



# FHFA's Proposed Rule on Enterprise Capital Requirements

A comment letter from U.S. Mortgage Insurers

November 2018





# ABOUT USMI

U.S. Mortgage Insurers (USMI) is dedicated to a housing finance system backed by private capital that enables access to housing finance for borrowers while protecting taxpayers.

Mortgage insurance offers an effective way to make mortgage credit available to more people. USMI is ready to help build the future of homeownership. Learn more at [www.usmi.org](http://www.usmi.org).

## Table of Contents

Executive Summary .....	3
1. Framework Should be Developed Using APA Process and be More Transparent .....	3
2. Capital Requirements are Inappropriate for the Enterprises .....	3
3. Treatment of Counterparties Should be Reevaluated .....	4
Introduction .....	5
Framework Should be Developed Using APA Process and be More Transparent .....	6
Bank Capital Requirements are Inappropriate for the Enterprises .....	8
The Proposed Rule Builds in Excessive Conservatism in Some Areas .....	10
1. Rule Should Consider Revenue on Existing Book of Business .....	10
Cyclical Needs to be Considered .....	15
1. Capital Requirement Should be Countercyclical .....	15
2. Updated LTV Ratios are Pro-cyclical and Should not be Used .....	16
3. Updated Credit Scores are Pro-cyclical and Should not be Used .....	17
Treatment of Counterparties Needs to be Reevaluated .....	17
1. The Capital Rule Understates the Value of MI Protection .....	17
2. Counterparty Credit Risk Haircuts are Unclear and Inconsistent .....	19
3. Correlation Determinations Must be Transparent .....	21
4. Capital Benefit Afforded to Credit Risk Transfer Should Better Align with the Actual Risk Reduction from CRT .....	22
Conclusion .....	24
Appendix A .....	25
Appendix B .....	31
Appendix C .....	36

November 16, 2018

Alfred M. Pollard  
General Counsel  
Federal Housing Finance Agency  
Eighth Floor  
400 Seventh Street, SW  
Washington, D.C. 20219

RE: Comments/RIN 2590-AA95

Dear Mr. Pollard:

This letter is submitted by U.S. Mortgage Insurers (USMI), a trade association comprised of the leading private mortgage insurance (MI) companies in the United States.<sup>1</sup> Together, the private mortgage insurance industry has helped nearly 30 million homeowners over the past 60 years, including more than 1 million in the past year alone.

USMI is dedicated to a housing finance system backed by private capital that enables access to housing finance for all creditworthy borrowers while protecting taxpayers. USMI supports meaningful and appropriate capital requirements for Fannie Mae and Freddie Mac (the “Enterprises”) and appreciates the Federal Housing Finance Agency (FHFA) for initiating this rulemaking process, and for affording us an opportunity to submit comments.

Currently, the Enterprises use a FHFA-developed Conservatorship Capital Framework (CCF) to align business and pricing decisions (e.g. G-Fees) with economic risk. The notice of proposed rulemaking (NPR) states that during conservatorship, FHFA expects the Enterprises to “use assumptions about capital described in the rule’s risk-based capital requirements in making pricing and other business decisions,” even though the new standards will not be used to determine capital compliance until after the conservatorship ends.<sup>2</sup> Therefore, the final regulation could have an immediate real-world impact on the Enterprises’ activities and the cost and availability of mortgage credit. As a result, this rulemaking is very significant for our members, other participants in housing finance, and the American public.

The NPR solicits public comments on 33 specific questions as well as a general request for comment on all aspects of the proposed capital framework. This letter will first discuss our general comments to the NPR, and then provide answers to selected specific questions in Appendix A. We begin with an executive summary.

---

<sup>1</sup> USMI is a trade association comprising the following private mortgage insurance companies: Essent Guaranty, Inc.; Genworth Mortgage Insurance Corporation; Mortgage Guaranty Insurance Corporation; National Mortgage Insurance Corporation; and Radian Guaranty Inc.

<sup>2</sup> 83 Fed. Reg. 33312.

## Executive Summary

1. Framework Should be Developed Using APA Process and be More Transparent
  - The NPR needs to reflect that the Enterprises' operations and balance sheets are different from banks, and the capital requirements must be clear, deliberative, and analytically justified. The NPR falls short of this standard for a number of reasons and lacks sufficient information to facilitate meaningful public comment. To fully assess the proposed requirements, the *current* CCF used today by both Enterprises must be publicly disclosed, as well as all of the assumptions and back-tests used in developing this proposal. Further, to enable meaningful assessment and analysis of the proposed rule, it is necessary for FHFA to release the model, pertinent data, and assumptions used to develop the proposed rule.
  - FHFA should treat this as an Advanced Notice of Proposed Rulemaking (ANPR) and a new NPR should be issued after consideration of the comments received on this proposal.
  
2. Capital Requirements are Inappropriate for the Enterprises
  - A. *The Enterprises are Credit Insurers not Banks*
    - The Enterprises' core business activity is their guaranty business, which is an insurance, not banking, function. Therefore, a more appropriate capital approach for the Enterprises' guaranty business is an insurance capital model.
    - The capital model for the guaranty business should arrive at the same capital requirements for the same risk, whether it is born by Private Mortgage Insurer Eligibility Requirements (PMIERs) compliant MIs, the Enterprises, or other insurance companies exposed to mortgage credit risk.
    - While the Enterprises remain as large and interconnected as they currently are in the financial system and engage in the number of activities they are engaged in, they should have a meaningful capital buffer to protect taxpayers against the systemic risk posed and to ensure that the Enterprises will be able to operate in times of severe financial stress while also enabling access to affordable mortgage finance.
  
  - B. *The Proposed Rule Builds in Excessive Conservatism in Some Areas*
    - G-Fees on existing books of business and other revenues, in excess of the amount needed to offset expected losses, should be considered in determining the capital needs of the Enterprises.
    - The model should use a housing recovery period consistent with actual experience, not worse than the 2008 financial crisis.

C. *Cyclicality Needs to be Considered*

- When capital requirements are “procyclical,” the amount of required capital increases when there is an economic downturn, but this directly corresponds with reduced availability and increased costs of additional capital for investment. The rule is inappropriately procyclical in a number of ways, including with the use of mark-to-market loan-to-value (LTV) ratios and updated credit scores.

3. *Treatment of Counterparties Should be Reevaluated*

A. *Capital Rule Understates the Value of MI Protection*

- Based on both historical and forward-looking analysis, the effectiveness of private mortgage insurance is significantly understated in the NPR’s proposed Credit Enhancement Multipliers (CE Multipliers).

B. *Counterparty Risk Haircuts are Unclear and Inconsistent*

- USMI respectfully recommends that the methodology for developing counterparty haircuts be reconsidered and re-proposed. Not only is the methodology for developing counterparty haircuts unclear and inconsistent with other methodologies that have long been used in both banking and insurance, but it is unnecessarily punitive and uneven in its application of a haircut to the MI industry.
- Further, the subjective ratings for counterparty creditworthiness are opaque in how ratings will be derived or assessed, provides no assurances of real counterparty strength, and allows the Enterprises to arbitrarily pick winners and losers. The counterparty credit risk haircut should be replaced by a requirement to satisfy PMIERS or an equivalent test of creditworthiness. The Enterprises’ assessment of counterparty strength must include specific standards for transparency, provide an opportunity for counterparties to understand the ratings, and a process to challenge these determinations.

C. *Correlation Determinations must be Transparent*

- Correlation risk is almost impossible to measure, and the NPR does not provide any guidance or metrics for determining the degree of correlation. FHFA chose to solely measure correlation risk by “diversification” versus “concentration” of insuring mortgage credit risk.
- The NPR proposes a biased treatment in favor of diversified credit risk counterparties that ignores key risks, overstates the risks of monoline mortgage insurers, and ignores the benefits of monoline mortgage insurers.
- MIs, like the Enterprises themselves, were specifically established as monoline entities to protect other parts of the financial system from the contagion effects of housing cycles. State laws and regulations impose significant countercyclical requirements on MIs and they are also subject to PMIERS, which is capital specifically designed to cover mortgage credit risk in a stressed scenario.

Therefore, as the NPR notes in its discussion about the Enterprises versus banks, companies concentrated in residential mortgage exposures—especially those subject to PMIERS—have a *lower* risk profile than diverse financial conglomerates.

- FHFA and the Enterprises are in full control of determining capital and operational requirements for MIs through PMIERS. If PMIERS is specified consistently with the capital requirements for the Enterprises, then there should be no counterparty haircut needed for MIs.

*D. Credit Risk Transfer Programs Need Further Analysis*

- USMI agrees with the notion that the Enterprises should be transferring all but catastrophic loss to the private sector. However, FHFA should better align the risk reduction from and the economic benefit of credit risk transfer (CRT) by recognizing that CRT transactions do not provide the same protection as equity capital, may only transfer risk layers that are not “pierced” during a downturn, and that certain types of investors are unlikely to be available during different points of the housing cycle—most notably during a downturn.
- The Enterprises should not receive capital credit for CRT transactions that do not meaningfully transfer credit risk to third parties and they must hold appropriate capital against first loss and other higher risk positions created by CRT.

## Introduction

The NPR relies on the concepts found in the Basel capital agreement and is “generally consistent with the regulatory capital framework for large banks.”<sup>3</sup> The “foundation” for the proposal is the CCF that was developed by FHFA and adopted by the Enterprises in 2017. The CCF is used by the Enterprises to align business activities and pricing with economic risk.<sup>4</sup> The proposed rule is intended to supersede the CCF for pricing and business decisions and will become a binding capital requirement only after the conservatorship is ended.<sup>5</sup>

The proposal imposes risk-based and a non-risk adjusted “leverage” capital requirements on the Enterprises. The risk-based capital requirement uses “look-up” tables. The risk-based capital assigns a “base capital charge” for each mortgage exposure that varies based on loan characteristics. The base capital charge is then subject to modifications (multipliers) based on other factors, such as loan purpose, origination channel, and quality of loan documentation. The base capital charge is reduced by the presence of credit risk mitigants, including loan-level mortgage insurance. Added on top of the base charge is an “operational risk” charge of 8 basis points and a “going-concern” buffer of 75 basis points. These two charges are not adjusted for risk. Finally, the rule includes a “market risk” component for the assets held in portfolio.

---

<sup>3</sup> See 83 Fed. Reg. 33314. The NPR makes some modifications in the Basel rules to reflect the unique business model of the Enterprises.

<sup>4</sup> “FHFA’s purpose in pursuing [the CCF] was to ensure that the Enterprises make prudent business decisions when pricing transactions and managing their books of business.” 83 Fed. Reg. 33313.

<sup>5</sup> 83 Fed. Reg. 33312.

The proposal has two alternative non-risk adjusted leverage proposals. One is to impose a capital charge of 2.5 percent of total assets and off-balance sheet guaranties. The other is to assess a capital charge equal to 1.5 percent of trust assets<sup>6</sup> and 4 percent of non-trust assets.<sup>7</sup>

The credit risk charge is based on unexpected losses over the lifetime of mortgage assets. The requirements were developed using historical loss data, including loss experience from the financial crisis, and the results of stress tests.<sup>8</sup> However, the specific factual assumptions used to develop this proposal, including the CCF, have not been made public, and therefore it is not possible to comment on the accuracy, reliability or reasonableness of the quantitative capital charges in this proposal. As discussed immediately below, the failure to provide critical information such as the assumptions and data used to develop the look up charts taints the regulatory process and needs to be remedied so that the public can review and comment on these assumptions *before* a final rule is issued.

