

March 10, 2000

Alfred M. Pollard
General Counsel
Office of Federal Housing Enterprise Oversight
1700 G Street, NW
Fourth Floor
Washington, DC 20552

Re. 12 CFR Part 1750; RIN 2550-AA02
Second Notice of Proposed Rulemaking
Risk Based Capital for Fannie Mae and Freddie Mac

Salomon Smith Barney, a major global investment bank, is pleased to comment on the referenced NPR. The Firm has substantial experience with the operations and activities of Fannie Mae and Freddie Mac (the “Enterprises”), including:

- the mortgage and liquid investment portfolios
- issuance of debt and mortgage-backed securities
- their use of derivative instruments to manage interest rate risk
- optimization of capital accounts
- innovation and new product development

In addition, the Firm is one of the world’s largest distributors and traders of fixed income, equity and derivatives instruments, and many clients and customers are investors in the fixed income and equity securities of the Enterprises. Salomon Smith Barney’s views and comments are made solely within the context of its substantial activities in the global fixed income and equity capital markets, not as legal or regulatory expert.

1. BACKGROUND

A. IMPORTANCE TO THE CAPITAL MARKETS

As a major participant in the global capital markets, Salomon Smith Barney appreciates the importance of an appropriate and effective regulatory environment. This is especially the case today as true globalization of the capital markets combined with technology now allow investors to move money around the world with one phone call or mouse click. The investors might be a small business owner in Iowa, a New York mutual fund manager, an Asian manufacturing company and a European-based insurance company.

Given the broad ownership of the Enterprises’ securities, it is likely that each of these investors owns some of the \$2.2 trillion in outstanding Freddie Mac and Fannie Mae

securities.

FANNIE MAE AND FREDDIE MAC OUTSTANDING SECURITIES (in billions)			
<u>Type of Security</u>	<u>Fannie Mae</u>	<u>Freddie Mac</u>	<u>Total Enterprises</u>
Bills, Notes and Bonds ¹	\$548	\$361	\$908
Mortgage-Backed Securities ²	679	538	1,217
Common and Preferred Stock ³	<u>53</u>	<u>29</u>	<u>82</u>
	\$1,280	\$928	\$2,207

¹ As of December 31, 1999.
² Net of mortgage-backed securities held in portfolio, as of December 31, 1999.
³ Estimated market value.

Sources: Fannie Mae, Freddie Mac, and Salomon Smith Barney.

The point is that all investor types worldwide own Fannie Mae's and Freddie Mac's \$2.2 trillion in securities, and any regulatory regime must take this into account. Capital markets investors are the sole source of funding for the Enterprises, and they have many investment choices should the Enterprises be deemed less attractive for any reason.

In addition, with the continued pay down of US Treasury debt, the global capital markets are looking for high quality, liquid debt that is issued consistently as a basis to price the rest of the US dollar fixed income market. This provides a major opportunity for the Enterprises and, therefore, US homebuyers. Bellwether status for Fannie Mae and Freddie Mac debt securities¹ likely would lead to relatively lower funding costs, thus reducing the cost to home buyers while improving the profitability of the Enterprises, thereby lowering their risk profiles.

¹ The Enterprises' debt programs are Fannie Mae Benchmark NotesSM and Freddie Mac Reference NotesSM. Together they are referred to herein as "Bellwether Debt."

The market is seeing the impact of Bellwether Debt, as many institutions have begun to use it as an alternative hedging instrument. Also, high quality corporate bond issuers have begun to utilize Bellwether Debt as the pricing reference for new issues. In addition to strong credit, what defines Bellwether Debt is the consistency, predictability and logic to the issuance of large and liquid tranches. An understanding by the market of the organizations' business environment, including an appropriate regulatory framework, is a key factor to its confidence.

This is critical to the equity markets, which provide the only risk capital that the Enterprises have. That risk capital cushions the holders of debt and mortgage-backed securities (and the US government) against possible loss. There is no other cushion. As a result, equity investors require that the Enterprises operate to optimize safety and profitability within the context of their charters.

