

November 16, 2018

By email to Federal eRulemaking Portal and RegComments@fhfa.gov

Mr. Alfred Pollard
General Counsel
Attention: Comments/RIN 2590-AA95
Federal Housing Finance Agency
Constitution Center
Eighth Floor (OGC)
400 7th Street, SW
Washington, DC 20219

Re: Enterprise Capital Requirements Proposed Rulemaking
Comments/RIN 2590-AA95

Dear Mr. Pollard:

Attached are the comments of Freddie Mac on the proposed Enterprise Capital Requirements Rule published by the Federal Housing Finance Agency in the *Federal Register* on July 17, 2018.

Freddie Mac appreciates the opportunity to provide our views on the proposed rule. Please contact me if you have questions or require any further information.

Sincerely,



Jorge Reis
Senior Vice President, Enterprise Capital, Liquidity and Market Risk

Attachment

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This paper provides the comments of Freddie Mac on the proposed Enterprise Capital Requirements Rule (the “Proposed Rule”) published by the Federal Housing Finance Agency (“FHFA”) on July 17, 2018.¹ The Proposed Rule would provide a new regulatory capital framework for Freddie Mac and Fannie Mae (the “Enterprises”), including new risk-based capital requirements and two alternatives for an updated minimum leverage capital requirement.

Summary

In developing our comments, Freddie Mac considered two fundamental criteria that the company believes are critical for an effective capital framework applicable to the Enterprises. Specifically, Freddie Mac evaluated:

- Whether the aggregate amount of capital as determined by the risk-based capital requirement specified in the Proposed Rule is sufficient to retain market confidence in the organization following a severely adverse stress event, and
- Whether the framework specified in the Proposed Rule creates incentives for appropriate economic decision-making and does not establish incentives that promote distorted risk-taking decisions at the transactional and business levels.

Evaluating the Proposed Rule using these criteria, Freddie Mac is generally supportive of the capital framework that it would establish, so long as FHFA elects to use the “Bifurcated Alternative” for the minimum leverage capital requirement. Our principal comments, discussed in greater detail below, are as follows:

1. FHFA Should Adopt the Bifurcated Alternative for the Minimum Leverage Capital Requirement

The Proposed Rule includes two alternatives for a minimum leverage capital requirement. The “2.5% Alternative” would establish a single leverage ratio for all Enterprise assets, while the “Bifurcated Alternative” would establish a two-ratio system, with ratios assigned according to relative asset risk. Freddie Mac only supports the Bifurcated Alternative. *The 2.5% Alternative would almost certainly create significantly distorted economic incentives for an Enterprise to unwisely retain mortgage credit risk even when it could engage in economically sensible credit risk transfers.* Retaining additional credit risk in such circumstances would be directly counter to preserving safety and soundness, mitigating systemic risk and increasing the role of private capital in the mortgage market, and would instead lead to a high concentration of mortgage risk in the Enterprises.

2. The Proposed Risk-Based Capital Framework Is Appropriate for the Enterprises

Freddie Mac supports FHFA’s overall approach to risk-based capital requirements for the Enterprises specified in the Proposed Rule.

- We believe that the proposed capital requirements would be sufficient to permit the Enterprises to remain financially sound during and after periods of severe stress, permitting them to continue to support their public missions to provide liquidity, stability and affordability to the U.S. housing finance market.

¹ 83 Fed. Reg. 33312 (July 17, 2018); RIN 2590-AA95.

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- The Risk-Based Capital Framework does lead to a procyclical capital pattern, but we believe that an element of procyclicality is appropriate because it is an accurate reflection of actual risk. In addition, we believe that the degree of procyclicality would be muted very substantially by the significant and increasing use of credit risk transfer transactions. In addition, we identify mechanisms for FHFA to address unanticipated levels of residual procyclicality, including describing how the existing going-concern buffer already does so to a significant degree.
- The capital requirements for single-family loans are within the range of our expectations based on historic data. We recommend that the rule be structured to allow FHFA to adjust and update grids periodically to reflect changing market conditions and consumer behavior and to ensure that requirements are as closely tied to actual risks as possible.
- Freddie Mac believes that the formulaic approach proposed to derive credit risk transfer benefits strikes a good balance between risk sensitivity on the one hand, and transparency and consistency across the Enterprises on the other. We do note, however, the need for flexibility for the FHFA to address complex or unusual transactions on a customized basis.
- Although the proposed requirements generally include an appropriate level of granularity, we believe that FHFA could enhance the precision of capital requirements for certain multifamily items, without significantly increasing complexity, by including some additional multipliers and other factors. In addition, Freddie Mac recommends that FHFA include internal models as an additional potential way to calculate market risk capital for complex multifamily securities, and reconsider the market versus credit risk designation for multifamily held for sale loans.

3. Other Comments and Recommendations

Freddie Mac has recommendations regarding several discrete provisions of the Proposed Rule, including recommendations concerning:

- Treatment of Cash and Cash Equivalents
- Treatment of Off-Balance Sheet Assets Under the Bifurcated Alternative
- Market Risk Capital Charge
- Definitions of Core and Total Capital

Our recommendations concerning each of these provisions are included in Part 3 of our comments below.

Comments

1. FHFA Should Adopt the Bifurcated Alternative for the Minimum Leverage Capital Requirement

The Proposed Rule would establish a minimum leverage capital requirement, with FHFA proposing two alternatives. Under the “2.5% Alternative,” the Enterprises would be required to hold capital equal to 2.5% of total assets and off-balance sheet guarantees related to securitization activities, regardless of their risk characteristics or how they are held on the balance sheet. Under the “Bifurcated Alternative,” the Enterprises would be required to hold capital equal to 1.5% of “Trust Assets” and 4% of “Non-Trust Assets, where Trust Assets are Enterprise mortgage-backed securities held by third parties and off-

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balance sheet guarantees related to securitization activities, and Non-Trust Assets are total assets plus off-balance sheet guarantees related to securitization activities minus Trust Assets.

- For the reasons discussed below, Freddie Mac only supports the Bifurcated Alternative because it recognizes the unique aspects of the Enterprises' business model and avoids the distortions and disincentives to credit risk transfers that would arise under the 2.5% Alternative.