## Framework Should be Developed Using APA Process and be More Transparent

As previously stated, USMI commends FHFA for considering what the appropriate capital levels should be for the Enterprises if they are no longer in conservatorship. However, the basic question raised by this proposal is: What are the appropriate capital requirements for the Enterprises in light of the fact that they not banks? The answer to this question must be clear, deliberative, and analytically justified. Unfortunately, the NPR falls short of this standard for a number of reasons. The remedy is to treat this proposal as an ANPR, solicit further comments on the appropriate capital regulations for the Enterprises, and, in particular, solicit comments on whether an insurance company capital model is more appropriate in light of the fact that these entities are not banks.

Under the Administrative Procedure Act (APA), agency rules such as these must be promulgated only after providing public notice and an opportunity to provide *meaningful* comments.<sup>9</sup> Under the APA, “adequate notice must reveal agency's views in concrete and focused form so as to make criticism or formulation of alternatives possible.”<sup>10</sup> As stated by the D.C. Court of Appeals: “notice must not only give adequate time for comments, but also must provide sufficient *factual detail* and rationale for rule to permit interested parties to comment meaningfully.”<sup>11</sup>

---

<sup>6</sup> Trust assets are Enterprise mortgage-backed securities held by third parties and off-balance sheet guaranties.

<sup>7</sup> Non-trust assets are on-balance sheet assets (portfolio assets) and off-balance sheet guaranties other than those supporting mortgage-backed securities that are considered trust assets.

<sup>8</sup> The stress tests used to develop this proposal are similar to the stress tests required under the Dodd-Frank Act (DFAST), the Fed's bank holding company stress test (CCAR) and the stress tests used in the Basel Accord.

<sup>9</sup> 5 USC § 553.

<sup>10</sup> United Church Bd. v. SEC, 617 F. Supp. 837 (D.C. 1985).

<sup>11</sup> Fla. Power and Light Co. v. U.S., 846 F.2d 765 (D.C. Cir. 1988), cert. den. 490 U.S. 1045 (1989). Emphasis added.

As noted in the introduction to this letter, and as will be explained below, we are of the opinion that the NPR does not provide sufficient factual detail to permit interested parties to “comment meaningfully” on the proposal. The failure to publicly disclose the CCF, which forms the basis for the proposed rule, is a critical defect. As a result of this failure, and a failure to disclose the details of the stress test used to formulate this proposal, as well as the failure to disclose all of the assumptions and data that went into the proposed capital model, results in an opaque rulemaking process. In short, much of the predicate information and models relied on by FHFA in formulating the proposed rule have not been disclosed in a “concrete and focused form” as envisioned by the APA and the courts. As a result, this NPR is inconsistent with the policies and purposes underlying the APA. This only can be remedied by treating the NPR as an ANPR.

FHFA has chosen to abandon the existing capital rule in its entirety that was finalized in 2001, using instead as a foundation for this NPR the CCF, which has not been publicly released. The proposal includes look-up tables, multipliers, and counterparty haircuts, relying on a combination of results from undisclosed internal models from the Enterprises and FHFA. The NPR refers to the Dodd-Frank Act Stress Test (DFAST), the Federal Reserve Board’s Comprehensive Capital Analysis and Review (CCAR), and stress tests used by the Enterprises, but does not disclose the actual stress test used.<sup>12</sup> While the proposal discusses in general terms the methodology used in developing the proposed rule, it does not provide the specific information needed to fully understand and comment on the accuracy or reasonableness of the proposal. For another example, we understand that the FHFA “back-tested” the CCF to the time of the financial crisis, using historical G-Fee earnings. We do not know the result of running such a back-test using current G-Fee charges, but we have no doubt that the tests would have come to different conclusions. These are examples of the serious flaws that taint the entire rulemaking process and is another reason for treating this proposal as an ANPR.

Treating this proposal as an ANPR is appropriate for a number of other reasons as well. It is a highly complex proposal that is not easy to digest. At times it appears to be a “mash up” of different capital concepts. It is not clear that the proposal takes into account the full extent of, and interactions between, loss reserves, the minimum leverage standard, the incentives provided by prompt corrective action for the Enterprises to hold excess capital and the market pressure for the Enterprises to hold even more capital. The proposal adds a *non-risk adjusted* going concern buffer and *non-risk adjusted* operational risk charge to the risk-based capital requirement. This is unique to the FHFA proposal<sup>13</sup> and will have the effect of distorting the risk-based measure so that it will not reflect the actual risks inherent in the Enterprises’ activities. There is no explanation or rationale given for adding a significant non-risk adjusted factor to the risk-based capital measure, or why these buffers are not already included in the leverage requirement.

---

<sup>12</sup> The NPR states “the loss scenarios draw on conceptual and methodological inputs from regulatory frameworks such as DFAST, CCAR, and the Basel Accords.”

<sup>13</sup> Under the bank capital models, the going concern buffer is risk adjusted.

Another example of the “mash up” is the various provisions in the rule to establish a going-concern buffer. There is an explicit capital charge of 75 basis points, that the NPR states is sufficient to maintain the going concern status of the Enterprises during and for a period after a severe financial distress.<sup>14</sup> On the other hand, one of the rationale’s given by FHFA for not including the Enterprises’ revenues on their existing book of business is that these revenues will enable the Enterprises to continue as going concerns.<sup>15</sup> This is again a confusing combination of capital requirements. If the going concern buffer is insufficient to do its job, it should be modified. Adding in an additional buffer by discounting future revenue on the existing book of business is a mash up of different approaches to handle the same perceived problem, without quantifying the amount of capital needed or recognizing the double protection.

## Bank Capital Requirements are Inappropriate for the Enterprises

The Enterprises’ core business function is their guaranty business, which is an insurance function, not a banking function. Therefore, a more appropriate capital approach for the Enterprises’ guaranty business is an insurance capital model. The proposed rule is modeled on the capital standards designed for large banking companies, with a few modifications purported to take into account the unique business model of the Enterprises.<sup>16</sup> In essence, while the Enterprises are insurance companies that together guaranty \$5.4 trillion in mortgage debt,<sup>17</sup> the proposed capital requirements are based on bank capital rules. While bank capital rules may be considered “more mature” because of recent updates to the capital regime post-financial crisis, this does not justify utilizing a bank capital framework for what are essentially insurance companies.

The essential function of a bank is to transform short-term liabilities, including deposits, overnight borrowings, and short-term funding, into longer-term loans and other assets. This creates the potential for failure should the banks not be able to roll over their short-term funding, as was the case in 2008, when the wholesale funding markets, and especially the repo markets, pulled back, creating a liquidity crisis for many large banks.<sup>18</sup> In light of this high degree of liquidity risk inherent in the banking business, large banking organizations are subject to minimum liquidity requirements and enhanced capital requirements that are designed to create a high level of loss-absorbing capital.<sup>19</sup>

---

<sup>14</sup> 83 Fed. Reg. 33325, 33332.

<sup>15</sup> 83 Fed. Reg. 33331.

<sup>16</sup> 83 Fed. Reg. 33314. (“FHFA’s proposed rule is based on a capital framework that is generally consistent with the regulatory capital framework for large banks, but reflects differences in the charters, business operations, and risk profiles of the Enterprises.”)

<sup>17</sup> Fannie Mae and Freddie Mac 3Q2018 10-Q filings.

<sup>18</sup> See, e.g. G. Gorton and A. Metrick, “Securitized Banking and the Run on Repo,” 104 *J. of Financial Economics* 425 (2012) (“The panic of 2007-2008 was a run on the sale and repurchase market (the repo market), which is a very large, short-term market that provides financing for a wide range of securitization activities and financial institutions.”)

<sup>19</sup> See testimony of Rodgin Cohen before Senate Committee on Banking, Housing and Urban Affairs, March 11, 2014.

Insurance companies, on the other hand, are not funded in this manner, but instead rely on longer term liabilities. The NPR specifically recognizes that the Enterprises do not face the short-term funding or “rollover risk” faced by banks with respect to their guaranty business (as opposed to their retained portfolios and cash window operations). As explained by FHFA:<sup>20</sup>

[B]anks 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.... By comparison, the Enterprises’ core credit guaranty business of purchasing and securitizing mortgage loans provides a more stable source of funding that cannot be withdrawn during periods of market and economic stress and is therefore not subject to rollover risk.”

The differences between bank and insurance company capital was explained by former Federal Reserve Governor Daniel Tarullo in testimony before the Senate Banking Committee:<sup>21</sup>

The problem here, Mr. Chairman, comes I think on the liability side of the balance sheet. Bank centered capital requirements are developed with an eye to the business model of banks and the challenge that the FDIC would have in resolving a bank, or now a systemically important banking organization that would be in deep trouble.

The more or less rapid liquidation of a lot of those claims and the runs on a lot of the funding of that institution, lie behind the setting of the capital ratio. But the liability side of an insurance compan[y’s] balance sheet, a true insurance company [like] somebody selling life insurance for example, is very different. There’s not a way to accelerate the runs of those, of that funding.

Similar to other insurance companies, the Enterprises are not subject to runs on their guaranty business, and therefore, as explained by Governor Tarullo, they should not be subject to bank capital requirements. Insurance companies are simply not like banks, where a loss of confidence can lead to a run-on-the bank. And mortgage insurance companies in particular are not subject to this risk since mortgage insurance generally is required as long as the LTV of the loan is above 80 percent.<sup>22</sup>

Therefore, a more rational approach to setting capital standards for the Enterprises is look to the insurance capital standards, including the global standards in Solvency II,<sup>23</sup> as well as

---

<sup>20</sup> 83 Fed. Reg. 33323.

<sup>21</sup> Mitigating Systemic Financial Risk: Hearing Before the S. Banking, Housing and Urban Affairs Comm., 113th Cong. (July 11, 2013) (testimony of Daniel K. Tarullo).

<sup>22</sup> Private mortgage insurance automatically terminates when the LTV reaches 78 percent in accordance with the Homeowners Protection Act.

<sup>23</sup> The Solvency II Directive is a directive of the European Union (EU) that codifies the amount of capital that EU insurance companies must hold to reduce the risk of insolvency. Following an EU Parliament vote on 11 March 2014, Solvency II came into effect on 1 January 2016. This date had been previously pushed back many times.

the capital models developed by the National Association of Insurance Commissioners (NAIC),<sup>24</sup> and the States.<sup>25</sup> In this regard, and as will be discussed more thoroughly below, insurance principles recognize that premium revenues are designed to exceed expected losses, and therefore should be considered in determining the loss absorbing capacity of the Enterprises.

To effectively comment on the proposed capital rule, it is essential to make necessary determinations about the Enterprises' role and activities post-conservatorship, i.e. the activities and systemic nature of the Enterprises post-conservatorship. If the Enterprises remain as large and interconnected as they currently are in the financial system and engaged in the number of activities they are engaged in, it is clear they would be deemed Systemically Important Financial Institutions (SIFIs) and subject to systemic buffers and other capital charges. In this regard, the Enterprises should have a meaningful capital buffer to protect taxpayers and ensure that the Enterprises will be able to operate in times of severe financial stress. But the capital rules must strike a balance between safety and soundness and access to affordable mortgage finance.

## The Proposed Rule Builds in Excessive Conservatism in Some Areas

As previously noted, it is necessary for FHFA to release the model, pertinent data, and assumptions used to develop the proposed rule to enable independent third-party analysis of the levels of proposed capital in the NPR and the results that were arrived at by FHFA in the proposed rule. USMI looks forward to fully commenting on the overall proposed levels of capital once this information is provided.