Therefore, the Enterprises must fulfill their mandate and optimize operations within the requirements and constraints of the capital markets. These dictate that management have the ability to operate within the realities of the market, and make operating tradeoffs daily. Regulations that discourage this make risk capital less desirable as an investment, thus decreasing its availability while increasing its cost. Reducing an institution's ability to obtain risk capital, or increasing its cost, increases the risk of the institution.

On the flip side, the Enterprises are very important mortgage market investors, especially during difficult markets. Their combined mortgage portfolio growth in the fourth quarter of 1998, when the markets were roiled due to problems in Asia, was 41% of their total growth for the year. Their support of the mortgage market increased during the most difficult market environment. Reducing the Enterprises' ability to obtain risk capital, or increasing its cost, might reduce this capability.

B. KEYS TO THE PERCEPTION OF CREDITWORTHINESS

Several traits characterize healthy financial institutions.

- strong liquidity position from market access and liquid investments
- ongoing profitability
- quality management practices at the strategic and operating levels
- current capital position and the ability to attract new capital
- franchise value resulting from the flexibility to innovate

The regulatory structure should monitor and encourage these traits. It should provide an early warning mechanism that flags potential problems, and give the Enterprises the time and flexibility to address problems that may arise. This is important for the Enterprises, their housing finance constituents, holders of debt and mortgage-backed securities, and investors in their risk capital.

C. STRONG AND EFFECTIVE REGULATIONS ARE IN THE MARKET'S INTEREST

Regulatory structure is important to many of our customers that invest in Fannie Mae and Freddie Mac securities. However, as we discuss below, regulatory structure means more than capital requirements. It includes legislative mandates and constraints, on-site examination authority by the regulator, and the authority to change an Enterprise's behavior when that Enterprise is deemed not operating safely or within its legislative mandate.

From the perspective of the market, if safety and soundness requirements are not strict enough, the Enterprise may take on inappropriate risk. If the safety and soundness requirements are too strict, the Enterprises may be forced to reduce or even exit certain business lines or, alternatively, substantially increase the cost to consumers utilizing those products. Thus, inappropriately strict requirements de facto could set public policy regarding the pricing or availability to consumers of certain products.

However, a robust regulatory structure that (i) is appropriate for the Enterprises given the business which they are in and the many checks and balances already in place, and (ii) allows management the flexibility to operate within those requirements, is in the interest of all market participants.

D. THE REGULATION WILL IMPACT HOW THE ENTERPRISES OPERATE

Whatever the final form of the risk-based capital regulation, it will have direct impact on how the Enterprises operate. This is particularly true as the Enterprises must operate as going concerns, while the proposed capital regulation tests a hypothetical in which new business ceases and the Enterprises wind down operations. This approach to computing the capital required for the current book of business has merits, but it should be as consistent as possible with the actual operations of the Enterprises.

The preamble to the proposal explains that an Enterprise "could adjust to the standard by either increasing capital or decreasing risk or both." 64 Fed. Reg. at 18114. More precisely, an Enterprise could adjust by increasing capital or by decreasing risk *as measured by the model* -- which may or may not give rise to an actual risk reduction and could represent an actual risk increase.

For example, the proposed regulation requires that all debt maturing or called over the ten-year horizon of the stress test be financed short term at a cost of 50bp above the market. This is not how the Enterprises finance their operations and, in fact, this assumption could add liquidity and interest rate risk to the computation, which is not part of the current portfolio. Depending upon the results of that analysis, the Enterprises could be forced (by unrealistic assumptions in a model implemented by their safety and soundness regulator) to issue debt today with different maturity and optionality characteristics than they otherwise would. Thus, a calculation based upon simplifying assumptions could be converted to increased actual risk.

Nevertheless, the Enterprises must remain in capital compliance based upon the model, and could be forced to do so by increasing their actual risk position, or by reducing theoretical risk by de-emphasizing certain types of business. Neither would be acceptable.