Discussion

Leverage ratios, such as the two alternatives in the Proposed Rule for a minimum capital requirement, are a critical and traditional component of financial institution regulatory oversight. However, as we describe below, a leverage ratio that is inappropriately high relative to a financial institution's risk profile will create negative incentives that will quickly reduce safety-and-soundness. Freddie Mac strongly believes that an appropriate minimum capital leverage ratio for the Enterprises must be tailored to the actual risks presented by the Enterprises' businesses.

Role of a Leverage Ratio

For bank regulators, a leverage ratio requirement serves two key functions: (1) the requirement restricts the build-up of leverage in the banking sector to avoid destabilizing deleveraging processes that can damage the broader financial system and the economy; and (2) the requirement reinforces risk-based requirements with a simple, non-risk-based "backstop" measure.² However, a risk-based capital measure, such as the risk-based requirement of the Proposed Rule, should always be the main driver of a capital system. A risk-based capital requirement not only addresses the level of risk, but also provides proper incentives for incremental decision-making related to risks versus returns. In contrast, a leverage ratio essentially addresses only the overall level of risk. A leverage ratio may become necessary during times when the risk-based requirement does not, for some reason, properly capture the risks in the system or is too low due to market factors, but it should serve as a backstop only in these extreme cases. The backstop should not become the routine binding capital constraint when low risk and associated low risk-based capital levels are due to structures or strategies that reduce risk on a more permanent and through-the-cycle basis.

Two examples of permanent risk mitigants that the Enterprises currently use extensively are mortgage-backed securities, which virtually eliminate prepayment and interest-rate risk for the Trust Asset portion of the balance sheet, and credit risk transfer transactions, which substantially reduce credit risk on Trust Assets. Given the evolution of the Enterprise business model to one that increasingly relies on passing through most risk – including credit risk – to the capital markets, a nominal leverage ratio that is dependent on accounting balance sheet metrics would become progressively more removed from actual risks. Therefore, a capital system that relies on a leverage ratio (as opposed to using it solely as backstop) can seriously misrepresent the risk of the Enterprise activities. Such distortions have a history in bank regulation of creating undesirable results.

Recent Regulatory Trends in Bank Leverage Ratios

Bank regulators have recently proposed modifications (the "Bank Proposal") to their enhanced supplementary leverage ratio ("eSLR") standards for top-tier US banks, recognizing that these standards

² Basel Committee on Banking Supervision, *Basel III leverage ratio framework and disclosure requirements*, at 1 (Jan. 2014).

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have become generally binding.³ The Bank Proposal would replace the current 2% leverage buffer (constant across Global Systemically Important Banks (“G-SIBs”)) with a “tailored” buffer set at 50% of each firm’s G-SIB risk-based capital surcharge. The proposed change generally would lead to an effective reduction of the aggregate leverage ratio.

The Bank Proposal notes:

*Leverage capital requirements should generally act as a backstop to the risk-based requirements. If a leverage ratio is calibrated at a level that makes it generally a binding constraint through the economic and credit cycle, it can create incentives for firms to reduce participation in or increase costs for low-risk, low-return businesses. At the same time, a leverage ratio that is calibrated at too low of a level will not serve as an effective complement to a risk-based capital requirement.*⁴

The same reasoning applies to Enterprise leverage ratios. While the Enterprise business models are different from bank models, it nevertheless remains true that a binding leverage ratio would create a distorted incentive for an Enterprise to unwisely hold credit risk rather than transferring it to a diversified investor base when it is truly economic to do so. Increasing the role of private capital in the mortgage market is among FHFA’s strategic goals for the Enterprises. However, creating a non-economic barrier (which is what a nominal leverage ratio requirement is) that would structurally diminish or eliminate credit risk transfer transactions would be contrary to this critical public policy objective.

Differences Between Enterprise and Bank Risk Profiles

Regulators and economists have analyzed leverage ratios primarily as they apply to banking institutions and frequently from the perspective of whether requirements are sufficient to prevent destabilization of the financial system through a deleveraging event. However, the Enterprises’ business models are substantially different from the business models of large banks, and a deleveraging event cannot affect the Enterprises in the same way. For both banks and the Enterprises, a leverage ratio that is too high and that becomes a binding capital constraint will create inappropriate incentives and have undesirable effects on tactical and strategic actions. However, there is no inherent reason why a leverage ratio that represents an appropriate capital floor for large banks also should apply to the Enterprises, which have distinctly different business models and risk profiles. Accordingly, the design of an appropriate leverage ratio for the Enterprises should take into consideration the significant differences in the businesses and risk profiles between large banks and the Enterprises and should not impose requirements that are too high relative to risks.

³ Office of the Comptroller of the Currency, Treasury, and the Board of Governors of the Federal Reserve System, *Regulatory Capital Rules: Regulatory Capital, Enhanced Supplementary Leverage Ratio Standards for U.S. Global Systemically Important Bank Holding Companies and Certain of Their Subsidiary Insured Depository Institutions; Total Loss-Absorbing Capacity Requirements for U.S. Global Systemically Important Bank Holding Companies*, 83 Fed. Reg. 17317 (Apr. 19, 2018).

⁴ *Id.* at 17319 (emphasis added).

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Some of the fundamental differences in the businesses and risk profiles of the Enterprises in comparison to large banks include the following⁵:

- Banks take full intermediation risk as a principal for interest rate, liquidity and credit risk. Capital is needed to support this full intermediation, and depositors and other creditors to banks expect to be paid in full and on time, regardless of the impact that specific interest rate, liquidity or credit risks would have on the bank. As discussed below, the business model of the Enterprises does not contain this full intermediation.
- The Enterprise business model has significantly lower risk exposures than the large bank model, and it continues to change as the Enterprises increase their passing of credit risk to private investors. With the development of the pass-through mortgage-backed securities (MBS) more than 40 years ago, Freddie Mac no longer takes full intermediation risk for interest rate risk on an overwhelming majority of its balance sheet. (MBS now account for over 80 percent of Freddie Mac's balance sheet.) Creditors who buy Enterprise MBS know that they are assuming interest rate risk and that there is no expectation they will be insulated from it. For the same reasons, the Enterprises are largely shielded from liquidity risk, as they are not subject to the equivalent of the fleeing of deposits that banks can be susceptible to in a stress environment; instead, investors in our MBS know that they are only due payments when we receive them. This makes a deleveraging event – most commonly seen as deposits fleeing a troubled bank – a low materiality risk to an Enterprise. These are major differences between the Enterprises and banks, which result in a meaningful distinction between the risks being taken by an Enterprise and the measurement of those risks on the basis of nominal accounting assets. (In colloquial terms, there can never be a “run on the bank” for the 80-plus percent portion of Freddie Mac's balance sheet that is comprised of those pass-through securities.)
- The use of credit risk transfers (CRTs⁶) also is a significant difference between the business practices of Enterprises and banks. Starting in 2009,⁷ growing amounts of the Enterprises' guarantee-business related credit risk have been “passed through” to market investors. For originations in the twelve months ended June 30, 2017, capital required for credit risk under FHFA's Conservator Capital Framework (CCF) was reduced approximately 60 percent by CRT transactions for single-family and by approximately 90 percent by CRTs for multifamily. As CRTs continue to grow in volume and coverage, the Enterprises' credit profiles will become even less like the credit profiles of banks.

⁵ A number of these fundamental differences were identified in the preamble to the Proposed Rule. Specifically, FHFA observed that: banks have a more diversified source of income and assets compared to the Enterprises, but the overall risk of Enterprise mortgage assets is lower than that of banks; banks rely on more volatile funding sources compared to the Enterprises, which exposes banks to a greater degree of funding risk during times of market and economic stress; and even when comparing risk specifically associated with mortgage lending, the Enterprises hold less risk compared to the mortgage investments of banks. 83 Fed. Reg. at 33323.

⁶ A typical CRT transaction transfers credit risk by creating and selling securities to the capital markets, where a portion of the losses incurred by an Enterprise on the mortgage loans in a reference pool is absorbed by the security holders, and the Enterprise pays a coupon (part of the guarantee fee that it receives) to the security holders. In addition, CRTs can transfer risk through reinsurance coverage, whole loan securitizations, as well as front-end transactions, in which credit risk is transferred at collateral acquisition. The Enterprises continue to add other innovative CRT methods.

⁷ Freddie Mac commenced CRT for multifamily transactions in 2009 and single-family transactions in 2013.

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- While the majority of bank assets are illiquid, the balance sheet assets of the Enterprises funded by unsecured liabilities, rather than by MBS, are highly liquid. In addition, that liquidity is increasing as Enterprise legacy assets decline and new investment (excluding defaulted loans) is restricted by the FHFA to just highly liquid assets.

Given the recognized differences in the business models and risks of the Enterprises in comparison to those of large banks, as well as the undesirable consequences of a leverage ratio that is too high (which we discuss in greater detail below), it is important that an appropriate leverage ratio for the Enterprises emerge from a thoughtful process. Rather than adopting an approach and leverage ratio that may be appropriate for a bank business model, FHFA should develop requirements that address the very different businesses and risks of the Enterprises.

Bifurcated Alternative is the Appropriate Leverage Ratio Approach for the Enterprises

Freddie Mac can only support the Bifurcated Alternative specified in the Proposed Rule because it recognizes the unique aspects of the Enterprises' business model and mitigates the disincentives to engage in risk-reducing initiatives such as credit risk transfers that would predictably arise under the 2.5% Alternative.

Notably, the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 ("Safety and Soundness Act") recognizes the unique balance sheet nature of the Enterprises and specifies a dual approach for minimum capital requirements.⁸ Though the levels specified by the Safety and Soundness Act are, in retrospect, clearly too low, we believe the dual approach is entirely appropriate.

The balance sheet for an Enterprise's business effectively could be divided into two portions, each presenting distinctly different levels and types of risks. The vast majority of each Enterprise's current assets are pass-through guarantee assets, which present significantly lower risks than typical large bank assets because interest rate and liquidity risks are virtually eliminated. The Bifurcated Alternative labels these assets as "Trust Assets," which would be subject to a 1.5% leverage ratio. The Enterprises' remaining assets are labeled "Non-Trust Assets," which would be subject to a 4.0% leverage ratio. We describe below some of the considerations relevant to determining an appropriate leverage ratio for each of these types of assets.

Pass-Through Balance Sheet ("Trust Assets" under Bifurcated Alternative)

- A leverage ratio for Trust Assets should account for the benefit of virtually eliminating liquidity risk and interest rate risk via the pass-through MBS structure. There is no ability for MBS liabilities to "flee" in a deleveraging event, which is stated as one of the key reasons for the use of a nominal leverage ratio requirement by bank regulators.
- A leverage ratio for Trust Assets should not produce distorted incentives to hold credit risk rather than transfer it to market investors in economically sensible transactions, which would occur when

⁸ 12 U.S.C. § 4612(a). The Safety and Soundness Act establishes a Minimum Capital requirement of 2.5% for aggregate on-balance sheet assets; 0.45% for the unpaid principal balance of outstanding MBS and substantially equivalent instruments that are not included in on-balance sheet assets; and 0.45% for other off-balance sheet obligations. In addition, FHFA is authorized to establish higher minimum capital requirements by regulation. *Id.* § 4612(c).

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the leverage ratio becomes the binding capital constraint. This result would be counter to FHFA and Enterprise strategies, and also counter to good public policy to reduce systemic risks.

- A leverage ratio for Trust Assets should also recognize that the high level of transparency of the risk-based requirement in the Proposed Rule (including the estimation of CRT benefits) as well as the minimal usage of internal models to determine credit risk requirements, reducing the need for a model risk backstop.

Given these considerations, the proposed 1.5% leverage ratio for Trust Assets under the Bifurcated Alternative is more reasonable than flat 2.5% that would apply to these assets under the 2.5% Alternative. Notably, CRTs will reduce credit risk for the assets that stay on the balance sheet. This reduction suggests that even the 1.5% leverage ratio may become too high over time, as the asset base for computing the requirement would stay the same, while the risk associated with those assets is reduced.⁹ Thus, the FHFA should monitor when the 1.5% requirement might need to be reduced to avoid distorted incentives from building up.

