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Federal Housing Finance Agency
12 CFR Parts 1206, 1225, and 1240
Department of Housing and Urban Development
Office of Federal Housing Enterprise Oversight
12 CFR Part 1750
RIN 2590-AA95
Enterprise Regulatory Capital Framework

In setting capital requirements for Fannie Mae and Freddie Mac, FHFA as regulator, faces the difficult task of balancing safety and soundness with the economic flexibility necessary for the Enterprises to achieve their chartered purposes. In doing so the regulator must align capital requirements with risk: prudent risk-taking that advances the mission of the entity should be facilitated, while excessive risk and activities unrelated to the mission should be discouraged.

The capital requirements[1] created by OFHEO under the 1992 Act[2] were insufficient and encouraged excessive risk-taking, ultimately leading to the conservatorship of Fannie Mae and Freddie Mac during the housing finance crisis and the broader financial crises of 2007 and 2008. While the existing capital rule should be replaced, FHFA's re-proposed capital rule, which is the subject of this comment letter, has an excessive focus on increasing capital requirements at the expense of facilitating chartered purposes. Furthermore, it unnecessarily dampens alignment of capital and risk through multiple layers of minimums and buffers, thereby limiting necessary economic flexibility. We therefore recommend that FHFA withdraw the proposal and redraft the rule.

About Andrew Davidson & Co.

Andrew Davidson & Co. (AD&Co) is pleased to have the opportunity to provide our comments on the Enterprise Regulatory Capital Framework proposed by FHFA. For more than twenty-five years, Andrew Davidson & Co. has provided analytical tools to the mortgage finance industry. These tools include models of mortgage loan dynamics including prepayments, delinquencies and defaults, as well as valuation models that are used by a wide variety of financial institutions to assess the cash flows, value and risk of mortgage loans and mortgage-backed securities. The company's clients represent a broad cross section of the mortgage finance community, including originators, servicers, guarantors, investors, and regulators. The company also played a significant role in the creation and development of the Credit Risk Transfer (CRT) market which provides a cost-effective mechanism for private capital to be deployed to reduce taxpayer risk from mortgage credit losses.

CONCEPTUAL FLAWS OF THE RE-PROPOSED RULE

The proposed rule appears to be based on three flawed concepts. First, it seems that FHFA believes that the Enterprises function like banks and should have bank-like capital. Second, that private capital can fulfill its countercyclical role within the housing finance system without government support. Third, that adding on buffers and minimums produces a better capital rule. Let us take each in turn.

[1] 12 CFR Part 1750

[2] The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 established the Office of Federal Housing Enterprise Oversight.

First, the basic financial risks of investment in mortgages are funding risk, interest rate risk, prepayment risk and credit risk. (Mortgages also have a variety of non-financial risks, including operational risk and legal risk.) When a bank holds a mortgage on its balance sheet, it bears all these risks. In contrast, the Enterprises transform the vast bulk of their mortgage loans into mortgage-backed securities (MBS) that are sold into the market. Through their MBS, the Enterprises distribute most of the funding, interest rate and prepayment risk of the mortgage loans, retaining credit and operational risk. Utilizing CRT programs developed over the past seven years, the Enterprises also distribute a substantial portion of the credit risk on the mortgage loans. The Enterprises thereby create liquidity and value in the mortgage finance system, while only bearing a small share of the financial risk of the underlying loans. Bank regulatory capital is not designed to reflect or encourage this business model.

Second, the mortgage finance market is cyclical because borrowers' ability and willingness to pay their mortgages is tied to overall economic conditions; therefore, higher unemployment and lower home prices may have a significant impact on borrower loan payments, loan default and severity of loss. The Enterprises were chartered to provide benefits to the housing finance system in all markets. It should be clear based on fundamental economic principles that if there is cyclicality in private markets, then an entity which is fully capitalized to bear the risk of severe stresses will not be able to compete with entities that are less well-capitalized during times of less stress. Thus, the over-capitalized entity will not survive the good times to be available in the bad times. While an entity may take many steps to reduce its degree of cyclicality, ultimately only the government can provide the degree of countercyclical support necessary for the Enterprises to continue to function through a severe financial or house price crisis.

Third, the risk of mortgage loans, financial instruments and the operational risk of a business can only be measured imperfectly with models and historical analysis. As a result, regulators often seek to add minimum capital requirements and floors on risk measures. While some degree of conservatism is valuable in establishing capital rules, excessive use of these techniques reduces the link between risk and capital and can lead to distorted incentives and poor outcomes.

These three conceptual flaws—the application of a banking capital framework designed for holding risk to a business based on distribution of risk, the use of private capital to overcome the cyclicality of housing finance without government support, and the wide use of floors and minimums for capital requirements—make FHFA's proposed rule not only unworkable, but also likely damaging to the US economy. The implications of these conceptual flaws can be seen throughout the proposed rule.

THE MISSION AND PURPOSE OF THE ENTERPRISES

In the FHFA 2019 Report to Congress[3] Director Calabria described three objectives that he "believe[s] are necessary to enable FHFA to fulfill its statutory responsibilities."

1. Cement FHFA as a world-class regulator to ensure that the regulated entities operate in a safe and sound manner.
2. Prepare the Enterprises to responsibly exit conservatorships by calibrating their risk to match their capital.
3. Foster competitive, liquid, efficient, and resilient (CLEAR) national housing finance markets.

[3] FHFA 2019 Report to Congress, https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/FHFA_2019_Report-to-Congress.pdf.

