict with great precision which delinquent borrowers are likely to catch up on their payments and which ones need immediate intervention. The combination of advanced technology and human judgment allowed 53 percent of Fannie Mae's problem loans in 2000 to be resolved with consumers *not* losing their homes. Thus, more of its problem loans were resolved with a workout — typically a modification or repayment plan — than went to foreclosure. Workouts are very cost effective because, in most cases, the borrower never defaults and the loan is paid off in full.

Fourth, for those loans where foreclosure is unavoidable, Fannie Mae has improved loss-mitigation techniques and has lowered costs and helped home values by selling properties quickly.

The results of these efforts speak for themselves. Fannie Mae's credit losses have plunged to a very low 0.7 basis points of its outstanding book (Exhibit 2), from \$367 million in 1995 to \$89 million in 2000. This reduction in credit losses is particularly astounding because it has been coupled with significant growth in the company's book of business. For example:

- 2000's credit losses of \$89 million were the lowest dollar losses since 1983, when Fannie Mae's book of business was one-tenth its current size;
- 2000 marked the fourth consecutive year of declining credit-related expenses; and
- The \$1.3 trillion in mortgages that Fannie Mae owned or guaranteed last year generated a total of \$435 million in gross credit losses, but, as mentioned above, the company took only \$89 million of those losses (the rest were borne by risk sharing partners such as mortgage insurers).

Certainly, part of the decline in Fannie Mae's credit losses has been due to the robust economy. But that is not the whole story. After all, credit losses in the mortgage portfolios of big banks have not shown a similar decline. For example, in 1999, Fannie Mae's credit losses were 1.1 basis points, compared with bank credit losses on mortgages of 14.4 basis points (Exhibit 3).

Thus, Fannie Mae has demonstrated its success at managing credit risk through a combination of initiatives that minimize foreclosures, and, at the same time, help families stay in their homes if foreclosure is at all avoidable.

***b. Interest-Rate Risk Management***

Fannie Mae's approach to debt issuance gives it the ability to match, in a very wide range of interest rate environments, the cash flow the company receives from the mortgages it buys with the payments it has to make on the debt funding those mortgages. The basis of its strategy is to invest in mortgages and issue debt securities that are matched in duration and perform similarly in different interest-rate environments.

The company continually assesses the sensitivity of its portfolio to changes in interest rates and rebalances the portfolio in the context of a well-defined risk-management process and strict limits imposed by its Board of Directors. As part of this strategy, the company uses option-embedded instruments such as callable debt and option-based derivatives. Long-term callable debt locks in lower-cost funding if interest

rates rise, and Fannie Mae can call the debt prior to maturity if interest rates fall and the mortgages funded by the debt prepay. Off-balance sheet derivative financial instruments, such as interest-rate swaps, also protect Fannie Mae against losses caused by swings in interest rates.

In 1981 and 1982, Fannie Mae suffered substantial losses because of dramatic changes in interest rates that raised its borrowing costs. The interest rate environment caused similar problems for thrifts and banks. At that time, Fannie Mae had a significantly shorter liability structure and made little use of callable debt, interest rate swaps, and other hedges to protect it against swings in interest rates.

Today, Fannie Mae is far safer than it was twenty years ago, in part because of its greater use of option-embedded funding instruments. Indeed, if the interest rate scenario of the early 1980's were repeated today, Fannie Mae would not only avoid losses—the company would continue to show strong earnings.

Other financial institutions do not use option-based funding instruments to the same extent as Fannie Mae. In 1999, Fannie Mae issued \$93 billion in long-term callable debt, compared with less than \$1 billion in such debt issued by the largest bank holding companies.

The gross revenue available to the company from managing interest rate risk was \$8.1 billion in 1999. But because the company chose to spend \$4.6 billion to hedge the interest rate risk on those mortgages by extending its liability duration, issuing callable debt, and purchasing option-based derivatives, the amount it actually booked as revenue was \$3.5 billion. That alone demonstrates a concrete commitment to risk management that few, if any, other mortgage investors can match.

Fannie Mae mainly incurs two types of costs to hedge its interest rate risk. The first is the cost of funding with longer-dated liabilities to create a duration match to the mortgages it buys. The second is the cost of adding optionality to its liabilities, either in the form of callable debt or option-based derivatives.

Through callable debt and other hedges, Fannie Mae protects itself from changes in interest rates. It routinely tests the performance of its portfolio under adverse market conditions. Even if the 10-year Treasury rate were to move up or down by two standard deviations over the next six months—movements that cover 95 percent of probable interest rate changes—and then fluctuate randomly after that, its net interest income would vary only slightly over 2001-2003. And, indeed, despite interest rate swings of almost 5 percentage points during the 1990s, Fannie Mae experienced consistent double-digit growth in operating earnings—powerful evidence that its interest rate risk management strategy is sound and effective (Exhibit 4).

## **Section II: Fannie Mae in Comparison with Other Financial Institutions**

In 1992, Congress established OFHEO as Fannie Mae's and Freddie Mac's first "safety and soundness" regulator. OFHEO's sole task is to oversee just two companies, each headquartered within a few miles of the OFHEO offices and each engaged in a very similar narrow line of business. Two-thirds of the examination staff hired by OFHEO have prior experience, averaging sixteen years, with banking regulators such as the Office of the Comptroller of the Currency and the Federal Reserve System. Others have experience in the financial services industry as bankers or mortgage bankers.

The number of examiners assigned to Fannie Mae is on a par with the number that would examine the very largest commercial banks. However, such banks tend to have multiple lines of complex businesses all over the world.<sup>3</sup> Fannie Mae examiners are watching a single, relatively simple line of business in just one country.

In addition, banks and thrifts engage in a broad array of lending activities, ranging from mortgages, auto loans, credit cards, and commercial lending, to far riskier and more obscure activities. In fact, in the post Gramm-Leach-Bliley Act world, these institutions have a whole range of new business activities available to them, including merchant banking, real estate development, and insurance underwriting.

Many bank assets are not standardized and do not have a readily available market. Indeed, one of the skills that bankers are said to provide the economy, and for which they are compensated, is their ability to judge the risk in idiosyncratic credits. Thus, many bank assets are difficult to value since there is not a readily observable price for them and little standardized information as to how they might be expected to perform. This is one of the reasons why banking industry regulators have had a difficult time figuring out how to develop stress test regimes or other similar modeling techniques for even the most sophisticated banks.<sup>4</sup>

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<sup>3</sup> For instance, on its web site, Citibank lists 50 countries in which it does business: Argentina, Australia, Austria, Bahrain, Belgium, Brazil, Canada, Chile, Colombia, Czech Republic, Dominican Republic, Ecuador, Egypt, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Italy, Japan, Jordan, Kazakhstan, Korea, Malaysia, Mexico, Netherlands, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Singapore, Slovakia, South Africa, Spain, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela. (*Available at* <http://www.citibank.com>) In its December 1999 annual 10-K filing with the SEC, Citicorp, the bank holding company subsidiary of Citigroup, states that it "serves individual, businesses, governments, and financial institutions in 101 countries and territories" through "Global Consumer, Global Corporate Bank, Global Investment Management and Private Banking, and Investment Activities." (*Available at* <http://www.citi.com/citigroup/fin/sub/99ar/>)

<sup>4</sup> "[C]redit risk modelling [sic] may indeed prove to result in better internal risk management, and may have the potential to be used in the supervisory oversight of banking organizations. However, before a portfolio modelling approach could be used in the formal process of setting regulatory capital requirements

In contrast, conforming mortgages are typically executed on standardized documents using consistent underwriting practices (so that, even if the lender doesn't plan on immediate sale or securitization, the option for a later sale to Fannie Mae or Freddie Mac would be preserved). In addition, the mortgage market, at \$5.4 trillion as of June 2000, represents the largest single credit market in the world with voluminous trading every day of the year in both whole loans and mortgage-backed securities.

The collapse of a significant portion of the thrift industry in the 1980s provides a case study to compare the difference in outcomes between mortgage-lending operations and other financial institution investments when things go disastrously wrong. If one looks at the part of the thrift industry that survived as compared to that which failed, one of the distinguishing characteristics is that the former tended to stick much more with their traditional residential mortgage orientation than the latter.