E. THE REGULATION COULD IMPACT THE ULTIMATE COST OF HOUSING

Non-economic operations could lead to an increased cost of financing, which could increase the cost of home ownership. Whether this occurred through (i) an explicit increase in Enterprise guarantee fees, (ii) reduced Enterprise portfolio activities, or (iii) the Enterprises eliminating certain mortgage products, the homebuyers could be disadvantaged.

Investors would receive their required returns from Enterprise investments, or would look to another of many alternatives

2. STRONG CONTROLS ALREADY IN PLACE

In developing its risk-based capital regulation under the Federal Housing Enterprises

Safety and Soundness Act of 1992, OFHEO appears to have considerable discretion in the methodology and operation of the regulation while still complying with the spirit and letter of the 1992 Act. The controls discussed below form the context of our subsequent comments on specific parts of the proposed regulation, and we urge that these existing controls be considered by OFHEO in using the discretion granted by the 1992 Act.

A. LEGISLATION

The enabling legislation (and resultant charters) of the Enterprises define explicitly the business in which the Enterprises must operate. They can only support the secondary market in residential housing within the US, limited further to maximum mortgage balances and minimum credit support.

Also, under the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, Congress mandated that the Enterprises hold capital (i.e., common stock plus non-cumulative perpetual preferred stock) equal to at least

- 2.5% of all assets, plus
- generally, 0.45% of off-balance sheet liabilities

B. REGULATION

OFHEO and HUD have powers in place to regulate the Enterprises.

- As safety and soundness regulator, OFHEO has the authority to examine the operations of the Enterprises, and recommend and mandate changes as necessary to assure their safety and soundness. Its powers include issuance of cease and desist orders, mandatory reporting to Congress, and prohibiting payments of dividends under certain circumstances.
- In this role OFHEO also has examiners on site at the Enterprises to review and recommend changes to risk management policies and procedures.
- Each year HUD opines as to whether the Enterprises have met their public mission goals, including the availability of mortgage financing to low and moderate income borrowers.

C. ENTERPRISES' OWN CONTROLS

The Enterprises have their own policies and procedures to ensure that they operate in

accordance with their Congressional mandates in a safe and sound manner.

- The Enterprises have models that stress their portfolios to be certain that potential cash flow mismatches remain within acceptable limits, and also point out whether the Enterprises need to take corrective action. Among others, value at risk, income at risk and mark-to-market measures are used to manage cash flows.
- As to mortgage credit risk, both Enterprises have developed automated underwriting systems to analyze and manage credit risk. Equally important, each has improved its loss mitigation capabilities. There are early warning systems in place, allowing management to recognize early potential default candidates and to work with those borrowers to prevent foreclosure. For those loans that do go to foreclosure, the Enterprises have increased resources to minimize foreclosure losses.
- Fannie Mae and Freddie Mac are diligent in ensuring that they can access the capital markets at all times in size and at the lowest possible cost. This is critical to assure both liquidity and profitability. This was evident during the capital market difficulties of the third and fourth quarters of 1998, when their market access was unaffected while their relative costs improved vs. other high quality borrowers.
- An additional source of liquidity results from the non-mortgage investment portfolios. Here too the Enterprises have self-imposed requirements, including high minimum credit ratings, concentration limits and maximum weighted average lives (which controls interest rate risk). In practice we find that they purchase significant amounts of high credit quality short term assets, e.g., repurchase agreements on mortgage securities, commercial paper, certificates of deposit, and floating rate investments (e.g., auction rate preferred stock) of top grade companies which trade close to par.

D. CAPITAL MARKETS DISCIPLINE

The capital markets also impose discipline on the Enterprises. This market discipline is very important to the Enterprises because they compete in the global capital markets with many US and non-US companies. In fact, since 1968 Fannie Mae has raised every dollar needed to fund its operations in the capital markets. Since it was created in 1970 Freddie Mac has done the same. The Enterprises' management of their operations, including interest rate risk, credit risk and liquidity, is central to their abilities to continue funding in the capital markets at the lowest possible costs. Any impact on these costs accrues to the benefit or detriment of homebuyers. As such, the Enterprises' risk management is geared towards the market's view of risk.