These stated objectives do not reflect the full set of Congressional goals for the Enterprises. Safety and soundness, while perhaps a primary responsibility of the regulator, is the not the mission of the Enterprises. Rather, safety and soundness provides a *framework* for the operation of a well-run, well-regulated Enterprise. The *mission* of the enterprises is reflected in the purposes for which they were chartered, with their activities "financed by private capital to the maximum extent feasible."[4]
These legislated purposes are "to:

1. provide stability in the secondary market for residential mortgages.
2. respond appropriately to the private capital market.
3. provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing;
4. promote access to mortgage credit throughout the Nation (including central cities, rural areas, and underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.
5. manage and liquidate federally owned mortgage portfolios in an orderly manner, with a minimum of adverse effect upon the residential mortgage market and minimum loss to the Federal Government."

These purposes require that the Enterprises play a vibrant role in the housing finance system in all markets, not just during times of stress. As such, safety and soundness must be balanced with achieving mission purposes. Private capital should be used, not exclusively, but to the maximum extent possible. Capital should be required to match risk, rather than risk adjusted to match capital. The mission of the Enterprises—which may be facilitated by liquid, efficient and resilient markets—extends beyond that which is achievable by competitive private markets. The 2020 proposed rule appears to be limited to the objectives enumerated for the Director of the FHFA in the Housing and Economic Recovery Act of 2008 (HERA)[5] rather than the broader role described in the authorizing statues for the Enterprises.[6] Yet, even for the more limited stated objectives of FHFA, the rule is not likely to succeed.

HISTORICAL CONTEXT

The 2020 proposal can be viewed in the context of two other capital rules, the original OFHEO capital rule in 2001 promulgated under the 1992 Act and the 2018 proposal from FHFA under HERA. Generally the capital requirements for the Enterprises have two components: a risk-based component determined

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[4] 12 U.S.C. § 1716 - US Code

[5] Housing and Economic Recovery Act of 2008 (HERA), (Public Law 110-289, approved July 30, 2008), https://www.congress.gov/110/plaws/publ289/PLAW-110publ289.pdf.

[6] Note: 12 U.S. Code § 4513, requires that "the operations and activities of each regulated entity foster liquid, efficient, competitive, and resilient national housing finance markets" not that the Director or FHFA "foster competitive, liquid, efficient, and resilient (CLEAR) national housing finance markets." The goals should be achieved through the activities of the Enterprises, not by FHFA directly, moreover competition is the not the first enumerated goal in Code § 4513. It is not clear why FHFA has changed the order of the goals or adopted them as FHFA activities rather than Enterprise activities.

based upon the characteristics of the financial instruments held by the enterprises, and a leverage-based component based upon the amount, but not the risk, of the instruments held by the enterprises. The interaction between the risk-based and leverage-based requirements affects the balance between the safety and soundness of the Enterprises, their ability to achieve their mandated purpose, and the alignment of risk and return that drives prudent risk-taking.

FHFA's predecessor issued a capital rule in 2001 based upon the 1992 Act. Under the statute the rule had two components: a risk-based capital component determined by a 10-year stress test, and a minimum capital requirement of 0.45% for off-balance sheet exposures and 2.5% for on-balance sheet exposures. (With the change in accounting rules for off-balance sheet treatment, the 0.45% requirement was applied to assets in trusts, essentially MBS). The 1992 Act could have provided a reasonable framework to determine the capital requirement for the Enterprises, but the 2001 rule implementing the Act was hobbled by four problems: the legislative constraints on the formulation of the stress test made it possible to game the requirement and understate the risk of the Enterprises; OFHEO did not update the stress test models as underwriting practices changed; the statutory definition of capital was too broad;[7] and given the weakness in the stress test, the minimum capital requirement was too low.

The rule encouraged significant growth in the retained portfolios of the Enterprises and other forms of excessive risk-taking. The inadequate capitalization of Fannie Mae and Freddie Mac, which led to the current conservatorship, can be tied to the failure of this rule to provide for adequate capital requirements for the Enterprises.

With the adoption of HERA in 2008, FHFA gained the flexibility to overcome the flaws in the 2001 rule; instead of revising the 2001 rule, FHFA chose a new approach in its 2018 proposed capital rule. Our understanding is that the 2018 proposal closely matches the Conservator Capital Framework (CCF) that FHFA had been using to set guarantee fees and assess the performance of the Enterprises. Just like the 2001 rule, the 2018 proposal had a risk-based component and a minimum capital component. The risk-based component of the 2018 proposal utilized tables and multipliers that were designed to approximate the losses associated with a 25% decline in home prices across the country. The rule also provided for reductions in requirements due to the impact of mortgage insurance and credit risk transfer transactions. The risk-based capital requirements for assets varied with changes in home prices and borrower credit scores. In this way the rule was similar to a dynamic stress test; however, unlike a stress test that explicitly includes the cash flows of earnings to cover losses, the FHFA–proposed method did not include guarantee fees as a component of loss coverage.

The 2018 proposal also offered two alternatives for minimum capital. Alternative 1 provided for a 2.5% requirement on all assets, while Alternative 2 preserved the distinction between Trust and non-Trust assets and imposed a 1.5% capital requirement on Trust assets and a 4% capital requirement on non-Trust assets.

In our comments on the 2018 rule we favored Alternative 2, as it better reflects the risk of the Enterprise portfolios and favors mortgage securitization over holding loans or other assets in portfolio. The capital relief provided by mortgage insurance and credit risk transfer would also encourage the Enterprises to utilize effective risk reduction transactions. The 2018 rule partially addressed the flaws in the legislative capital definitions by including Deferred Tax Assets (DTAs) as an additional source of capital requirement. One problem with the proposed rule was that capital requirements for mortgage

[7] In particular, the inclusion of Deferred Tax Assets in capital.

loans would change significantly as home prices change. Capital should relate to risk, but this can lead to a pro-cyclical business model if not modified through regulation and use of the federal backstop.