This phenomenon was documented in a 1991 book on the thrift crisis by Professor Lawrence White, who was a member of the Federal Home Loan Bank Board during the 1980s.<sup>5</sup> As shown in Exhibit 5, Professor White found that the 669 thrifts that were either insolvent or facing extreme difficulty in 1985 had almost one third (32.7%) of their total assets invested in activities that might be considered "non-traditional" for thrifts.<sup>6</sup> This was almost exactly twice the level for the remainder of the industry (16.4%). Professor White summarized this phenomenon in his book as follows: "A growing number of studies, using data gathered by the FSLIC as it disposed of insolvent thrifts in the late 1980s, indicate clearly that the nontraditional investments (and methods) of the rapidly

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for credit risk, regulators would have to be confident not only that models are being used to actively managed risk, but also that they are conceptually sound, empirically validated, and produce capital requirements that are comparable across institutions. At this time, significant hurdles, principally concerning data availability and model validation, still need to be cleared before these objectives can be met, and the Committee sees difficulties in overcoming these hurdles in the timescale envisaged for amending the Capital Accord." Basle Comm. on Banking Supervision, *Credit Risk Modelling: Current Practices and Applications*, at 1 (Apr. 1999). In documents released on January 16, 2001, proposing a new Basel Capital Accord, the Committee did not believe that bank modeling techniques had advanced sufficiently to be used by banks to set their own capital standards. "As currently configured, the IRB [Internal Ratings-Based] approach allows banks to use many of their own internal risk assessments in the derivation of regulatory capital requirements. It stops short, however, of permitting banks to calculate their capital requirements on the basis of their own or vendor portfolio credit risk models. ... Even the advanced IRB methodology will not allow for bank-specific adjustments to measures of credit risk to reflect risk correlation between different borrowers (in effect, this is the complexity boundary beyond which the IRB approach as currently configured will not pass)." Basle Comm. on Banking Supervision, *The Internal Ratings-Based Approach*, at 2 (Jan. 2001).

<sup>5</sup> The Federal Home Loan Bank Board was the thrift federal regulator until it was abolished in 1989.

<sup>6</sup> "Non-traditional" assets are defined by Professor White to include: Commercial mortgage loans, land loans, commercial loans, consumer loans and direct equity investments.



growing thrifts of the 1983-1985 period were disproportionately responsible for the wave of insolvencies and their huge cost to the FSLIC.”<sup>7</sup>

Professor White’s book does not provide the percentage of assets invested in residential mortgages for the two groups of institutions. Exhibit 6 expands on his analysis to include this information. The data in Exhibit 6 are as of the end of 1989, the period when the Resolution Trust Corporation (“RTC”) was commencing operations and the resolution of insolvent thrifts was beginning in earnest. At that date, 501 S&Ls had negative tangible capital with an astonishing average tangible capital to assets of –25.6%.<sup>8</sup> The rest of the industry comprised 881 institutions with tangible capital of 0% to 5% of assets and 1,516 with tangible capital in excess of 5% of assets.

As one follows the continuum from strong to weak to insolvent, the pattern is clear — the more an institution invested in non-traditional assets, the more likely it was to have financial trouble. Thus, the strong institutions had 79% of their investments in traditional assets; the weak had 70%; and the insolvent had 62%. The numbers for non-traditional assets naturally show the opposite pattern: 16%, 21% and 25%, respectively.<sup>9</sup>

The biggest and costliest financial collapse in the United States after the Great Depression occurred in the sector of the financial services industry that had specialized in mortgage finance. The stratospheric interest rates of the late 1970s and early 1980s wreaked havoc on the industry.<sup>10</sup> However, in the aftermath of that first thrift crisis, the section of the industry that continued to specialize in mortgages recovered and constitutes the healthy remnant of the thrift industry that is still operating today. It was the section of the business that became involved in other banking activities that failed spectacularly

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<sup>7</sup> Lawrence J. White, *The S&L Debacle* 133 (Oxford Univ. Press 1991).

<sup>8</sup> Tangible capital is here defined as equity capital less goodwill, a common measure of solvency/insolvency in use at the time.

<sup>9</sup> Moreover, for a technical reason, the numbers in Exhibit 6 almost certainly grossly underestimate the differences in strategies between the strong, the weak and the insolvent institutions discussed in the text. In the major insolvencies in the thrift industry in the second half of the 1980s, the negative capital position resulted mainly from the writedown of assets rather than from ongoing operating losses flowing through the income statement. These writedowns in value were mostly in the categories characterized as non-traditional in the text. The numbers in Exhibit 6 for insolvent institutions reflect such writedowns—as evidenced by the fact that the average negative tangible capital position was –25.6% of assets. If, in the limit, we were to assume that the –25.6% negative capital resulted solely from the writedown of non-traditional assets, one could work out that such assets comprised 40% of the balance sheet before the writedown rather than the 24.5% shown in Exhibit 6. In such circumstances, the amount of assets in traditional investments would fall from 62% to 51% of assets. For strong institutions, there would not be a similar writedown effect, almost by definition. Therefore, the data reported by the industry as summarized in Exhibit 6 masks the true role of non-traditional investments in failed thrifts.

<sup>10</sup> In 1981, 84.8% of FSLIC-insured S&Ls holding 91.3% of the assets of the industry were unprofitable. *Id.* at 20.

and, by one authoritative estimate, ultimately cost a total of \$160 billion to resolve, with \$132 billion of that amount coming from taxpayers.<sup>11</sup>

Fannie Mae's business is, of course, exclusively concentrated in the traditional residential finance business. Moreover, its national diversification insulates the company from credit losses resulting from regional economic downturns that can hurt banks and thrifts that are more geographically concentrated. And the company's specialized funding structures are designed expressly for mortgages

Properly managing the risks of the company's business also means sharing and managing credit risk effectively. The efficiency and stability that Fannie Mae brings to the market is due in part to its ability to properly disperse credit risk among a variety of entities. Fannie Mae shares credit risk with: the homeowner (through down payments and the subsequent equity buildup); mortgage insurance companies (the company's charter requires credit enhancement on all loans where the loan is greater than 80 percent of the value of the underlying property); lender partners (through recourse arrangements); and others. At the end of 1999, Fannie Mae had \$838 billion in credit loss protection, including \$740 billion of borrower equity, \$68 billion in mortgage insurance, and \$30 billion in other recourse (Exhibit 7). To put these figures in context, it is helpful to note that Fannie Mae has had just \$285 million in average annual credit losses during the 1990s. This credit-risk sharing, along with marked improvements and innovations in its risk management, has meant that, as shown earlier in Exhibit 2, Fannie Mae's credit losses have been declining even as its book of business has increased.

In short, when critics suggest that Fannie Mae is a risky holder/guarantor of mortgage loans, they are seldom asked what the alternative source for funding such loans should be. Fannie Mae is much better structured and situated to play the role it does in the nation's housing finance system than the alternative depository institution system.

### **Section III: The Banking Industry's Holdings of Fannie Mae Obligations**

Although banks are subject to a 10%-of-capital limitation on the amount of securities they can hold that are issued by any single entity, the obligations of government-sponsored entities are exempt from this limitation. Over the last year, several commentators have expressed concerns about the depositories' significant holdings of Fannie Mae and Freddie Mac obligations, and some have called for this exemption to be repealed.

The issue of depositories investing in Fannie Mae and other GSE debt merits a considerably more detailed and nuanced examination than has been given to it generally.

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<sup>11</sup> General Accounting Office, *Financial Audit: Resolution Trust Corporation's 1995 and 1994 Financial Statements*, at 13 (July 1996).

When this issue is examined more carefully, it becomes clear that the systemic risk that has been thought to be there does not, in fact, exist.

To the extent that there should be any concern over concentration of bank investment in GSE debt, the relevant measure should be investments by a bank in the debt securities of one GSE, and not GSEs as a group. The general bank restrictions pertain to investments in the bonds of a single issuer not several issuers. Thus, as a first step, aggregate statistics need to be deconstructed into their component parts.

At the end of June 2000, total GSE debt amounted to \$1.7 trillion, of which \$579 billion, or 34%, was debt issued by Fannie Mae (Exhibit 8). At the same date, commercial banks held \$245 billion of agency debt. If it is assumed that each bank's holdings of GSE debt are divided in the same proportion as the overall market, then bank holdings of Fannie Mae debt would be \$83 billion. This figure of \$83 billion is 15.7% of the banking industry's \$531.5 billion in equity capital (Exhibit 9).<sup>12</sup> Moreover, under this analysis, the number with over 100% of their capital invested in Fannie Mae debt is estimated at 8.3% of the banking industry (Exhibit 10).

Of the largest banks (those with more than \$50 billion in assets), 88% hold less than 10% of their capital in Fannie Mae debt securities, and none have more than 100% of their capital so invested (Exhibit 10). As bank size decreases, the relative investment in Fannie Mae debt increases. Thus, for the smallest banks (those with less than \$100 million in assets), only 17% are estimated to have less than 10% of their capital invested in Fannie Mae debt.

The peculiar size distribution of these holdings has two significant implications:

- Since the largest relative holders of Fannie Mae debt are small institutions, the amount of commercial bank assets these institutions control is also relatively small. Thus, to the extent there is any concern about the concentration of holdings of Fannie Mae debt, the systemic implications are slight because of the (small) percentage of banking industry assets involved.

Banks that control more than two-thirds of total industry assets have less than 10% of their capital invested in Fannie Mae debt; whereas those that invest over 100% of capital in Fannie Mae debt, control only 2.5% of assets (Exhibit 11).

- The fact that smaller institutions hold such a larger proportional share of GSE debt than larger ones is not surprising. Small institutions have less access to sources of funds to match the cash flows from mortgages, and they also have

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<sup>12</sup> And it is equal to 1.28% of the banking industry's \$6 trillion in total assets.

less access (either in-house or externally) to the expertise needed to manage uncertainties such as prepayment risk.

