



RESPONSE TO FHFA PROPOSED AMENDMENTS TO THE ERCF BY REFINING PLBA AND CRT

Helping FHFA Achieve its Objectives

Presented To: Federal Housing Finance Agency

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Introduction

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Attention: Comments RIN 2590–AB17 - Enterprise Regulatory Capital Framework Rule—
Prescribed Leverage Buffer Amount and Credit Risk Transfer

Dear Mr. Jones,

Guy Carpenter appreciates the opportunity to comment on the Federal Housing Finance Agency's (FHFA) Enterprise Regulatory Capital Framework Rule—Prescribed Leverage Buffer Amount and Credit Risk Transfer published on December 17, 2020 (Proposed Rule or Proposed ERCF). The Proposed Rule would amend the Enterprise Regulatory Capital Framework (ERCF) by refining the prescribed leverage buffer amount (PLBA) and credit risk transfer (CRT) securitization framework for the Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac, and with Fannie Mae, each an Enterprise). Guy Carpenter appreciates the work that has gone into the Proposed Rule, and the opportunity to provide feedback.

Guy Carpenter believes that the changes in the Proposed ERCF are directionally in line with the principles for which Guy Carpenter and other industry leaders have advocated, particularly in the context of the 2020 Enterprise Capital Rule (ECR) being unnecessarily punitive towards CRT. Guy Carpenter's response to the 2020 ECR noted that, under the 2020 ECR, the Enterprises would be incented to hold more risk, their cost of capital would increase, and the economic benefits passed along to mortgage borrowers via lower g-fees would be reduced or eliminated¹.

The Proposed ERCF more closely aligns regulatory capital requirements to the economic benefits of CRT. This alignment makes it more efficient for the Enterprises to transfer risk to private capital (investors and reinsurers) by engaging in CRT transactions. More specifically, we agree with the Proposed ERCF's removal of the overall effectiveness adjustment that applied to all CRT exposures retained by the Enterprises. These proposed changes are a positive development,

¹ Guy Carpenter, Comment on Proposed Rulemaking Regarding Capital Adequacy of Enterprises (August 31, 2020) <https://www.fhfa.gov//SupervisionRegulation/Rules/Pages/Comment-Detail.aspx?CommentId=15649>

particularly in light of the growth of mortgage originations and the uncertainty that remains following the onset of the pandemic.

Areas for Further Consideration

Guy Carpenter appreciates that the Proposed Rule honed in on key issues and poses thoughtful questions for public response and comment and thus recognizes that careful analysis from stakeholders can serve to improve the final rule. While Guy Carpenter is pleased with the positive developments in the regulatory capital treatment of CRT in the Proposed ERCF, we respectfully suggest several topics for consideration that we believe serve as a useful starting point for continuing the discussion on how best to tailor the capital rules for the Enterprises to fulfill their statutory mission.

Establish capital requirements commensurate with the risk

The Proposed Rule provides a well-calibrated construct of grids and multipliers that are transparent and commensurate with the risk for both single-family and multifamily mortgage exposures. The Proposed Rule, however, also overlays a series of seemingly arbitrarily determined floors and buffers that have little apparent quantitative grounding. The justification of these floors is frequently an inapt comparison to banking capital rules rather than a linking to the unique character of agency mortgage risk. This disconnect from a transparent link to risk is present in the loan level and CRT risk weight floors as well as the leverage ratio which could become the dominant determinant of required capital if further changes are made after the comment period. Guy Carpenter believes such risk-insensitive mechanisms should be complementary, rather than determinative, of capital and believes more effort is required to better link these mechanisms to risk or to lessen their overall influence.

Ensure the leverage framework be a backstop in extraordinary circumstances, rather than frequently binding

An excessively high leverage requirement that regularly surpasses risk-based capital requirements risks distorting decision making and encourages the Enterprises to forgo lower-risk assets in favor of those with higher-risks because the same capital requirement would apply for either asset. A binding leverage ratio also removes capital incentives to transfer risk to third parties and increases the average cost of mortgages to the American taxpayer. Guy Carpenter suggests that FHFA continue to assess the relative calibration of the leverage and risk-based capital frameworks if adjustments are made following the comment period.