From the market's perspective perhaps the most important issue for any company, but especially for a financial institution, is liquidity. Insufficient liquidity can cause a financial institution to stop growing or shrink, or even to go out of business. Perception by the market of too little liquidity can cause a company's debt financing costs to increase, eventually negatively impacting earnings and stock price. However, too much liquidity due to (i) sizable short duration and high credit quality investments characterizing a liquidity portfolio, or (ii) excess capital or long term debt, generally will lower returns on assets and equity. Eventually, this will impact negatively a company's stock price, hurting the providers of risk capital.

The Enterprises must act in an economically sound manner in order to obtain funding from the capital markets at the lowest cost. If they manage their businesses in any other manner, whether by choice or by unrealistic or economically unsound regulatory requirements, they will compromise both market access and funding costs. These are not a given, because no investor in the world *has* to own Fannie Mae or Freddie Mac securities. These instruments must be sold within the context of the marketplace and other competing investments.

It is incorrect, as stated in the preamble to the proposal, "that the Enterprises are largely insulated from private market discipline relative to fully private firms...and is best exemplified by the market's acceptance of Fannie Mae securities in the early 1980s and the Farm Credit System's securities in the mid-1980s when these GSEs were experiencing financial difficulties." 64 Fed. Reg. at 18085 While the GSEs were able to sell their debt securities, it was difficult, and the funding costs were significantly higher than those of their peers. Stock performance suffered as well. This market oversight was a factor over time in making these better companies.

Given that the Enterprises already have significant requirements on their activities imposed by (i) Congress, (ii) OFHEO, (iii) HUD, (iv) themselves and (v) the capital markets, OFHEO should take advantage of these controls in utilizing its discretion in implementing the risk-based capital regulation.

3. GENERAL ASSUMPTIONS IN IMPLEMENTING RISK-BASED CAPITAL

There are seven assumptions under which OFHEO should act in its implementation of the risk-based capital regulation.

A. USE ALL REGULATORY POWERS IN DETERMINING SAFETY AND SOUNDNESS

As stated earlier, the appropriate regulation of the Enterprises is very important to the capital markets. We also appreciate that it is a complex undertaking, with many implications to the US economy. As a result, we urge that OFHEO not overly-depend on the risk-based capital model to regulate the Enterprises.

Certainly risk-based capital is an important part of the regulatory process, but it is only a part. No single model, process or procedure can measure and assess risk fully, much less determine a single number which defines the safety and soundness of Enterprises with more than \$2 trillion of securities.

The examination process, through which OFHEO examiners become intimately knowledgeable about the Enterprises and their management, needs to be a critical component of the process. Thus, OFHEO should be comfortable in using its discretion in modifying the risk-based capital regulation to be more representative of how the Enterprises and the markets work.

B. REGULATION MUST BE WORKABLE OPERATIONALLY

Whatever the regulation's final form and requirements, it must be workable operationally by the Enterprises. They must be able to incorporate its requirements into their daily operations to allow day-to-day decision-making, as well as long term planning and innovation. As discussed in Section 4, we are concerned about whether the Enterprises will be able to utilize the risk-based capital proposal in the development of new products that are outside the current product categories.

C. CONSISTENT WITH ECONOMIC REALITY

The regulation needs to reflect how the Enterprises operate their businesses, and how the capital markets work. As stated earlier, the Enterprises fund their operations completely in the capital markets, and must compete for these funds daily. The regulation must assume this in its operation.

D. RISK/RETURN TRADEOFFS MUST BE AVAILABLE

Enterprise managements must be permitted to make appropriate risk/return tradeoffs in operating these businesses. The regulation must not bias the decision one way or the other, but set standards for what is appropriate to maintain safety and soundness given a particular decision.