Thus, GSE debt securities give these institutions a high quality, highly liquid investment with predictable cash flows and a higher rate of interest than Treasury securities. As risk transformers, the GSEs essentially put their access to the capital markets and their risk-management expertise at the disposal of smaller depositories in an affordable manner. Forcing these smaller depositories to divest most of their holdings of such securities would likely have the perverse effect of increasing the risk in the system because they would be forced to replace GSE debt with investments less suited to their needs.

In addition to the facts on bank holdings above, observers point to the fact that banks hold some large portion of their capital in Fannie Mae debt securities as evidence of a potential systemic risk problem, their concerns are based on an unwarranted assumption: in the unlikely event Fannie Mae got into trouble, a bank with 100% or more of its capital invested in the company's debt securities would fail as a reverberating effect of Fannie Mae's difficulties. However, this concern ignores the makeup of Fannie Mae's assets that are the unallocated backing of its general liabilities. These assets are, of course, high-quality mortgage loans or other similar prime investments.

The problems in the S&L industry again provide a real-life laboratory stress test to illustrate the issue.

Congress set up the RTC in the Financial Institution Reform, Recovery, and Enforcement Act of August 1989 to execute an orderly disposition of failed FSLIC-insured thrift institutions. In December 1995, having, by general consensus, fulfilled its limited-life mission, the RTC was closed down. In its six-plus-year life, the Corporation handled 747 failed institutions. Almost by definition, these companies were at least badly managed if not fraudulently operated. Yet, the RTC reported in late 1995 that it was able to recover an average of 96¢ on the dollar on \$112 billion in 1-4 family mortgage loans from the institutions it was winding down (Exhibit 12).

These statistics reveal that, while the 747 S&Ls the RTC had to deal with had failed disastrously, the homeowners who had borrowed from these institutions were far more stalwart. The failure of their lenders did not mean that the homeowners were relieved of their obligations under their mortgages and, as the vast majority of homeowners do each month, they continued to fulfill their contractual obligations.

Furthermore, several characteristics of the portfolios the RTC handled imply that they were, to a large extent, of inferior quality to Fannie Mae's portfolio of mortgages:

- The RTC thrifts were local institutions whose portfolios were not geographically diversified. The RTC report does not break out the location of the mortgages it handled. However, it does give the breakdown of the total assets of the failed institutions by state. This shows that 55% of the assets involved were located in five states—California, Texas, Florida, New Jersey and Arizona (Exhibit 13). At least two of these states, California and Texas (accounting for over one third of the total assets involved nationwide), had depressed real estate markets in the early 1990s. Arguably, therefore, a significant portion of the mortgages that the RTC disposed of was secured by properties located in areas where real estate values were under considerable pressure.
- In order to dispose of as many assets as quickly as it could, the RTC moved aggressively to sell its most easily liquidated holdings—single-family residential mortgages. In October 1990, the RTC sold to, or swapped with, Fannie Mae or Freddie Mac \$6.1 billion in conforming residential mortgages in competitive auctions with the two companies.<sup>13</sup> However, the majority of RTC mortgages did not conform to Fannie Mae or Freddie Mac standards and the RTC had to develop its own securitization program to dispose of these loans.<sup>14</sup> Thus, the RTC was able to achieve good recovery rates on its residential mortgage portfolio, even though the majority of the loans were not underwritten to GSE standards.<sup>15</sup> If the RTC was able to attain such results with its substandard portfolio, it stands to reason that Fannie Mae loans would perform even better in the unlikely event of similar unfortunate circumstances.

In sum, even if Fannie Mae “stumbled,” it is unwarranted to infer that financial institutions that had invested a large portion of their capital in the company’s debt securities would be thereby put in jeopardy.<sup>16</sup> Indeed, the opposite conclusion holds. The analysis in this letter shows that, outside of Treasury securities, there is basically no

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<sup>13</sup> Federal Deposit Insurance Corp., *Managing the Crisis: The FDIC and RTC Experience* 407 (1998).

<sup>14</sup> “Although the best disposition method for single-family mortgage loans may be to sell them directly to Fannie Mae or Freddie Mac, the majority of RTC single-family mortgage loans were nonconforming: that is, they were not eligible for sale to the agencies *because of the stringent underwriting requirements demanded by Fannie Mae and Freddie Mac.*” *Id.* at 427 (Emphasis added).

<sup>15</sup> “RTC securitization transactions generally have performed well. As of June 30, 1997, of the 74 RTC and FDIC securitizations, only 3 experienced significant losses. Most of the losses were on transactions that were composed of loans that originated from a single institution with poor underwriting standards or from loans concentrated in a single state, which, in this case, was California.” *Id.*

<sup>16</sup> It should be noted from the RTC virtual stress-test experience, that before it reached the stage where Fannie Mae debtholders were impacted, the company has \$800 million in loss reserves and \$20.8 billion in stockholder equity. For general debtholders, that cushion will be further enhanced as the company proceeds with its voluntary program of issuing subordinated debt.

alternative, safer investment than Fannie Mae securities available to depositories. Certainly, as smaller banks in particular show by their everyday asset-acquisition decisions, Fannie Mae debt securities are preferable to portfolio mortgage loans since banks are thereby afforded the benefit of geographic diversification and protection against embedded option risk.

#### **Section IV: Fannie Mae's Role as a Liquidity Source for the Mortgage Market**

Any smoothly running engine needs both fuel and lubricants. Fannie Mae provides both gas and oil for the housing finance system—by linking it with the capital markets and by reducing frictions in the secondary market. The company has eased market friction by reducing the costs of mortgage origination through technological innovation (particularly with automated underwriting), through standardized documentation and underwriting practices and by providing liquidity in all parts of the country under all economic conditions.

A crucial part of that lubricating function is Fannie Mae's liquid investment portfolio (LIP). All corporations, particularly financial ones, need a modicum of liquid assets. However, the major reason for Fannie Mae's LIP is not for its own liquidity needs but those of the market. To call it a *liquid* investment portfolio is apt because it functions like a reservoir for the mortgage market from which resources can be released in times of market stress.

This is not just a theoretical assertion, as evidenced by events in the fourth quarter of 1998. Financial crises in Asia and in Russia and the huge losses of some "hedge funds" caused a panicky flight to quality on a global scale. In many markets, the cost of borrowings surged—if, indeed, borrowing was possible at all. However, as mortgage-backed security yields began to move sharply higher and illiquidity appeared to be a growing concern, Fannie Mae (along with Freddie Mac) was able to support the conforming mortgage market by stepping in to purchase a record volume of mortgages and mortgage-backed securities ("MBS") for portfolio. Distinct from other markets, there was no credit crunch for housing in the United States. Fannie Mae's ability to access funds by running down its LIP was essential to its ability to respond to the market.

During the week of October 5, 1998, Fannie Mae committed to purchase over \$9.5 billion in mortgages or MBS for its portfolio. The impact was immediate. By the following Monday there were few signs of illiquidity in the agency MBS market and their yields fell considerably relative to private label MBS.

As the executive vice president for the Mortgage Bankers Association ("MBA") stated at the MBA's annual meeting at the time: "...the underlying market liquidity that stems from the strength of Fannie Mae and Freddie Mac was welcome. They were an anchor in a storm." Similarly, the Wall Street Journal gave credit to Fannie Mae and

Freddie Mac: “Their presence helps to keep the market liquid and mortgage rates reasonable.”<sup>17</sup>

Fannie Mae’s and Freddie Mac’s steadying of the mortgage market in 1998’s generally unsettled conditions reminds us that their presence has changed the world of housing finance from being one of the most volatile to one of the most settled sectors. It is worth remembering what life was once like — before Fannie Mae and Freddie Mac were enough of a presence to play their stabilizing role. Consider the following report from a generation ago:

The lifeblood of the residential real estate market is mortgage credit. Since the mid-1960’s, the availability of mortgage credit has varied widely and real estate activity thus has shown considerable volatility. During 1973-74 there was a severe reduction in the amount of mortgage credit available. As a result, a sharp reduction in residential real estate activity took place.<sup>18</sup>

Similarly:

The increased volatility of savings flows into and out of [savings and loan] associations has contributed much to the “boom or bust” nature of the housing industry.<sup>19</sup>

One of the reasons that systemic risk is a matter of concern is the potential harm to the real economy if an institution that could be the source of contagion were to fail. The analysis in this letter shows that Fannie Mae poses no such risk of contagion. The more important question with respect to the systemic impact of Fannie Mae and Freddie Mac is: What would the economy be like in their absence? The evidence from the past is that the housing market, which makes up such an important part of the economy, would be much less stable than it is.

## **Section V: Fannie Mae’s Voluntary Commitments**

On October 19, 2000, Fannie Mae announced a series of voluntary commitments to enhance company disclosure and market discipline. The company announced these voluntary steps jointly with Freddie Mac and House Banking Subcommittee Chairman Richard Baker who called the commitments “a cutting edge model for financial institutions” that ... “exceeds any standard for any domestic or international financial model anywhere.” In praising the voluntary commitments, Chairman Baker also stated that these steps lay “the groundwork for a new high water mark of corporate

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<sup>17</sup> Carlos Tejada, Jumbo Mortgage Rates Haven’t Fallen Very Far, *Wall St. J.*, Oct. 29, 1998, at C1.