Rather than correcting the flaws of the 2001 rule or making adjustments to the 2018 rule, it appears to us that in 2020 FHFA more fully utilized the discretion provided by HERA and transformed the 2018 rule to more closely align with the Basel approach to capital requirements for banks and depository institutions. The 2020 re-proposal retains the matrix and multiplier approach (and many of the parameters) of the 2018 proposed rule but imposes a new set of minimums and add-ons to risk-based capital requirements. As a result, non–risk sensitive add-ons comprise roughly two-thirds of the risk-based capital requirement. The rule continues to disregard guarantee fee income as an offset to credit losses, ends the split between trust and non-trust assets for the leverage based requirement through the imposition of a 4% minimum capital requirement on a broad set of adjusted assets. (The 4% requirement consists of a 2.5% base requirement and a 1.5% buffer requirement.) The 2020 rule also introduces supplemental definitions of capital that more closely track bank rules, including restrictions on the use of loan loss reserves and DTAs in regulatory capital.

Unfortunately, the 2020 proposed rule does not provide a better alignment of capital and risk. At almost every turn, it appears that the goal of the 2020 rule was to simply to increase capital requirements. In fact, the preamble to the proposed rule states:

> FHFA is proposing to increase the quantity and quality of the regulatory capital at the Enterprises to ensure the safety and soundness of each Enterprise and that each Enterprise can fulfill its statutory mission to provide stability and ongoing assistance to the secondary mortgage market across the economic cycle, in particular during periods of financial stress.[8]

Thus, while the rule provides for more capital to cover times of stress, there seems to be limited focus on enabling the Enterprises to balance risk and capital across all economic environments.

THE IMPACT OF THE CONCEPTUAL FLAWS

The three conceptual flaws—the application of banking capital framework, excessive reliance on private capital to address cyclicality, and the wide use of floors and minimums for capital requirements—result in a capital rule that will interfere and perhaps prevent the Enterprises from achieving their legislative purpose.

We support the notion that similar risks should have similar capital requirements across different types of financial institutions. Yet, it is important to recognize that the Enterprises do not operate like banks and the risks faced by the Enterprises are substantially different from those of commercial banks. Where the risks are similar, it may make sense to bring banking and enterprise capital rules into alignment, but this does not necessarily mean that enterprise capital rules should follow banking rules. Where the risks differ, it does not make sense to force the Enterprises into a banking capital framework. And in some cases, such as in credit risk transfer, it may make more sense to modernize the banking rules to reflect the advances in risk management achieved by the Enterprises rather than constrain the Enterprises with outdated approaches to capital requirements.

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[8] FHFA Fact Sheet: Re-Proposed Rule on Enterprise Capital, https://www.fhfa.gov/Media/PublicAffairs/PublicAffairsDocuments/Re-proposed-Rule-on-Enterprise-Capital-5202020.pdf, p1.

Fundamentally, the business of banking is to transform on-demand low-risk deposits into term loans to businesses and households. The role of the bank is to diversify the risk from these loans and provide assurance to the depositors that their money is safe. In a troubled economy, there is a risk that depositors will withdraw their money for fear that the bank will not be able to pay them back. Deposit insurance and bank capital regulation are designed to address this issue. Deposit insurance provides bank customers with the assurance that their money is safe, and bank capital rules are designed to protect the government from loss by promoting diversification and limiting the risk of bank assets.

In contrast, the Enterprises have two main business lines, the retained portfolio and the sold portfolio. The retained portfolio is like a banking book, but with significant differences. In the retained portfolio the Enterprises hold mortgage loans and fund them with debt, rather than deposits. The assets of the Enterprises are less diversified than bank assets and generally of lower risk. The debt of the Enterprises can be issued to match the maturity of the assets. The retained portfolios have been reduced and significantly limited under conservatorship.

In the sold portfolio, mortgage loans are placed in trust and mortgage backed securities (MBS) are sold to investors. A run on the Enterprises for MBS is not possible. Unlike depositors, MBS investors do not have the right to redeem MBS on demand. For the sold portfolio, the primary risks are the credit risk of the underlying mortgages and the continued smooth operation of the system that transforms monthly mortgage payments by borrowers into monthly principle and interest payments to investors.

Bank capital rules designed to protect the safety and liquidity of deposits are inappropriate for this business model. As the Enterprises would be charged capital for all risks (funding, interest rate, and prepayment, as well as credit and operational), the bank approach to capital would encourage the Enterprises to reduce the sold portfolio and increase the retained portfolio. A move in that direction would decrease the liquidity of the secondary mortgage markets and interfere with purposes 3 and 4 listed above, which rely on extensive liquidity in the market.

The proposed rule also imposes a bank-like stability buffer that reflects the market share of the Enterprises. While some of the considerations that apply to banks for this type of buffer might apply to the retained portfolio, this buffer is misapplied to the sold portfolio. Sold portfolio loans decrease the concentration of risk, as the funding, interest rate, and prepayment risk of the underlying loans are distributed to the market. Further use of credit risk transfer, which is also broadly discouraged by the bank capital framework, also limits the concentration of risk.

FHFA takes a narrow view of risk reduction in establishing this stability buffer linking the Enterprises to global systemically important bank holding companies (GSIBs). FHFA writes: “The most straightforward means of lowering the probability of a GSIB’s default is to require it to hold more regulatory capital relative to its risk-weighted assets than non-GSIBs are required to hold.”[9] FHFA does not consider that reducing the risks that could lead to default is at least as effective, if not more so, at reducing the probability of default. Once again FHFA treats the Enterprises like banks that hold risk rather than as entities that distribute risk.

The stability buffer itself interferes with the ability of the Enterprises to achieve goals 3 and 4, as the very act of extending the liquidity of the agency mortgage market is penalized by the capital rule. The

[9] FHFA Proposed Rule 2020, p88.

rule would be especially difficult on "activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities," as the stability buffer increases the required economic return for these activities.