As will be evident from comments on specific parts of the proposed regulation, OFHEO's approach has been to focus on risk reduction, not optimization by management of risk and return. Biasing the decision in one direction effectively sets policy. For example, a focus on reducing risk may push the Enterprises toward lower risk assets, which may not be the optimal decision for either safety and soundness or public policy.

Public policy regarding the Enterprises is the role of Congress and HUD; operating in accordance with these requirements is the role of Enterprise management. Operating in a safe and sound manner is also the responsibility of management. OFHEO's safety and soundness role should be to provide specific requirements based upon the decisions taken by management, and not bias or drive those decisions.

E. UTILIZE AVAILABLE ENTERPRISE ANALYSIS

The Enterprises have done well in many market environments operating safely and soundly. They utilize cash flow modeling and other state-of-the-art portfolio management techniques in making daily operating decisions as well as in long term planning. In finalizing its model and in ongoing examinations, OFHEO should take advantage of the Enterprises' ongoing financial management since there is a long and successful track record.

Before finalizing its model, and certainly prior to implementation, there is every reason why OFHEO should compare its results to those of the Enterprises as a "sanity check" of OFHEO's model. Billions of dollars in decisions are made weekly by the Enterprises based upon their ongoing portfolio management processes (only parts of which are their models), while OFHEO's model is untested.

The implications of its results are too important for OFHEO to go from the drawing board to final production without extensive testing. One excellent test would be a comparison to the Enterprises' models.

F. USE MARKETPLACE EXPERTISE

Other "sanity checks" are also available to OFHEO, e.g., portfolio management tools utilized by the major Wall Street dealers. For example, Salomon Smith Barney pioneered Yield Book, a sophisticated model utilized by many investors and issuers in the fixed income markets. We and others commit billions of dollars daily based upon results provided by Yield Book. We would be pleased to discuss with OFHEO how it might utilize this system to test its model (refer to Section 4, below).

On the credit side, the major statistical rating agencies have performed substantial work in analyzing credit, and their ratings are used worldwide as an important basis for investment decisions. In fact, in 1997 OFHEO utilized Standard & Poor's for "stand-alone" ratings for the Enterprises, each of which received a AA- rating. The preferred stocks of the enterprises are rated explicitly as aa2/AA-. While the bases for these ratings are different than what is required of OFHEO in the 1992 Act (e.g., going concern vs. winding down the Enterprises), the body of work done by the rating agencies should be utilized in determining credit haircuts, especially those of counterparties.

G. INVESTORS WILL DEMAND MARKET RETURNS FROM THE ENTERPRISES

Irrespective of how the risk-based capital model is implemented, investors in the securities of the Enterprises will obtain their required returns, and they will compute those returns based upon the realities of the capital markets. As such, OFHEO's actions must be consistent with those realities. If the Enterprises' cost of funding increases relative to the markets because of non-economic decisions forced by regulation, homebuyers will bear the brunt through increased cost or reduced access.

The Enterprises can not simply reduce their returns to security holders because investors have many alternatives. By definition, the Enterprises will pay a market rate to investors based upon many factors, including the logic and quality of their operations. The regulatory environment is an important factor in these operations and, as such, will impact the cost of funds over the long term.

4. SPECIFIC AREAS OF COMMENT

A. COUNTERPARTY HAIRCUTS

The proposal assumes that all counterparties, including triple-A rated entities, fail to meet their financial obligations starting immediately. For example, were an Enterprise to own a triple-A rated, 5-year bullet security with a 7% coupon in its liquidity portfolio, it would have to hold nearly 5% capital against it.² In one situation, that of a triple-B counterparty with obligations in year 10 of the stress test, the proposal requires 104% capital held against that counterparty's liability. In other words, the Enterprises must assume that they will lose more than what is due. This is far beyond market assumptions, and is internally inconsistent with assumed mortgage losses and relative financing rates during the stress period.