<sup>18</sup> United States League of Savings Institutions, *Savings and Loan Fact Book ’75*, Chicago Ill. 45 (1975).

<sup>19</sup> United States League of Savings Institutions, *Savings and Loan Fact Book ’80*, Chicago Ill. 55 (1980).

responsibility, market transparency, market self-discipline, and proactive protection against systemic risk.”<sup>20</sup>

Fannie Mae’s commitments are in addition to—and in no way a substitute for—the regulatory and supervisory measures that Congress put in place in 1992, which include:

- A continuous and rigorous program of on-site examination,
- Minimum capital requirements, and
- A risk-based capital regulation based on severe stress scenarios.

In commenting favorably on the cutting-edge nature of the Fannie Mae/Freddie Mac initiative, Moody’s noted that these commitments will create a new standard for financial institution regulation:

These financial and disclosure commitments by Fannie Mae and Freddie Mac are new standards not only for them, but also for the global financial market. These GSEs’ proposals rely extensively on recommendations by the Basel Committee on Banking Supervision for bank disclosure, even taking such disclosure a step further than the recommendations in some instances. Despite their non-bank status and special ties with the U.S. government, Fannie Mae and Freddie Mac agree that similar risk management disciplines apply to both banks and GSEs—and perhaps, by implication, nonbank financial institutions in general. The leadership shown by Freddie Mac and Fannie Mae could prove difficult for other firms to ignore, and could usher in a wave of enhanced financial risk disclosure. This may prove to be one of the more important ramifications of the GSEs’ initiative.<sup>21</sup>

The commitments embody principles and enhancements endorsed by OFHEO. In its most recent annual report to Congress, OFHEO stated:

Market discipline of Fannie Mae and Freddie Mac is a potentially important complement to safety and soundness regulation of the Enterprises. If creditors have accurate and timely information on the financial risks of Fannie Mae and Freddie Mac and believe that they are exposed to material risk of loss if the Enterprises get into financial trouble,

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<sup>20</sup> Press Release, Richard H. Baker, Chairman, Subcommittee on Capital Markets, Securities and Government Sponsored Enterprises, at 1 (Oct. 19, 2000).

<sup>21</sup> Moody’s Investors Service, *Op. Cit.* at 3.



they will take steps to ensure that the Enterprises strike an appropriate balance between risk and return. By enhancing market discipline, greater transparency has the potential to limit the systemic risk that Fannie Mae and Freddie Mac may pose to the financial system.<sup>22</sup>

The measures that make up the voluntary-commitment package put forward by Fannie Mae are:

**1. Periodic Issuance of Subordinated Debt:**

Fannie Mae will issue publicly traded and externally rated subordinated debt over the next three years in an amount that together with core capital will equal or exceed 4% of on-balance sheet assets.

If the company's capital level falls to a level that represents financial stress, interest payments on the sub debt would be suspended. This numerical trigger is automatic.

On January 23, 2001, Fannie Mae announced the inaugural issue of its Subordinated Benchmark Notes program: \$1.5 billion of 10-year securities.<sup>23</sup> The company also signaled its intention to continue to issue such externally rated and publicly traded notes quarterly during the course of 2001 and on at least a semi-annual basis thereafter. The securities received an Aa2 rating from Moody's Investors Service and AA- from Standard and Poor's ("S&P").

The beneficial effects of the subordinated debt program include:

- A signal to policymakers as to how investors view the company's financial condition;
- An incentive to sub debt holders to monitor the company's risk position very carefully because the terms of the sub debt require the suspension of interest in the event of severe financial difficulty. Significant shifts in the yield of Fannie Mae sub debt will signal to regulators and others that the company may have increased its risk position; and
- An additional cushion of capital on top of Fannie Mae's required equity capital as defined by its statutorily-required minimum levels and its risk-based capital stress test.

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<sup>22</sup> OFHEO, 2000 Report to Congress, at 33 (June 2000).

<sup>23</sup> Fannie Mae, News Release, January 23, 2001 ([www.fanniemae.com/news/pressreleases/11110.html](http://www.fanniemae.com/news/pressreleases/11110.html)).

Many financial regulators support subordinated debt as an important way to crystallize the views of thousands of market participants into a clear signal—the yield on a company’s sub debt—of the market’s view of a company’s risk position and potential for loss. Below are a few recent quotes from bank regulators on the value of sub debt:

- Federal Reserve Chairman Alan Greenspan: “The great advantages of... subordinated debentures is that it is something of the nature... of a canary in a mine, that if... the credit capacity of these institutions seems to be eroding at the edges, it is very much more likely to show up in the prices of liabilities which are not insured and have no collateral behind them.”<sup>24</sup>
- Federal Reserve Governor Laurence Meyer: “If the train crashes, then the subordinated debt holders sit not in the caboose but in the cab of the engine. They are thus quite sensitive to the speed of the train and the quality of the tracks.”<sup>25</sup>
- Atlanta Federal Reserve Bank: "Because holders of these instruments are the least likely to be bailed out if a bank fails, they are the most likely to demand disclosure of a bank's condition. Subordinated debt holders receive, at most, the promised principal and interest payments and so do not share in the profits that may be associated with risk taking; they merely suffer the losses. Such downside risk gives subordinated debt holders the incentive to monitor a bank's risk and demand a higher interest rate to compensate for higher risk. This type of direct market discipline punishes banks for taking on inappropriate risk.”<sup>26</sup>

In December 1999, the Federal Reserve released a study on the issues surrounding subordinated debt policy in the banking system.<sup>27</sup> The study concentrates on the market-discipline advantage for regulators in requiring banks to hold sub debt as part of capital. The issuance of such debt is posited to enhance market discipline in two ways:

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<sup>24</sup> Alan Greenspan, Testimony on Nomination to Fourth Term as Chairman Before the Senate Comm. on Banking, Housing, and Urban Affairs (Jan. 26, 2000).

<sup>25</sup> Laurence H. Meyer, Remarks Before the National Bureau of Economic Research Conference (Oct. 31, 2000).

<sup>26</sup> *Subordinated Debt Can Help Regulators Monitor Bank Risk*, 13 Financial Update 1 (Federal Reserve Bank of Atlanta, Jan-Mar 2000) available at [http://www.frbatlanta.org/publica/finan\\_update/v13n1/index.html](http://www.frbatlanta.org/publica/finan_update/v13n1/index.html)

<sup>27</sup> *Using Subordinated Debt as an Instrument of Market Discipline*, Study Group on Subordinated Notes and Debentures, Staff Study 172, (Federal Reserve System, Dec. 1999) available at <http://www.federalreserve.gov/pubs/staffstudies/172/ss172.pdf>. A shorter but similar paper has recently been jointly released by the Federal Reserve Board and the Treasury Department: *The Feasibility and Desirability of Mandatory Subordinated Debt*, December 2000.

- **Directly** at time of issuance: “Direct market discipline is exerted through a risk-sensitive debt instrument when a banking organization’s expected cost of issuing the instrument increases substantially with an increase in the organization’s risk profile;”<sup>28</sup> and
- **Indirectly** in the after-market: “Indirect market discipline is exerted through a risk-sensitive debt instrument when private parties and possibly government supervisors monitor secondary market prices of that instrument to assist in determining the risk exposure (or default possibility) of the banking organization. In response to a perceived increase in bank risk, such parties could then take various actions that increase the cost of the bank’s operations. For example, private parties could increase the bank’s cost of funds, limit its supply of credit, or reduce its ability to engage in certain types of contracts, such as counterparty positions on derivative contracts, long-term commitments or syndication agreements. Government supervisors could conduct examinations, limit a bank’s activities, or raise capital requirements. The anticipation of these types of penalties, from either private parties or government supervisors, provides banking organizations with additional incentives to refrain from augmenting their risk.”<sup>29</sup>

In terms of both market discipline and as a cushion against losses, equity plays much the same role as subordinated debt but the latter is superior in one respect—the incentives of the holders:

Investors in SND<sup>30</sup> are exposed to loss, but they do not benefit from any upside gains that accrue to excessive risk-taking. Thus, the incentive of SND investors to monitor and limit bank risk-taking is similar to that of bank supervisors and in stark contrast to that of equity holders. Equity holders, while exposed to loss, can also reap gains from risk and thus have a much stronger preference for risk than SND investors have.<sup>31</sup>

In other words, the objectives of subordinated debt holders and bank supervisors align well in that both are most interested in protecting against failure.

While regulators and economists make the case for subordinated debt, some critics question, in the case of Fannie Mae, whether the issuance of subordinated debt can

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<sup>28</sup> *Id.* at 2.

<sup>29</sup> *Id.*

<sup>30</sup> *SND* stands for subordinated notes and debentures and is the acronym used for subordinated debt through the Federal Reserve study.