Refine the Methodology for the CRT Risk Weight Floor

The CRT risk weight floor went from 0% in the 2018 Conservator Capital Framework (CCF) to 10% in the FHFA Enterprise Regulatory Capital Framework, RIN 2590-AA95 (2020 ECR) which we believe distorted the risk of CRT. While we acknowledge there is structural and legal risk to CRT, we believe attributing model risk to CRT is entirely inappropriate. The burden of model risk resides with the Enterprises whether CRT is present or not. The punitive treatment of the 10% risk weight floor unduly removed the incentives to use CRT.

The move from a 10% to a 5% CRT risk weight floor is directionally appropriate, but we believe the risk is more in line with 0% and the 2018 CCF than it is with 5%. Furthermore, the arguments for

implementing a 10% CRT risk weight floor lacked a quantitative basis and relied on inappropriate comparisons to banking regulation. Unlike the Enterprises, banks typically retain the first loss position (typically <5% of UPB) and sell the senior position (typically >95%) whereas Enterprise CRT typically covers the first loss position (up to 4% of UPB) and retains the remote risk in excess of the first loss position (the remote 96% stretch). When a fixed risk weight is applied to the 96% A-H tranche, the miss factor is dramatically amplified. See Guy Carpenter's response to the 2020 ECR for more detailed information on the flawed comparisons of the Enterprises capital framework to bank capital frameworks².

Guy Carpenter advocates for more analysis on the CRT risk weight floor including evaluating more fully the objectives, transferring risk beyond stress losses and evaluating more completely the tail risk associated with mortgages (see Guy Carpenter's discussion on tail value at risk (TVAR) in our response to the 2020 ECR³).

Prudential Regulators Should Consider a Universal Regulatory Capital Approach for CRT

Guy Carpenter believes establishing a consistent approach and methodology for CRT is in the interests of prudential regulators and financial institutions. The FHFA, Financial Stability Oversight Council (FSOC) and other prudential regulators should create a consistent regulatory capital framework for CRT. The Enterprises have demonstrated how CRT can be utilized as an effective and countercyclical risk management tool and the topic makes for an interesting case study for other financial institutions. Other prudential regulators and the entities they regulate can benefit from the lessons learned and establish CRT as an effective risk management tool across the financial services industry.

We want to thank the FHFA for the Proposed ERCF which incorporates constructive feedback that Guy Carpenter, the Reinsurance Association of America and others in the industry have shared. Guy Carpenter remains committed to working collaboratively with the FHFA and continuing the dialogue to ensure a stable housing finance system through the cycle.

Sincerely,

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Managing Director, Mortgage Segment Leader

² Guy Carpenter, Comment on Proposed Rulemaking Regarding Capital Adequacy of Enterprises (August 31, 2020) <https://www.fhfa.gov//SupervisionRegulation/Rules/Pages/Comment-Detail.aspx?CommentId=15649>

³ Guy Carpenter, Comment on Proposed Rulemaking Regarding Capital Adequacy of Enterprises (August 31, 2020), Pages 20-22, Appendix A

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Proposed Rulemaking Responses

Question 1: What approach that relies only on non-proprietary data or indices should FHFA consider to mitigate the pro-cyclicality of the credit risk capital requirements for multifamily mortgage exposures?

Guy Carpenter views the incorporation of a countercyclicality measure as an improvement to the capital rule and believes that it should be deployed to the multifamily market as it has in the single-family market. In the multifamily market, it is difficult to select a single variable that is analogous to home prices on the single-family side. As such, Guy Carpenter supports an approach that considers both property values and incomes. There are third party sources or indices for both variables such as the NCREIF Apartment Price Index for property value or CoStar's NOI index for income. This data can be used to develop a methodology considering both market peak and stress conditions. An approach similar to the one outlined by the DUS Advisory Group in their comments on FHFA Proposed Rule on Enterprise Regulatory Capital Framework dated August 31, 2020, is worthy of consideration⁴.