In addition, as banks and the Federal Housing Authority (FHA) have federal backing, having a large share of the market held by Fannie Mae and Freddie Mac does not necessarily create greater risk for the government. In contrast to banks and FHA, the Enterprises intermediate nearly all their interest rate risk and substantial portions of the credit risk into private capital markets. Thus, a higher Enterprise share may lower taxpayer risk.

There may be valid reasons to limit the size and scope of the sold portfolio, but an additional capital charge—one that stands in opposition to the mission—is not appropriate. A better capital framework would look at the specific risks and revenues of the sold portfolio and would derive capital measures that ensured the smooth functioning of the market at all points in the economic cycle. For example, the bifurcated minimum capital requirements such as Alternative 2 of the 2018 proposal, in conjunction with appropriate risk-derived requirements, would produce a more appropriate treatment of the sold portfolio relative to the retained portfolio.

THE NEED FOR COUNTERCYCLICAL GOVERNMENT SUPPORT

Unlike private companies, the Enterprises are specifically called upon to provide support to the housing finance system through all markets. In recognition of this, the Enterprises are not intended to be financed by private capital exclusively, but "financed by private capital to the maximum extent feasible." Government support could come in a variety of forms, but is necessary for the Enterprises to fulfill a countercyclical role that cannot be met by private enterprise.

Director Calabria has expressed his intention to release the Government Sponsored Enterprises (GSEs) from conservatorship and this rule was re-proposed "in light of FHFA's intent to responsibly end the conservatorships of the Enterprises."[10] Despite the goal to end conservatorship and the importance of government support to the Enterprises achieving their mission, the proposed capital rule does not address the expected form or cost of government support.

We have repeatedly seen how private MBS face severe dislocations and illiquidity during periods of financial distress. The current period is just one example. Without government support the Enterprises will be unable to fill their responsibilities under goals 1 and 4 above. Moreover, without specification of the cost of government support, it is not possible to determine the cost to borrowers of mortgages guaranteed by the Enterprises under the proposed capital rule. Any plan to release the Enterprises requires first that the nature and cost of the government guarantee be established. Thus, it is nearly impossible to evaluate this rule "in light of FHFA's intent to responsibly end the conservatorships of the Enterprises." Responsibly ending the conservatorship of the Enterprises must begin with clarification of the role and cost of government support for the activities of the Enterprises.

If on the other hand the intention of FHFA is to release the Enterprises without providing any additional clarity on the nature or cost of the government support for their activities, FHFA runs a significant risk of

[10] *ibid* p9.

disrupting the housing finance system.[11] It will be difficult for the market to return to the "implied guarantee" of the pre-crisis Enterprises. Without assurances on government support for agency MBS, there could be significant declines in the investor base for agency MBS, and the efforts to create the Uniform Mortgage-Backed Securities (UMBS) market will have been wasted.

While the proposed stress capital buffer and stability buffer, along with the additional countercyclical buffer, are intended to ensure that the Enterprises have sufficient capital to withstand the stress of economic downturns, FHFA provides no analysis to demonstrate that the Enterprises could continue to achieve their mission at such levels. A precondition for adopting the capital rule ought to be a well-supported analysis showing that the GSEs can continue to effectively compete and retain the scale required to achieve their congressional mission in all market conditions.

It seems clear that the GSEs require scale and a federal backstop to retain the efficiency, influence, and resiliency necessary to fulfill their Congressional mandate. (They are not alone; banks and FHA also have federal backstops to facilitate their activities.) For context, over the last 30 years, GSEs' share[12] of the mortgage market has generally ranged from 40% (in calm markets) to 60% (in stressed markets), except when they were disintermediated by the explosion of the underpriced subprime and Alt-A markets in 2004–2006, when share fell to 30%. Continued mission viability will depend on how much guarantee fees must rise due to the proposed capital rule, and in turn, how much GSE penetration falls. Guarantee fees more than doubled after the financial crisis, approaching fair-market levels at 50 bps in 2013. Over the last seven years, GSE fees have ranged in the mid-50s and share in the mid-40s, solid evidence of equilibrium. Significant changes in guarantee fees could result in significant changes in market share.

As we have seen in multiple financial crises, only the federal government is able to provide effective coverage for catastrophic risk. This is why there is government deposit insurance rather than private deposit insurance. Private deposit insurance would be cost prohibitive and ineffective at preventing bank runs. Similarly, the Enterprises cannot operate effectively through a severe financial crisis without government support.

FHFA seems to acknowledge that capital alone cannot create a risk-free MBS. Even with the higher capital requirements and cross indemnification of the UMBS market, cross holdings of MBS of the other enterprise will require a 20% risk weight. Thus, the higher proposed capital requirements do not reduce the risk of mortgages enough to eliminate the need for government support of the Enterprises. In our 2018 comment letter we discussed mechanisms for cost-effective government support for the activities of the Enterprises[13] and we would be happy to discuss these approaches with FHFA.

FLOORS AND MINIMUMS INTERFERE WITH RISK SENSITIVITY

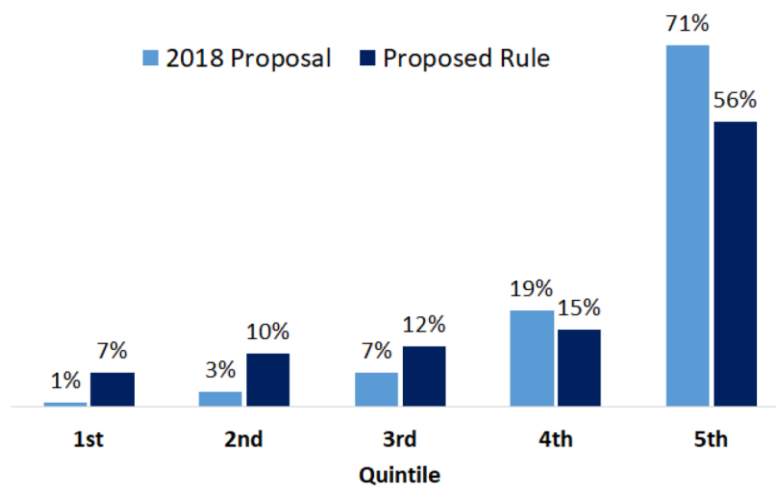
The proposed rule contains a variety of floors and minimums. A comparison to the 2018 rule illustrates the magnitude of these adjustments. Under the 2018 rule there was $86 billion of risk-based capital required for credit risk, market risk, and operational risk, before the addition of the on-going concern