Cash Balance Sheet (“Non-Trust Assets” under Bifurcated Alternative)

- A leverage ratio for Non-Trust Assets (*i.e.*, those that are more typical of bank balance sheets) should account for the risk that the associated liabilities might “flee” if there is too little capital and/or loss of market confidence as was seen in the recent financial crisis.
- The risk of Non-Trust Assets increases if the assets are illiquid and cannot be sold as associated liabilities flee, and decreases if assets are very liquid. Therefore, an appropriate leverage ratio for Enterprise Non-Trust Assets should start with the bank requirements and then adjust for differences in Enterprise asset liquidity.

Given these considerations, a required leverage ratio of 4.0% for Non-Trust Assets under the Bifurcated Alternative is more reasonable than a flat 2.5%. Although we note that, given the higher liquidity of Enterprise cash balance sheet assets versus the typical average of bank assets, 4.0% may be higher than appropriate.

Effects of a Binding Leverage Ratio

In the case of the Enterprises, a binding leverage ratio (higher aggregate leverage ratio than aggregate risk-based capital requirement) creates negative incentives by encouraging the retention of credit risk. As mentioned earlier, the Enterprises are engaged in extensive CRT transactions, with the expectation that the percentage of credit risk transferred through such transactions will increase going forward. CRT transactions significantly reduce systemic risk for the Enterprises, as they spread credit risk across a broad and diversified set of investors. If a binding aggregate leverage ratio creates distortions to credit risk transfer, the leverage ratio would amplify systemic risk because it would create incentives for the Enterprises to hold mortgage credit risk instead of passing it on to a more diversified investor base. The transfer of credit risk is captured in the risk-based framework as a decrease in credit risk capital requirement. However, when the aggregate leverage ratio is higher than the aggregate risk-based requirement, the economics of such transactions are immediately and fully negated; there is a loss of revenue associated with the risk transfer (reflected in the coupon paid to CRT investors), but there is no

⁹ Note that this is exactly the opposite of what happened to financial institutions in the recent financial crisis, when many assets were off balance sheet but significant residual credit risk remained.

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offsetting recognition of lower risk via a release of aggregate enterprise capital. Accordingly, a binding leverage ratio would remove the incentive to conduct any further CRT transactions.

In addition, when an aggregate leverage ratio is binding, there would be an incentive to increase holdings of high risk assets until the point at which the aggregate risk-based capital requirement equals the binding leverage ratio, as the return on equity of the high-risk assets (as measured against regulatory capital) would be higher than is true and accurate economically. A binding leverage ratio also would cause a major discrepancy between the Enterprise view of proper pricing and the broader marketplace's view, as the latter generally would not be facing a binding leverage ratio and therefore would make decisions based upon accurate economics.

The current economic environment illustrates the limitations of establishing a leverage ratio at too high a level, such as the 2.5% requirement for all assets that would be set by the 2.5% Alternative in the Proposed Rule. Freddie Mac's risk-based capital requirement would have been about 3% of total assets as of the third quarter of 2017,¹⁰ and this requirement has been decreasing every quarter since then. Our projections are that a flat leverage ratio of 2.5% would be higher than the aggregate risk-based requirement as early as 2020 under most foreseeable scenarios; thus, the distorted economic incentive to stop engaging in risk reducing activities such as CRTs is not just theoretical but would become an issue in a short time frame.

Summary

For the reasons described above, Freddie Mac strongly recommends that FHFA adopt the Bifurcated Alternative in determining an appropriate leverage ratio for the Enterprises. If the Bifurcated Alternative should become binding at a future date, Freddie Mac would encourage FHFA to revisit the effects of such a binding ratio and consider making changes.

2. The Proposed Risk-Based Capital Framework Is Appropriate for the Enterprises

The risk-based capital framework in the Proposed Rule uses a combination of base grids and additional factors (operationalized through multipliers) to capture credit risk for most Enterprise assets. The Proposed Rule also includes a transparent and formulaic approach to evaluate benefits from CRT transactions. In addition, it has components that establish requirements for market risk and operational risk, and it includes a 75-basis point going-concern buffer for most assets and guarantees.

Freddie Mac supports FHFA's overall approach to risk-based capital requirements for the Enterprises specified in the Proposed Rule.

- Freddie Mac believes that the proposed capital requirements would be sufficient to permit the Enterprises to remain financially sound during and after period of severe stress, permitting them to continue to support their public missions to provide liquidity, stability and affordability to the U.S. housing market.
 - Freddie Mac believes the procyclicality that is embedded in the risk-based component of the Proposed Rule is appropriate, because it accurately reflects actual mortgage risk. We believe that this procyclicality would be muted very substantially by the significant and increasing use of CRT transactions. In addition, Freddie Mac identifies mechanisms that would allow FHFA to

¹⁰ 83 Fed. Reg. 33329 (Table 5).

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address unanticipated levels of residual procyclicality, including describing how the existing going-concern buffer already does so to a significant degree.

- Freddie Mac believes that the base grids should be purely risk-based. The capital requirements for single-family loans are within the range of our expectations based on historic data, although our internal view of risk suggests a moderately greater differentiation between high and low risk than the proposed capital framework. Accordingly, we recommend that the rule be structured to allow FHFA to adjust and update grids periodically to reflect changing market conditions and consumer behavior and to ensure that requirements are as closely tied to actual risks as possible.
- Freddie Mac believes that the formulaic approach proposed to derive credit risk transfer benefits strikes a good balance between risk sensitivity on the one hand, and transparency and consistency across the Enterprises on the other. We do note, however, the need for flexibility for the FHFA to address complex or unusual transactions on a customized basis.
- Freddie Mac believes that the proposed requirements generally include an appropriate level of granularity, but recommends that FHFA consider enhancing the precision of the multifamily risk-based capital requirements by including multipliers for certain interest-only and affordable loans; adding multipliers for certain products and loans features; including factors that address underwriting differences; and retaining the capability to add factors related to certain risk mitigants, such as insurance, guarantor, and escrow requirements, and borrower structure covenants. In addition, Freddie Mac recommends that FHFA include internal models as an additional potential way to calculate market risk capital for complex multifamily securities, and reconsider the market versus credit risk designation for multifamily held for sale loans.