Also, as explained above, the Enterprises are essentially large insurance companies, not banks, and the risks to the Enterprises are insurance risks, not bank risks. The proposed capital rule contains elements of conservatism that, when only viewed in isolation may not seem overly concerning, but when taken in totality appear excessive for the insurance/guaranty business of the Enterprises. Unfortunately, holding excessive capital comes at a cost to homebuyers and to the American economy in terms of higher costs for housing finance. Therefore, it is in the public interest to accurately balance risk and capital requirements for the Enterprises. Below are some examples in which we believe the proper balance has not be struck.

### 1. Rule Should Consider Revenue on Existing Book of Business

The proposal states that it does not count any future revenue (primarily G-Fees), including revenue on the existing book of business, toward the credit risk capital requirement.

---

<sup>24</sup> See, e.g. [Mortgage Insurance Risk Based Capital - MI RBC Proposal, Overview of Proposed RBC Approach - May 2016](#)  
[Mortgage Insurance Risk Based Capital - MI RBC Proposal, Loan-Level Cash-Flow Model: Methodology White Paper - May 2016](#).

<sup>25</sup> Examples of state capital requirements for MI companies or Financial Guaranty Companies.

Not including the recurring payments on existing obligations provides an inaccurate picture of the health of the Enterprises, results in a misleading evaluation of the ability of the Enterprises to deal with severely adverse conditions and will have a significant adverse impact on mortgage availability.<sup>26</sup>

*A. The G-Fee Covers Both Expected and Unexpected Losses*

The NPR states that the “The Enterprises set guarantee fees at a level to cover the lifetime cost of expected losses; therefore, there is no need for the Enterprises to hold capital for expected loss.”<sup>27</sup> While it is not entirely clear, the assumption that guarantee fees only cover expected losses appears to be part of the rationale for why G-Fee revenue should not be considered in determining required capital levels, since capital is a backstop against unexpected losses.

However, as noted in numerous FHFA reports to Congress, the G-Fee charge is designed to cover both expected and unexpected losses. For example, the latest FHFA report to Congress, issued in October 2017, states:<sup>28</sup>

Guarantee fees cover several cost components that the Enterprises expect to incur in providing their guaranty on mortgage-backed securities: 1) the expected costs that result from the failure of some borrowers to make their payments; 2) the cost of holding the modeled capital amount necessary to protect against potentially much larger unexpected and catastrophic losses that result from the failure of some borrowers to make their payments in a severe stress environment; 3) general and administrative expenses; and 4) 10 basis points allocated to the U.S. Department of the Treasury as required by the Temporary Payroll Tax Cut Continuation Act of 2011.

Likewise, in 2014, FHFA published a request for input on proposed G-Fees. The request explained the purpose of these fees as follows:<sup>29</sup>

The Enterprises charge G-Fees to cover three types of costs that they expect to incur in providing their guaranty: (1) the costs that the Enterprises expect to bear, on average, as a result of failure of borrowers to make their payments; (2) the costs of holding economic capital to protect against potentially much larger, unexpected losses as a result of failure of borrowers to make their payments;

---

<sup>26</sup> Since the proposal is designed to allow the Enterprises to continue to function post-stress event, they will be receiving revenue on new business as well as their existing book. We are asking here only for the revenue on the existing book of business to be recognized, but a good case could be made that this treatment is too conservative. In this regard, we note that during the five years when Fannie’s losses were at their highest (2008-2012), its post-2007 book of business grew to \$1.9 trillion; guarantee fees on that new book through 2012 totaled \$15 billion, with credit losses less than \$2 billion.]

<sup>27</sup> 83 Fed. Reg. 33331.

<sup>28</sup> FHFA, Fannie Mae and Freddie Mac Single Family Guarantee Fees in 2016 at page 3 (2017).

<sup>29</sup> FHFA, Fannie Mae and Freddie Mac Guarantee Fees: Request for Input (2014).

and (3) general and administrative (G&A) expenses. Collectively these three costs are the estimated cost of providing the credit guaranty.

In short, the statement that “Enterprises set guarantee fees at a level to cover the lifetime cost of expected losses” is only partially correct. These fees are set to cover both expected and unexpected losses, and therefore the implied assumption that G-Fee revenue should not be considered for determining capital levels is erroneous. Rather, we believe that the amount of G-Fees and other revenue in excess of the amount necessary to reserve against expected losses should be considered in determining required capital.

*B. Excluding Revenue Creates Material Overstatements of the Amount of Capital Required*

One justification cited in the NPR for not including new revenue is that the Basel capital rules applicable to banking organizations exclude revenue. This argument is inappropriate for a number of reasons. First, it should be understood that the Basel capital uses a relatively short one-year time horizon for determining mortgage losses. The distortion caused by ignoring income during a one-year period is minimal compared to the impact of ignoring revenue over the life of the loan, which could be as long as 30 years. As noted, the income from G-Fees provides funds for both expected losses and a return on equity (i.e., profit), a large portion of which is used to build loss absorbing capacity for *unexpected* losses. To the extent that G-Fee and other income streams provide funds to cover unexpected losses, they should be considered when establishing capital requirements.

As the NPR makes clear, the proposed capital rule, when finalized, will be used by the Enterprises for G-Fee pricing purposes. Not including future revenue from G-Fees will increase capital requirements, leading to higher G-Fees to cover unexpected losses. But the income raised by the higher G-Fees will not be considered under the NPR as offsetting these losses. It would be highly ironic (if not irrational) to require higher fees based on capital needs, but not count those fees when determining capital requirements.

We note that FHFA raised the concern that including new revenue could result in a very low or zero risk-based capital requirement.<sup>30</sup> However, if an accurate test results in a low capital requirement, it does not mean that the test should be abandoned. Rather, it means that the risk inherent in those exposures is very low, and a company (and insurance buyers) should not be disadvantaged for having low risk. Furthermore, even if required risk-based capital is low, the proposed regulation also includes a non-risk adjusted buffer and a non-risk adjusted leverage ratio. Thus, even if the risk-based requirement is low, the non-risk adjusted buffers and leverage ratio ensure minimum capital levels exist.

---

<sup>30</sup> As a practical matter, it is unlikely that revenue will be sufficient to exceed the losses in a severely adverse cycle as imposed under the stress test, unless the G-Fees are excessive compared to the expected mortgage credit losses.

The last reason given in the NPR is that the Enterprises' revenue can be used to build capital during stress events so that they can continue as going concerns. However, the capital proposal already includes a "going concern" buffer that is intended to ensure that the Enterprises will be able to continue to function in a highly stressed environment, and the Enterprises are also subject to stress tests (which include revenue projections) to establish their ongoing ability to function. These are the more appropriate tools to address the need to assure that the Enterprises will remain going concerns. Artificially lowering the capital ratios of the Enterprises by ignoring ongoing revenue on existing obligations is an opaque and inappropriate method to attempt to achieve the same type of buffer.

In fact, including revenues during the stress period provides a *more accurate* picture of the health of the Enterprises. The markets and counterparties will see a *more accurate* capital level reflecting the true condition of the Enterprises and thus will continue to deal with these companies. On the other hand, if revenue is excluded, the Enterprises will be reporting lower capital levels than accurate. The markets and counterparties will be more reluctant to deal with an Enterprise that may be close to or in violation of a required capital ratio. This will make it more difficult for the Enterprises to continue to function, even though in actuality they have sufficient loss absorbing capacity to meet prudential concerns.

In sum, ignoring a financial guarantor or mortgage insurer's revenues on existing exposures is inconsistent with the nature of the primary business of the Enterprises, provides an inaccurate picture of the true economic condition of the Enterprises, will result in higher capital charges that will be passed on to consumers through additional fees, is not justified by reference to the Basel capital standards, and is an inappropriate means of ensuring the ability of the Enterprises to continue operating in a stress event. Enterprise capital requirements should recognize that revenues are a component of their ordinary operations and not be treated as a special source of emergency capital.

### *C. House Price Recoveries are too Conservative*

The proposal assumes that house price recovery after the stress event will take longer than the observed recovery following the great recession. However, as acknowledged in the NPR, the proposal is "designed to establish the necessary minimum capital for the Enterprises to continue operating after a stress event comparable to the recent financial crisis." In light of the many improvements in loan underwriting that have been mandated by the Dodd-Frank Act and FHFA, it could be argued that using the financial crisis as the basis for the stress test is too severe. However, even if it is accepted that the financial crisis is the appropriate benchmark, *there is no reason to use scenarios that are more severe than the actual metrics seen during the crisis and recovery period.* Using a more conservative recovery period may seem to be a harmless "extra layer" of protection, but it will have real world impact in terms of mortgage pricing. The NPR provides no justification for exceeding the conditions in the 2008 crisis and recovery thereafter and is contrary to the stated purpose of the NPR.

*D. Bank Leverage Ratio is Fundamentally Flawed in Light of the Different Risks Presented by Banks and the Enterprises, Which are Essentially Credit Insurance Companies*

As discussed above, the NPR includes two alternative leverage requirements: (i) a capital charge equal to 2.5 percent of total assets and off-balance sheet guaranties related to securitizations; or (ii) a capital charge equal to 1.5 percent of trust assets and 4 percent of non-trust assets.

The NPR explained that the 2.5 percent alternative is based by adjusting the 4 percent leverage requirement for commercial banks to recognize the lower risk of the Enterprises' mortgage assets compared to the "risk density" of large banks. It accomplished this by comparing the average risk weight of the assets held by the largest banks with a 50 percent risk weight assigned to mortgages under the Standardized Approach. However, the 50 percent risk weight is an arbitrary number, assigned by the regulators in 1989 when Basel I was first implemented, and without any actuarial basis. The risk-weight used by the banks using the Advanced Approach varies considerably from 50 percent, and for a well underwritten, low LTV loan, a risk weight of 10 percent is not unreasonable.<sup>31</sup> Therefore, the actual risk of the mortgage positions held by the Enterprises is considerably lower, and the use of the 50 percent risk weight is not an accurate or even reasonable estimate to compare the risk of banks versus the Enterprises.

With respect to the second alternative, the NPR does not explain why the 4 percent and 1.5 percent requirements are appropriate for the risks inherent in the Enterprises positions. It thus leaves the basic question of how the proposed capital requirements relate to the risk of the Enterprises, and how they were determined to appropriately balance the safety and soundness needs with the needs of consumers for affordable housing finance.

In either case, using the bank leverage ratio as the basis for the Enterprise leverage ratio is fundamentally flawed in light of the different risks presented by banks and the Enterprises, which are essentially credit insurance companies. An insurance-based approach to Enterprise capital requirements would not rely heavily on a Basel-derived leverage recommendation but most insurance approaches include some form of minimum capital standard. This is another example of why FHFA should treat this proposal as an ANPR and solicit comment on an appropriate insurance model for designing a capital framework for the Enterprises.