[11] While the Preferred Stock Purchase Agreement (PSPA) provides a market-accepted backstop for the enterprises in conservatorship, it is unclear that it will be as effective if the FHFA loses the powers of conservatorship and the PSPA is reduced to a contractual arrangement.
[12] https://www.urban.org/sites/default/files/publication/102475/june-chartbook-2020.pdf.
[13] AD&Co comment letter, October 18, 2018, https://www.ad-co.com/analytics_docs/FHFA_EnterpriseCapitalRequirements2018.pdf

buffer. Under the 2020 rule there is the also a 15% risk-weighted asset (RWA) minimum for single-family mortgages, a 10% RWA minimum on retained CRT bonds, and a floor on operational risk. These and other adjustments increase the risk-sensitive capital requirements by $49 billion to $135 billion, which is more than 150% of the $86 billion of capital requirements for these risks under the 2020 rule.

While FHFA "recognizes that the proposed rule does result in an increase in risk-based capital requirements for all exposures,"[14] FHFA presents Chart 1 in the fact sheet,[15] which appears to show that capital requirements for high-risk loans have been lowered while capital requirements for low-risk loans have been increased. This chart, however, is misleading. After adjusting for the total amount of capital, we show in Chart 2 that the proposed rule does not decrease capital requirements for high-risk loans, but instead it increases capital requirements for low-risk loans. This leads to a $22.5 billion increase in capital risk requirements without any analytical assessment of the need for the additional capital, and despite the additional buffers already in place that would more than adequately cover model risk.

Chart 1: Share of Single-Family Total Net Credit Risk Capital by Risk-Weight Quintile

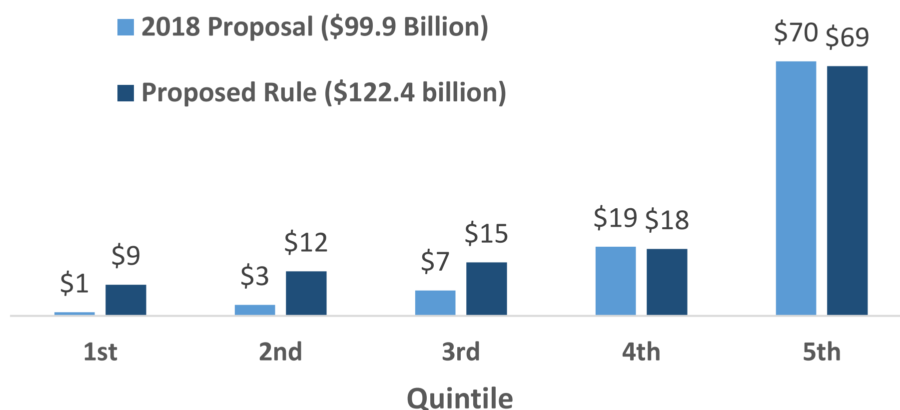


Source: FHFA

Increasing capital requirement for low-risk loans does not promote the availability of credit for higher-risk loans. Rather, the higher capital requirement for the low-risk loans, in conjunction with the leverage limit, decreases the amount of cross-subsidization that the Enterprises can utilize to increase the availability of credit. Reduced cross-subsidization increases the mortgage rate, debt-to-income ratio, and risk of higher-risk loans, thereby decreasing credit availability.

[14] FHFA Fact Sheet, p5.
[15] *ibid*, p6.

Chart 2: Chart 1 Results Scaled to Total Net Risk Capital



Source: FHFA and Andrew Davidson & Co.

In addition to these floors, the 2020 proposal adds two additional buffers: a transformation of the on-going concern buffer into a stress capital buffer, and an additional stability capital buffer. However, these buffers are not risk sensitive, despite being part of the risk-based capital computation. FHFA notes: "The risk-based capital buffers are based on an Enterprise's adjusted total assets, rather than risk-weighted assets, ensuring that these buffers do not fall disproportionately on higher-risk exposures."[16] Once again this analysis is misleading, as the higher capital requirement for low-risk loans serves to decrease the availability of capital for higher-risk loans.

Table 1 shows total risk-based capital requirement as a multiple of capital directly related to risk. Under the 2020 proposal there would be $135.1 billion of capital related to risk calculations. Yet the total risk-based capital of $234 billion is 1.7 times the amount of capital determined by the risk calculations. After removing the floors in the 2020 proposal which are not related to risk, the risk-related capital would be $92.6 billion. The $42.5 billion add-on for floors is about half of the total calculated capital from risk. Without floors, the risk-based capital requirement would be over 2.5 times the amount of capital that was computed based on modeled risk. Thus, the risk-based capital requirement is mostly not determined by the actual risk of the Enterprises' portfolios.

Despite the floors and additional buffers, the total risk-based capital is still less than the required leverage capital which further limits risk sensitivity. This degree of risk insensitivity would make it very difficult for the enterprises to meet purpose 2 (i.e., to "respond appropriately to the private capital market.") Private capital markets price assets to risk, but the GSEs facing a leverage requirement that exceeds their risk will have limited ability to adjust either pricing or their strategies to reflect changes in risk and capital market pricing.

[16] FHFA Fact Sheet, p5.