Discussion

The risk-based capital requirements of the Proposed Rule have been informed by established external frameworks such as the Basel requirements for banks, and they are based on stress events similar to those specified in the severely adverse scenario of the Dodd-Frank Act Stress Test (DFAST). In addition, the risk-based capital requirements also take into consideration the material and growing differences between Enterprise (monolines with increasing amounts of risks transferred via “pass-through” liabilities) and bank business models, and then set capital requirements that are appropriate for the risks associated with the Enterprises’ specific risks. We believe that the proposed approach that relies on base grids and additional factors generally strikes a good balance between risk sensitivity and transparency.

Cyclicality Considerations in the Proposed Rule

The Proposed Rule calculates credit risk capital through a combination of base grids and multipliers, with updated risk characteristics specified as inputs. This approach is procyclical, particularly to the extent that requirements will vary with the level of house prices. Such procyclicality has very significant capital system design implications. Specifically, it calls into question: (1) whether the level of capital required in good economic environments is understated; and (2) whether such a procyclical capital system itself becomes a source of financial instability as it calls for increasing amounts of capital to be raised as market conditions deteriorate. Because of these potential weaknesses, a procyclical capital design is considered inadequate without some balancing factor, such as a counter-cyclical capital buffer. The

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design also can be considered structurally flawed in comparison to an alternative approach such as a through-the-cycle capital requirement. These are major issues, which we discuss below in some detail. (Our response also addresses FHFA's request for input on whether the proposed approach of using updated risk characteristics, including LTV and credit score, in risk-based capital requirements is appropriate.¹¹)

Properly addressing cyclicity issues requires consideration of the two criteria of an effective regulatory capital framework that we noted at the beginning of the document. Specifically, an effective capital framework should:

- Require an aggregate amount of capital that is sufficient to retain market confidence in the organization following a severely adverse stress event; and
- Create incentives for appropriate economic decision-making and not establish incentives that promote distorted risk-taking decisions at the transactional and business levels.

As a matter of history, regulatory capital systems that solely aimed at the first objective, and did not adequately consider the second, have ultimately proven very regrettable.¹²

Because the Enterprises are monolines, they are different in some key respects from banks, which have diversified asset bases and funding sources. The recent financial crisis made clear that mortgage assets are indeed procyclical, and it is reasonable – based upon history – to believe they are more procyclical than the average banking asset. The procyclicality seems to be largely related to house prices, although more general economic factors (like household incomes) also play a role.

The Proposed Rule is designed to accurately measure the amount of risk for which capital is needed *both at initiation of the purchase of a mortgage, and also on an on-going basis* as the economic cycle proceeds. Ongoing measurement requires updating risk characteristics, such as LTV ratios and credit scores. This need for continuous accuracy does result in a significantly procyclical capital requirement at the Enterprise level – mainly manifesting itself with higher capital requirements as house prices decline

¹¹ 83 Fed. Reg. 33332 (Question 3).

¹² Two well-known examples of such subsequently regretted regulatory capital approaches were: (1) the regulation of the American banking system prior to Basel; and (2) the treatment of Eurozone sovereign government bonds by European banks.

- In the case of the former, the regulators used a simple leverage ratio, which gave banks the incentive to invest in high yield loans, which developed as an adjunct to the high-yield bond business. Banks began to increase their allocation of balance sheet to such loans, and decreased their allocation to low-risk assets. They did this because the former falsely appeared high-return and the latter falsely appeared low return due to the regulatory capital system. Basel I was created in large part in order to eliminate the incentive for such distorted decision-making.
- In the case of the treatment of Eurozone sovereign government bonds, European banks overinvested in these assets due to their zero percent risk weighting under Basel I and II (so returns falsely seemed extremely high). In the recent financial crisis, and since, this created what was subsequently called a “sovereign-bank doom loop” in Eurozone countries, where weak banks could destabilize governments that support them and vice versa.

Both these examples are reminders of how powerful incentives in a financial institution required capital system can be.

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and with lower capital requirements as house prices increase. This is simply the accurate economic reality of risk assessment for a mortgage monoline.

In order to consider the policy implications of the potential procyclicality of the Proposed Rule, we have constructed a series of questions and answers to support our conclusion of how this procyclicality should be addressed.

- *Is the procyclicality an accurate reflection of economic reality?*

We believe the answer is YES. In adverse markets, declines in asset values (and corresponding increases in yields) reflect, at least in part, the elevated level of risk and financial uncertainty. This elevated level of risk warrants higher capital requirements. A key role of regulatory capital regimes is to maintain confidence in the financial system in difficult markets; accordingly, at least one component of a credible regulatory capital framework centered on mortgages should indicate a need for higher capital in such markets.

- *Do the business models of the Enterprises require a continuously accurate capital system?*

We believe the answer is YES. The business models of the Enterprises require a continuously accurate capital system. A through-the-cycle approach, as an example of an alternative approach that does not deliver continuously-accurate capital requirements, will create materially distortive economic incentives to engage in inappropriate risk-taking decisions, failing the second stated objective for evaluating a capital framework.

Enterprise CRT transactions provide a good illustration of how a through-the-cycle approach creates distortive incentives. Under a through-the-cycle approach, the capital relief from individual tranches will not vary at different points of the economic cycle, while the market pricing of individual tranches will vary significantly, creating a classic incentive for distorted decision-making. This difference could result in materially undermining the entire Enterprise capital requirement.