Question 2: Is the proposed PLBA appropriately formulated? What adjustments, if any, would you recommend? Question 3: Is the PLBA necessary for the ERCF's leverage framework to be considered a credible backstop to the risk-based capital requirements and PCCBA?

Our comments are based on the premise outlined by FHFA that the "primary purpose of the combined leverage requirement and PLBA is to serve as a non-risk-based supplementary measure to the combined risk-based capital requirements..."⁵. Guy Carpenter commends FHFA for this clear and reasonable statement of the purpose of the leverage ratio as well as the recognition that if the leverage ratio were frequently binding, unwanted incentives would be introduced.

Guy Carpenter does not believe that the PLBA is necessary for the leverage framework to be a credible backstop for the following reasons:

- the capital required is excessive compared to any quantifiable calibration
- the linkage of the PLBA to market share duplicates buffers already existing in the risk-based framework which undermines the independence of a backstop
- the comparisons to banking regulations are flawed

⁴ DUS Advisory Council, DUS Advisory Council Response to FHFA 2020.08.31 (August 31, 2020)

<https://www.fhfa.gov//SupervisionRegulation/Rules/Pages/Comment-Detail.aspx?CommentId=15622>

⁵ Federal Housing Finance Agency, Amendments to the Enterprise Regulatory Capital Framework Rule – Prescribed Leverage Buffer Amount and Credit Risk Transfer, Page 7

Guy Carpenter views the 2.5% base leverage ratio as sufficient without an additional buffer. This view is supported by a consideration of the Dodd-Frank Act stress test results recently published by FHFA⁶. Both historical and forward-looking views should be considered in assessing the adequacy of the leverage ratio, however, it is important to consider that the risk profile of the Enterprises has changed over time as riskier products are no longer eligible for purchase and the loan manufacturing process greatly improved. Any historical comparisons must factor in portfolio constraints that prevent certain risky lending practices from future application. As such, we believe the forward-looking scenario analysis provides the best insight.

The Dodd-Frank Act stress test results are a powerful tool since they overlay a highly stressful scenario on the Enterprises' current portfolio, which is very different from the risk profile of the portfolio in place in 2007/2008. In these highly stressful scenarios (including a home price decline of 23%-25%) the Enterprises incur 71 bps of credit losses (average of last three years stress test)⁷. The base leverage ratio of 2.5% is 3.5 times the credit losses incurred in these scenarios by this measure. If the Leverage Ratio were the binding capital number, the Enterprises could experience back-to-back Great Financial Crisis' and still have more than enough capital to continue supporting a market in distress. It is also worth pointing out that this perspective does not consider any benefit from future guarantee fees that will be collected, so we believe it is appropriately conservative from a safety and soundness perspective.

Even under the most stressful conditions, as indicated by the stress test results, the 2.5% appears to already include a substantial buffer. However, if a further buffer is necessary, it should be calibrated and linked to a reasonable representation of risk. Guy Carpenter's view is that market share is not a reasonable representation of risk and that linking the leverage ratio to a component of the risk-based capital requirement undermines the credibility of the leverage ratio. The leverage ratio is meant to be an independent measure, not a partially independent measure. Also, by linking the PLBA to a market share comparison, a larger entity is required to hold higher capital on a percentage basis, while the opposite is true of a smaller entity. This mechanism is counterintuitive as it requires lower relative amounts of capital in smaller entities which are typically less well equipped to face economic downturns. A backstop that increases as market share increases introduces unusual and unwanted incentives when it becomes the binding constraint.