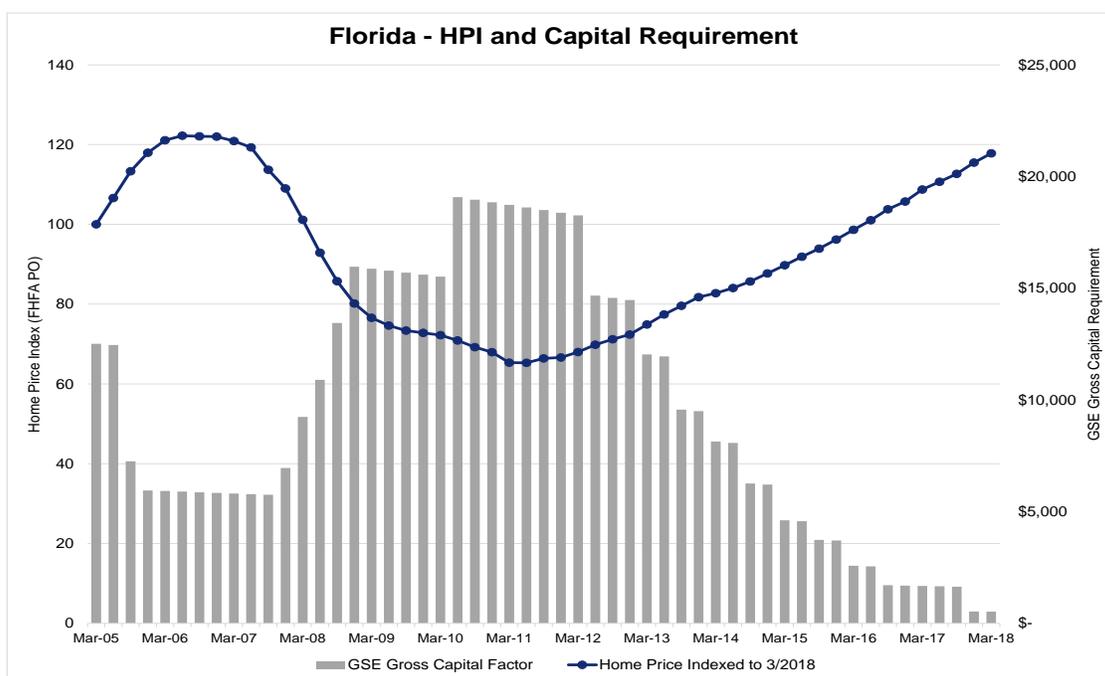
---

<sup>31</sup> FHFA justifies the use of the 50 percent risk because under the Collins Amendment to the Dodd-Frank Act. However, the Collins Amendment requires aggregate capital to be the higher of the Standardized or Advanced Approach calculation and does not require that mortgages be risk-weighted at 50 percent.

## Cyclicality Needs to be Considered

In addition to the issues discussed above, it is also important to discuss, as a separate issue, the question of whether the proposed capital regime is procyclical or countercyclical.

To demonstrate the procyclical effect of the proposed capital framework, the graph below depicts how risk-based capital would have been assessed had the proposed capital framework been in effect for a single loan originated in Florida in early 2005.<sup>32</sup> The capital required would have fallen substantially in 2007 (at the height of the run up to the financial crisis), and then would have increased dramatically in 2008-2009, when losses were reaching their peak and capital was scarce.



### 1. Capital Requirement Should be Countercyclical

When capital requirements are “procyclical,” the amount of required capital increases when there is an economic downturn. However, during an economic downturn the availability of additional capital for investment is scarcer, and the cost of raising capital increases. With respect to the Enterprises, increased capital requirements would require these companies to increase G-Fees in order to generate the returns needed to raise capital levels.<sup>33</sup> Applied more broadly, the likely outcome of higher prices, combined with higher capital requirements in the

<sup>32</sup> Genworth Mortgage Insurance Corporation’s Comment Letter for FHFA’s Notice of Proposed Rulemaking on “Enterprise Capital Requirements” (November 16, 2018). Example based on \$300,000 purchase price 30-year, fixed rate mortgage originated in Florida in Q1 2005. Interest rate of four percent, loan to value ratio of 95 percent. Example also assumes borrower maintains a 740 credit score.

<sup>33</sup> S. Smith and J. Weiher, “Countercyclical Capital Regime: A Proposed Design and Empirical Evaluation,” at 3 (FHFA Working Paper 12 2 April 2012).

midst of a downturn would be to decrease the availability of mortgage credit, thereby increasing the financial distress. In short, requiring additional capital in times of financial distress is too late and counterproductive.

On the other hand, a countercyclical capital framework increases capital reserves during boom times, when raising additional capital is less costly. These reserves can then be used to sustain the operation of the Enterprises during financial strife. This can be accomplished if the risk-based capital requirements are established at origination, based on factors known when the risk is assumed by the Enterprises, and the amount of capital is set through the use of a countercyclical model, as recommended in several FHFA papers<sup>34</sup>, and used in NAIC's Model Mortgage Insurance Risk Based Capital approach.<sup>35</sup>

MI companies under existing laws and regulations are already subject to a unique capital model that substantially lowers the risk of failure in a housing market downturn and manages monoline risk. State mortgage insurance laws typically require mortgage insurers to reserve 50 percent of premiums for a period of 10 years, to be used to pay claims during periods of stress. Contingency reserve requirements have been an effective counter-cyclical capital mechanism that causes MI companies to build substantial statutory capital in excess of the minimum level during benign housing markets.

In proposing a risk-based capital approach for mortgage guaranty, NAIC chose to supplement the contingency reserve with additional counter-cyclical sensitivity in the minimum capital level. Consistent with our concurrence with that approach, we recommend that the model relate capital to fundamental economic drivers, such as the level of personal income, the ratio of home prices to median income, or similar data found to be an accurate measure of economic growth, in order to determine if housing prices are in line with other economic indicators.

## 2. Updated LTV Ratios are Procyclical and Should not be Used

The proposal requires the use of updated (mark-to-market) LTV ratios for mortgages that have been seasoned, e.g., that were originated 5 months or more prior to the capital calculation. The LTV of a mortgage is a very significant factor in determining the amount of required capital and therefore this provision has the potential to make the regulation very procyclical.

---

<sup>34</sup> See, e.g., S. Smith and J. Weiher, "Countercyclical Capital Regime: A Proposed Countercyclical Capital Regime Revisited." (FHFA Working Paper 14 1 May 2014); S. Smith and J. Weiher, "Countercyclical Capital Regime: A Proposed Design and Empirical Evaluation." (FHFA Working Paper 12.2 April 2012).

<sup>35</sup> See,

[www.naic.org/documents/committees\\_e\\_mortgage\\_guaranty\\_insurance\\_wg\\_exposure\\_mirbc\\_overview\\_proposed\\_rbc\\_approach.pdf](http://www.naic.org/documents/committees_e_mortgage_guaranty_insurance_wg_exposure_mirbc_overview_proposed_rbc_approach.pdf). The NAIC's Model Mortgage Insurance Risk-Based Capital approach is countercyclical, in that the amount of capital held for a loan at origination is a function of where house prices are relative to a long-run trend.

During a housing boom, the market price for homes increase. This was seen clearly in the years leading up to the financial crisis, when housing prices increased dramatically, and underwriting standards relaxed on the belief that the increased value of the collateral would protect the lender. Of course, using updated LTVs, as the market value of a home increases, the LTV will decrease, and so will be capital charge. This will free up Enterprise capital and enable the Enterprises to extend more funds into the mortgage markets, further fueling the bubble.

In an economic slowdown home values decline, and a refreshed LTV ratio will increase, raising capital requirements. The Enterprises will have less ability to take on new guaranties. As a result, the use of mark-to-market LTV ratios will contract loan availability during recessions, putting additional downward pressure on housing demand and home prices.

### 3. Updated Credit Scores are Procyclical and Should not be Used

Procyclicality is also a byproduct of using updated credit scores. In boom times, with full or nearly full employment, credit scores are likely to go up, and capital requirements will be reduced. As a result, more funds will be available for mortgages. During a recession, unemployment increases, and this will adversely impact credit scores. The result will be higher capital charges and a tightening of mortgage funding. A similar procyclical effect can be found in the very high capital charge imposed on non-performing loans. Non-performing loans will increase in a downturn, resulting in much higher capital requirements, and a further retrenchment by the Enterprises. The opposite can be expected in periods of high economic growth.

Finally, we note that the use of refreshed LTV and credit scores, coupled with other inputs that are sensitive to cyclical economic changes, will increase the volatility of the of the housing finance markets. This volatility can be unsettling to the housing markets and lead to higher costs for home buyers.

## Treatment of Counterparties Needs to be Reevaluated

### 1. The Capital Rule Understates the Value of MI Protection

To measure the effectiveness of different credit enhancement, the NPR used CE Multipliers, which reflect the effectiveness of MI in protecting loan owners from unexpected losses, applying a formula:

$$\text{CE Effectiveness} = 1 - \text{CE Multiplier}$$

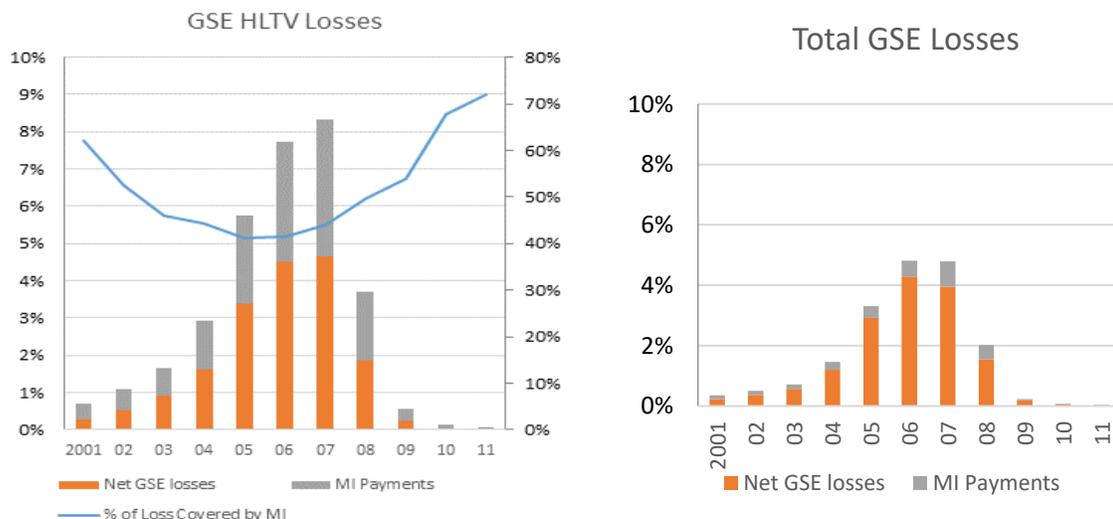
To assess the accuracy of the proposed CE Multipliers under the NPR, USMI did both a historical analysis as well as a forward-looking analysis using Enterprise data, both of which can

be found in Appendix B. Based on USMI’s analysis of the proposed CE Multipliers in the NPR, the CE Multipliers are overstated – especially for high LTV and seasoned loans. For the historical analysis, the results based on our loss-given default (LGD) assumptions is that the correspondent CE Multipliers for guide-level and charter-level coverages should be 0.469 and 0.717 respectively, which are significantly lower than the CE Multipliers of 0.845 and 0.916, respectively, proposed in the NPR for this group of loans.