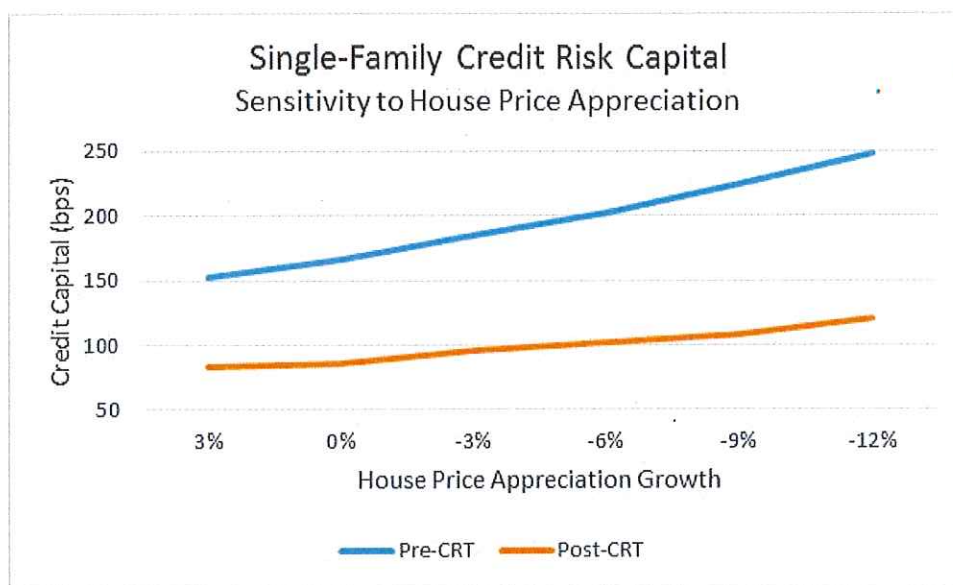
As an example, under a through-the-cycle approach, an Enterprise would have the incentive to delay CRT transactions until potentially up to two or three years after loan origination. House prices have a demonstrated pattern of rising during most years, with only occasional downturns. While house prices are rising, the cost of executing the transaction would be declining, reflecting the lower credit risk (in market terms, the protection would be bought out-of-the-money, and so cost significantly less). A through-the-cycle capital approach, however, would be missing this economic reduction in credit risk as the capital benefit will be remaining relatively constant (*i.e.*, the out-of-the-money CRT transaction would be given credit capital relief as if it were being done at-the-market), making the perceived profitability of the CRT transaction falsely higher if it were to be executed in the future rather than today. When a downturn inevitably occurs, the Enterprise would in reality have much less actual protection via CRT than it had falsely been given credit for in the capital system. In other words, it would be economically and possibly critically undercapitalized in a downturn. This would be a major failure of such a system, and it seems predictable it would happen.

In order to avoid just this type of wrong incentives, a continuously-accurate capital system is absolutely necessary.

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- *How large is the impact of the procyclicality and what are its policy implications?*

While the impact of a procyclical capital requirement would be very significant if the Enterprises were engaged in their previous “buy and hold credit risk” business model, it is only modest as long as there is significant use of CRTs. The reality is that CRT, done on an economic and proper basis, is already at a point where the strong majority of credit risk on new mortgage purchases is no longer held but rather distributed. As a result, the exposure of an Enterprise’s entire book of business to changing house prices is dramatically declining, directly ameliorating what should be the strong majority of the procyclicality of their capital requirement. The chart below shows the benefit of CRT transactions in reducing the sensitivity to house-price appreciation changes. For this chart, we are assuming a portfolio that incorporates CRT at steady-state flow levels using the most recent CRT structures, yielding a single-family credit capital relief of approximately 50%.¹³ We evaluate the impact on single-family capital from different house price shocks over a one-year horizon. The orange line that incorporates the impact of CRT is flatter, indicating lower sensitivity to house price appreciation and, as a result, lower procyclicality.



The Post-CRT line would be even flatter for Multifamily, since the Multifamily CRT program distributes an even higher portion of credit risk, and the residual risk consists mostly of the going-concern buffer, which is not sensitive to house price appreciation.

- *Does the Proposed Rule have a structure that properly deals with the procyclicality?*

The Proposed Rule does address procyclicality, although it does not do so transparently. The current going-concern buffer (at 75 bp) is tied to nominal levels of assets and guarantees; it is fixed

¹³ For this analysis, we projected today’s single-family portfolio forward for 5 years assuming a normal economic environment and recent CRT structures. We then subjected this portfolio to different one-year house price appreciation shocks.

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and does not get updated by house prices or other factors to reflect the changing level of risk. This means it really has two components:

- A buffer to maintain market confidence. The buffer should be related to the riskiness of the underlying asset, not just its nominal accounting treatment. As such a market-confidence buffer is risk-based, it will be high in down markets and low in up markets.
- A residual, which is the fixed 75 bp less the risk-based market-confidence buffer. This means that, when house prices are high and the risk-based buffer shows low requirements, the residual provides an automatic stabilizer, being high in good markets and low in bad markets.

Thus, the structure of the fixed 75 bp going concern buffer in effect contains within it a counter-cyclical buffer of significant magnitude. As an example of the materiality of this structure, consider Freddie Mac's Multifamily business, which has a fully-developed CRT business model in place. A large portion of the Multifamily credit capital requirement has been reduced to just the going-concern buffer, because a large percentage of the credit risk is passed-through to capital markets investors. Clearly, then, it would not need some sort of additional counter-cyclical buffer.

In addition, a flat going concern buffer working in conjunction with risk-based capital grids is consistent with recent bank regulatory initiatives to balance capital requirement stability and accurate risk measurement. In a proposed rule¹⁴ that would apply to larger banks, the Federal Reserve addresses capital stability and dynamic risk measurement by proposing the creation of stress capital buffers (SCB) for integrating capital requirements and its Comprehensive Capital Analysis and Review (CCAR) stress testing. For standardized approaches, a financial institution's SCB would be based on the decrease in its Common Equity Tier 1 (CET1) capital ratio in CCAR's severely adverse scenario. The SCB would replace the existing static capital conservation buffer with a forward-looking, risk-sensitive stress capital buffer. For advanced approaches, the SCB would not apply and a buffer of 2.5% of risk-weighted assets is used. Thus, when the capital is less risk-based (standardized approach), the buffer would be more risk-based, and when capital is more risk-based (advanced approaches), the buffer would be less risk-based. The Proposed Rule is consistent with this trend of balancing accuracy and stability, as the proposed capital grids are risk-based while the buffer is flat.

- *Are there any other practical alternatives of how do address the procyclicality?*

The two alternatives most commonly cited to address procyclical capital requirements are a through-the-cycle capital system and a counter-cyclical buffer. The first can be significantly distortive because it can present the wrong economics, as discussed above. The latter is implicitly already found within the accounting-based (as opposed to risk-based) going-concern buffer. However, explicit counter-cyclical buffers have never obviously been tested in an environment of adverse economic conditions, which requires the regulator both to raise the buffer in good markets and, counter to the predictable uncertainties at the time, reduce it in bad markets.

The FHFA already has some back-up and flexible mechanisms to address procyclically low risk-based capital requirements in good house-price environments, and these would be in addition to the

¹⁴ Board of Governors of the Federal Reserve System, *Amendments to the Regulatory Capital, Capital Plan, and Stress Test Rules*, 83 Fed. Reg. 18160 (Apr. 25, 2018).

