April 14, 2000

Via Courier

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

Dear Mr. Pollard:

Freddie Mac submitted comments on OFHEO's most recent risk-based capital proposal[1] for Freddie Mac and Fannie Mae ("the Enterprises") on March 10, 2000 (the "Comment"). Guided by four principles,[2] we suggested ways to modify the current proposal to achieve a workable final rule.

On March 13, 2000, OFHEO solicited reply comments.[3] We submit this reply comment in response. It is organized similarly to our Comment as follows. First, we discuss comments submitted to OFHEO relating to the *stress test components*, highlighting the broad consensus for a number of stress test modifications and addressing some specific areas where recommendations vary. Second, we discuss comments relating to the *stress test infrastructure* and the consensus that an operationally workable final rule is essential. Third, we discuss comments relating to *new activities and amendments*. Finally, we address comments that recommend *fundamental changes to the stress test*, explaining why such changes are unnecessary.

Consumer groups and Wall Street firms, as well as a cross-section of the mortgage industry, submitted comments.[4] Our review of other comments revealed a broad consensus in support of

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[1] 64 *Fed. Reg*. 18084 (Apr. 13, 1999) (NPR2). *See also* OFHEO's initial notice of proposed rulemaking, 61 *Fed. Reg*. 29592 (June 11, 1996) (NPR1) and Freddie Mac's response to NPR1, filed with OFHEO on October 24, 1996.

[2] As discussed in our Comment, Freddie Mac was guided by four principles in evaluating the proposal: 1) it must be consistent with the Act; 2) it must appropriately tie capital to risk; 3) it must be operationally workable; and 4) it must accommodate innovation. OFHEO agrees with these principles. *See* Comment at 2, note 2.

[3] 65 *Fed. Reg*. 13251 (March 13, 2000). OFHEO requested that the reply comments respond to other comments submitted on NPR2 and that they not repeat initial comments at length.

[4] OFHEO received more than 35 comments, including comments from individual firms and trade associations representing mortgage lenders and servicers, homebuilders, real estate brokers and mortgage insurance

the stress test approach, with certain modifications, and a desire to move as quickly as possible toward a final rule that does not inhibit innovation and is operationally workable.

Freddie Mac appreciates the opportunity to provide this reply comment. We remain committed to working with OFHEO to achieve a final workable risk-based capital regulation as quickly as possible.

Stress Test Components

Comments generally found the structure of the stress test to be sound, but in need of certain adjustments to better tie capital to risk and avoid unintended consequences. They consistently sought the following adjustments to the stress test components of NPR2:

- Substantially reduce "haircuts" for counterparty credit risk
- Reduce capital requirements for low-down-payment mortgages
- Increase prepayment levels in the up interest-rate scenario
- Simplify the multifamily models
- Simplify the process for projecting non-Treasury interest-rate spreads
- Incorporate credit scores into the stress test at a later date

These recommendations are consistent with those in our Comment, and we believe that OFHEO can and should modify the proposed stress test to address these concerns.

In contrast to the consensus above, comments express varying views on certain aspects of the stress test components. These aspects include the procyclical effects of seasoning, the house-price environment of the stress test, the calibration to the benchmark loss experience, single-family prepayments, the relative treatment of counterparties and administrative expenses. We address these areas below.

Procyclical Effects of Seasoning

Several comments question the proposed method of seasoning (past house-price effects on owner equity) and its effects on the performance of the Enterprises' mortgage portfolios. These comments suggest that using OFHEO's House Price Index (HPI) to update the loan-to-value (LTV) ratios of mortgages in the Enterprises' portfolios make the risk-based capital requirement procyclical. In other words, as the HPI drops during economic downturns, the capital required for mortgages in the Enterprises' portfolios will increase. Because the Enterprises face an increased capital requirement, they then will provide fewer funds to the mortgage market and

companies. The number of comments and the diversity of constituencies they represent confirm the potentially wide-ranging impact of the final rule.

thus exacerbate the downturn. Similarly, these comments suggest that the Enterprises will accelerate upturns by pouring more liquidity into the mortgage market as the HPI rises and capital restrictions ease.