Further, using a forward-looking analysis which uses a stressed scenario worse than the financial crisis of 2008 (see Appendix B for full forward-looking analysis), we found the implied CE Multiplier should be 0.655, which is much lower than the 0.845 proposed in the NPR. ***The results from both the historical and forward-looking analysis suggest that the proposed CE Multipliers unjustly undervalue the benefits and risk protection of MI.***

In July of this year, Ed Golding and Jun Zhu, of the Urban Institute, concluded that the mortgage insurance haircut in the proposed rule is “quite conservative” and “inconsistent with the data.” The data indicates that guide level mortgage insurance, even in times of stress, covered well over 50 percent of the losses on defaulted mortgages held by the Enterprises.<sup>36</sup>

The proposed rule notes that charter-level private mortgage insurance coverage provides the minimum level of coverage required by the Enterprises’ charter acts, while guide-level coverage provides deeper coverage, roughly double the coverage provided by charter-level coverage. The proposal concludes that guide-level coverage implies greater credit risk protection from the mortgage insurance, and therefore provides greater capital relief for loans protected by guide level coverage than for loans protected with charter-level coverage. We concur and so do others. The Enterprises’ own data reflects that guide-level MI covered more than 40 percent of the losses on high LTV mortgage during the financial crisis and covered approximately 70 percent of losses for more recent book years.<sup>37</sup>



<sup>36</sup> Ed Golding and Jun Zhu, *FHFA Capital Proposal: Preliminary Thoughts*, Sunset Seminar: GSE Pricing and Cross-Subsidization (Urban Institute, July 2018).

<sup>37</sup> Fannie Mae Connecticut Avenue Securities (CAS) Investor Presentation (December 2017).

## 2. Counterparty Credit Risk Haircuts are Unclear and Inconsistent

The proposed rule recognizes that mortgages may be credit enhanced by third parties, whether in the form of private mortgage insurance, lender recourse, or other arrangements that expose the Enterprises to the risk that the counterparty will not perform. To account for the credit risk assumed by the Enterprises when relying on third parties, the rule reduces the capital benefit by a counterparty “haircut multiplier,” that can range between 1.8 percent and 47.6 percent.<sup>38</sup>

USMI recommends that the methodology for developing counterparty haircuts be reconsidered and re-proposed. Not only is the methodology used unclear and inconsistent with other methodologies used in both banking and insurance, but it is unnecessarily punitive in its application of a haircut to the MI industry. As proposed, the rule would subject PMIERS compliant MI companies to a haircut of 17.2 percent, however, USMI’s analysis suggests that a more reasonable value for the counterparty haircut for MI would be 4.2 percent (see Appendix C for full analysis).

The NPR states that the deferment of payments by MI companies following the financial crisis posed “serious counterparty risk and financial losses” for the Enterprises. However, while two MI companies were placed into runoff by their state regulators and one company chose to stop insuring new business, the MI industry never stopped paying claims and did not receive any bailout money from the federal government during the worst housing-related crisis since the Great Depression. Since the financial crisis, the industry has paid over \$50 billion in claims, representing 100 percent of valid claims with more than 97 percent having been paid in cash and the remainder due over time, with interest, as Deferred Payment Obligations (DPOs). This performance significantly exceeded the standards required of mortgage insurers by the Enterprises going into the crisis.

Furthermore, since the financial crisis, the Enterprises have modified PMIERS standards to require significantly more capital—nearly double the amount required prior to the financial crisis. USMI member companies have maintained levels significantly over the PMIERS requirements, with USMI members collectively holding more than \$2.9 billion *in excess* of these requirements.<sup>39</sup> These companies have also imposed more stringent underwriting standards, and adopted, in 2014, new master insurance policies that provide certainty to the Enterprises that claims will be paid on a timely basis. In addition, the modified PMIERS significantly restrict the ability of covered companies to insure loans that are non-conforming with Enterprise eligibility rules. Any appropriate counterparty haircut for MI must recognize both the actual performance of MI companies in the Great Recession and these significant reductions in counterparty risk since then.

---

<sup>38</sup> Table 22 at 83 Fed. Reg. 33356.

<sup>39</sup> USMI member company 3Q2018 10-Q filings.

These improvements in the MI industry, and the benefits inherent in MI protection, have been recognized in several recent studies, including a recent report by Urban Institute. This report also noted the improvements made in the MI industry since the financial crisis and concluded that mortgage insurance companies are in a *much stronger position* due to higher capital required under the PMIERS standards, the imposition of more robust underwriting, improved risk management, and revisions to the master policies that enhance contractual certainty on how and when a claim is paid.<sup>40</sup> All of these factors make MI companies very different from other counterparties, and the final regulation needs to take these changes into account. In light of these developments, and in particular the PMIERS requirements, which set both stringent capital *and* operational requirements, there is no reason to subject private mortgage insurance to *any* haircuts.

In addition to the problems with the formula for calculation of the haircut, the proposed rule requires the Enterprises to rate counterparties on a scale of one to eight. However, all but one of eight ratings are entirely subjective, without any prescribed metrics or other objective standards. The only rating that is not completely subjective is a rating of eight, which is assigned to a counterparty that is currently in default on an obligation or is under regulatory supervision.

Without any prescribed metrics, it is impossible to discern if an Enterprise's rating is accurate and what a counterparty needs to do to improve its rating. Subjective ratings provide no assurance that the appropriate capital credit will be given for the protection provided by a counterparty. It would also be possible that each Enterprise will rate the same counterparty differently, and FHFA would need to develop metrics and credit ratings to determine if the Enterprises are using their discretion appropriately.

Subjective credit ratings also allow the Enterprises, who compete directly for the same business as different credit enhancement providers, to bias their ratings to make certain forms of CRT appear less desirable. Some transactions or counterparties may be preferred, not because they provide more protection, but because of pricing, prior or existing business transactions, personal connections, or a number of other factors, subtle or obvious. Without metrics there is no objective way to protect competitors from favoritism or other unfair treatment by one or both of the Enterprises.

Allowing the Enterprises to assign a counterparty to one of eight ratings, without objective standards, gives the Enterprises an amount of unbridled discretions that would not be appropriate in the hands of the Government, let alone in private companies that have potential conflicts of interest. Deputizing the Enterprises in this manner may run afoul of administrative law requirements, especially in light of the fact that there is no procedure for challenging an Enterprise's determination that a particular counterparty is deserving of a particular risk rating.

---

<sup>40</sup> Laurie Goodman and Karan Kaul. *Sixty Years of Private Mortgage Insurance in the United States*. Urban Institute. August 2017.

In sum, transparency would be greatly improved if the regulation provided objective benchmarks for making these creditworthiness determinations. As previously discussed, the Enterprises already control their counterparty risk for MI companies through PMIERS. As long as the risk-based capital requirements for MI companies are consistent with the risk-based capital requirements for the Enterprises, no counterparty risk haircut for credit risk is warranted. For all other forms of CRT, USMI recommends that the FHFA follow the lead of Solvency II and publish a more credible model of counterparty risk for reinsurers, including a table of objective criteria that determines risk grade assignments—that are equivalent from a capital perspective as PMIERS are for MIs.

### 3. Correlation Determinations Must be Transparent

As noted, the NPR requires the Enterprises to take correlation into account when determining counterparty haircuts, and the Enterprises are to divide counterparties into two groups: those with “high” correlation and those with “low” correlation. The result is a heavily biased treatment in favor of diversified credit risk counterparties and the implied assumption that diversified entities are inherently stronger counterparties ignores key risks, overstates the risks of monoline mortgage insurers, and ignores the benefits of monoline mortgage insurers.

To the extent that correlation is considered in determining the amount of credit to be given to credit mitigants, it is important that the Enterprises use a transparent definition of correlation and an objective test to determine the degree of correlation. However, the proposal does not provide any guidance on how to measure correlation, or how to determine whether correlation is excessive. For example, are multifamily loans correlated with single family mortgages? Should condominium loans be correlated with free standing home mortgages? How does geographic distribution of the mortgaged properties impact the correlation calculation?

It is also important that FHFA recognize that correlation may exist with other credit enhancement entities, including those that are not heavily invested in mortgage assets. During the financial crisis, correlation could be found between bank and non-bank mortgage lenders, the Enterprises, large diversified banks, multi-line insurance companies (such as AIG), securities firms, and even General Electric. Therefore, to the extent that the Enterprises determine that a high correlation exists, that determination should not be based solely on direct exposures to mortgage assets but should consider other ways in which correlation can exist.

MI companies are “monolines” that can only insure mortgage credit risk. Mortgage insurers are sources of private financial and human capital dedicated exclusively to residential mortgage markets and available across market cycles. Further, regardless of correlation, mortgage insurance companies are the most able to underwrite and understand long-term mortgage credit risk. As amply demonstrated in the Great Recession, even in a severe housing downturn only MI companies stayed in the market to continue taking single family mortgage credit risk. Indeed, the companies that stayed in the market raised billions of dollars of fresh

capital, and new entrants added billions more, at a time when all others were shunning the market. Only private MI has proven, over the course of six decades, to be a permanent source of capital for mortgage credit risk.

Furthermore, as pointed out in the NPR, companies that are concentrated in residential mortgage exposures, such as the Enterprises, have a *lower risk profile* than more diverse financial conglomerates.<sup>41</sup> The lower risk profile should offset, to a significant extent, concerns about correlation risk. MIs, like the Enterprises themselves, were specifically established as monoline entities to protect other parts of the financial system from the contagion effects of housing cycles. The choice of monoline form requires careful attention to ensure the entities are sufficiently capitalized to withstand a severe downturn in housing. FHFA and the Enterprises are in full control of that determination for MIs through PMIERS. If PMIERS is specified consistently with the capital requirements for the Enterprises, then there should be no counterparty haircut needed for MIs.

#### 4. Capital Benefit Afforded to Credit Risk Transfer Should Better Align with the Actual Risk Reduction from CRT

Since 2013, the Enterprises' CRT programs have become a significant part of their single-family business. Most of the risk transfer result from the issuance of structured debt in which the Enterprises retain the first 50 basis points of risk, and the bond holder assumes the risks in excess of that amount. The structures used by Fannie Mae are called Connecticut Avenue Securities (CAS<sup>®</sup>), while Freddie Mac issues Structured Agency Credit Risk (STACR<sup>®</sup>) securities. CAS and STACR track the performance of a reference pool of loans, and if losses in the reference pool exceed 50 basis points the redemption value of the CAS or STACR is reduced, reducing the repayment obligation of the Enterprises. Since the investors pay for these securities in full up front, there is no counterparty credit risk.

Another example of a CRT transaction is the issuance by Fannie Mae or Freddie Mac of mortgage-backed securities (MBS) that includes tranches that are not guaranteed by either Enterprise, thereby shifting at least some of the credit risk to the security holder. Again, there is no counterparty credit risk because the investor pays for his or her interest in the MBS up front. CRT can also be achieved through the purchase of pool-level insurance by an Enterprise to cover a specified amount of credit risk in the assets backing Enterprise MBS. Fannie Mae uses a structure called Credit Insurance Risk Transfer (CIRT<sup>™</sup>), while Freddie Mac denotes its program as the Agency Credit Insurance Structure (ACIS<sup>®</sup>).

Our ability to comment on the capital benefits of CRT programs is again hamstrung by the lack of information about the models and assumptions used by FHFA in developing this proposal. CRT is an evolving element of housing finance and it is critical that policy decisions, including capital treatment, be made with ample justification but without access to additional data and the current CCF, it is not possible to fully assess and determine the appropriateness of

---

<sup>41</sup> 83 Fed. Reg. 33323.

the NPR's capital treatment of CRT transactions. This can be remedied only by treating this proposal as an ANPR.

First, USMI agrees with the notion that the Enterprises should be transferring the credit risk to the private sector. While CRT is a valuable function at the Enterprises, it is important that FHFA to align the risk reduction from CRT to the capital benefit afforded CRT. Several considerations in this regard include: 1) CRT transactions, even when fully collateralized, do not provide the same protection as equity capital; 2) the Enterprises may be transferring risk layers that are not “pierced” during a downturn; 3) the Enterprises may be tempted to pay more than the funding costs to transfer CRT in order to attract investors, and thus leaving the Enterprises with less equity to cover losses when they occur; and 4) CRT investors are unlikely to be available during different points of the housing cycle—most notably when there is a need for private capital during a downturn.