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capital floor established by the leverage ratio component of the proposed system. These mechanisms include authority to (1) establish additional risk-based capital requirements or (2) temporarily increase minimum capital requirements, either of which could be implemented through an order.¹⁵ However, we recommend that FHFA also consider expanding its set of regulatory tools so that it also is able to guard against procyclically high risk-based requirements in adverse economic environments. Two approaches that might enhance FHFA's ability to address pro-cyclical requirements in an adverse environment include:

- Specifying the going concern buffer as a range in the final rule as opposed to as a fixed number, from which a fixed number is specified through an order based on pre-established criteria.
- Maintaining some flexibility in a final rule to adjust base capital grids through an order upon the occurrence of specified events, so that the capital grids can be recalibrated to different house price scenarios in the future. This flexibility would be effectively similar to the capability that bank regulators have today to adjust CCAR assumptions annually. For example, FHFA could periodically request public comments on scenario design and update capital requirements.

In conclusion, the need for a regulatory capital system that reflects the Enterprises' monoline mortgage asset business model requires a continuously updated capital system. Given the important role of CRT in the Enterprises' business models, a capital system should be incrementally accurate over the business cycle in terms of its incentives, even though continuous updating of risk characteristics will introduce procyclicality to capital requirements. Nevertheless, given the current and predictable extent of CRT transaction usage, the impact of this procyclicality should be modest, and the existing capital buffer approach (*i.e.*, fixed, tied to assets and guarantees, with no updating) already provides significant counterweight to any procyclicality. As a result, we do not believe that an explicit countercyclical buffer is required, but we do recommend that FHFA consider the modifications described above that would add more flexibility to address any remaining procyclicality issues.

Credit Risk Transfers

In the preamble to the Proposed Rule, FHFA requests input on whether the proposed approach of providing capital relief for CRTs adequately captures the risks and benefits associated with the Enterprises' CRT transactions.¹⁶ Freddie Mac believes that the formulaic approach proposed to derive CRT benefits strikes a good balance between risk sensitivity on the one hand, and transparency and consistency across the Enterprises on the other.

Nevertheless, CRT structures can often be complex or unusual, so that the formulas may not be adequately accurate to represent capital relief on an economically accurate basis. For these cases, we recommend that FHFA provide itself flexibility to specify a capital relief percentage for structures that may not readily fit into the formulaic approach. This has the added benefit of making clear that

¹⁵ FHFA has authority to temporarily increase the minimum capital level of a regulated entity. 12 U.S.C. § 4612(d). FHFA has implemented this authority through its Final Rule on Minimum Capital – Temporary Increase, 12 CFR § 1225, which specifies that FHFA may increase minimum capital requirements temporarily for a broad range of reasons, including: current or anticipated declines in the value of assets held by a regulated entity; credit, market, operational or other risks facing a regulated entity; and housing finance market conditions. FHFA also has authority to establish additional capital requirements by order for particular purposes. 12 U.S.C. § 4612(e).

¹⁶ 83 Fed. Reg. 33361 (Question 10).

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transactions that are designed to “arbitrage” the formula will not be allowed to do so. (Such arbitrage of capital rules has been a persistent issue for banking regulators.) For example, the way in which CRT investors are compensated for accepting credit risk, such as the way the payments to the investors would evolve as losses are being incurred, could affect the benefit to the Enterprises.

Multifamily Risk-Based Capital Requirements

The risk-based capital requirements for multifamily loans and guarantees in the Proposed Rule provide a framework for consistency across the Enterprises. The base grids for credit capital are straightforward and would establish capital requirements at reasonable levels. In this context, Freddie Mac would like to propose for FHFA consideration certain areas where the framework established by the Proposed Rule can be more granular without suffering a significant complexity or transparency cost. Specifically, we recommend that FHFA:

- Include more granularity in the multipliers for interest-only (IO) loans (based on maturity) and for affordable loans (based on level of government subsidy).
- Add multipliers for products such as construction and mod-rehab and loan features such as cross-collateralization.
- Develop the capability to address differences in underwriting across the Enterprises; for example, FHFA should consider whether loans of the same Loan-to-Value and Debt Coverage Ratio are underwritten differently based on income, expenses, capitalization, etc. This could be accomplished by third-party firms that specialize in underwriting and due diligence in the multifamily sector, and added as needed to the framework.
- Consider adding factors for other non-financial structural terms in a typical commercial mortgage that are important risk mitigants, such as insurance requirements, guarantor requirements, escrow requirements, borrower structure covenants, etc. These factors can materially change risk, especially when a loan moves into special servicing. Third-party reviews by independent institutions, such as rating agencies, could help provide insights into the materiality of these terms.
- Maintain some flexibility in a final rule to adjust the specified spread shocks for market risk capital through an order upon the occurrence of specified events, and include the use of internal models as an additional potential way to calculate market risk capital for more complex multifamily securities.

In addition, Freddie Mac recommends that FHFA reconsider the market versus credit risk designation for multifamily held for sale (HFS) loans. Currently, all multifamily whole loans use the same capital methodology regardless of the business intent – held for investment (HFI) or held for sale (HFS). The current methodology is appropriate for HFI loans where the majority of the capital is allocated to credit risk. HFI loans are not subject to mark-to-market accounting and their interest rate risk is hedged. Therefore, the predominant risk of HFI loans is credit risk. For whole loans intended for securitization and designated as HFS, the vast majority (if not all) of the loan’s capital should be classified as market risk capital. These loans are subject to mark-to-market volatility and have a very high probability of leaving the balance sheet within a few months of funding (and credit risk deterioration, for example, shows up in credit spreads increasing, with consequent mark-to-market losses). Since loans rarely if ever default within the first few months of origination, while the securitization process is underway, the predominant risk of these loans is market risk; even immediate

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default would show up as a mark-to-market write-down and not a loan loss provision. In fact, as the FHFA (like other financial regulators) uses GAAP accounting for its supervision, not moving to a market-risk approach is inconsistent with the actual accounting that will impact the net worth and capital ratios of the Enterprises. We believe other financial regulators use the market-risk approach we are recommending.