Risk-based capital requirements follow the business cycle and hence can be procyclical. In this case, however, several factors mitigate this procyclical effect. First, real estate booms and busts tend to be regional and not national phenomena. Geographic diversification of the Enterprises' portfolios limits exposure to regional downturns and upturns, thereby limiting the amount by which the capital requirement changes over the business cycle. Second, as long as the capital requirement is predictable, the Enterprises will manage their capital to fulfill their purposes of providing stability in the secondary market for residential mortgages throughout the business cycle, providing liquidity and promoting access to mortgage credit throughout the nation and responding appropriately to the private capital market.[5] Third, the minimum capital requirement and discretionary reclassification authority will ensure that the Enterprises maintain a minimum level of capital.[6]

House-Price Environment of the Stress Test

A few comments question OFHEO's decision to use the West South Central HPI as a proxy for the house-price experience of the benchmark loss experience. According to these comments, the HPI is biased upward because OFHEO does not include foreclosures in its estimation of house values. This is incorrect. Although foreclosures are not included in the HPI, the sale of the foreclosed property in an REO disposition is included if such a transaction results in a mortgage that an Enterprise buys.

In any case, the overall stringency of the stress test depends on whether the default and severity models are appropriately calibrated to the benchmark. A more severe house- price proxy would lower the calibration constants used to ensure that the default and severity models produce credit losses in line with the benchmark experience, rather than make the stress test more severe.

Calibration to the Benchmark Loss Experience

Several comments question the effectiveness of OFHEO's calibration of the mortgage performance models to the benchmark loss experience. They cite the smaller credit losses predicted by the models in the up- and down-rate scenarios than those prevailing in the

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[5] *See* 12 U.S.C. § 301(b)(1)-(4).

[6] On the other hand, if the stress test results in an excessively high capital requirement, our recommended treatment of anomalies—if adopted by OFHEO as part of the final rule—would rectify this. *See* Comment at 203-04.

benchmark loss experience as evidence that the OFHEO stress tests are insufficiently stringent. They also assert that Congress intended stress test credit losses to be independent of the interest-rate scenario; accordingly, they recommend calibrating the models to the down-rate stress test path and applying that credit loss experience in both the up-rate and down-rate stress tests.

We believe that OFHEO's methodology for calibrating the models to the benchmark loss experience is roughly correct, although we recommend re-calibrating by loan-to-value ratio category to an appropriately re-weighted benchmark data set. OFHEO calibrates the models so that cumulative defaults match the actual benchmark loss experience for the same loan mix, interest-rate environment and house-price path that existed during the benchmark. This methodology is in accord with accepted practice for calibrating models to actual performance benchmarks, and it is consistent with the statutory requirement to "reasonably relate" credit losses to the benchmark loss experience. Calibrations using economic environments that are inconsistent with the benchmark experience are not in accord with accepted practice and are inconsistent with the reasonable relationship requirement.

The OFHEO approach of using joint-probability models to project mortgage performance in the stress test has the advantage of appropriately capturing credit risk across a wide range of economic environments. Congress explicitly recognized the differences in credit risk between the two stress test scenarios by requiring OFHEO to adjust credit losses for inflation in the up-rate stress test. Aside from discarding the principal benefit of the joint-probability model approach, requiring the stress test to produce the same level and pattern of defaults in both the up-rate and down-rate scenarios is clearly at odds with the intent of the 1992 Act.

Single-Family Prepayments

Comments generally agree that mortgage prepayments in the up-rate stress test are too slow. They point to the substantial number of assumable mortgages existing in the early 1980s, the only high-interest-rate period in OFHEO's estimation sample, as the primary cause of the under-prediction of prepayment rates in the up-rate stress test. A number of comments suggest minimum values for the up-rate prepayments ranging from 5 to 7 percent, as justified by long-term housing turnover trends. This is consistent with Freddie Mac's recommendation of 6 percent.[7]

Comments do not agree on the appropriateness of OFHEO's prepayment speeds in the down-rate stress test. Some believe that the down-rate prepayments predicted by OFHEO's single-family model are too high given both Enterprise and non-Enterprise prepayment experiences in

[7] S*ee* Comment at 98.