Although credit-linked securities, such as the STACR and CAS notes, do not create counterparty risk, other forms of forms of CRT, such as third-party pool level guaranties, expose the Enterprises to credit risk. While some of this risk is reduced through partial collateralization requirements, these structures leave the Enterprises exposed to credit risk arising from the potential for the third-party guarantor to default. The Enterprises must rely on indicia of financial strength, such as credit ratings, in selecting pool-level insurance providers. As noted by others, “while CRT may reduce losses experienced by the Enterprises, the CRT transactions, even when fully collateralized by cash equivalents will not provide the same level of protection against loss (and ultimately to the taxpayer) as equity. Equity is superior to CRT in two important dimensions: fungibility and income.”<sup>42</sup>

Further, we are concerned that as presently structured the CRT may not actually transfer enough credit risk to third parties to justify the diversion of G-Fees to these parties. This is because for the prudently underwritten high-quality mortgages currently being sold to the Enterprises, the 50-basis point first loss position retained by the Enterprises may be sufficient to absorb both expected and a large portion of the unexpected losses for these loans.<sup>43</sup> As a result, it is possible that a CRT transaction could reduce required capital without a sufficiently robust reduction in the retained credit risk held by the Enterprises. A more transparent rulemaking would allow us to comment more specifically about this concern.

A third-party that assumes credit risk in a CRT transaction will price their participation in the transaction based on its perception of the credit quality of the underlying mortgages, and its belief that the income earned by the CRT outweighs the risks assumed. The Enterprises therefore may be motivated to reduce their costs by selecting high quality and seasoned loans for CRT transactions. These mortgages present the least risk to the Enterprises, and therefore

---

<sup>42</sup> Andrew Davidson & Co. Comment Letter for FHFA's Notice of Proposed Rulemaking on “Enterprise Capital Requirements” (July 9, 2018).

<sup>43</sup> A third-party will engage in a CRT transaction only if that party believes the fees earned by taking that position outweigh the risk assumed. For example, in the case of a debt linked security, the investor has determined that the first loss position held by the Enterprise will provide sufficient protection to justify the assumption of the credit risk, thereby making the investment in the security profitable. If this assumption is correct, the Enterprises are paying more for the risk transfer than justified by the actual risks of the mortgages.

effectively transferring the credit risks of these assets to third parties leaves the Enterprises with an overall riskier exposure. As a result, CRT can have the unintended consequence of leaving the Enterprises backing riskier assets and private sector investors or guarantors earning profits for offsetting the risks associated with the higher quality loans.

Lastly, CRT investors—both capital markets execution and through reinsurance markets—are opportunistic capital and dictate pricing of CRT securities, and can exit the market any time, making assessing their real value and true capital relief difficult at best to determine.

To prevent this result, the proposal needs to evaluate: (i) the extent to which CRT results in enough transfer of risk associated with unexpected losses; (ii) the impact of CRT on the remaining book of business retained by the Enterprises; (iii) the appropriate capital treatment for holding a first loss position in a securitization; (iv) the appropriate capital treatment when holding a deeply subordinated tranche of a MBS; and (v) what safeguards need to be put into place to avoid the potential for CRT to increase risk rather than ameliorate it. It is important to emphasize that CRT transfers in which the Enterprises are left holding first loss positions or other deeply subordinated tranches must be recognized as high risk positions and the capital requirements imposed on these positions must reflect this risk.

## Conclusion

Thank you for considering USMI's perspectives and feedback on the NPR. For the reasons discussed above we believe that the proposed rule should be treated as an ANPR, and that a revised NPR should be issued after consideration of the issues raised in this and other public comments. As part of this process, the CCF, and the models, back-testing, and assumptions used to develop the proposal should be publicly available. Further, the FHFA should specifically request comments on whether an insurance model or bank model is more appropriate for the Enterprises.

Sincerely,



Lindsey D. Johnson  
President, USMI

## Appendix A

**Question 1:** *FHFA is soliciting comments on all aspects of the proposed risk-based capital framework. What modifications to the proposed risk-based capital framework should be considered and why?*

- The NPR falls short of the APA public notice requirements in that it does not provide sufficient factual detail to permit meaningful public comment. In this regard the *current* CCF used today by both Enterprises must be publicly disclosed, as well as all of the assumptions and back-tests used in developing the proposal. Further, to enable meaningful assessment and analysis of the proposed rule, it is necessary for FHFA to release the model, pertinent data, and assumptions used to develop the proposed rule. Useful data for FHFA to provide stakeholders includes: (1) the FHFA define the product set to which the proposed CCF is applicable, and (2) that FHFA require both enterprises to release loan-level performance data on all types of loans acquired by the enterprises from 1999 forward to enable commenters to assess the appropriateness of the CCF to these products as well. Finally, we would also recommend the Enterprises should provide public, monthly performance updates with respect to that data set going forward. Because this information is not provided and stakeholders are therefore unable to provide the full necessary analysis of the proposed capital framework, it is necessary for FHFA to treat this as an ANPR and a new NPR should be issued after consideration of the comments received on this proposal.
- To effectively comment on the proposed capital rule, it is essential to make determinations about the Enterprises' role and activities post conservatorship. Assessing the appropriateness of the proposed post conservatorship capital levels greatly depends on the activities and systemic nature of the Enterprises when conservatorship ends. Should the Enterprises maintain their large footprint in the housing finance system and continue to engage in a wide array of activities, including those outside their core mission, it is clear that federal regulators would deem them SIFIs and subject the Enterprises to systemic buffers and other capital charges. The Enterprises' core business function is their guaranty business, which is an insurance function, not a banking function. Therefore, a more appropriate capital approach for the Enterprises' guaranty business is an insurance capital model.
- Broadly speaking, the proposed risk-based capital grids are overly conservative in that:
  - 1) the haircuts for private mortgage insurance coverage are excessive in light of the actual risk protection provided, both historically based on the 2008 financial crisis and based recent books of business;
  - 2) the failure to include revenues on the Enterprises' books of business does not accurately capture their capital positions;
  - 3) the failure to recognize that the financial crisis was driven by poor underwriting, bad lending products, and an over-reliance on the Enterprises' automated underwriting systems (AUSs), not merely higher LTV ratios;
  - 4) the inappropriate use of the financial crisis as a stress scenario given the elongated recovery period compared to historical norms;
  - 5) the fact that multiple risk factors are simply multiplied in the capital requirement calculation/equation which could lead to unreasonably large capital charges on individual mortgage loans; and
  - 6) the effect of pricing many borrowers out of the conventional market once all the different layer of private capital are added together (risk-based pricing at the Enterprises, cost of credit enhancement, etc.).

**Question 3:** *FHFA is soliciting comments on the use of updated risk characteristics, including LTV and credit score, in the proposed risk-based capital requirements, particularly as it relates to the pros and*

*cons of having risk-based capital requirements with elements of pro-cyclicality. Should FHFA consider reducing the pro-cyclicality of the proposed risk-based capital requirement? For example, should FHFA consider holding LTVs and/or other risk factors constant? What modifications or alternatives, if any, should FHFA consider to the proposed risk-based capital framework, and why?*

- The proposed rule rightfully notes that “using updated risk characteristics would result in pro-cyclical risk-based capital requirements, which may make it more difficult for the Enterprises to raise capital during periods of deteriorating credit or economic conditions.” The procyclicality of the proposed risk-based capital requirements would be detrimental to the financial strength of the Enterprises across market and economic cycles. The driving force behind the procyclical elements of the proposed rule is that it is modeled on capital requirements designed for large banking financial institutions with limited modifications to reflect the Enterprises’ unique business model. The proposal does not acknowledge that the Enterprises business and capital operations are more akin to insurance companies than banks, nor does it fully account for (and the interactions between) loss reserves, minimum leverage standard, incentives provided by prompt corrective action for the Enterprises to hold excess capital, and the market pressure for the Enterprises to hold even more capital. A more prudent approach would be the application of bank capital standard to the Enterprises’ retained portfolios and application of a capital regime in line with the principles developed by the NAIC and Solvency II for the guaranty business. The primary factors that strongly contribute to the proposed rule’s procyclicality are: (1) the use of mark-to-market LTV ratios; (2) the use of refreshed credit scores; and (3) the exclusion of future revenues (primarily G-Fees) when calculating capital available to meet the proposed requirements.

**Question 4:** *FHFA is soliciting comments on the proposed operational risk capital requirements. Should FHFA consider requiring the Enterprises to calculate operational risk capital requirements using the new standardized approach for operational risk included in the Basel III framework? What additional modifications to the proposed operational risk capital requirements should be considered and why?*

- The Enterprises’ core business function is their guaranty business, which is an insurance function, not a banking function. Therefore, a more appropriate capital approach for the Enterprises’ guaranty business is an insurance capital model. Further, the proposed rule repeatedly references the Basel framework as informing elements of proposed capital requirements for the Enterprises but does not acknowledge the fundamental differences between bank capital and insurance capital regimes which should preclude simply applying Basel standards to the Enterprises.
- At times it appears to be a “mash up” of different capital concepts. It is not clear that the proposal takes into account the full extent of, and interactions between, loss reserves, the minimum leverage standard, the incentives provided by prompt corrective action for the Enterprises to hold excess capital and the market pressure for the Enterprises to hold even more capital. The proposal adds a *non-risk adjusted* going concern buffer and *non-risk adjusted* operational risk charge to the risk-based capital requirement. This is unique to the FHFA proposal<sup>44</sup> and will have the effect of distorting the risk-based measure so that it will not reflect the actual risks inherent in the Enterprises’ activities. There is no explanation or rationale given for adding a significant non-risk adjusted factor to the risk-based capital measure, or why these buffers are not already included in the leverage requirement.

---

<sup>44</sup> Under the bank capital models, the going concern buffer is risk adjusted.

**Question 5:** *FHFA is soliciting comments on the proposed going-concern buffer. What modifications to the proposed going-concern buffer should be considered and why?*

- As currently written, the proposed rule represents a mixture of various capital concepts and includes a non-risk adjusted going-concern buffer. The rule has an explicit capital charge of 75 basis points, which the FHFA states is sufficient to maintain the going concern status of the Enterprises during and for a period after a severe financial distress<sup>45</sup> but the agency also excludes the Enterprises' future revenues on their existing books of business based on the notion that these revenues would permit the Enterprises to continue as going concerns.<sup>46</sup> Discounting future revenue on the existing book of business adds an additional layer to the Enterprises' capital requirements but fails to quantify the amount of capital needed or recognize the double protection.

**Question 6:** *FHFA is soliciting comments on the proposed framework for calculating credit risk capital requirements for single-family whole loans and guarantees, including the loan segments, base grids, and risk multipliers. What modifications should FHFA consider and why?*

- USMI conducted both historical and forward-looking analyses using Enterprise data to assess the accuracy of the proposed CE Multipliers, both of which can be found in Appendix B. The analysis reveals that the proposed CE Multipliers are overstated given the actual credit risk protection provided by private mortgage insurance. This inappropriate treatment is particularly true of high LTV and seasoned mortgages. The historical and forward-looking analyses suggest that for 30-year amortizing mortgages with cancelable MI, the proposed CE Multipliers for guide-level and charter-level coverage are too large.
- The proposed rule includes counterparty haircuts based on two factors: (1) the entity's creditworthiness according to a subjective 1-8 rating scale; and (2) the Enterprises' determination of correlation risk. The 1-8 rating scale is non-transparent about metrics for the ratings, fails to provide assurances of real counterparty strength, and opens the door to the Enterprises picking winners and losers among counterparties. Further, the NPR's opaque methodology for assessing counterparty strength is unnecessarily punitive in its application of a counterparty haircut to private MI. USMI conducted analysis (available in Appendix C) reflecting that the MI counterparty haircut should be 4.2 percent but the NPR would subject PMIERS compliant MIs to a haircut of 17.2 percent.
- In a broader context, the proposed rule fails to fully take into account dramatic improvements in post-crisis books of business as it relates to lending quality/underwriting requirements, further seasoning, and credit burnout that all have reduced risk on conventional mortgages and which should be reflected in the capital requirements.