Table 1: Impact of FHFA Floors ($ billions)

	2020 Proposal	FHFA Floors	Modeled Risk
Gross Credit Risk	$151.9	$22.7	$129.2
Market Risk	13.6		13.6
Op Risk	8.7	4.1	4.6
Gross Risk	***174.2***	***26.8***	***147.4***
Risk Sharing			
Loan Level	-17.0		-17.0
CRT	-22.1	15.7	-37.8
Total Risk Sharing	***-39.1***	***15.7***	***-54.8***
Total Calculated Risk Capital	**$135.1**	**$42.5**	**$92.6**
RBC with Buffers, Multiple of Net Risk	**1.73x**		**2.53x**

The floor on retained exposures for CRT is a good example of how the rule prevents the Enterprises from responding appropriately to the private capital market.

According to FHFA, under the rules of the 2018 proposal, as of September 2019, CRT transactions would have provided $27 billion of capital relief to the Enterprises for the single-family business.[17] However, under the new proposal these same transactions would only provide $11 billion of offset. Thus, the effectiveness of CRT in reducing capital is cut by more than 50%. The rule imposes a penalty for creating and holding CRT tranches even when doing so does not create any incremental risk, effectively reducing the value of selling those tranches. The net impact is clearly too severe. Any reasonable scenario analysis would show that this grossly understates the loss-absorbing capacity of the CRT transactions.

For example, suppose the Enterprise has loans with a 3% capital requirement, and also suppose that the Enterprise issues CRT covering 80% of the first 5% of losses, and assume that this provides the Enterprise with 2% reduction under the prior rules, providing a net capital requirement of 1%. Under the 2020 rules the offset for CRT would be reduced by 10%, so that the new net would be 1.2% capital.

In addition, the Enterprise would be required to hold nearly 80 bps of capital against so-called retained classes, which represent a minimum risk weighting of 10% on the portion of the risk not covered by CRT transactions sold into the market. This would increase the capital requirement, back up to just under 2%. But the retained tranches do not exist from an economic standpoint, and the Enterprises generally have already sold the funding, interest rate, and prepayment risk via mortgage-backed securities. In essence, there is nearly 80 basis points of additional capital requirement created just by entering into this CRT transaction, regardless of the structure of the transaction. As a result, there would be little or no motivation for an economically sensible party to enter into a risk transfer contract that would reduce income but not meaningfully decrease capital requirements.

[17] FHFA webinar presentation, p30.

Thus, while the capital markets, largely through the efforts of the Enterprises, have developed the capability to distribute mortgage credit risk, the capital rule would motivate the Enterprises to retain a greater amount of credit risk on their balance sheets. In fact, it is our understanding that Fannie Mae has suspended its CRT program until the capital rule is resolved, as it would be uneconomic to proceed. Freddie Mac has recently issued a new CRT transaction as they believe it is economic under the current conservator capital framework and in line with their business strategy of distributing risk.

In our 2018 comment letter, we proposed an alternative approach to determining the capital relief for CRT transactions that addresses the differences between CRT and equity and is consistent with the concepts underlying the banking approach for securitization, but without the excessive penalties that discourage the use of securitization to distribute risk. The method reduces the capital relief for attachment points below the stress loss level of the collateral and encourages deeper detachment points that provide better protection against loss.[18]

The uncertainty created by floors and minimums is exacerbated by an additional requirement, that the Enterprises develop their own internal risk-based measures. However, contrary to the approach of Basel, which allows firms to use internal risk-based measures to lower capital requirements, FHFA would only use these methods to increase capital. Once again it seems that the major purpose of the capital rule is to increase capital requirements rather than align capital with risk.

Despite all floors and add-ons to risk-based capital, FHFA still would require a higher leverage capital requirement than risk-based requirement. As a leverage requirement is generally considered a backstop to a risk-based requirement, it is not clear what actions FHFA is trying to encourage. From an economic point of view, the higher leverage requirement seems to encourage the Enterprises to take on more risk and generally shift out of risk-reducing strategies such as the use of mortgage insurance and credit risk transfer, and instead take on loans which offer higher returns. On the other hand, a leverage requirement that is lower than the risk-based requirement would encourage firms to look for cost-effective mechanisms to lower risk.

The net result of the risk-insensitivity of the proposed capital rule will be to lead to more risk taking, less distribution of risk, and a reduced ability for the Enterprises to achieve their mission. In addition, this capital rule may make it hard for FHFA to achieve its stated, but perhaps misguided, goal of releasing the Enterprises absent new legislation establishing the nature and cost of government support. Already, one firm which had expressed interest in forming a competitor to the Enterprises has told us that they would not be interested in proceeding under this capital proposal.

[18] AD&Co comment letter, July 9, 2018, https://www.ad-co.com/analytics_docs/FHFA_EnterpriseCapitalRequirements2018.pdf.

ANALYSIS OF GUARANTEE FEES

Since FHFA provides no analysis of the impact of the proposed rule on guarantee fees, market share, or the GSEs' continued ability to achieve their Congressionally mandated mission, we have taken that step by quantifying the impact on guarantee fees from the proposal's much higher and inflexible capital requirements. While the actual cost of capital of the Enterprises is a complex combination of a variety of factors, we use a before-tax 12% implied cost of funds, which we believe is consistent with the pricing of Loan Level Price Adjustments (LLPAs) as well as a reasonable minimum required return for the constrained private franchise envisioned by FHFA.

At AD&Co we have developed a variety of mechanisms to evaluate the relationship between capital and guarantee fees.[19] Table 2 shows the results of our analysis for some sample loans. Chart 3 shows the result for a broader set of loans. The table shows the risk measures and guarantee fees for loans with a given loan-to-value ratio (LTV) and credit score, without utilizing multipliers or other adjustments. We generated results from the AD&Co models to assess the guarantee fees for the loans under different capital requirements. The model results include expected loss, stress loss, IO multiples, and other metrics. Here, our intention is to focus on the impact of changing capital requirements rather than the exact levels of Return on Equity (ROE) and guarantee fees.