the benchmark region. Others believe that the down-rate prepayments predicted by OFHEO's model are too low considering recent institutional changes that make prepaying a mortgage easier and the higher prepayments in recent economic environments. Freddie Mac believes that prepayment rates in the down-rate stress test are reasonable given the inability of borrowers to take advantage of the refinancing incentive when house prices are also falling. A large decline in interest rates accompanied by rising house prices would result in much higher prepayments, similar to those observed in "normal" economic environments.[8] However, such is not the environment of the stress test.[9]

Relative Treatment of Counterparties

Many comments raise the concern that OFHEO's haircuts are excessive. Freddie Mac agrees that the level of the proposed haircuts is too high. Some comments suggest that the haircuts should be the same for AAA and AA counterparties. Others favor a distinction among rating categories. Freddie Mac believes that if the level of counterparty credit risk haircuts is corrected, the distinction between institutions will be appropriate and differences between highly rated institutions (AAA and AA) will be appropriately small.

Some comments indicate that the proposed treatment of derivative counterparty credit risk provides preferential treatment to derivatives contracts relative to other types of counterparty credit risk. Freddie Mac believes that different treatment is warranted based on risk. Freddie Mac's derivative counterparties are subject to collateral pledge agreements and Freddie Mac monitors the value of derivative positions and collateral on at least a daily basis. Freddie Mac also uses standard netting agreements to reduce further exposure to counterparty credit risk on derivative contracts. Thus, Freddie Mac's exposure to counterparty credit risk on derivative positions is highly controlled and very limited.[10] Like OFHEO, banking regulators also draw a distinction between general counterparty risk and the counterparty risk on derivatives.

Several comments ask OFHEO to clarify whether the stress test would take into account the reduction in mortgage credit risk provided by credit derivatives.[11] Freddie Mac believes that credit derivatives should receive the same counterparty credit risk or haircut treatment as

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[8] For example, OFHEO's proposed model predicts annual prepayment rates of 60 percent for low-LTV mortgages having experienced good house price appreciation when interest rates fall by 50 percent. *See* Comment at 96-97. This is consistent with recent historical experience in healthy housing markets.

[9] One comment recommends that OFHEO project prepayment rates assuming a "normal" economic environment in the stress test rather than using the stress test conditions. This would be inconsistent, however, with the legislation and with the economic assumptions used to predict default and severity rates.

[10] *See* Comment at 143.

[11] OFHEO clearly intended to include credit derivatives as a viable form of mortgage credit enhancement. *See* NPR2 at 18114.

interest-rate derivatives, except in cases where there is no counterparty (*e.g.*, proceeds of bond sales are received up-front, in which case there is no counterparty credit risk and there should be no haircut). Credit derivatives are similar to other derivative structures except that they use a different underlying index to determine the value of the derivative instrument.

A few comments refer specifically to Freddie Mac's MODERNs transaction. This type of transaction presents no counterparty credit risk because payments are received through a collateralized special-purpose vehicle, not a counterparty. These comments assert that complex structures such as MODERNs are untested and may be subject to legal risk. Those assertions ignore the wide use of structured financial transactions and the fact that such instruments have explicit and enforceable contractual terms. There is no reason to believe that MODERNs pose greater legal risk than other financial transactions. Moreover, innovations such as MODERNs help lower the cost of mortgage finance for America's families and should not be restricted unnecessarily.

Administrative Expenses

Comments generally agree that administrative expenses should not be a simple proportion of an Enterprise's total mortgage portfolio. In addition, several comments indicate that the Enterprises might experience an increase in costs related to an increased number of defaulting mortgages during the stress period. Freddie Mac agrees that costs related to defaults would increase, but those increased costs are largely captured in the proposed loss severity model and are not a component of administrative expenses. The loss severity model includes "REO operating expenses," which represent the costs of disposing of foreclosed property. Other comments state that assumptions about stress test administrative expenses should relate to the experiences of failing banks. Banking industry experience is an inappropriate point of reference because bank assets are more complex than Enterprise assets and thus are more difficult to recover. In addition, the 1992 Act specifies that no new business is included in the stress test. In a stressful wind-down scenario, Freddie Mac would no longer carry out activities related to on-going mortgage purchase and securitization activities, new business development, long-term research and development or systems development, which account for approximately half of Freddie Mac's current administrative expenses.