**Question 7:** *FHFA is soliciting comments on the proposed use of separate single-family credit risk capital grids for new originations and performing seasoned loans. The proposed new originations grid has a unique requirement for loans with an OLTV of 80 percent due to the volume of such loans, but this could lead to increases in capital requirements for loans originated with an OLTV between 75 percent and 80 percent when those loans season. Should FHFA consider combining the single-family new originations and performing seasoned loan grids? What other modifications should FHFA consider and why?*

- Please see response to Question 6

**Question 8:** *Should single-family MBS and CMOs held by an Enterprise that were issued by the other Enterprise be subject to a counterparty haircut to reflect counterparty risk?*

---

<sup>45</sup> 83 Fed. Reg. 33325, 33332.

<sup>46</sup> 83 Fed. Reg. 33331.

- The proposed rule does not include a counterparty haircut for MBS issued, guaranteed, and held in portfolio by an Enterprise, Ginnie Mae securities, and collateralized mortgage obligations (CMOs). As noted in the proposed rule, there is counterparty risk associated with MBS and CMOs issued by one Enterprise and later acquired and held by the other Enterprise and we agree that this risk is minute and remote. It is not necessary for FHFA to haircut MBS and CMOs under this scenario and it should be noted that if both Enterprises are too-big-to-fail, then it is likely that they will either survive or fail together, thus erasing the concerns that one Enterprise goes under while the other lives on.

**Question 9:** *FHFA is soliciting detailed proposals for a simple and transparent approach to reflect the impact of stressful prepayments on CRT capital relief. What modifications or alternatives should FHFA consider and why?*

- The proposed rule affords favorable treatment to structured debt transactions that only transfer second-loss, mezzanine risk to private markets (CAS and STACR) but fails to acknowledge associated risks, including the fact that the Enterprises remain in the first-loss position and the economically reasonable prices rely on CRT reference pools being comprised of high-quality mortgages. This leaves the Enterprises with riskier books of business and the proposed rule would create limited reserves to cover this risk due to the immense capital relief given to CRT tranching transactions.
- FHFA should examine how to modify the proposed rule to ensure that CRT capital relief does not increase risk at the Enterprises and that they are holding adequate capital to counter their first-loss exposure on CRT bonds/securities.

**Question 10:** *Does the proposed rule's approach of providing capital relief for CRTs adequately capture the risk and benefits associated with the Enterprises' CRT transactions? Should FHFA consider modifications or alternatives to the proposed rule's approach of providing capital relief for the Enterprises' CRTs, and if so, what modifications or alternatives, and why?*

- As currently written, the proposed rule's capital treatment of CRT transactions does not adequately capture their risks and benefits. USMI agrees with the notion that the Enterprises should be transferring all but catastrophic loss to the private sector. While CRT is a valuable function at the Enterprises, it is necessary for FHFA to better align the risk reduction from CRT to the economic benefit of CRT. Several considerations in this regard include: 1) CRT transactions, even when fully collateralized, do not provide the same protection as equity capital; 2) the Enterprises may be transferring risk layers that are not "pierced" during a downturn; the Enterprises often pay more than the funding costs to transfer CRT in order to attract investors, and thus leaving the Enterprises with less equity to cover losses when they occur; and 3) CRT investors are unlikely to be available during different points of the housing cycle—most notably when there is a need for private capital during a downturn.
- The central problem is that there is a conflict of interest for the Enterprises' CRT programs in that it is unclear whether transactions will be priced appropriately or priced to maximize beneficial capital treatment for the Enterprises' themselves. The current treatment of CRT transactions could permit – and even encourage – the Enterprises to downplay or ignore market dynamics and the true measure of credit risk. An additional deficiency in the proposed rule's treatment of CRT is that it lacks the capacity for future transaction structures, including the use of deeper cover private mortgage insurance.

**Question 27:** *FHFA is soliciting comments on the proposed approaches for calculating risk-based capital requirements for other assets and guarantees. What modifications should FHFA consider and why?*

- Overall, the capital model should avoid capital arbitrage opportunities and should instead promote a model where the same risk-based capital number should be achieved whether the risk is born by the Enterprises, MIs, or other counterparties. This would ensure that the Enterprises' capital requirements promote a level playing field for counterparties and discourage "gaming the system" to advantage certain entities.

**Question 28:** *Should FHFA consider additional capital buffers, such as buffers to address pro-cyclical risks, in addition to the leverage ratio and FHFA's existing authority to temporarily increase Enterprise leverage requirements and why?*

- While the Enterprises have explicit support from the federal government and a direct line to the U.S. Department of the Treasury, they should hold sufficient capital to support their core business activities and the mortgage credit risk they guaranty, hold, or securitize. If the Enterprises are "too big to fail" financial institutions that pose systemic risk to the American financial system, FHFA should either require them to more significantly more capital or be structured as financial utilities tied to the federal government. Should the FHFA ultimately decide that additional capital buffers should apply the Enterprises, they should not affect counterparty capital standards and trickle down to PMIERS or other counterparty capital and operational requirements.

**Question 29:** *FHFA is soliciting comments on the advantages and disadvantages of setting a single minimum leverage capital requirement under the 2.5 percent alternative. FHFA is seeking views both on this general approach and the minimum requirements proposed in the 2.5 percent alternative. FHFA is requesting data and supplementary analysis that would support consideration of alternative requirements for a single minimum capital requirement.*

- The proposed rule includes two alternative non-risk adjusted leverage proposals but either option represents an inappropriate application of bank capital principles and fails to recognize the particular risks presented by the Enterprises, which are essentially credit insurance companies. This "mash up" of capital concepts further supports USMI's recommendation that this proposal be treated as an ANPR and that FHFA solicit comments on an appropriate insurance-based model for designing a capital framework for the Enterprises.

**Question 30:** *FHFA is soliciting comments on the advantages and disadvantages of the bifurcated alternative and establishing minimum leverage capital requirements of 1.5 percent for mortgage assets held in trusts and 4 percent of retained portfolio assets. FHFA is seeking views both on this general approach and the minimum requirements propose din the bifurcated alternative. FHFA is requesting data and supplementary analysis that would support consideration of alternative approaches or requirements.*

- Please see response to Question 29.

**Question 32:** *Instead of adopting the 2.5 percent alternative or bifurcated alternative as proposed, should FHFA, instead, adopt another approach to the minimum leverage capital requirement that provides a separate leverage requirement specifically for assets that are part of credit risk transfer transactions? If so, why? FHFA is requesting data and supplementary analysis that would support consideration of alternative measures.*

- Please see response to Question 29.

**Question 37:** *Given that loss reserves are for expected losses and capital is for unexpected losses, FHFA is soliciting comments on the appropriateness of including loss reserves in the definition of total capital. Should loss reserves be added to the proposed risk-based capital requirements in order to offset their inclusion in total capital?*

- Under the Solvency II framework, expected losses are taken into account through pricing and valuation determinations rather than capital. We agree with this approach and recommend that whenever actual experience indicates that loss reserves exceed expected losses, the excess reserve should be included in the capital account. Similarly, if actual experience indicates that the loss reserve is not sufficient, the deficit should be deducted from the capital account during the period that pricing adjustments are made to bring the loss reserve up to the required level.

**Questions 38:** *FHFA is soliciting comments on the advantages and disadvantages of the existing authority to temporarily increase minimum leverage requirements, in particular with respect to the view that use of this authority can serve a countercyclical role across economic cycles. FHFA is requesting data and supplementary analysis that would support alternative perspectives.*

- For the long-term financial health of the Enterprises and stability of the housing finance system, it is critical that any proposed capital requirements embrace countercyclical elements. This will promote strong capital positions at the Enterprises across housing and economic cycles and ensure the safety and soundness of the conventional mortgage finance system. It should be noted that in addition to the authority to temporarily increase the minimum leverage requirements during down markets, the proposed rule's mark-to-market application will require the Enterprises to build capital through down cycles, increasing the cost of mortgage credit to consumers and exacerbating access to credit.

**Question 39:** *Commenters are asked to discuss the advantages and disadvantages of adjusting risk-based capital requirements by order during periods of heightened risk.*

- The Enterprises are too significant to the US housing finance system and, more broadly, the American economy, for FHFA to act by fiat and unilaterally adjust the Enterprises' capital requirements. Any changes to the risk-based capital requirements should be made using a transparent process that involves consultation with market participants to inform FHFA about potential consequences. It is critical that FHFA has a comprehensive understanding of how changes to the risk-based capital requirements will impact the Enterprises' operations and counterparties whose own capital and operational requirements are tied to the Enterprises' requirements.

**Question 40:** *FHFA is soliciting views on how best to identify periods of heightened market and Enterprise risk. In particular, what economic indicators or other triggers should be considered in determining when to require an adjustment to capital requirements and how such adjustments might impact capital planning?*

- There are several economic indicators or triggers that FHFA should assess when deciding whether – and to what extent – to modify the Enterprises' capital requirements. One indicator is dramatic home price appreciation (HPA) and increases in home prices that are seemingly unsupported by market fundamentals. The proposed rule notes the procyclical consequences of accelerated HPA and that capital requirements and individual LTV ratios decline when home prices rise. Additional indicators include an assessment of the products available in the market (the return to “exotic” mortgage products could signal imprudent risk taking and an increase in risk held or guaranteed by the Enterprises), defaults rates (both regionally and national), and the prevalence of risk-layering (low credit score, high LTV, high debt-to-income (DTI), minimal or no cash reserves).

## Appendix B

### Treatment of Counterparties

**Results:** The results from both the historical and forward-looking analysis suggest that the proposed CE Multipliers are too large.<sup>47</sup>

### Capital Rule Should Recognize the Value of MI Protection

To measure the effectiveness of different credit enhancement, the NPR uses CE Multipliers, which are supposed to reflect the effectiveness of MI in protecting loan owners from unexpected losses. We define “MI Effectiveness” and use it below via the formula:

$$\text{CE Effectiveness} = 1 - \text{CE Multiplier}$$

To assess the accuracy of the proposed CE multipliers under the NPR, USMI did both a historical analysis as well as a forward-looking analysis using Enterprise data, provided below.

Several factors will influence MI Effectiveness. The first is the ratio of loss-given-default (LGD) to the MI coverage ratio. For example,

- Assuming:
  - The total liquidating expense and interest cost is 15 percent of defaulted unpaid principal balance (UPB)
  - The LGD of a loan is 50 percent
  - Coverage ratio is 30 percent
- With those considerations, The MI Effectiveness will be:  $(1+15 \text{ percent}) * 30 \text{ percent} / 50 \text{ percent} = 69 \text{ percent}$
- The corresponding CE Multiplier is 0.31 (note this is consistent with the proposed CE Multiplier for loans with Non-Cancelable MI)
- Thus, the higher the LGD, the lower the MI Effectiveness

Another important factor is the MI cancellation feature. Due to the Homeowners Protection Act, borrower-paid MI policies automatically terminate when the scheduled LTV ratio reaches 78 percent provided that the loan is performing.