In fact, a reduction of creditworthiness generally takes place over time, and must be managed by the counterparties. For example, it is unusual for triple-A counterparties to post collateral. However, most agreements provide for posting collateral when there is a downgrade, and these situations are monitored carefully by the Enterprises. The proposed regulation assumes that no monitoring or corrective action will be taken by the Enterprises, thereby not reflecting reality.

This could lead the Enterprises to reduced reliance on counterparties to lower risk (e.g., mortgage insurance and recourse), and increase the cost of housing.

OFHEO should consider reducing the haircuts to be consistent with those utilized by the marketplace, or based upon the appropriate historical experience.

² Assumes a discount rate of 7%.

B. ENTERPRISE DEBT PENALTY

OFHEO assumes throughout the stress period that the Enterprises alone must fund 50bp above the market. This is inconsistent with historical market spreads, particularly given that under many stress scenarios the Enterprises may meet minimum capital requirements while continuing to pay preferred stock dividends. At the same time, counterparty haircuts (discussed above) require capital to be held by the Enterprises assuming that all counterparties, irrespective of rating, will be defaulting on obligations throughout the stress period.

Thus, OFHEO assumes that capital-compliant companies, i.e., the Enterprises, pay 50bp more relatively for funding than defaulting companies. This unrealistic conclusion can lead to the Enterprises funding with longer term bullet debt vs. short term debt with swaps, to avoid raising funds during the stress period at the punitive rate, and holding capital against assumed defaulting swap counterparties. This could lead to a real increase in the cost of funds. Since there is no basis for the penalty, we recommend that it be eliminated.

C. FUNDING WITH SHORT TERM DEBT

This assumption requires that the Enterprises hold real capital today assuming that they issue only 6-month maturity debt during the entire stress period, even under the increasing interest rate scenario. This is contrary to the Enterprises' risk management strategy and practices, and adds a level of hypothetical risk (which would require real capital or a real reduction of risk elsewhere in the Enterprises' activities) with no basis to do so.

Compounding this is the 50bp penalty (discussed above) which would make the hypothetical funding inordinately expensive while simultaneously increasing interest rate risk.

Since there is no basis for the assumption that the Enterprises would fund only short term, it should be eliminated. In its place OFHEO should consider a rule which reflects the actual funding strategies of the Enterprises. For example, OFHEO could require that the Enterprises maintain the same cash flow matching, optionality, and convexity characteristics that are present in the portfolio at the time the stress test is run.

D. NON-DEFAULT PREPAYMENT ASSUMPTIONS

i. Background Information

The 1992 Act prescribes two interest rate scenarios, one with rates falling and the other with rates rising. The risk-based capital amount is based on whichever scenario would require

more capital for the Enterprise. The 1992 Act also describes the path of the ten-year CMT for each scenario and directs OFHEO to establish the yields on Treasury instruments of other maturities in a manner reasonably related to historical experience and judged reasonable by the Director. We will focus on the results produced by OFHEO's models in the up-rate scenario.

In this scenario, the 10-Year CMT increases during the first year of the stress period and then remains constant for nine years at the greater of (a) 600 basis points above the average yield during the nine months preceding the stress period, or (b) 160% of the average yield during the three years preceding the stress period. However, the 1992 Act limits the increase in yield to 175% of the average yield over the nine months preceding the stress period.

The average yield of the 10-year Treasury was 6.03% for the past 9 months, and 5.80% for the last 3 years. As of March 3^d the yield on the 10-year Treasury was 6.38%. Therefore, the up-rate scenario in the current environment results in the 10-year Treasury yield rising to 10.55% over 1 year (+417bp), and remaining there for the next 9 years. We estimate that under OFHEO's model mortgage rates would increase to 12-12½%.

ii. Single-Family Prepayments in the Up-Rate Scenario are Too Low

We believe that the non-default prepayments projected by OFHEO's model in the up-rate scenario are too low, for two reasons. First, the Enterprise loan level data OFHEO used to calibrate its prepayment model is not representative of the mortgages currently owned by the Enterprises because OFHEO's data sample likely contains a disproportionate number of assumable mortgages. Prepayment rates on assumable mortgages could be significantly lower than on non-assumable mortgages during periods of high interest rates.