A more appropriate buffer would be a simple percentage of the base leverage ratio. If FHFA can support a quantitative calibration of the 2.5% to historical losses, an additional buffer could be added for conservatism (e.g., 10% of 2.5%). In our view and based on the stress test results, the 2.5% already includes such conservatism. Respondents to the NPR may indicate that the PLBA is not large enough to provide safety and soundness, however, it is notable that such arguments lack any quantitative support or logic and therefore should be discounted.

Guy Carpenter strongly believes that the leverage ratio should reference the agency mortgage asset class and not be an artificial comparison to banking regulations which seek to address a much wider set of asset classes and range of risks. While we appreciate the care in which the FHFA takes in drawing comparisons to Basel III and US banking regulations, the fact remains that the Enterprises are not banks and have meaningfully different risk profiles and business models. This can be best seen in the analogy of the PLBA to the GSIB surcharges in US banking

⁶ Federal Housing Finance Agency, Dodd-Frank Stress Test Results (August 13, 2021)

⁷ Federal Housing Finance Agency, Dodd-Frank Stress Test Results – Severely Adverse Scenario (August 13, 2021)

regulations. As the FHFA states, the GSIB surcharge depends on the banks “size, interconnectedness, cross-jurisdictional activity, substitutability, complexity and use of short-term wholesale funding.” The Enterprises are monoline mortgage credit insurers with limited activities, limited complexity and stable sources of funding. Modeling an Enterprise capital rule after banking rules without consideration of these differences is inappropriate.

Question 4: In light of the proposed changes to the PLBA and the CRT securitization framework, is the prudential risk weight floor of 20 percent on single-family and multifamily mortgage exposures appropriately calibrated? What adjustments, if any, would you recommend?

This question is an important one as the initial draft of the 2020 ERCF proposed a 15% loan level risk weight floor that was raised to 20% in the final rule. The final rule stated that the reasoning was due in part to increasing the risk-based capital requirements to make them binding over the leverage ratio. Additionally, it pointed to cumulative losses that occurred on much riskier crisis-era mortgage pools and products no longer offered. Further parallels were drawn to bank capital rules that fail to consider the different risk profiles and business models of the Enterprises when compared to banks. In Guy Carpenter’s view, the rationale provided to increase the risk weight floor was flawed.

The minimum 20% floor creates a dramatic increase in required capital and is equally applied across 30-year, 15-year and multifamily mortgages. These changes are not quantitatively justified nor grounded in the positive changes that have taken place in the mortgage lending process that have occurred post crisis. Reducing the loan level risk weight floor is justified and its calibration requires further analysis not distorted by the flaws and inapt comparisons mentioned above. Should the FHFA reduce the risk weight, careful attention must be given to the balance of the risk-based capital and leverage ratio requirements to assure the leverage ratio is credible and only binding in extraordinary circumstances.

Question 5: Is the 5 percent prudential floor on the risk weight for a retained CRT exposure appropriately calibrated? What adjustment, if any, would you recommend? Question 6: Is the removal of the overall effectiveness adjustment within the CRT securitization framework appropriate in light of the proposed rule’s 5 percent prudential floor on the risk weight for retained CRT exposures?

Guy Carpenter approves of the removal of the overall effectiveness adjustment on the basis it was unwarranted and duplicative. The feature specifically targeted adjusting for the difference between equity capital and capital derived from the CRT. However, a prudent capital structure will consist of diverse forms of capital including equity and CRT-based capital. Since CRT is a complementary source of capital, its inability to respond to operational and market risks is not relevant in determining CRT capital credit when credit risk comprises 86% of the Enterprises’ overall risk⁸.