There are two key drivers of CE Multipliers:

- The LGD
- The likelihood that the MI policy will be canceled before a default.

Based on our research and as highlighted below, CE Multipliers are overstated, especially for high LTV and seasoned loans.

---

<sup>47</sup> USMI’s analytical results and baseline assumptions for analysis are included in these Appendices. USMI is pleased to share the additional methodology upon request.

### *Historical Analysis*

To test the MI effectiveness under the 2008 crisis, we did an empirical analysis, using all Enterprise loans from the Single-Family Mortgage Databases of Fannie Mae and Freddie Mac that match loan attributes of two selected cells from Table 16:<sup>48</sup>

- 30 years fixed rate mortgage with  $90 < LTV = 95$
- $72 < \text{loan age by month} \leq 84$  at 2007Q1
- Performing and scheduled LTV above 78 at 2007Q1
- Not modified
- Two coverage assumptions: 30 percent and 16 percent

We also assumed that the LGD of those loans are 50 percent, and the combination of liquidating expense and interest costs are 10 percent and 20 percent of defaulted UPB for Foreclosure Alternative and REO respectively.

---

<sup>48</sup> 83Fed. Reg. 33351.

**NPR Table 16: CE Multipliers for New Originations Performing Seasoned, and Non-Modified RPLs when MI is Cancelable**

		Loan Age(Months)											
		Age <= 5	Loan Age <=	72 < Loan Age <= 84	Loan Age <= 96	96 < Loan Age <=108	Loan Age <=120	Age >120					
15/20 Year Amortizing Loan with Guide-level Coverage	80% < OLTV <= 85% and MI Coverage = 6%	0.997	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	85% < OLTV <= 90% and MI Coverage = 12%	0.963	0.971	0.988	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	90% < OLTV <= 95% and MI Coverage = 25%	0.826	0.853	0.912	0.973	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	95% < OLTV <= 97% and MI Coverage = 35%	0.732	0.765	0.848	0.936	0.986	0.998	1.000	1.000	1.000	1.000	1.000	1.000
	OLTV > 97% and MI Coverage = 35%	0.630	0.673	0.762	0.865	0.945	0.980	0.996	1.000	1.000	1.000	1.000	1.000
30 Year Amortizing Loan with Guide-level Coverage	80% < OLTV <= 85% and MI Coverage = 12%	0.867	0.884	0.928	0.962	0.994	0.999	1.000	1.000	1.000	1.000	1.000	1.000
	85% < OLTV <= 90% and MI Coverage = 25%	0.551	0.584	0.627	0.679	0.785	0.893	0.950	0.986	0.998	1.000	1.000	1.000
	90% < OLTV <= 95% and MI Coverage = 30%	0.412	0.440	0.456	0.484	0.547	0.654	0.743	0.845	0.932	0.969	0.992	1.000
	95% < OLTV <= 97% and MI Coverage = 35%	0.322	0.351	0.369	0.391	0.449	0.535	0.631	0.746	0.873	0.925	0.965	1.000
	OLTV > 97% and MI Coverage = 35%	0.272	0.295	0.314	0.353	0.410	0.462	0.515	0.607	0.756	0.826	0.887	1.000
15/20 Year Amortizing Loan with Charter-level Coverage	80% < OLTV <= 85% and MI Coverage = 6%	0.997	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	85% < OLTV <= 90% and MI Coverage = 12%	0.963	0.971	0.988	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	90% < OLTV <= 95% and MI Coverage = 16%	0.887	0.904	0.943	0.983	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	95% < OLTV <= 97% and MI Coverage = 18%	0.854	0.874	0.918	0.966	0.992	0.999	1.000	1.000	1.000	1.000	1.000	1.000
	OLTV > 97% and MI Coverage = 20%	0.788	0.810	0.859	0.922	0.969	0.989	0.998	1.000	1.000	1.000	1.000	1.000
30 Year Amortizing Loan with Charter-level Coverage	80% < OLTV <= 85% and MI Coverage = 6%	0.934	0.943	0.964	0.981	0.997	0.999	1.000	1.000	1.000	1.000	1.000	1.000
	85% < OLTV <= 90% and MI Coverage = 12%	0.780	0.795	0.819	0.845	0.896	0.948	0.976	0.993	0.999	1.000	1.000	1.000
	90% < OLTV <= 95% and MI Coverage = 16%	0.679	0.690	0.703	0.719	0.755	0.813	0.861	0.916	0.963	0.983	0.995	1.000
	95% < OLTV <= 97% and MI Coverage = 18%	0.642	0.652	0.662	0.676	0.708	0.756	0.806	0.866	0.933	0.960	0.981	1.000
	OLTV > 97% and MI Coverage = 20%	0.597	0.607	0.617	0.629	0.658	0.686	0.715	0.765	0.845	0.882	0.914	1.000

### *Historical Analysis—The Results*

The result of our test, based on our LGD assumptions, ***is that the correspondent CE Multipliers for guide-level and charter-level coverages should be 0.469 and 0.717 respectively, which are significantly lower than the CE Multipliers of 0.845 and 0.916, respectively, proposed by the NPR for this group of loans.***

Looking at the performance of MI through the last financial crisis, others have also reached a similar conclusion that the CE Multipliers are overstated.

One report from Urban Institute<sup>49</sup> shared similar viewpoints. According to the report, which was based on historical performance of the industry through the financial crisis, the mortgage insurance “haircut” is quite conservative. The report found that:

- For “cancelable” MI with 30 percent coverage (guide-level coverage) from a “3 rated non-diversified” MI, for defaults occurring in year 6, the capital is reduced by only 14 percent.
- $(1-0.845)*(1-0.083)= 14.2$  percent
- Using a 50 percent LGD (severity), the implied effectiveness of MI is approximately 50 percent for 90 LTV mortgages and 70 percent for 95 LTV mortgages.
- In practice (and the data), with guide level coverage, MIs cover well over half the losses even in times of stress.

### *Forward Looking Analysis*

Further, using a forward-looking analysis which uses a stressed scenario worse than the financial crisis of 2008, ***we found the CE Multipliers should be much lower than those proposed in the NPR.***

This analysis was conducted using recently originated (2017Q3) loans and customized a scenario meant to mimic the approach described in the FHFA proposal. To align with the two cells in Table 16, we selected loans with the same attributes as was done in the historical analysis.

The data was extracted from the Enterprises’ websites in May 2018 and was prepared using two scenarios starting from 2017Q3:

- Baseline
- Stress

---

<sup>49</sup> Ed Golding and Jun Zhu, *FHFA Capital Proposal: Preliminary Thoughts*, Sunset Seminar: GSE Pricing and Cross-Subsidization (Urban Institute, July 2018).

This analysis allows an assessment of the CE Multipliers applicable to an unexpected loss by using the difference between these two scenarios (i.e. using the Baseline scenario as an expected case). The modified Stress scenario follows a national HPA path consistent with the assumption of the FHFA method.

*Forward Looking Analysis—The Results*

For the projections with Guide-level coverage, 34.48 percent of unexpected loss is covered by MI. The corresponding CE multiplier should therefore be 0.655, which is much lower than the 0.845 proposed by the NPR. For the projections with Guide-level coverage, 18.64 percent of unexpected loss is covered by MI. The implied CE multiplier should be 0.814, which is much lower than the 0.916 proposed by the NPR. **The results suggest that the proposed CE Multipliers are too large.**

## Appendix C

### *Counterparty Haircut Analysis*

As proposed, the rule would subject PMIERS compliant MI companies to a haircut of 17.2 percent. During the financial crisis, which was exactly as stressful as the scenario used by S&P for its ratings assumptions (which were relied on by the Enterprises for PMIERS), MI companies paid in excess of 97 percent of eligible claims in cash and the remainder in interest-bearing notes. Given that performance, and the fact that MI companies under current PMIERS hold substantially more capital than was required going into the finance crisis, the proposed haircut is clearly excessive. In this section, we evaluate the model proposed by FHFA for calculating counterparty haircuts and the assumptions they chose for parameterizing the model. Using assumptions consistent with the Solvency II framework for counterparty risk measurement, the formula proposed in the NPR would produce a haircut of 4.2 percent for PMIERS compliant companies, a result that is generally consistent with experience and common sense.

FHFA proposes to use a modified Vasicek Asymptotic Single Risk Factor (ASRF) model for determining the counterparty haircut. The NPR notes that the underlying formula is drawn from Basel II, but no rationale is provided for taking this formula out of the context of measuring Value At Risk for retail and wholesale bank exposures and applying it to the calculation of a counterparty risk haircut. The NPR further proposes to modify the formula through the addition of an “Asset Value Correlation Multiplier” (AVCM), noting only that, “The parameters of the Basel IRB formula, including the AVCM, were augmented to best fit the internal counterparty credit risk haircuts developed by the Enterprises.” Contrary to the assertion of the NPR, this is neither parsimonious nor transparent. As a technical note, the published formula for stress probability of default (PD) is incorrect, subtracting the right side from the left, instead of adding the two components as would be consistent with Vasicek and with the haircuts given in Table 22.<sup>50</sup>

The evolution of Solvency II requirements for insurance companies provides useful information for evaluation of this section of the NPR. An intermediate version of the Solvency II section on counterparty risk also made use of Vasicek’s ASRF formula. In doing so, they noted the fundamental problem that a critical assumption in Vasicek’s formula is that there is an infinite number of small, identical credit exposures. The reality of reinsurance is nothing like this, having instead a small number of counterparties of differing characteristics. Nevertheless, they proposed the use of a Herfindahl index as a means of calculating the correlation parameter to account for the small number of exposures. This proposal is informative for two reasons: first, the parameters selected for Solvency II produce significantly different results than what is being proposed in the NPR; and second, the model was subsequently replaced with a different approach as a result of the wide range and inconsistency of results that it produced.

---

<sup>50</sup> 83 Fed. Reg. 33356.

The sensitivity of the proposed model to the selection of parameters can be seen with a simple example in which the Solvency II parameters are substituted for those in the NPR. The first parameter is the base PD. The NPR uses “The expected probability of default (PD) is calculated using a historical 1-year PD matrix for all financial institutions.” The NPR gives no further details, but a PD of 0.59 percent is consistent with the haircuts proposed for a level 4 counterparty. The Solvency II proposal and final rule provide a table that converts ratings and solvency ratios to PD levels. A counterparty rated merely “Adequate” (BBB) would use 0.24 percent. The next parameter is the supervisory confidence interval, for which FHFA has selected 99.9 percent, compared to 99.5 percent in Solvency II. The third parameter is the correlation coefficient, which FHFA has, with no explanation, made a function of the probability of default (PD) and inflated with the AVCM. (The Basel II formula uses a fixed level of 0.15 for residential mortgages.) As noted, Solvency II uses a Herfindahl index to compute the correlation coefficient. Assuming six identically sized and rated counterparties, this actually results in a higher correlation coefficient (0.583) than is produced by the proposed formula in the NPR. Finally, Solvency II makes no maturity adjustment to their calculation. Using the Solvency II parameters lowers the haircut for 30-year new originations insured by “High Mortgage Risk” entities from 17.2 percent to 4.2 percent.

Given the sensitivity of the proposed formula to the assumptions used, the lack of transparency and objectivity of the selection of assumptions, and the obvious overestimation of counterparty risk in the proposed rule, USMI recommends that the methodology for developing counterparty haircuts be reconsidered and re-proposed.