Infrastructure and Workability

There is a consensus among comments that it is reasonable, indeed critical, that the proposal be operationally workable and that the Enterprises be able to anticipate their capital requirements. Apart from those submitted by Freddie Mac and Fannie Mae, no comment offers a detailed description of how OFHEO could accomplish this goal. However, a few comments suggest that an internal models approach would address the workability issue. In our Comment, we do not recommend an internal models approach, but instead suggest a process that (i) would enable the Enterprises to anticipate their capital requirements; (ii) would apply the same stress test to both Enterprises; and (iii) could be implemented in a reasonable period of time. Our suggested process would involve the adaptation of Enterprise data, cash flow and accounting systems to apply OFHEO's stress test, subject to OFHEO's supervision and any necessary specifications. Fannie Mae recommends a similar process. Over time, OFHEO could consider whether its regulatory needs would be better served by specifying more of the infrastructure in the regulation.

New Activities and Amendments

In our Comment, we recommend that OFHEO adopt a process under which the Enterprises would be required to report stress test results and supporting documentation quarterly. We further recommend that OFHEO modify its process for dealing with new activities by requiring the Enterprises to include in their quarterly reports a complete description of any new activities and proposed risk-based capital treatment of them. With respect to amendments, Freddie Mac believes that OFHEO should use the notice-and-comment process when changes to the regulation prove necessary.

New Activities

We emphasize in our Comment that the secondary mortgage market is an extremely fast-changing environment that requires rapid innovation both to increase the availability of mortgage finance and to reduce risks. Any process that slows the development of new products and instruments would be extremely harmful to the Enterprises' missions. Many other comments reiterate and emphasize this point. In particular, community groups and affordable housing organizations express concerns that limitations on product innovation would have a serious impact on the Enterprises' abilities to serve affordable housing markets. Entities familiar with risk-management innovations warn that processes that scrutinize new risk-reduction techniques in advance are likely to stifle development of such techniques and discourage opportunities to reduce Enterprise risks.

A few comments recommend that OFHEO incorporate some type of an advance approval process for new activities. In addition, some comments suggest an approach in which an innovating Enterprise would provide a projection of losses from a new activity and would receive a capital penalty if the projection underestimates actual losses.[12] These alternatives for the treatment of new activities are likely to result in slow and cumbersome procedures. Accordingly, Freddie Mac strongly believes that the approach set forth in our Comment represents the best solution for incorporating new products into the stress test. Our

[12] Designing a means to assess the accuracy of credit loss projections may prove extremely challenging.

recommendation would more effectively enable the risk-based capital stress test to keep up with the rapidly changing marketplace.

Where OFHEO determines it is necessary and appropriate to amend the regulation to address a new activity (or to incorporate desirable modifications in the stress test),[13] the amendment would be subject to full public participation. Also, where OFHEO determines that the stress test specifications do not appropriately address an activity because loss experience is greater than had been expected, OHFEO could similarly amend the regulation to better relate capital with risk. In sum, our proposal provides a role for public participation in the consideration of the treatment of new products, as OFHEO determines necessary. However, it would not discourage or delay innovation under most circumstances–addressing the concerns of a substantial majority of comments that express views on this subject.

Amendments

A few comments suggest that OFHEO should be permitted to make “modest and reasonable changes” to the final rule outside of the notice-and-comment rulemaking process. These comments define a “modest” change as one that would shift an Enterprise’s capital requirements by less than 10 percent. These comments support adoption of a flawed final rule that can be fixed on a going-forward basis.

Freddie Mac disagrees that there is any advantage to this approach. A plan that relies on amendments to develop the risk-based capital rule inevitably will delay realization of a workable rule. OFHEO should commit itself to get the regulation right in the first instance, reserving the amendment process for essential changes or to correct clear errors or anomalies.

Freddie Mac also believes that frequent amendments make it difficult to determine whether changes in capital requirements are due to changes in Enterprise risk or to changes in the rule. In addition, frequent amendments impair an Enterprise’s ability to anticipate capital requirements in business planning and ensure capital compliance.