Second, the long-term mobility rates projected by OFHEO's prepayment model appear implausibly low – when mobility rates fall because of dramatic increases in mortgage rates, the model projects that they continue to remain anchored at these levels for indefinite periods of time. However, historical patterns of housing mobility seem to argue against this conclusion, suggesting that over longer periods of time households adjust to higher mortgage rates, and their mobility rates gradually begin to increase.

Assumability A homebuyer financing with an assumable mortgage, can “assume” the obligations of the existing mortgage, thereby not triggering a prepayment. Generally, the assumability option works against the lender. It has intrinsic value whenever the current market rate exceeds the contract rate on the mortgage because the seller can pass on the below-market rate loan to the buyer, and capture its value through a higher selling price. The seller and the buyer benefit at the expense of the lender who continues to carry a low-rate loan in a period of high market rates.

FHA and VA loans always have been assumable, though the FHA has tightened periodically the borrower qualifications for making an assumption. Until the 1970s most conventional loans were assumable, but this began to change in the 1980s. In the high-rate environment of the early 1980s, lenders became increasingly aware of the value of the assumability option and sought to remove it for conventional mortgages through the due-on-sale clause in the mortgage or deed-of-trust.³

Essentially, the due-on-sale clause stipulated that the entire amount of the remaining balance was due to the lender in the event of a sale of the property. By the 1990s virtually all conventional mortgages had this clause. The importance of the assumability option can be gauged by the fact that borrowers attempted in court to retain this option, and it was not until the Garn-St. Germain Act of 1982 that a sale of the house resulted in automatic enforcement of the due-on-sale clause.

The data used in the statistical analysis of prepayments conducted by OFHEO included mortgage originations for the period from January 1979 to December 1993. Since it took until the 1990s for virtually all conventional mortgages to have the due-on-sale clause, the OFHEO data sample likely contains a number of assumable mortgages. As such, the data sample is probably not representative of the Enterprises' current mortgage portfolio holdings, which are almost entirely comprised of non-assumable mortgages from the 1990s. We suggest that OFHEO examine the prepayment differences between assumable and non-assumable mortgages in high-interest rate scenarios, and then adjust its projections to account for the current composition of the Enterprises' portfolios.

³ A deed-of-trust is an instrument that places title to the property with a trustee (third party) until the loan is fully paid.

Long-term Mobility Rates In the up-rate scenario (with the 10-year Treasury yield increasing to about 10.55%) we estimate that OFHEO's prepayment model projects a 10-year cumulative prepayment rate (not including defaults) of about 27% for a new mortgage loan with a coupon of 7% and an OLV of 80%. This cumulative prepayment rate translates into an improbably low annual mobility rate of 3% over the ten-year stress period. As discussed above, the mobility rate projected by the model is perhaps so low simply because the model is benchmarked to a portfolio of loans that is biased towards assumable mortgages. However, a deeper concern is that the mobility rates projected by the OFHEO model do not adjust gradually towards some equilibrium level after an interest-rate shock.

As cataloged by the US Census Bureau in its housing surveys, while affordability is important, the household-level decision to move is also heavily influenced by a number of other factors. These include housing-related reasons (e.g., desire for a larger house, change in tenure status), family changes (e.g., marriage, divorce), and job-related reasons (e.g., relocation by the government or private sector employer).