<sup>31</sup> *Id.* at 3.

enhance market discipline if investors treat existing GSE debt as though it had an implied federal guarantee.

S&P stressed, in assigning its AA- rating, that it did not regard the Subordinated Notes as being backed by the government: “Unlike Standard & Poor’s triple-‘A’ rating on the senior obligations of Fannie Mae, which incorporates implied government support, the rating on the subordinated debt assumes that the government would not intervene to prevent payment default on the instrument.”<sup>32</sup>

By the terms of the subordinated securities Fannie Mae will issue, interest payments will be automatically suspended if certain capital tripwires are activated and, should the company ever experience difficulties, holders of subordinated debt securities will stand in line behind senior debt creditors before they can recover their principal. For these reasons, a consensus of market analysts agree that Fannie Mae subordinated debt will be regarded by the market as different from its senior debt and will, in fact, trade at a premium.

Moody’s, in commenting on the voluntary commitments, summarized the beneficial results from subordinated debt and emphasized the difference between it and Fannie Mae’s and Freddie Mac’s senior securities:

The subordinated debt issued by Freddie Mac and Fannie will, in combination with common and preferred equity, improve senior debtholders’ position in the highly unlikely event of a liquidation or similar event. This should help to alleviate concerns about the systemic risks from GSE failure and help to provide an early warning signal to the marketplace in times of stress. ... The GSEs’ proposed subordinated debt also would not benefit from the same degree of implied support that senior enjoys and could face mandatory interest payment suspension.<sup>33</sup>

## **2. Liquidity Management and Contingency Planning**

In February 2000, the Basel Committee issued a paper outlining principles for managing liquidity and stressing the importance of such management.<sup>34</sup> According to the Committee:

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<sup>32</sup> Standard and Poor’s CreditWire, Rating Assigned to Fannie Mae Subordinated Benchmark Notes, January 24, 2001.

<sup>33</sup> Moody’s Investors Service, *Op. Cit.* at 4.

<sup>34</sup> Basel Comm. on Banking Supervision, *Sound Practices for Managing Liquidity in Banking Organizations*, Consultative Paper No. 69 (Feb. 2000).

Liquidity or the ability to fund increases in assets and meet obligations as they come due, is crucial to the ongoing viability of any banking organization. Therefore, managing liquidity is among the most important activities conducted by banks. Sound liquidity management can reduce the probability of serious problems. Indeed, the importance of liquidity transcends the individual bank, since a liquidity shortfall at a single institution can have system-wide repercussions.<sup>35</sup>

Fannie Mae's voluntary commitments adopt this commitment to liquidity. In particular, Fannie Mae has agreed to:

- Maintain three months worth of liquidity, as recommended by the Basel Committee on Banking Supervision, calculated on the assumption that the company has no access to the public new-issue debt markets during this period;
- Maintain at least 5 percent of its on-balance sheet assets in a liquid, marketable portfolio of non-mortgage securities; and
- Comply with the 14 principles of sound liquidity management set forth by the Basel Committee in February 2000. The Basel paper notes that “[t]he relevant time-frame for active liquidity management is generally quite short . . . . Banks which are reliant on short-term funding will concentrate primarily on managing their liquidity in the very short term (say the period out to five days). . . . Other banks (i.e., those that are less dependent on the short term money markets) might actively manage their net funding requirements over a slightly longer period, perhaps one to three months ahead.”<sup>36</sup>

Among the areas covered by the Basel policy paper for sound practices in managing liquidity, and with which Fannie Mae already complies or will comply, are:

- Developing a structure for managing liquidity;
- Measuring and monitoring net funding requirements;
- Managing market access;
- Managing foreign currency liquidity;
- Contingency planning for handling liquidity crises;

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<sup>35</sup> *Id.* at 1.

<sup>36</sup> *Id.* at 7.

- Establishing internal controls for liquidity risk management;
- Maintaining an adequate level of disclosure of information about the institution in order to manage public perception about the organization and its soundness; and
- Involving the board of directors in setting the liquidity policy and of supervisors in an independent evaluation of the organization's policy with regard to liquidity management.

Fannie Mae manages its liquid assets under strict investment guidelines reviewed and approved by the board of directors. Under these limits, liquid assets have an explicit goal of zero credit losses. Fannie Mae's typical liquid assets are money market paper and AAA-rated securities. Understandably, the margins on these high quality, liquid investments are significantly lower than those Fannie Mae earns on its mortgage portfolio but that is the opportunity cost the company pays to maintain a safe cushion of liquidity.

By virtue of the company's sound liquidity practices and its commitment to maintain more than three months worth of liquid assets, Fannie Mae is positioned not only to withstand swings in the markets, but also to provide liquidity to the market when other financial firms withdraw. Thus, for example, as detailed earlier in this letter, in the 1998 credit crunch, when other investors withdrew from the market, Fannie Mae stepped up its mortgage purchases—largely by drawing down liquid assets—which maintained the stability of the mortgage market and kept mortgage rates low for homebuyers.

### **3. Interim Risk-Based Capital Stress Test**

A third part of Fannie Mae's voluntary commitment is that pending OFHEO's publication of a final risk-based capital rule, Fannie Mae will implement and disclose the results of a risk-based capital stress test based on the standards in the 1992 Act.

Fannie Mae's interim implementation of the RBC test in no way substitutes for OFHEO's final rule. The 1992 Act that established both OFHEO and the risk-based capital test gave OFHEO responsibility for promulgating the RBC rule. While this work continues, both Fannie Mae and Freddie Mac have established their own internal versions of the stress test, in order to prepare for OFHEO's final rule.

On October 19, 2000, both companies committed that during the period *pending* OFHEO's publication of a final rule, they will release to the public whether they passed or failed the test established in the 1992 law and the assumptions underlying their performing that test.

The stress test would require Fannie Mae to hold sufficient capital to withstand the effect of a severe and extended economic shock without defaulting on its obligations.

It involves a ten-year stress test with severe adverse interest-rate movements and nationwide depression-level conditions in residential real estate lasting throughout the decade-long period. The required level of current capital is an amount that is sufficient so that Fannie Mae would remain solvent in every quarter throughout the ten-year span of adverse economic conditions *plus*, for good measure, an additional 30 percent to account for operations risk.

In particular:

- The credit stress component takes two years of the most adverse regional economic environment in the U.S. in the last 20 years, and extends it across the entire country for a full ten years. That downturn was the recession in the oil patch in the 1980s. For comparable conditions to exist throughout the entire country would require an economic disaster comparable to a major nationwide depression in effect for a period of time longer than this country has ever witnessed.
- Not only does the stress test envision a ten-year period of nationwide depression but it couples that period of depression with dramatic and sustained changes in interest rates. The interest rate stress scenarios call for interest rates to rise or fall up to 600 basis points and remain at these levels for ten years.
- The risk-based capital standard requires Fannie Mae not only to have sufficient capital to maintain solvency throughout both events while doing no new business, but also to maintain a 30 percent capital cushion over and above these stresses. Therefore, the company must maintain 130 percent of the capital necessary to survive the stress period.

A standard method of investigating loss exposures is to multiply the probability of a loss event by the severity of the loss to get the expected loss. As shown throughout this letter, the exposure of creditors (and, potentially, of taxpayers) to loss at Fannie Mae is small given the nature of the assets the company invests in and the loss mitigation techniques it employs. Passing the stress test means that Fannie Mae will have sufficient capital to survive almost every conceivable adverse set of environments, which means that the probability of insolvency approaches zero.<sup>37</sup> Given that the product of these two factors is, itself, close to zero, the exposure of the financial system and of the taxpayer to Fannie Mae risk can thereby be seen to be extremely small.

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<sup>37</sup> Fannie Mae Chairman, Franklin Raines, has testified that the “possibility of these two credit and interest-rate scenarios happening simultaneously is vanishingly small.” Franklin D. Raines, Testimony Before the House Subcommittee on Capital Markets, Securities, and Government Sponsored Enterprises, at 17 (May 16, 2000).

And it is certainly much lower for Fannie Mae than for most other financial institutions. Very few such companies could survive for ten years the type of environment assumed in Fannie Mae's stress test. William Seidman, former chairman of the FDIC has said:

The risk based capital standard set forth in the 1992 GSE Act creates a very stringent capital standard, one that could be devastatingly stringent if applied to most other financial institutions.<sup>38</sup>

Sandler O'Neill & Partners, the investment banking firm, expressed a similar opinion:

Fannie Mae is adequately capitalized for its risk profile. Other than Freddie Mac, we know of no other financial institution that must maintain capital sufficient to withstand such a severe crisis over a ten-year period while not being allowed to engage in any new business. Certainly few, if any, depositories could withstand such a challenge.<sup>39</sup>

Finally, a study commissioned by Fannie Mae from IPS-Sendero found that the thrift industry would have to significantly boost its capital in order to be able to survive the type of scenario envisioned by Fannie Mae's stress test:

Based on the results of IPS-Sendero's stress test model, the thrift industry would have to substantially increase its current capital base in order to be compliant with a risk-based capital standard directly linked to such results. ... The thrift industry would thus potentially need to boost its total capital base by between sixty and ninety percent (and possibly more given OFHEO's choice of stress test implementation) if subject to risk-based capital stress test requirements.<sup>40</sup>

#### **4. New Interest Rate and Credit Risk Disclosures**

The fourth component of the voluntary commitment is that Fannie Mae will disclose on a monthly basis the sensitivity of its business to changes in interest rates. This quantitative disclosure will include the impact on Fannie Mae's financial condition of both a plus or minus 50 basis point change in interest rates and a 25 basis point shift in the slope of the yield curve (also in both directions). This disclosure will include a

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<sup>38</sup> Memorandum to Freddie Mac, March 29, 2000.