3. Other Comments and Recommendations

In addition to the principal comments provided above, Freddie Mac has the following comments and recommendations.

Treatment of Cash and Cash Equivalents

The Proposed Rule would assign a risk-based capital requirement of zero to cash and cash equivalents, which are defined as “highly liquid investment securities that have a maturity at the date of acquisition of three months or less and are readily convertible to known amounts of cash.”¹⁷ These assets would not be subject to credit risk, market risk or operational risk capital requirements, and there would be no going concern buffer.¹⁸ However, the leverage requirement for such assets would be either 2.5% under the 2.5% Alternative or 4% under the Bifurcated Alternative.

- Freddie Mac recommends that the requirements for cash and cash equivalents be zero or the lowest permissible amount under the Bifurcated Alternative.

In the preamble to the Proposed Rule, FHFA notes that cash and cash equivalents are liquid investments and that, because of their liquidity, deleveraging with respect to such investments “would not create the same downward pressure on asset values as for other types of assets.”¹⁹ Nevertheless, FHFA indicates that cash and cash equivalents remain subject to funding risk in the same way as other portfolio assets and, accordingly, it proposes to include cash and cash equivalents in the asset base for the minimum leverage capital requirement under both alternatives.²⁰

Cash and cash equivalents are high quality and extremely liquid assets, and capital requirements should not specify the same charges that apply to assets with greater credit and market risks. The 4% leverage requirement that would apply to these assets under the Bifurcated Alternative is particularly inappropriate. Ideally, cash and cash equivalents should have a zero requirement, although we recognize that there is a statutory minimum capital requirement applicable to aggregate on-balance sheet assets. Accordingly, we recommend that cash and cash equivalents be excluded from Non-Trust Assets for purposes of calculating the leverage capital requirement under the Bifurcated Alternative, so long as an Enterprise is in compliance with the 2.5% statutory minimum capital requirement for its aggregate on-balance sheet assets, including cash and cash equivalents.²¹

¹⁷ Proposed 12 CFR § 1240.47(c).

¹⁸ *Id.*

¹⁹ 83 Fed. Reg. 33387.

²⁰ *Id.* at 33380.

²¹ 12 U.S.C. § 4612(c).

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Treatment of Off-Balance Sheet Assets Under the Bifurcated Alternative

In the preamble to the Proposed Rule, FHFA requests comments on whether off-balance sheet assets should be included in the Non-Trust Assets or Trust Assets component of the Bifurcated Alternative.²²

- Freddie Mac recommends treatment of off-balance sheet exposures under the Bifurcated Alternative as either Trust Assets or Non-Trust Assets, depending on the economic characteristics of the exposure

In the case of Freddie Mac, almost all current off-balance sheet assets consist of guarantee assets related to securitization activities (Multifamily K-Deals), with risk characteristics similar to those of the single-family guarantee assets. The Proposed Rule treats these exposures as Trust Assets.²³ We support this treatment because it is desirable that a capital rule assign the same capital treatment to assets with similar risk characteristics. However, it is possible that an Enterprise may acquire off-balance sheet exposures in the future that more closely resemble Non-Trust Assets. FHFA should retain the flexibility to designate such an asset consistent with its economic characteristics.

Market Risk Capital Charge

In the preamble to the Proposed Rule, FHFA requests comments on alternative approaches to determining a market risk capital charge, including using the global market shock component of DFAST.²⁴

- Freddie Mac supports FHFA's existing approach to determine the market risk capital charge, which would assign a simplified single point estimate to certain assets and rely on Enterprise internal models for products with complex structures or high prepayment sensitivities.

Freddie Mac believes that FHFA's proposed methodology for determining a market risk capital charge is appropriate because it is reasonably accurate from an economic perspective and it can be implemented relatively easily. Freddie Mac believes that incorporating the DFAST global market shock component would not be desirable. That shock is calculated for regulatory systemic risks concerns as part of bank CCAR requirements, and is significantly beyond historical stress experiences. Use of the DFAST global market shock therefore would not be economically accurate as applied to the Enterprises' assets and is not appropriate to determine market risk capital in the Proposed Rule.

Definitions of Core and Total Capital

FHFA requests comments on the appropriateness of including loss reserves in the definition of Total Capital and asks whether loss reserves should be added to the proposed risk-based requirements.²⁵

- Freddie Mac recommends that loss reserves be added to risk-based capital requirements.

Section 1240.1(a) of the Proposed Rule would define Core Capital (used for assessing minimum capital adequacy) as the sum of: (A) the par or stated value of outstanding common stock; (B) the par or stated value of outstanding perpetual, noncumulative preferred stock; (C) paid-in capital; and (D) retained earnings. The definition of Total Capital (used for assessing risk-based capital adequacy) also includes a

²² 83 Fed. Reg. 33388 (Question 34).

²³ *Id.* at 33387 n.47.

²⁴ *Id.* at 33332 (Question 2).

²⁵ 83 Fed. Reg. 33389 (Question 37).

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general allowance for foreclosure losses (which includes an allowance for specified losses) and other amounts available to absorb losses that FHFA determines to be appropriate to include in Total Capital. These definitions are set by the Safety and Soundness Act.²⁶

Regulatory capital requirements are generally based on the notion of unexpected loss, which is the difference between stress loss and expected loss. Currently, loan loss reserves cover a portion of expected loss. (After implementation of the Financial Accounting Standards Board new standard for Current Expected Credit Losses (CECL), loan loss reserves will be effectively the same as expected loss.) If the capital requirement continues to be based on unexpected loss (which subtracts expected loss) while at the same time loan loss reserves are allowed in available capital, there is a double-counting of credit for loan loss reserves. Given that FHFA is constrained in using an available capital measure that includes loan loss reserves, Freddie Mac recommends that loan loss reserves be added back to the capital requirement when the latter is compared to available capital for purposes of capital adequacy determination.

In addition, we recommend that FHFA consider including restrictions on the percentage of perpetual, noncumulative preferred stock that an Enterprise is permitted to include in Core Capital, in similar fashion to bank regulations. Bank regulators generally consider common stock to be the highest quality capital, and FHFA should guard against excessive reliance on preferred stock by an Enterprise.

²⁶ 12 U.S.C. § 4502 (definitions of “Core Capital” and “Total Capital”).