⁸ Enterprise Regulatory Capital Framework, Final Rule, Table 2: Comparison of Fannie Mae and Freddie Mac Combined Risk-Based Capital Requirements Under the 2020 Proposed Rule and the Final Rule, by Risk Category

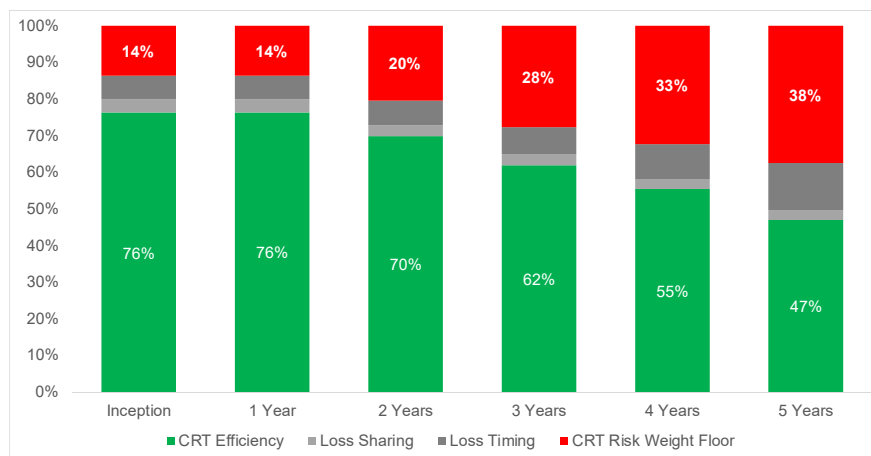
The CRT Risk Weight Floor Remains a Flawed Construct

The CRT risk weight floor went from 0% in the 2018 Conservator Capital Framework (CCF) to 10% in the 2020 ECR which we believe distorted the risk of CRT. While we acknowledge there is structural and legal risk to CRT, we believe attributing model risk to CRT is entirely inappropriate. The burden of model risk resides with the Enterprises whether CRT is present or not. Furthermore, inherent flaws remain in the CRT risk weight floor which we cover below. In totality these defects bring into question whether the current risk weight floor construct is even the right approach as reducing the risk weight floor does not resolve the flaws.

CRT Risk Weight Floor Becomes Dominant Over Time

To illustrate flaws in the construct of the CRT risk weight floor, the below chart illustrates CRT capital efficiency over time in a benign economic scenario using the stylistic CRT structure on p. 39 of the NPR, adjusted to reflect a more efficient 25 basis point attachment. CRT capital efficiency is defined here as the capital benefit received divided by the risk-based capital requirement. This chart shows the meaningful deterioration of CRT capital efficiency over time, when in fact, the economic effectiveness of the coverage does not change. This distortion is exclusively due to the CRT risk weight floor becoming a dominant determinant of the net capital requirement through time. The 2020 ECR does not address nor provide rationale for why the CRT risk weight floor should grow over time.

Figure 1 Erosion of CRT Capital Benefit to CRT Risk Weight Floor (in Red)



When an Enterprise evaluates the economic benefits of a CRT transaction it must take a forward-looking view over the expected life of the CRT transaction. Using the stylistic example, the CRT transaction would be 62% efficient on average over the first five years if the risk-based capital requirement were binding yet 100% of the cost still has to be paid. If the leverage ratio were expected to be binding during any of those years, CRT efficiency erodes even further.

Additional Distortive Effects

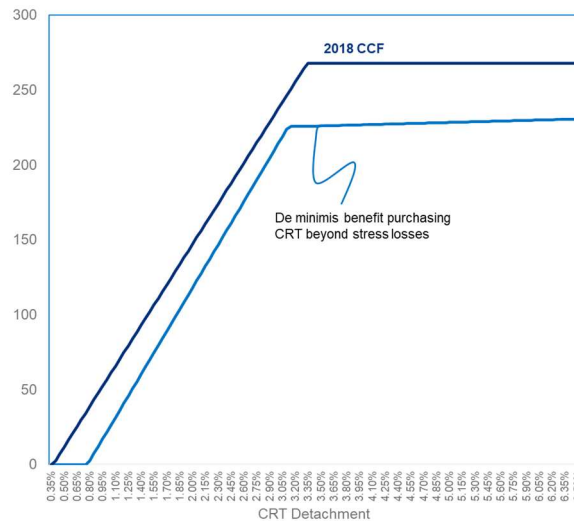
The NPR correctly notes that purchasing CRT that detaches at the net credit risk capital requirement of the underlying mortgage exposures would still pose some credit risk. This is largely based on the uncertainty around the calibration of the capital requirement, although there is also risk from stress scenarios more severe than those contemplated in setting the capital requirement. While a 5 percent CRT risk weight floor is an improvement over the current ERCF, it still distorts incentives over time.