<sup>39</sup> Mike McMahon, *Fannie Mae* 13. (Sandler O'Neill Equity Research, Sept. 28, 2000)

<sup>40</sup> Dave Dufresne, *Risk-Based Capital and the Thrift Industry: Implications of Risk-Based Capital Stress Test Requirements* 7 (IPS-Sendero, Feb. 1999).



discussion of the results of the sensitivity analysis and any material changes in the assumptions underlying the analysis.

A key part of Fannie Mae's business is effective interest rate risk management, and the financial markets place a huge premium on the company's ability to manage its business with steady earnings in a variety of interest rate scenarios. Fannie Mae currently discloses on an annual and quarterly basis the change in market value caused by immediate upward and downward shifts in interest rates across the yield curve. Monthly public disclosure of interest rate risk sensitivity will significantly improve the timeliness and quality of the financial information available to the public.

In addition, Fannie Mae will disclose on a quarterly basis the sensitivity of its business to changes in home prices. Quarterly "forward looking" public disclosure of home price sensitivity will significantly improve the timeliness and quality of the financial information available to the market. This quantitative disclosure will include an analysis of expected losses from an immediate 5 percent decline in property values. The disclosure will include a discussion of the results of the sensitivity analysis and any material changes in the assumptions underlying the analysis.

The purpose of these additional disclosures is to give the market access to information that the market—not the government—needs to gauge Fannie Mae's financial health and viability. OFHEO has access to any and all information at Fannie Mae through the continuous, on-site examination process.

While investors have access to a wealth of information through Fannie Mae's existing monthly and quarterly reporting, these new disclosures will give investors valuable additional information about the sensitivity of the company's financial performance to changes in interest rates and home prices.

One important component of these new disclosures is that there will be an enhanced continuing process of communication between Fannie Mae and its investors, analysts, and other market participants. Indeed, over time, investors and others may require new and different information, and Fannie Mae will respond to the demands of the market.

These additional disclosures are also complementary to the results of the quarterly stress test which have extremely stringent interest rate and credit condition assumptions over a ten-year period. Taken as a package, all of these disclosures far exceed the practice of other financial institutions.

In summarizing the value of the package of disclosures to which Fannie Mae and Freddie Mac have committed themselves, Moody's stated:

The provision by Fannie Mae and Freddie Mac of periodic, detailed risk information to the broad market will permit better independent reviews and monitoring of their risk profiles and should substantially reduce the uncertainty about their actual financial health as well as dampen any systemic risks they present. ...

The regular disclosure of their interest and credit risk exposure, combined with stress testing of their capital base, should significantly increase market comfort with their risk management disciplines and capital adequacy. The stress test, in particular, will show whether the two GSEs have sufficient capital to withstand very harsh market developments over a long period.<sup>41</sup>

## **5. Public Disclosure of an Annual Rating**

Finally, Fannie Mae has also committed to obtaining an annual rating from a nationally-recognized statistical rating organization of the company's "risk-to-the-government" or independent financial strength, and will disclose this rating to the public. The rating will assess the company's intrinsic financial strength by examining it under the explicit assumption that its debt does not have the backing of the federal government.

These annual ratings will provide regulators and investors with a readily discernible measure of financial strength and will promote market discipline. The ratings of Fannie Mae and Freddie Mac would "not only assess the independent financial strength of the two GSEs, but would also allow for direct comparison of their intrinsic risk profiles with hundreds of other large financial institutions around the world—a significant market benefit."<sup>42</sup>

Fannie Mae and Freddie Mac currently have preferred stock outstanding that is rated by either Standard & Poor's Corporation or Moody's Investors Service, Inc. Since 1996, both companies have maintained ratings of AA-/aa3 on their preferred stock issuances.

In 1997, after OFHEO asked S&P to rate Fannie Mae's "risk to the government," Fannie Mae received a AA- rating. In this rating, S&P cited Fannie Mae's consistently strong profitability and improvements in hedging, particularly the company's ability to weather changing market conditions and interest rate environments. Only six bank holding companies in the U.S. currently maintain a rating of AA-/aa3 or better on long-term senior debt.

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<sup>41</sup> Moody's Investor Service, *Op. Cit.* at 4.

<sup>42</sup> *Id.*

## **Section VI: Conclusion**

Fannie Mae is not a source of systemic risk. To the contrary, Fannie Mae is among the safest and soundest financial institutions in the country and has been a stabilizing force in the mortgage sector during times of uncertainty. Fannie Mae's stability results from several key factors:

- Its major product line, residential mortgages is, next to government securities, among the safest, most liquid and most transparent financial instruments in existence;
- The company expends a great deal of economic and managerial resources to protect itself against credit, interest-rate and liquidity risk;
- Fannie Mae is subject to full-time supervision and continual on-site examinations by a regulator that supervises just two mono-line institutions, and the results of these examinations are made public each year (unlike the examination results of banks, thrifts and even the Federal Home Loan Banks);
- Fannie Mae is subject to a unique and extremely stringent risk-based capital standard that demands risk management to a tolerance of safety that few, if any, other financial institutions could match; and
- Fannie Mae has embarked on a voluntary program to enhance company disclosure and market discipline that exceeds the standards imposed on any other financial companies.

The combination of all these factors assures that Fannie Mae will not be a source of systemic risk or economic dislocation. To the contrary, Fannie Mae is poised to be a stabilizing force in the mortgage market in times of stress. We are committed to maintaining that important role as we continue to help more and more Americans achieve their dreams of home ownership.