In other words, there is a strong “non-economic” component to household mobility that results in household moves even in cases where affordability is severely diminished. Thus, while it is possible that the mobility rate might fall temporarily to 3% or below if mortgage rates were to rise by over 400bp in a year, it is not likely that they would remain at these levels for the next nine years, as many households could not postpone moving indefinitely. Over time consumers would adjust to these rate levels, and the mobility rate would gradually begin to creep up.⁴

iii. General Comments on OFHEO's Modeling Methodology

We believe that OFHEO would benefit by consulting the Wall Street dealer community in developing and calibrating its prepayment and valuation models. For example, the research group at Salomon Smith Barney is a pioneer in the development of valuation tools for mortgage securities, and has been building and refining prepayment models for many types of collateral since the early 1980s.

Our mortgage department, which is the largest trader of mortgage securities on Wall Street, uses these tools extensively. In addition, our models are the industry standard among fixed-income investors, and our analytic delivery system, Yield Book, is the analytical tool of choice for most large investors (including Fannie Mae and Freddie Mac). In brief, the

⁴ A discussion of the empirical basis for these conclusions and our approach to modeling housing turnover (and prepayments in general) can be found in our paper, *Anatomy of Prepayments*, Salomon Smith Barney, April 1995, which is attached.

assumptions and results of our models have been tested in various interest-rate environments by a number of fixed-income investors and, consequently, we are well equipped to offer advice on virtually all aspects of the modeling and valuation of fixed-income securities.

Specifically, we suggest that OFHEO revise its methodology for projecting forward mortgage rates in its interest-rate scenario. While there is no single “correct” way to achieve this, OFHEO’s approach has several drawbacks.

First, while modeling the mortgage rate as a spread to the Treasury yield curve has been used heavily in the past, there is increasing concern among fixed-income investors that the Treasury curve has become “special” because of reduced US Treasury debt issuance and the buyback plans announced by the Administration. This may be further exacerbated, and certainly is further complicated, by the ongoing policy debate regarding major issues such as the use of the government surplus, bond buybacks, the social security trust fund and overall fiscal policy.

Consequently, it is likely that the historical spread relationships that existed between mortgage rates and the US Treasury yield curve will no longer persist going forward. At a minimum the situation creates such uncertainty that locking in a particular modeling scheme based upon historical US Treasury yield curve relationships may be speculative. As such, the ARIMA processes estimated by OFHEO on historical data may not provide sensible results in projecting future mortgage rates.

We suggest that OFHEO use a simple spread relationship to the LIBOR curve or Agency debt to benchmark the mortgage rate.

Second, some of OFHEO’s scenarios produce instances where agency borrowing spreads increase while mortgage rates are falling. This situation is not likely. As stated earlier, the Enterprises are significant investors in the mortgage market, playing key roles in providing liquidity and establishing mortgage/agency spreads.

Finally, we have concerns about how OFHEO's current modeling framework will apply to new types of mortgage products that do not fall into any of its existing product categories. For example, the expansion of the Enterprises' affordable housing goals and the continuing pace of innovation in the mortgage market will likely result in the Enterprises purchasing significant numbers of prepayment-penalty loans, rate reduction loans, home improvement loans, manufactured housing loans, and A-minus loans.

In OFHEO's current modeling framework, it appears impossible to make a simple adjustment to the existing models to project prepayments for these loans. For example, the major mortgage credit variable used by OFHEO is OLTV. However, this variable (or for that matter the other variables used by OFHEO) will not capture the prepayment differences between "A" loans and A-minus loans since our prepayment studies have indicated that these borrowers often have OLTVs that are comparable to "Prime" borrowers.

We suggest that OFHEO include more mortgage credit variables in its framework and also describe how capital will be allocated for mortgages not accounted for by its prepayment models.

E. SETTLEMENT OF DERIVATIVES

We are unclear as to how OFHEO's model will require the Enterprises to account for the settlement of derivatives. Generally, settlement can be accomplished either by cash payment or delivery of the instrument underlying the derivative. For example, the Enterprises utilize options on interest rate swaps combined with bullet debt to create synthetic callable debt when it is more cost effective than the issuance of callable debt. OFHEO should make clear how its model will deal with cash settlement vs. entering into the interest rate swap.

[signed: William C. Oliva]

William C. Oliva
Managing Director

Attachment