In most scenarios, the risk-based capital requirement decreases over time, as loans prepay, amortize, and home prices appreciate decreasing current loan to value ratios. With a flat 5 percent CRT risk weight floor, the required capital for a pool with CRT protection decreases much more slowly than the required capital for a pool without CRT. There is no difference in speed of risk reduction over time between two such pools.

Addressing Shortcomings of a Flat CRT Risk Weight Floor

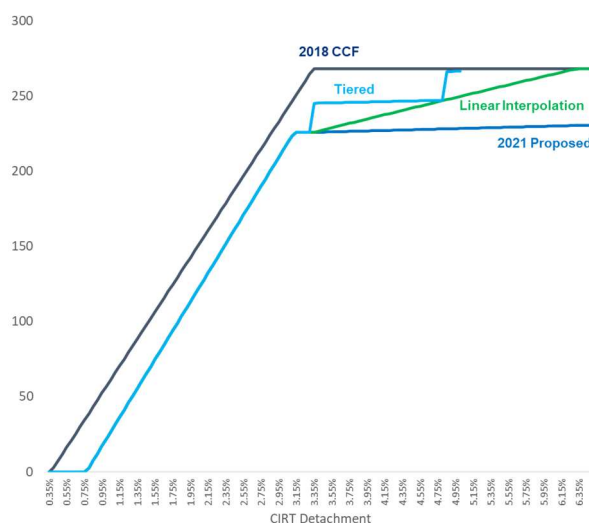
With a flat CRT risk weight floor, whether it is 5% or 2%, there is no incentive for the Enterprises to purchase CRT coverage above the net credit risk capital requirement as the incremental capital benefit for the additional coverage is de minimis. Since there is a legitimate concern with uncertainty around the calibration of the capital requirement, this lack of incentive is not desirable, as the purchase of additional limit could directly address the uncertainty and sensibly reduce the risk to the Enterprises. The chart below illustrates the de minimis capital benefits of CRT beyond the stress losses.

Figure 2 CRT Capital Benefit Relative to Detachment (Illustrative Transaction)



A possible solution is to construct a CRT risk weight floor where increasing amounts of limit purchased reduce the net capital requirement at a declining rate. Fundamentally, the capital credit for CRT should be a function of the risk-based capital required and the protection purchased. Intuitively, the CRT credit should approximate the limit purchased at lower levels of coverage where risk reduction is greatest and should reduce at higher levels where risk is more remote. When the detachment exceeds risk-based capital estimates, less capital benefit should be afforded. This approach effectively spreads the capital credit across the entire risk exposure and better matches the credit to the risk reduction achieved. The chart below illustrates CRT capital credit for the same illustrative CRT transaction using approaches that better match the risk reduction.

Figure 3 CRT Capital Benefits of Tiered and Linear Interpolation Approach



In our view, a tiered or linear interpolation approach meeting the conditions described above would create prudent incentives to address risk and purchase CRT beyond stress losses. There are multiple ways to derive an effective tiering approach.

The table below is a comparison across key attributes of the different approaches discussed above.