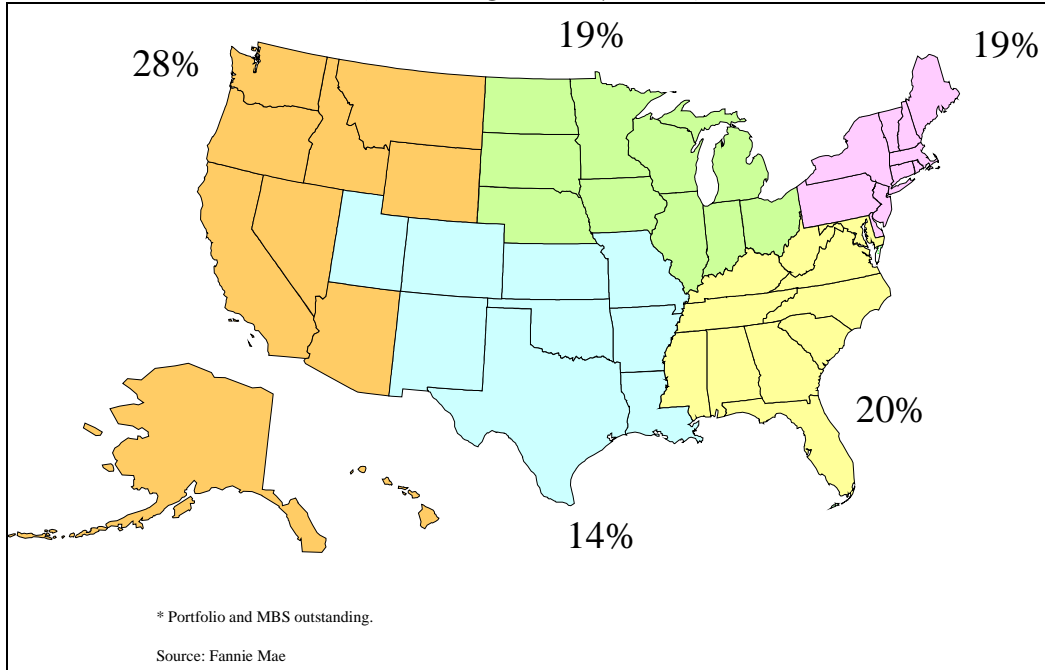
Sincerely

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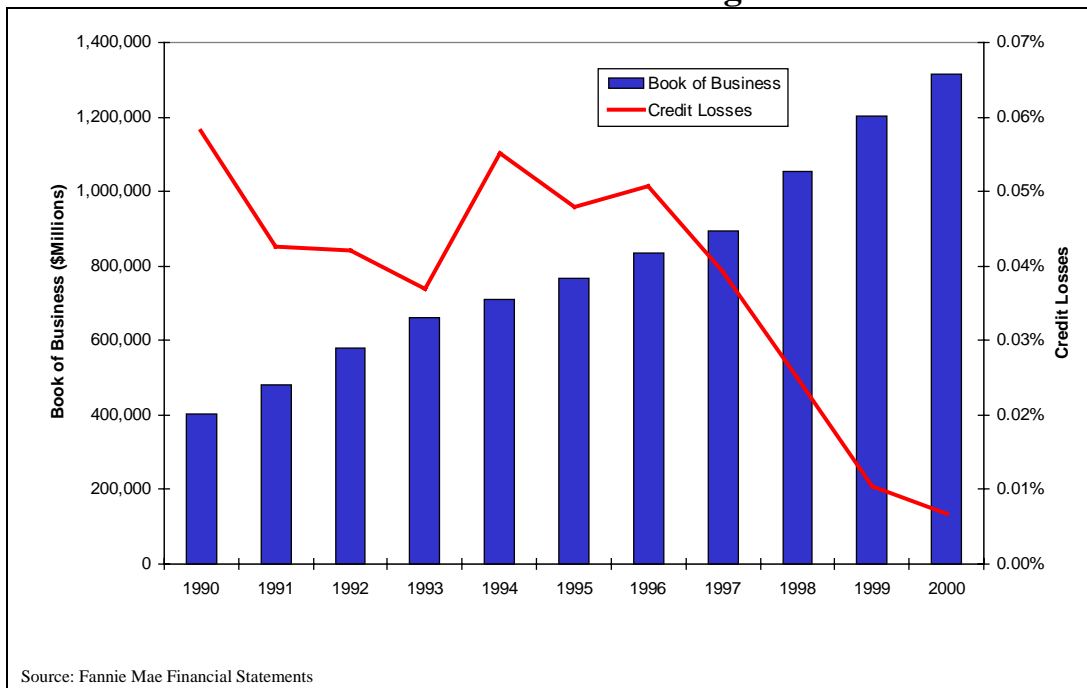
Arne Christenson  
Senior Vice President  
Regulatory Policy

## **Exhibits**

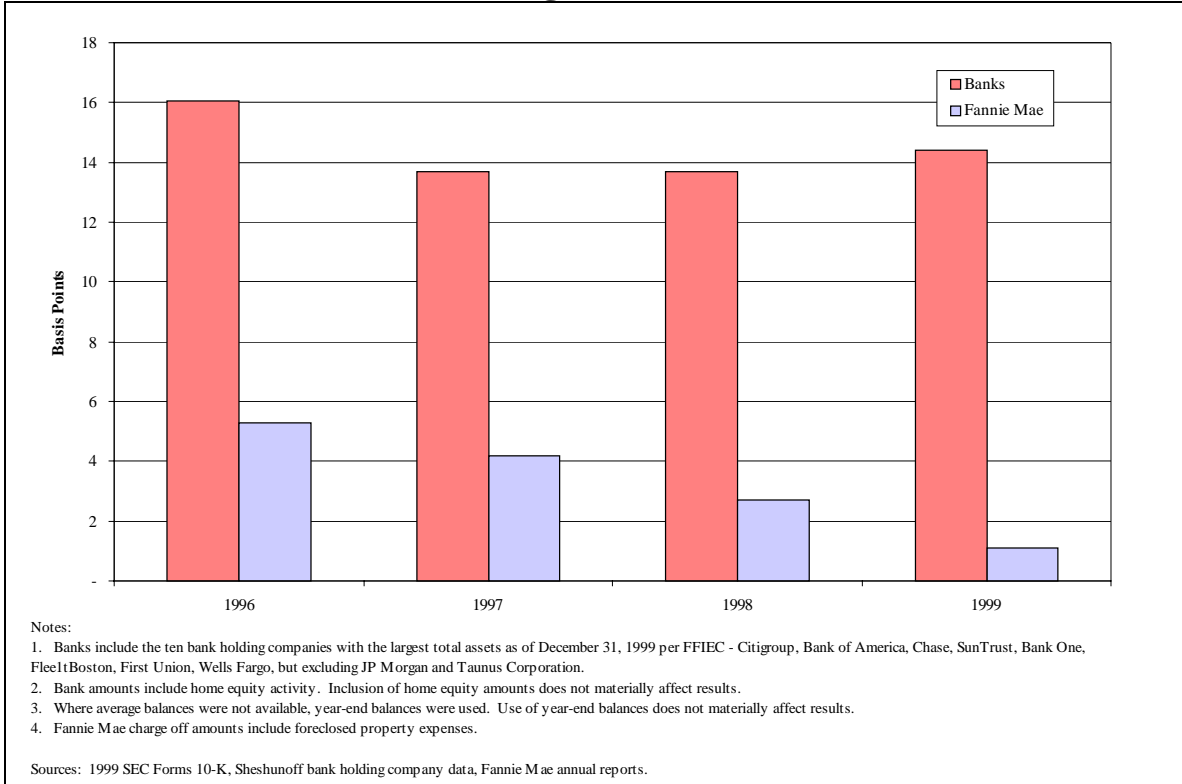
### Exhibit 1: Geographic Diversity of Fannie Mae Mortgages\* (Third Quarter, 2000)



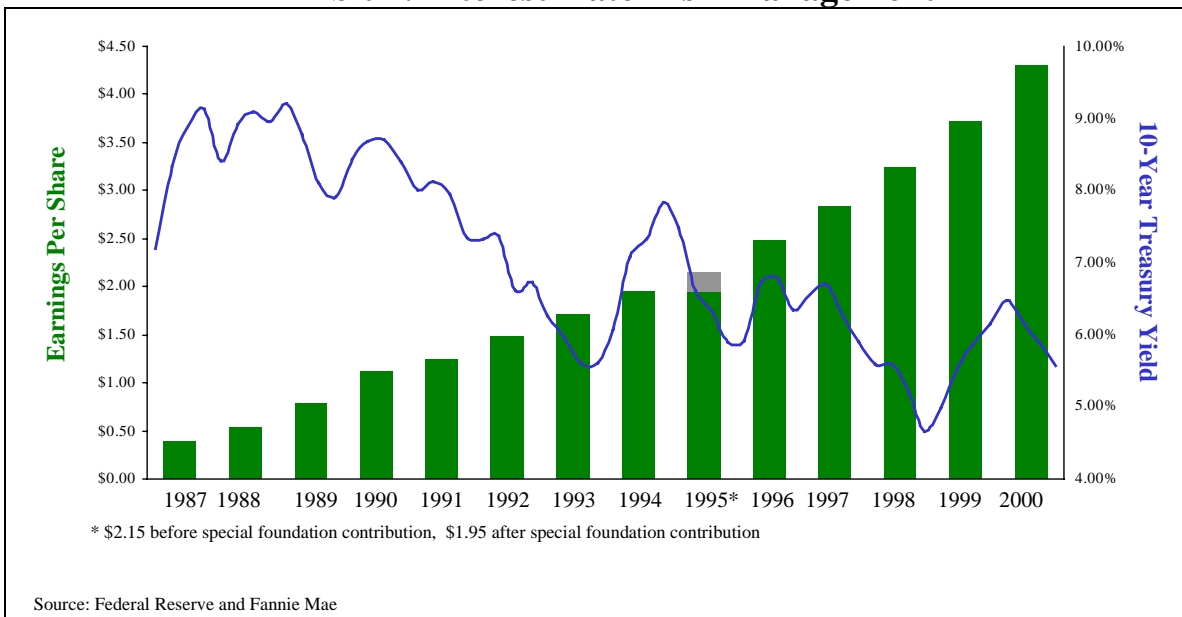
### Exhibit 2: Credit-Risk Management



### Exhibit 3: Credit Losses at Large Commercial Banks vs. Fannie Mae



### Exhibit 4: Interest-Rate Risk Management



**Exhibit 5: "Non-Traditional" Assets and Capital of "Soon-to-Fail"  
 Thrifts and Remainder of Industry  
 1985**

Non-Traditional Asset Category	Soon-to-Fail Thrifts*	Remainder of the Thrift Industry
Number of Thrifts	669	2,577
Tangible Capital as a % of Assets	-1.4%	1.8%
Commercial Mortgage Loans	13.4%	8.1%
Land Loans	7.7%	1.2%
Commercial Loans & Junk Bonds	2.2%	1.2%
Consumer Loans	4.4%	4.2%
Direct Equity Investments	5.0%	1.7%
<b>Total</b>	<b>32.7%</b>	<b>16.4%</b>
* Thrifts that either were liquidated or placed with acquirers during 1986-1989 or were predicted (as of early 1989) to require disposal		