As we have noted in a prior comment letter,[20] the capital charges for loans under the FHFA 2018 proposed rule are consistent with our estimates of loss under a 25% decline in home prices, as shown by the AD&Co risk measure. While the AD&Co methods generally allow for guarantee fee income to offset expected losses and reduce capital requirements, we have estimated guarantee fees here based upon the required capital under the various FHFA proposals. Note that the availability of guarantee fee income to offset losses means that the Enterprises can withstand a significantly greater home price decline than 25% without exhausting capital.

LLPA represents the current loan-level price adjustment from the Fannie Mae matrix. This is converted into an annual guarantee fee by dividing by the model-derived IO multiple. We then add 15 basis points to reflect the portion of the base guarantee fee that we believe is used to cover credit and capital costs. We do not include the other components of the guarantee fee. This allows us to compare the current guarantee fee to the credit and capital component of estimated guarantee fees under the capital proposals. The remainder of the base guarantee fee is assumed to cover other costs such as general and administrative expenses, and 10 basis points associated with the Temporary Payroll Tax Cut Continuation Act of 2011. In 2018, the full base guarantee fee for the Enterprises was approximately 40 basis points and the annualized add-on from upfront fees was 15 basis points.[21]

The first loan in the table has an LTV of 75 and a credit score of 750. It has a capital requirement of 141 basis points under the 2018 proposed rule. The 25 basis point upfront LLPA combined with the ongoing estimated 15 bps-per-year guarantee fee produces an estimated annualized guarantee fee of 20 basis points. Direct application of the 2018 rule would lead to a guarantee fee of 22 basis points, while the

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[19] These methods are described in Chapters 4 and 19 of *Mortgage Valuation Models: Embedded Options, Risk and Uncertainty,* by A. Davidson and A. Levin (Oxford University Press, 2014).
Chart 3: Impact of Proposed Capital Rule on Single Family Guarantee Fees.

[20] AD&Co comment letter, November 16, 2018, https://www.ad-co.com/analytics_docs/FHFA_EnterpriseCapitalRequirements2018.pdf.

[21] GFee-Report-2018, FHFA, December 2019.

2020 rule would produce a 32 basis point guarantee fee under the risk-based capital requirement and a 39 basis point guarantee fee under the leverage capital requirement. Thus, guarantee fees are likely to be 10 to 19 basis points higher if the 2020 rule goes into effect. Note that this analysis does not reflect the potentially higher cost of capital under the 2020 rule since credit risk transfer transactions are less viable from a capital relief standpoint.

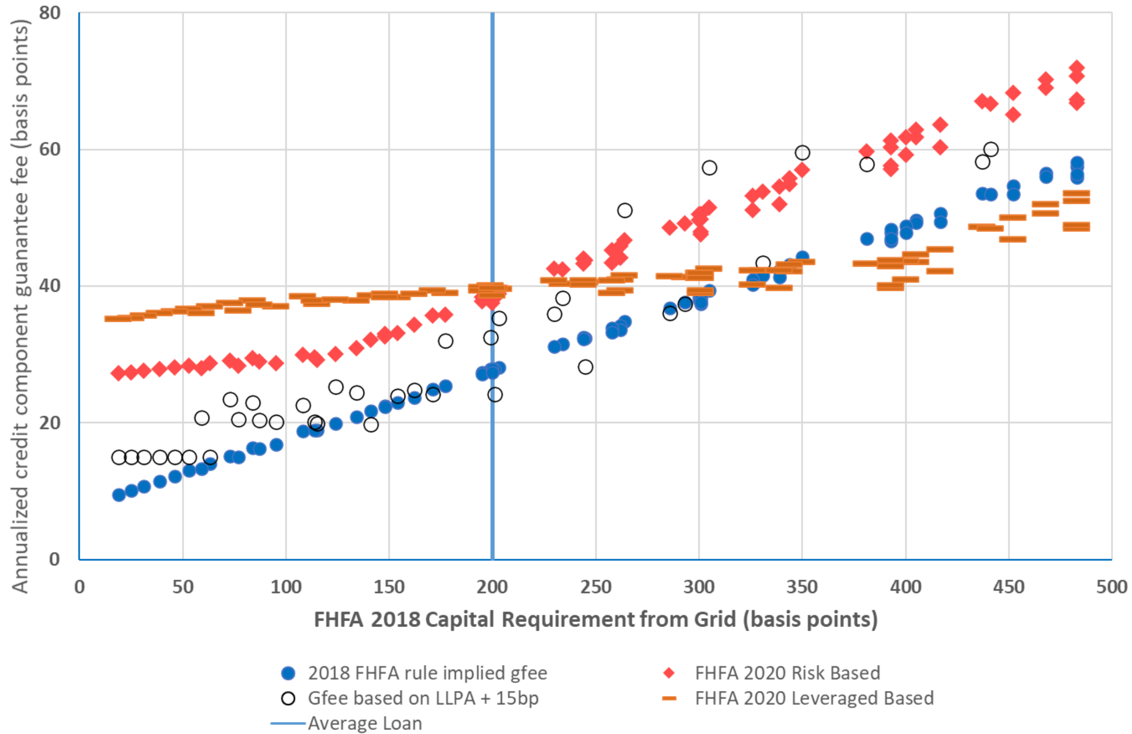
Table 2: Estimated Guarantee Fees Under FHFA Proposals

Loan Characteristics					Estimated Guarantee Fees (basis points/year)			
LTV	FICO	AD&Co Risk	2018 Capital	LLPA (upfront)	Current estimated	2018 Rule Risk based	2020 Rule Risk Based	2020 Rule Leverage
75	750	127	141	25	20	22	32	39
80	750	170	201	50	24	28	39	40
80	710	274	286	125	36	37	49	42
80	690	326	331	175	43	42	54	42

Each point on the graph reflects loans with different risk characteristics. Because the capital requirement for those loans is partially offset by mortgage insurance, we do not show the LLPA-derived guarantee fee for loans with LTVs greater than 80. Note that the current estimated guarantee fees, derived from LLPAs, is consistent with the estimated guarantee fee from the 2018 rule. The average loan-level risk-based capital requirement on the Enterprise book under the 2018 capital rule is approximately 200 basis points or 2%.