In addition, the 10 percent capital threshold suggested for a simplified amendment procedure would permit OFHEO to introduce unilateral modifications that could change capital requirements by more than a billion dollars. This is not a “modest” change. Moreover, it would be extremely difficult to reconcile such a process with the notice-and-comment requirements set

[13] Certain amendments, such as one to incorporate credit scores, will be necessary. Incorporating credit scores will allow a finer measurement of risk. However, the capital requirements of the Enterprises should not change as a result of such a modification, unless there has been a dramatic shift in the underlying business of the Enterprises.

forth in both the 1992 Act[14] and the Administrative Procedures Act.[15] The normal notice-and-comment process allows time for all parties to consider the costs and benefits of any proposed amendments.

Fundamental Changes to the Stress Test

Several comments recommend that OFHEO change course and pursue new approaches to risk-based capital. In general, such recommendations (*e.g.,* separately measure interest-rate and credit risk, use a value-at-risk (VaR) approach or apply internal models) would require legislative changes. As described in our Comment and discussed below, we believe that such fundamental changes are unnecessary. Moreover, we believe that OFHEO is reasonably close to the finish line and, therefore, this is not the time to start over.

A few comments express the view that interest-rate risk and credit risk should be separately measured as in the bank capital rules. We disagree with this view because in projecting mortgage performance it is not appropriate to separate the effect of interest rates and credit risk. As described in our Comment, interest-rate movements affect the credit risk of mortgages and influence prepayment rates. The 1992 Act recognizes this relationship. It imposes a stress test with simultaneous, severe interest-rate and credit risk stresses. Although combining credit risk and interest-rate risk in the portfolio approach of the stress test is not as simple as adding the two under bank capital rules, it is more accurate because the two kinds of risks are consistently measured.[16]

Certain comments express disappointment that the stress test does not capture all types of risk. These comments recommend a VaR approach or multiple stress tests.[17] However, no single risk measure captures every possible business risk, nor should any be expected to do so.[18] The stress test was designed to capture the principal risks (credit and interest-rate risks) in the businesses of the Enterprises and adds 30 percent for management and operations risk. It is

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[14] 1992 Act § 1361(e)(1).

[15] 5 U.S.C. § 553.

[16] OFHEO did attempt to estimate credit capital and interest-rate capital by calculating incremental capital by lines of business (*e.g*., retained portfolio and sold portfolio).

[17] None of the comments criticizing the stress test suggest that the current bank capital requirements would do a better job of tying capital to risk.

[18] Even the VaR approach suggested by some comments has its drawbacks. For example, VaR measures may capture market risks well, but they do not currently capture credit risk well. *See also*, "A New World of Risks" *Best's Review (*Jan. 2000) at 5 ("Like all models, VaR relies on assumptions. Like all models, VaR also has limitations.").

unlikely that a single regulatory test will ever substitute for good overall supervision and does not have to do so. The stress test is only one of OFHEO's regulatory tools.[19]

The stress test mandated by the 1992 Act is innovative, stringent and more responsive to risk than any ratio-based capital regulation.

Conclusion

Our review of the comments reveals a broad consensus that OFHEO should move as promptly as possible to a final risk-based capital rule that appropriately ties capital to risk. At the same time, comments generally agree that the final rule should enable the Enterprises to anticipate their capital requirements, be operationally workable and address new activities in a way that accommodates innovation. The modifications to the stress test components we recommend in our Comment, together with our suggestions on infrastructure and procedures, would result in a workable regulatory capital standard in a reasonable time frame. While our recommended modifications are extensive, they are based on the stress test as OFHEO proposed it and are designed to assist OFHEO in moving quickly toward a final rule.

Freddie Mac strongly supports a well-implemented risk-based capital standard that will assure the continued flow of mortgage funds to America's families. We are committed to working with OFHEO to achieve this end.

Sincerely yours,

[Signed: Maud Mater]

Maud Mater

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[19] To ensure financial safety and soundness of the Enterprises, OFHEO receives quarterly reports of Enterprise data, has a comprehensive, on-site examination function, imposes minimum capital requirements, and has prompt corrective action and other enforcement authority.