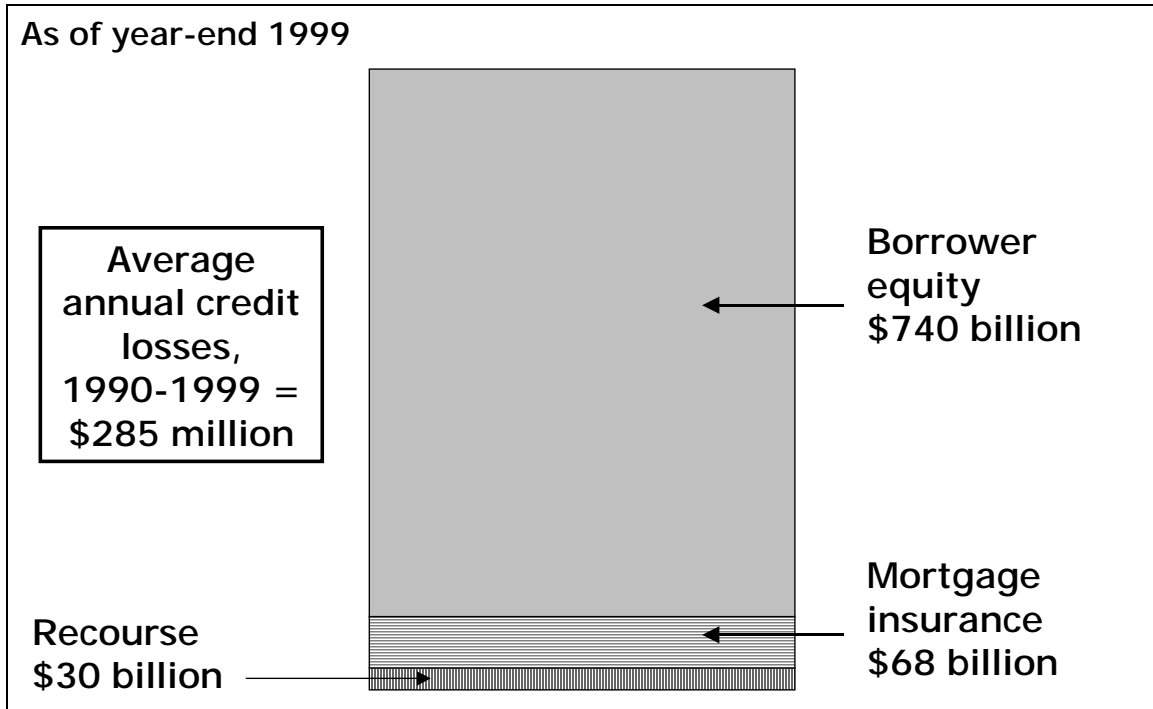
Source: "The S&L Debacle," Lawrence J. White, Oxford University Press, 1991, Table 6-12, page 116.

**Exhibit 6: The relationship of "traditional" asset holdings  
 at thrifts and their capital status  
 (December 1989)**

Tangible Capital to Assets	Number of FSLIC-Insured Thrifts	Average Tangible Capital as a Percent of Assets	Traditional Assets* as a Percent of Total Assets	Non-Traditional Assets** as a Percent of Total Assets
Greater than 5%	1,516	8.6%	78.9%	16.0%
0% to 5%	881	3.1%	70.4%	21.3%
Less than 0%	501	-25.6%	62.1%	24.5%
<b>Total/Average</b>	<b>2,898</b>	<b>1.0%</b>	<b>73.4%</b>	<b>19.1%</b>
* Traditional Assets: Cash, deposits, investment securities, MBS, 1-4 family mortgage loans.				
* Non-Traditional Assets: Construction Loans, Non-Residential Mortgages, Land Loans, Commercial and Consumer Loans, Real Estate Held for Investment, and Investment in Subsidiaries and Services Corporations.				

Source: Fannie Mae Computations based on FDIC data from database of Sheshunoff & Co.

**Exhibit 7: Fannie Mae's \$838 Billion in Credit Loss Protection**



**Exhibit 8: Estimated Holdings by Commercial Banks  
 of Fannie Mae Debt Securities  
 (June 2000)**

Total GSE Debt Outstanding	\$1,702B.
Total Fannie Mae Debt Outstanding	\$579B.
Fannie Mae Debt as a Percent of Total GSE Debt	34%
Total Bank Holdings of GSE Debt	\$245B.
Estimated Bank Holdings of Fannie Mae Debt	\$83B.

Source: Fannie Mae Estimates based on GSE and FDIC Reports



**Exhibit 9: Fannie Mae Debt Securities as a Percent  
 of Commercial Bank Equity Capital  
 (June 2000; \$ Bill.)**

Asset Size	Equity Capital	Fannie Mae Debt	FNM Debt to Equity Capital
Over \$50B.	\$209.2	\$9.0	4.3%
\$10B. to \$50B.	\$127.3	\$15.1	11.9%
\$1B. to \$10B.	\$85.9	\$18.7	21.8%
\$100M. to \$1B.	\$82.1	\$28.8	35.1%
Less than \$100M.	\$26.9	\$11.5	42.7%
<b>Total</b>	<b>\$531.5</b>	<b>\$83.2</b>	<b>15.7%</b>

*Source: Fannie Mae computations based on FDIC data*

**Exhibit 10: Distribution of Fannie Mae Debt Securities as a Percent of  
 Bank Capital, by Bank Size  
 (June 2000)**

Number of Institutions						
Asset Size	Fannie Mae Debt as a Percent of Capital					Total
	Less than 10%	10% to 25%	25% to 50%	50% to 100%	Over 100%	
Over \$50B.	15	1	0	1	0	17
\$10B. to \$50B.	48	11	5	2	2	68
\$1B. to \$10B.	137	83	74	40	11	345
\$100M. to \$1B.	618	679	1,022	827	229	3,375
Less than \$100M.	882	866	1,440	1,514	507	5,209
<b>Total</b>	<b>1,700</b>	<b>1,640</b>	<b>2,541</b>	<b>2,384</b>	<b>749</b>	<b>9,014</b>
Percent Distribution						
Asset Size	Fannie Mae Debt as a Percent of Capital					Total
	Less than 10%	10% to 25%	25% to 50%	50% to 100%	Over 100%	
Over \$50B.	88.2%	5.9%	0.0%	5.9%	0.0%	100%
\$10B. to \$50B.	70.6%	16.2%	7.4%	2.9%	2.9%	100%
\$1B. to \$10B.	39.7%	24.1%	21.4%	11.6%	3.2%	100%
\$100M. to \$1B.	18.3%	20.1%	30.3%	24.5%	6.8%	100%
Less than \$100M.	16.9%	16.6%	27.6%	29.1%	9.7%	100%
<b>Total</b>	<b>18.9%</b>	<b>18.2%</b>	<b>28.2%</b>	<b>26.4%</b>	<b>8.3%</b>	<b>100%</b>

*Source: Fannie Mae Computations based on FDIC Data*

**Exhibit 11: Distribution of Commercial Bank Holdings of Fannie Mae  
 Debt Securities as a Percent of Equity Capital  
 (June 2000)**

Fannie Mae Debt to Bank Equity	Number	Amount (\$ Bill.)		Percent Distribution		
		Total Assets	Fannie Mae Debt	Number	Total Assets	Fannie Mae Debt
Less than 10%	1,700	\$4,190	\$10.1	18.9%	66.8%	12.1%
10% to 25%	1,640	\$799	\$11.2	18.2%	12.7%	13.4%
25% to 50%	2,541	\$627	\$19.5	28.2%	10.0%	23.5%
50% to 100%	2,384	\$499	\$26.1	26.4%	8.0%	31.4%
Over 100%	749	\$159	\$16.2	8.3%	2.5%	19.5%
<b>Total</b>	<b>9,014</b>	<b>\$6,274</b>	<b>\$83.2</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Fannie Mae Computations based on FDIC data

**Exhibit 12: Losses by Asset Category at 747 Thrifts taken over by the  
 Resolution Trust Corporation  
 (Aug. 1989–Sept. 1995\*)**

	Cash, MBS & Other Securities	1-4 Family Mortgages	Multifamily and Commercial Mortgages	Commercial, Auto and Consumer Loans	Real Estate	Other Assets
Book Value	\$161.9	\$112.4	\$76.4	\$34.8	\$30.7	\$38.6
Losses at Disposition	\$3.6	\$4.4	\$19.1	\$4.1	\$13.8	\$14.7
Percent Loss	2.2%	3.9%	25.0%	11.9%	44.9%	37.9%
Recovery Rate	97.8%	96.1%	75.0%	88.1%	55.1%	62.1%

\* The RTC wound up operations in December 1995 and did not issue a later report.

Source: "RTC Statistical Abstract, August 1989/September 1995," Resolution Trust Corporation, Table II C-S, page 18.

**Exhibit 13: Geographic Distribution of RTC Caseload  
 (1989-1995)**

State	Number of Institutions	Assets at Takeover	Percent of Total	Cumulative Percent of Total
California	73	\$85,697	21.3%	21.3%
Texas	137	\$57,574	14.3%	35.6%
Florida	49	\$35,169	8.7%	44.3%
New Jersey	34	\$24,504	6.1%	50.4%
Arizona	9	\$19,399	4.8%	55.2%
All Other States	445	\$180,226	44.8%	100.0%
<b>Total</b>	<b>747</b>	<b>\$402,569</b>	<b>100.0%</b>	

Source: "RTC Statistical Abstract, August 1989/September 1995," Resolution Trust Corporation, Table VI-S, page 22