Figure 4 Alternative CRT Risk Weight Floor Approaches

CRT RW Floor Approaches	CRT Risk Weight and Tranche to Which Applied	Key Attributes	
		Recognition of Model, Structural and Legal Risk	CRT Capital Benefit Beyond Stress Loss
1. As Proposed in NPR	5% RW for entire AH tranche	Yes	No
2. Remove CRT RW Floor	0% RW for entire AH tranche	No	No
3. Tiered Approach	- Up to RBC: 5.0% RW - From RBC to 1.5X RBC+EL: 2.5% RW - Above 1.5X RBC: 0% RW	Yes	Yes, but creates lumpy incentives
4. Linear Interpolation	- Up to RBC: 5.0% RW - From RBC up to 2X RBC: linear interpolation (5% to 0% RW) - Above 2X RBC: 0% RW	Yes	Yes

Abbreviations Used: RBC = Risk Based Capital; RW = Risk Weight

This comparison shows that a linear interpolation approach, where the CRT risk weight floor is reduced from 5% to 0% over the interval from 100% of RBC to 200% of RBC, provides the best combination of incentives to manage risk. It acknowledges that the risk in the retention is not zero, it

incentives the Enterprises to transfer risk beyond the stress loss, but only if it is economically sensible and it allows the CRT risk weight floor to decline as risk declines over time.

Guy Carpenter believes that the linear interpolation approach is the best solution for the structural weaknesses inherent in a flat CRT risk weight floor and prudently creates incentives to protect against model risk beyond stress losses.

Question 7: Is the proposed approach to determining the credit risk capital requirement for retained CRT exposures appropriately formulated? What adjustments, if any, would you recommend?

Retained CRT exposures should carry capital requirements commensurate with their risk. The current requirement is not commensurate with the risk, as it incorrectly assigns the risk weight evenly across the entire AH tranche when it is in fact heavily concentrated at the bottom of the tranche. As discussed above, our recommendation is to remove or significantly restructure the CRT risk weight floor.

If the construct is maintained, the move to 5% floor is more directionally appropriate, but we believe the risk is more in line with 0% and the 2018 CCF than it is with 5% when model risk is not assigned to CRT.

Question 8: Will the proposed amendments to the CRT securitization framework provide the Enterprises with sufficient incentives to engage in more CRT transactions without compromising safety and soundness?

Guy Carpenter appreciates and agrees with the direction of the proposed changes, but additional modifications are required to sufficiently reflect the economic benefits of CRT and incent their continued use. Doing so requires removing, reducing or modifying the CRT risk weight floor. Until these changes are made, we appreciate the supportive messaging of CRT in the recently released scorecard which should override the residual lack of incentives that still exist in the Proposed Rule.

We additionally urge the FHFA to further evaluate and consider removing or reducing the PLBA and the loan level risk weight floor. As changes are made, careful attention needs to be given to the balance of the risk-based capital requirements and the leverage ratio to assure the leverage ratio is a credible backstop which is only binding in the rarest of circumstances. A binding leverage ratio suspends any incentive to reduce risk through CRT or other means.

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About Guy Carpenter

Guy Carpenter is a leading reinsurance broker and has been at the center of the global credit risk transfer evolution in the mortgage and structured credit segments transferring over \$22 Billion in reinsurance limit in the last 10 years. We support the FHFA and their objective to implement a going concern regulatory capital standard to ensure the Enterprises fulfill their statutory mission across the economic cycle.

[Guy Carpenter & Company, LLC](#) is a leading global risk and reinsurance specialist with more than 3,300 professionals in over 60 offices around the world. Guy Carpenter delivers a powerful combination of broking expertise, trusted strategic advisory services and industry-leading analytics to help clients adapt to emerging opportunities and achieve profitable growth. Guy Carpenter is a business of [Marsh McLennan](#) (NYSE: MMC), the world's leading professional services firm in the areas of risk, strategy and people. The Company's 81,000 colleagues advise clients in 130 countries. With annual revenue over \$19 billion, Marsh McLennan helps clients navigate an increasingly dynamic and complex environment through four market-leading businesses including Marsh, Mercer, and Oliver Wyman. For more information, visit www.guycarp.com and follow us on [LinkedIn](#) and [Twitter](#).

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