Higher capital requirements are likely to lead to higher guarantee fees. For the 2020 rule this comes from three sources. First, there is a minimum capital requirement on all loans based on a minimum risk weight of 15%. Second, there are additional buffers relative to the 2018 rules which increase capital requirements for all loans by about 100 basis points. Third, there is a leverage requirement of 4% on the entire portfolio. Risk-based capital requirements generally cause about a 14 basis point increase in the guarantee fee for all risk levels. For loans below the 200 basis point average risk, the increase in the guarantee fee due to the minimum capital requirement is even greater. For higher-risk loans, the leverage capital requirement could produce less of an increase in guarantee fees; however, this would require the Enterprises to charge more than the risk-based capital guarantee fee for lower risk loans.

Chart 3: Impact of FHFA Proposed Capital Rule on Guarantee Fees



Source: Fannie Mae, FHFA, AD&Co.

We believe it is unlikely that the Enterprises could compensate in this way because origination markets for lower-risk loans are highly competitive. It is likely that not only would the Enterprises not be able to charge guarantee fees above the risk-based levels, but it also seems likely that the Enterprises would lose a substantial portion of this business and be left competing with FHA for loans that require more than 4% economic capital. Without a robust business for lower-risk loans the Enterprises would likely be unable to cross-subsidize higher-risk loans, and since FHA is a subsidized program with little reserves and federal funding costs, the Enterprises might also be uncompetitive for these loans.

While the analysis presented in Table 2 and Chart 3 assumes the same ROE of 12% for the Enterprises under the various proposals, the level of the ROE is important with regard to guarantee fees. Credit risk transfer represents one method to lower the cost of capital used to support credit risk at the Enterprises. Table 3 shows the impact of changing the required ROE on annualized guarantee fees at the 4% leverage capital requirement. For this generic loan, lowering the ROE from 12% to 10% decreases guarantee fees by 8 basis points, whereas increasing ROE to 14% increases guarantee fees by 8 basis points.

Table 3: Impact of ROE on Annualized Guarantee Fee at 4% Leverage-Based Capital Requirement

ROE(%)	6	8	10	**12**	14	16
G-fee	15	23	32	**40**	48	57

Limiting the ability of the Enterprises to utilize CRT to reduce capital costs will likely increase the capital cost for the Enterprises and lead to further increases in guarantee fees. We note that pre-pandemic, the average implied cost of credit component of the guarantee fee from the CRT was in the low 20s. Because the CRT market does not cover the on-going capital requirement, these implied guarantee fees from the CRT market equate to approximately 30 basis points for the credit and capital components of the guarantee fee for non-CRT loans, which is consistent with pricing using the 2018 capital rule proposal at a 12% ROE for the average loan.

The guarantee fee analysis here assumed that the Enterprises were able to increase guarantee fees to achieve the target return on equity of 12%. If the Enterprises are not able to increase guarantee fees and to cover the higher capital requirements, then the return on equity will fall. We estimate that if the Enterprises were required to use the 2020 rule, capital requirements estimated return on equity would fall by roughly 20% from 12% ROE to a 9.5% ROE. The lower level of return on equity would make it more difficult for the Enterprises to raise outside capital.

Further increases in guarantee fees due to higher cost of capital or reductions in forecasted returns on equity will cause additional strain on the Enterprise business model and will limit their ability to achieve their statutory purposes listed above, particularly items 3 and 4, which require economic flexibility.

SUMMARY

Fannie Mae and Freddie Mac were chartered by Congress to play a central role in the secondary market for mortgages and to promote access to mortgage credit. The duties of the Director include ensuring that “each regulated entity operates in a safe and sound manner, including maintenance of adequate capital and internal controls” and that “the operations and activities of each regulated entity foster liquid, efficient, competitive, and resilient national housing finance markets (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities).” FHFA must find the balance between setting capital requirements that promote safety and soundness and facilitating the mandated operations and activities of the Enterprises. The proposed capital rule fails to balance these objectives and will prevent the GSEs from achieving their mandated purposes:

A capital rule that limits the ability of the GSEs to function effectively in the secondary market due to excessive non-risk sensitive capital requirements and does not recognize the role of the government in providing countercyclical support to the GSEs will make it difficult if not impossible for the GSEs to “provide stability in the secondary market for residential mortgages.”

A capital rule that virtually eliminates risk sensitivity will make it difficult if not impossible for the GSEs to “respond appropriately to the private capital market.”

A capital rule that requires more capital than needed based on risk considerations will make it difficult or impossible for the GSEs to “provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.”

A capital rule which causes the Enterprises to raise guarantee fees and become uncompetitive with other sources of housing finance will shrink the GSE footprint substantially and make it difficult or impossible for the GSEs to “promote access to mortgage credit throughout the Nation (including central cities, rural areas, and underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.”

A capital rule which encourages the GSEs to engage in riskier strategies to generate earnings to cover the higher than needed capital requirement will make it difficult if not impossible for the GSEs, if needed, to “manage and liquidate federally owned mortgage portfolios in an orderly manner, with a minimum of adverse effect upon the residential mortgage market and minimum loss to the Federal Government.”

Given the underlying conceptual flaws, the ramifications of adopting this rule, even with modifications, would result in a market which is less liquid, less efficient, less competitive, and less resilient. Director Calabria, we recommend that you and FHFA withdraw this rule and redraft a rule which better achieves the necessary balance between mission and capital.